



**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)
FOR
PROPOSED AQUACULTURE PARK PROJECT IN KAMARINY'ANG' VILLAGE,
AMUKURA CENTRAL WARD, TESO SOUTH SUB-COUNTY,
BUSIA COUNTY**



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MARCH 2022

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CLIENT

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LIST OF ACRONYMS

CGB- County Government of Busia
CIDP- County Integrated Development Plan
EA -Environmental Assessment
EIA -Environmental Impact Assessment
EMCA -Environmental Management Act, Cap 387
EMP- Environmental Management Plan
ESIA -Environmental and Social Impact Assessment
ESMS -Environmental and Social Management System
ESSF -Environmental and Social Screening Form
IP -Indigenous People
KCSAP- Kenya Climate Smart Agriculture Programme
NCA- National Construction Authority
NEC -National Environment Council
NEMA- National Environmental Management Authority
OP- Operational Procedure
OS -Operational Safeguards
OSHA- Occupational Safety and Health Authority
PBO- Project Based Programs
RAP -Resettlement Action Plan
PIU -Project Implementation Unit
ToR -Terms of Reference
UN -United Nations
WB- World Bank
WIBA- Work Injury Benefit Authority
WRA- Water Resource Authority

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EXECUTIVE SUMMARY

This Environmental and Social management plan (ESMP) presents the outcome of an Environmental and Social Assessment for Aquaculture Park Project proposed by Kamarinyang Project Management Committee. The park will be located in Kamarinyang Village, Amukura central Ward, Teso South Sub County and will be funded by World Bank through KCSAP, County Government of Busia and the beneficiaries. This project being a World Bank funded project, it has triggered OP 4.01 – Environmental Assessment. The project has been assessed as a low impact project and hence requiring only an ESMP. The Direct beneficiaries are 357 (Male 225, Female 132). Among the beneficiaries are VMGs (Male: 72 Female: 121).

The purpose of this project is to increase agricultural productivity, improve incomes and diversify income and nutrition. This will be through increasing the value of aquaculture production from the present farm gate average value of Kshs 200 million to at least Kshs 1 Billion annually by 2022; increasing the volume of aquaculture production from 1,080 tons to 4,300 tons annually by 2022; improving fish production by construction of 100 fish ponds in the sub county

Potential beneficial and adverse environmental and social impacts associated with the proposed project were identified and discussed. The main positive contribution of the proposed is promotion of fish production. Other benefits include: food security, creation of employment opportunities, revenue to the governments, increased demand for raw materials, improved aesthetics, optimal use of land and development in the area. A summary of these potential negative environmental and social impacts and a brief description of their mitigation measures is provided in the ESMP.

The project cost is estimated at **Ksh.16,478,750** per site amounting to a total project cost of Kshs. 65,915,000/= for the four sites. Total costs for implementing the ESMP for the entire project is Kenya shillings **3,613,000.00**.

The ESMMP will be shared with the contractor selected for implementation

CHAPTER ONE: INTRODUCTION

Background

The project entails construction of 100 fish ponds, fencing and auxiliary facilities,

The objectives of the project are to

- Increase the value of aquaculture production from the present farm gate average value of Kshs 200 million to at least Kshs 1 Billion annually by 2022.
- Increase the volume of aquaculture production from 1,080 tons to 4,300 tons annually by 2022.
- Improve fish production by construction of 100 fish ponds in the sub county
- Improve livelihood of the locals – more money in their pockets and improved diet
- Enable household diversification from normal crop production to fish production.
- Create self-employment opportunities

The Department of Agriculture through the directorate of Fisheries, in Busia County through the Kenya Climate Smart Agriculture (KCSAP) seeks to enhance food production in the county through proper methods that in turn enhance environmental protection and conservation.

The public participation and stakeholders' consultation was conducted to inform them about the proposed project and get their views and concerns concerning the proposed project.

1.2 Justification for the Aquaculture Park project

The proposed project contributes to the KCSAP project development objectives by increasing the production per unit of land and enhancing the capacity of the farmers to produce adequate and marketable fish produce throughout the year through fish farming. The project is a source of livelihood to about 257 farmers (175 males, 82female). The project offers employment opportunities to members of the community during construction and operation phases of the project implementation. Furthermore, the county government has set aside 0.9 hectares of land for this project.

1.3 Justification for Conducting ESMP

It is a requirement under the WB **OP/BP 4.01: Environmental Assessment** for such projects of low-risk magnitude to conduct an ESMP in order to mitigate unforeseen impacts. The ESMP was recommended by the County Director of Environment (CDE) after the screening exercise conducted on 15/02/2022. *See annexed screening checklist (Annex 1).*

1.4 Project Cost

The total project cost is estimated at **Kshs. 65,915,000/=**. Total costs for implementing the ESMP is Kenya shillings **4,095,000.00**.

Commented [PM1]: Insert the Justification for conducting the ESMP here

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CHAPTER TWO: PROJECT DESCRIPTION

2.1 Introduction

The section gives the project location and description of the physical and socio-economic environments of the proposed project area.

2.2 Location of the project

The proposed project site is located within the Kamarinyang' Village in Amukura Central Ward, Teso South Sub County; Busia County within latitude 0.55752 and longitude 34.26737.

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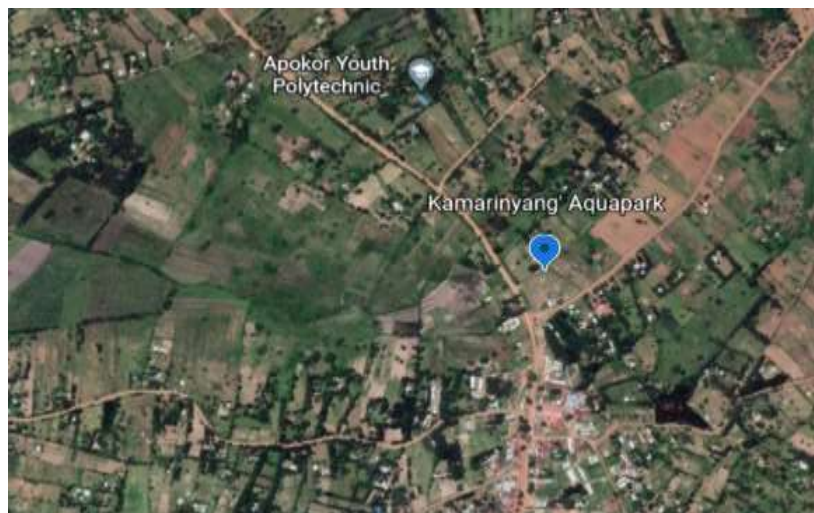


Figure 2.1: Project site location

Source: Google Earth

2.3 Land Ownership

The project site is located in public land under the custody of the County Government of Busia. Land has been acquired from private owners by the County Government for the proposed development (*Annex 2*).

2.4 Project description

The aquaculture project involves excavation of 100 ponds with the following:

- Fencing of the project site with chain-link wire
- Installation of CCTV
- Stocking of the ponds with fingerlings

- Construction of a small office
- An eatery and cold room

2.5 Physical Area and Socio-economic Environment to be affected

2.5.1 Environmentally Sensitive

The project is not likely to affect any endangered species of flora and fauna. Land use is cultivated agricultural land all the way across the watershed except few shrubs. People have majored in growing of sugar cane, beans, maize and sorghum. The cultivation methods used is the local agricultural practices which is straight row leaving area therefore susceptible to erosion.

2.5.2 Wildlife

The area is predominantly under agricultural activities and no wildlife conservation activities occur in the entire area. The area is characterized by farming which has greatly reduced the biodiversity of the area with no notable wild animals seen during the field survey except birds.

2.5.3 Supportive Environmental Infrastructure

2.5.4 Road Network

The area is connected by a marram road which is fairly well maintained and is therefore accessible.

2.5.5 Electricity Connectivity

The area is well served with electricity supply from Kenya Power and some residents have installed electricity in their premises for both commercial and domestic use.

2.5.6 Conformity to Land Use Plan and Zonation Plan

The area is widely agricultural land with most farm having potatoes and maize as the main crops.

CHAPTER THREE: POTENTIAL IMPACTS AND MITIGATION MEASURES

3.1 Introduction

The environmental and social baseline information collected and the project characteristics discussed form the basis for impact identification and evaluation. The proposed project will bring about both positive and negative impacts on the environment and the community at large. The impacts that are expected to arise from the proposed project have been identified and discussed in regard to all phases of the proposed project cycle; construction, operational and decommissioning. The negative impacts will be minimal and will only last for the time of construction phase, with a few lasting for a long time during the operation phase.

3.2 Impacts during the construction phase

3.2.1 Anticipated positive impacts

The anticipated positive impacts during the construction phase include the following:

a) Creation of employment opportunities

It is estimated that part of the project cost will be or has been reflected in employment of professional services of environmental experts, land surveyors, aqua culturists, engineers and skilled and unskilled labour for about 20 – 30 people. Indirect employment will be created where suppliers of foodstuffs and other goods and products will gain income by supplying their services and products to the construction site. The community members will provide labour for site clearing, digging of the fishponds, loading and offloading of construction materials provision of security at the site among others.

3.2.2 Anticipated negative environmental impacts

The anticipated negative impacts during the construction phase include the following:

a) Impacts on flora and fauna

The impacts on vegetation and animals will be born from removal and disturbance of vegetation, movement of people and machinery, excavation and compaction. Most of these impacts are short-lived and localized. Plants at the proposed site will be cleared to pave way for the construction activities and when creating access roads and sites for storage of construction materials. This may also affect the fauna that is mainly the insects that live on the plants at the proposed site. Excavation just like clearance of vegetation alters and/or destroys habitats of organisms.

Mitigation measures

- Vegetation removal will be restricted to the actual project area to avoid spill-over effects to neighboring areas. Encourage re-vegetation.

b) Encroachment into riparian areas

The project activities have the potential of spilling into the riparian areas neighboring the proposed site. The construction of fishponds requires that there be a source of water for fish farming. Some individual farmers may find it easier and cost effective to construct their own fishponds within the riparian areas.

Mitigation measures

- Sensitize the community on the dangers of farming in the riparian areas.
- Fence the project site/rehabilitate the existing fence to prevent interactions with the external environment including the riparian area.

c) Impacts on soil and water resources

Ponds require deep excavation occasioning removal of top soils. The excavation works will expose the soil resulting to soil erosion and siltation of the river. They will also result into loose soil which is prone to both water and wind erosion. Eroded soil silts water bodies and can flood downstream areas.

Mitigation measures

- Construct drainage works for storm in adherence to the Public Works specifications.
- Rip off compacted areas in areas where compaction will have adversely affected after construction to allow aeration of soil and ease infiltration of water into the soil.

d) Solid wastes

During the construction phase, there will be deep and minor excavations at the site. Construction wastes including excess excavated soil unusable pieces of construction materials and removed plant material are the main sources of solid wastes. If excess soil is not properly disposed, it results into nuisance as solid wastes, dust and silt. Most of the soil to be excavated from the fishponds will be used to create the embankments of the fishponds.

Mitigation measures:

- Utilize the excavated soil at the site to adjust levels.
- Excess soil could be used in filling road potholes among many other uses.
- Part of the topsoil excavated from the proposed site can be re-spread in areas to be landscaped within and/or outside the proposed site or farmlands outside the proposed site.

e) Risk of Fire

Fire damage is unpredictable given that the proposed project will not involve a lot of flammable materials. However, if appropriate measures are not put in place, a fire outbreak can occur and cause damage to property and even lead to death.

Mitigation measures

- Declare places with flammable construction materials as “NO SMOKING ZONES” and display conspicuous notices of the same.
- Train workers and the management on emergency (fire) preparedness and management.
- Provide fire extinguishers at the construction site.

f) Increased traffic flow

During construction, there will be an influx of traffic to and from the proposed site. These will include vehicles used in facilitating the construction work and people seeking employment opportunities, workers, managers, environmental inspectors and suppliers of foodstuffs to the construction workers. Though increased traffic during construction is a short-term impact, it has the effect of causing congestion on the road which may subsequently results in accidents on the roads.

Mitigation measures

- Properly plan for the transportation of materials to ensure that vehicles are optimally filled in order to reduce the number of trips done or the number of vehicles on the road.
- Place clear signage at the gate to alert drivers to be cautious about the construction and to look out for entering and/or exiting vehicles.
- Create a parking space and provide adequate space for turning of vehicles at the gate in order to give drivers enough room to maneuver in and out of the site.

3.2.3 Social and health impacts

a) Gender based violence and sexual harassment (GBV/SH)

This impact is triggered during project construction phase when the contractor(s) fail to comply with the following provisions:

- Gender Inclusivity requirements in hiring of workers and entire project management as required by Gender Policy 2011 and 2/3 gender rule; and
- Failure to protect human risk areas associated with, disadvantaged groups, interfering with participation rights, and interfering with labour rights.

The proposed Mitigation Measures of Human Rights and Gender Requirements are:

- Ensure clear human resources policy against sexual harassment that is aligned with national law.
- Integrate provisions related to sexual harassment in the employee Code of Conduct.
- Ensure appointed human resources personnel to manage reports of sexual harassment according to policy.
- The contractor(s) shall require employees, sub-contractors, sub-consultants, and any personnel thereof engaged in construction works to individually sign and comply with a Code of Conduct with specific provisions on protection from sexual exploitation and abuse.
- The contractor shall develop specific plan for mitigating these known risks, e.g. sensitization around gender-equitable approaches to compensation and employment.
- The contractor will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project implementation.

b) Risk of Increased incidences of HIV/AIDS and STIs

The influx of people may bring communicable diseases to the project area, including sexually transmitted infections (STIs), or the incoming workers may be exposed to diseases to which they have low resistance.

Mitigation measures

- Contractor(s) to sensitize workers and community members on HIV/AIDS awareness and other communicable diseases to be instituted and implemented as part of the contractor's Health and Safety Management Plan to be enforced by the Supervising Engineer. This will involve periodic HIV/AIDS and other communicable diseases Awareness Workshops for Contractor's Staff.

c) Risks of increased spread of COVID-19 at work sites

The World Health Organization declared COVID-19 a global pandemic after assessing both its alarming levels of spread and severity, and the alarming levels of inaction. Consequentially, World Health Organization (WHO) issued various guidance and measures to prevent the spread of the virus. The measures have been adopted worldwide.

The proposed Mitigation Measures against spread of COVID-19 amongst workers are:

- The contractor(s) shall put in place measures to prevent and manage the spread of the COVID-19.
- The contractor(s) will develop a SOPs for managing the spread of COVID-19 during project execution and submit them for the approval of the Supervision Engineer and the Client

before mobilization. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions.

- Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel.
- The project shall put in place means to support rapid testing of suspected workers for COVID-19.

d) Child abuse

Children within the project area will be exposed to risks associated with interaction between them and project workers. This includes child labour and sexual abuse which coherently leads to teenage pregnancies and exposure to communicable diseases such as HIV/AIDS.

Mitigation measures

- The contractor will develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated with the project.
- All staff must sign, committing themselves towards protecting children, a contract which clearly defines what is and is not acceptable behaviour.

3.3 Impacts during the operation phase

3.3.1 Anticipated positive impacts

The anticipated positive impacts during the operation phase include the following:

a) Creation of an integrated fish farming project

The integrated fish farming project has the component of a fish hatchery, a fish feeds formulation unit and fishponds. Therefore, the project will be a major source of fingerlings, fish feeds and fish in the area. These will be sold both locally and in other regions in the county and outside the county. The project will provide fish for sale across all the markets, this will boost the farmers' livelihood and improve their social well-being and development in the area. The access to fish will improve nutrition and boost food security in the area. Farmer will also be sure of market for their fish products and even gain more knowledge on climate-smart agriculture.

b) Employment generation

People will be employed to work at the site including security officers, cleaners, managers, marketing persons, hatchery operators, fish feeds formulation personnel among others. These people will earn income and use it to improve their living standards.

Enhancement measures

- The Proponent will consider the area resident for most of the job opportunities at the site.

c) Capacity building of the community

The long-term benefits of the project will include capacity building targeting local communities, youth empowerment, management of natural resources, fish feeding, value addition and fish processing and entrepreneurial skills.

3.3.2 Anticipated negative environmental impacts

The anticipated negative impacts during the operation phase include the following:

a) Environmental pollution

Fish feeds, hormones and other chemicals used for treatment of fish may contaminate the natural water systems if water from the ponds is drained and released into the natural water systems. The use of fish feeds and excretes in hatcheries and cages will be relatively high and may result in contaminations for the rest of the water systems.

Mitigation measures

- Treat such water by providing for and ensuring adequate time for biodegradation of the chemicals used by allowing the water to settle for a minimum of 21 days before being discharged into the environment.
- Minimize regular contacts between such waters and the natural water systems.
- Ensure frequent water quality monitoring to determine the level of pollution and contamination.

b) Water usage

During operation, water will be used for fish farming, cleaning and washing of the fish, and in preparation of meals. The increased water-use may lead to acute shortages and become a source of conflicts with other members of the community.

Mitigation measures

- Provide polite notices to use water wisely at water end-user points.
- Regularly maintain plumbing fixtures and water piping to avoid losses due to leakages.

c) Solid wastes

During operation, solid wastes will include food waste and waste packaging material. These may get into the fish feed and affect the fish.

Mitigation measures

- Provide bins for separate collection of wastes into appropriate sorts such as recyclable and non-recyclable, general wastes and infectious wastes e.g. used masks and label the collection bins appropriately.
- Where possible material considered as waste may be re-used or recycled or be given to who may consider them useful for others uses.
- Regularly collect solid wastes and dispose them to prevent accumulation at collection areas.

d) Contamination of fishpond water

Contamination of water in the ponds might result from the run-off from cultivation activities and destruction of spring sources.

Mitigation measures

- Protection and conservation of spring sources and vulnerable habitats.
- Creation of buffer zones at the spring sources as well as at the pond sites.
- Soil and water conservation practices such as afforestation, agro-forestry programmes, terracing, grass planting etc. to minimize run-offs into the fishponds.
- Protection of the canals/channels that bring water from the springs e.g. by buffering them to prevent entry of contaminants.

3.3.3 Anticipated health and social impacts

a) Health impact – creation of vector and rodents breeding grounds

If the project commences with no well-designed storm water drains, the rain water may end up stagnating and hence creating conducive breeding areas for mosquitoes and other water based vectors leading to transmission of human diseases like malaria and cholera. The ponds themselves could become a potential breeding ground for mosquitoes if the circulation of water is not regular. Diseases such as malaria and bilharzia may be common place.

Mitigation measures

- All hollow areas at the site should be filled with soil to prevent stagnation of water.
- The inlet and outlet pipes to the ponds should be properly fixed to ensure regular flow of water which will prevent water from staying in the ponds for a long time.

- Bushes and long grass around the fishponds will be cleared to prevent breeding of mosquitoes.

b) Social impact – risks of animals and people drowning in the ponds

Animals and people moving around the ponds could easily fall into the ponds and drown. The entire area will be fenced and will be provided with a lockable gate. This will prevent entry of animals, children and unauthorized people into the fishpond area. Fishponds that will be established in individual farms by the CBO members may suffer theft or become hazardous areas where domestic animals and children may drown.

Mitigation measures

- The pond areas will be fenced and will be provided with a lockable gate to keep away animals, unauthorized people and children.
- Put warning signs at the fishponds to alert children and other people of the dangers associated with the fishponds.
- Grass around the ponds shall always be kept short so that it does not attract grazing animals.
- Carry out public awareness and education as a means against accidental deaths by drowning.

c) Gender based violence and sexual harassment (GBV/SH)

This impact is triggered during project operation phase when the Proponent or project management fail to comply with the following provisions:

- Gender Inclusivity requirements in hiring of workers and entire project management as required by Gender Policy 2011 and 2/3 gender rule; and
- Failure to protect human risk areas associated with, disadvantaged groups, interfering with participation rights, and interfering with labour rights.

The proposed Mitigation Measures of Human Rights and Gender Requirements are:

- Ensure clear human resources policy against sexual harassment that is aligned with national law.
- Integrate provisions related to sexual harassment in the employee Code of Conduct.
- Ensure appointed human resources personnel to manage reports of sexual harassment according to policy.

d) Sexual Exploitation and Abuse by project workers against community members

This impact refers to sexual exploitation and abuse (SEA) committed by project staff against communities and represents a risk at all stages of the project, especially when employees and community members are not clear about prohibitions against SEA in the project.

The proposed mitigation measures to risks of SEA include:

- Develop and implement a SEA action plan with an Accountability and Response Framework as part of the ESMP. The SEA action plan will follow guidance on the World Bank's Good Practice Note for Addressing Gender-based Violence in Investment Project Financing involving Major Civil Works (Sept 2018).

e) Risk of Increased incidences of HIV/AIDS and STIs

The influx of people may bring communicable diseases to the project area, including sexually transmitted infections (STIs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health facilities and resources. Local health and rescue facilities may also be overwhelmed and/or ill-equipped to address the industrial accidents that can occur in a large construction site.

Proposed mitigation measure for this are:

- Sensitize workers and community members on HIV/AIDS awareness and other communicable diseases to be instituted and implemented as part of the contractor's Health and Safety Management Plan to be enforced by the Supervising Engineer. This will involve periodic HIV/AIDS and other communicable diseases Awareness Workshops for Contractor's Staff.
- Controlled access to private offices and working places by outsiders.

f) Child abuse

Children within the project area will be exposed to risks associated with interaction between them and project staff. This includes child labour and sexual abuse which coherently leads to teenage pregnancies and exposure to communicable diseases such as HIV/AIDS.

Mitigation measures

- The Proponent will develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated with the project.
- Children under the age of 18 years will not be hired at the site as provided by Child Rights Act (Amendment Bill) 2014.

g) Risk of increased spread of COVID-19

During project operation, there will be a lot of interactions among different people at the site. The potential for the spread of any infectious disease like COVID-19 is high.

The proposed Mitigation Measures against spread of COVID-19:

- The Proponent shall put in place measures to prevent and manage the spread of the COVID-19.
- The Proponent will develop a SOPs for managing the spread of COVID-19 during project operation. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions.

3.4 Impacts during the decommissioning phase

It is expected that the proposed development will be used for many years to come. However, decommissioning could be in the form of permanent withdrawal from the site or change of use of the site. Demolition of structures is the most critical part of decommissioning as it is associated with a number of impacts that include:

- Significant deterioration of the environment within the project site and the surrounding areas through noise and vibrations.
- Large quantities of dust and exhaust emissions from the machinery and equipment used in demolition.

Mitigation measures

The following shall be adhered to during the decommissioning process:

- Supervise all decommissioning works at the site especially any demolition of structures.
- Keep all passages clear at all times.

CHAPTER FOUR

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MAONITORING PLAN

Table 4.1: Proposed environmental and social Management and monitoring plan for the proposed project

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indictors	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Environmental Issues						
Construction Phase						
Reduction of local flora and fauna	<ul style="list-style-type: none"> Avoid clearing of natural vegetation. Vegetation removal will be restricted to the actual project area to avoid spill-over effects to neighboring areas. Encourage re-vegetation 	<ul style="list-style-type: none"> Area of natural vegetation affected No new tracks created Percentage of plant cover State of riparian area 	Contractor	Throughout Construction	<ul style="list-style-type: none"> Percentage of plant cover State of riparian area 	-
Encroachment into riparian land by new ponds	<ul style="list-style-type: none"> Avoid encroachment into riparian land such as wetlands Discourage farmers from digging further 	<ul style="list-style-type: none"> Area fenced/ demarcated 	Contractor KCSAP Fisheries	Once	<ul style="list-style-type: none"> Fencing coverage 	2,000,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<p>new ponds with likelihood of affecting the fragile ecosystem</p> <ul style="list-style-type: none"> Fence the project site/rehabilitate the existing fence to prevent interactions with the external environment including the riparian area. Seek Authorization from the relevant technical departments 					
Soil erosion and Siltation	<p>Compact loose soil after ponds excavation</p> <p>Put in place soil conservation structures e.g cut off drains, terraces etc.</p> <p>Observe buffer zones</p>	<ul style="list-style-type: none"> Compacted areas Conservation structures in place 	Contractor	After excavation	Physical inspection and level of compacting	50,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Increased Generation of Solid Wastes	<ul style="list-style-type: none"> Use of an integrated solid waste management system i.e., the 3 R's: 1. Reduction at source 2. Reuse 3. Recycle where possible. Reduce waste at site; Waste collection bins / receptacles to be provided at the project site; 	<ul style="list-style-type: none"> No of litter bins installed Licensed waste handler in place No of trainings on waste management NO. of bins for handling COVID 19 wastes 	Contractor	monthly	Records of trainings Waste transport Licenses	55,000
Risk of Open Defecation	<ul style="list-style-type: none"> Provide pit latrines for workers/farmers. Discourage Open defecation into farms and nearby bushes 	<ul style="list-style-type: none"> No. of pit latrines constructed 	Contractor	Once	Physical inspection	120,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Water Pollution (Nearby stream)	<ul style="list-style-type: none"> Undertake excavations during drier periods Undertake regular monitoring and analysis 	<ul style="list-style-type: none"> Period of excavation 	Contractor	monthly	Analysis reports	20,000
Air Quality Degradation due to Dust and Exhaust Emissions	<ul style="list-style-type: none"> Ensure proper repair and maintenance of vehicles and equipment to minimize excessive exhaust gases emissions Workers will be provided with appropriate PPE Engines of the parked vehicles are switched off to minimize idling time 	<ul style="list-style-type: none"> Frequency of machinery/vehicle maintenance No of PPEs procured/ Proportion of workers with requisite PPEs No of drivers trained/advised due diligence on machine/vehicle operation 	Contractor	Weekly	Frequency of sensitization PPE provided Air Quality measurements	50,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Occupational Health and Safety Hazards	<ul style="list-style-type: none"> Provide appropriate personal protective equipment (PPE) to workers. Train workers in general safety procedures including first aid and fire safety. Ensure that there are provisions for reporting incidents, accidents and dangerous occurrences 	<ul style="list-style-type: none"> No of workers using PPEs No. of trainings conducted No of incidences/ accidents reported 	Contractor	Weekly	Training records Purchase orders/Receipts Incident registers	50,000
Social Issues						
Increased Spread of STD, HIV & AIDS,	<ul style="list-style-type: none"> develop appropriate awareness content and implement 	<ul style="list-style-type: none"> Number of farmers sensitized Number of meetings held 	Contractor	Continuous	HIV Trainings and awareness campaign Code of Conduct	50,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	awareness sessions for workers on HIV/AIDs and other STDs. <ul style="list-style-type: none"> Develop a code of conduct 					
Increased Spread of COVID-19	<ul style="list-style-type: none"> Raise awareness on the need to take COVID-19 vaccine, Ensuring social distancing of not less 1.5 meters between employees in all directions, Hygiene promotion through suitable hand sanitizing facility or handwashing soap and water 	<ul style="list-style-type: none"> No of SOP(s) developed, No of training material developed, No of PPE purchased and used, No of installed handwashing equipment installed. 	Contractor	Continuous	Presence of Handwashing facilities/sanitizers Appropriate PPE (Face Masks) Observance of social distance No. of trainings Vaccinations undertaken	30,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<ul style="list-style-type: none"> • Strict and proper use of face masks throughout all working hours. • Implement Ministry of Health guidelines for staff safety and health, including daily temperature checks for everyone in the workplace • Increase frequency of cleaning commonly touched surfaces / objects 					
Gender based violence and Sexual Harassment	<ul style="list-style-type: none"> • Ensure clear human resources policy against sexual 	<ul style="list-style-type: none"> • Number of engagements with women & girls 	Contractor	Continuous	Human resource policy	50,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<p>harassment that is aligned with national law.</p> <ul style="list-style-type: none"> Integrate provisions related to sexual harassment in the employee Code of Conduct. Engage with women and girls in the project 	<ul style="list-style-type: none"> No. of GBV risk factor identified No. of plans to mitigate risks developed. 			<p>Code of Conducts signed</p> <p>No of cases of GBV reported</p>	
Risk of drowning by animals and people	<ul style="list-style-type: none"> The pond areas will be fenced and will be provided with a lockable gate to keep away animals, unauthorized people and children. Put warning signs at the fishponds to alert 	<ul style="list-style-type: none"> Area fenced. No. of warning signs 	Contractor KCSAP	Continuous	<p>Presence of a fence and a gate.</p> <p>Warning signs erected</p>	-

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<p>children and other people of the dangers associated with the fishponds.</p> <ul style="list-style-type: none"> Grass around the ponds shall always be kept short so that it does not attract grazing animals. Carry out public awareness and education as a means against accidental deaths by drowning. 					
Operational Phase						
Environmental Issues						
Air Quality Degradation due to Exhaust Emissions	<ul style="list-style-type: none"> Provide appropriate PPE to farm workers 	<ul style="list-style-type: none"> No of PPEs procured/ Proportion of workers with requisite PPEs 	PMC/Individual farmers	Continuous	Purchase orders	70,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Pond Water Pollution	<ul style="list-style-type: none"> Prevent upstream pollution impacting on the quality of ponds Conduct periodic water quality analysis Water Safety trainings with the community 	<ul style="list-style-type: none"> No. of water quality sampling and analysis done 	PMC/ Individual Pond owners	2 weeks period	Analysis reports Training records	20,000
Risk of increased eutrophication (Nutrients and from manure and feeds)	<ul style="list-style-type: none"> Ensure to have holding ponds for aeration before releasing used water from the fish ponds back into the stream 	<ul style="list-style-type: none"> No. of aeration ponds dug 	PMC	Once	Physical examination	100,000
Increased Generation of Solid Waste	<ul style="list-style-type: none"> Use of an integrated solid waste management system i.e., the 3 R's: 1. 	<ul style="list-style-type: none"> No of litter bins installed Licensed waste handler in place 	PMC/Individual farmers	Continuous	Dust bins/receptacles Quantity of waste	80,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<p>Reduction at source 2. Reuse 3. Recycle where possible.</p> <ul style="list-style-type: none"> • Reuse packaging materials such as sacks, polythene and other fish feeds packaging materials • Waste collection bins / receptacles to be provided at the project site; 	<ul style="list-style-type: none"> • No of trainings on waste management • No. of bins for handling COVID 19 wastes. 				
Occupational Health and Safety Hazards	<ul style="list-style-type: none"> • Provide appropriate personal protective equipment (PPE). • Train the workers on first-aid practices. 	<ul style="list-style-type: none"> • No of workers using PPEs on use by those involved at the site • No of staff/ workers trained on first-aid • No of First-aid Kits installed. 	Group Fisheries Department	Continuous	PPE provided First Aid Kits availability	70,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Risk of Flooding and Washing away of fish	<ul style="list-style-type: none"> Construct dykes upstream 	<ul style="list-style-type: none"> No. of dykes constructed 	KCSAP Fisheries Department	3 months	Physical inspection	As per the budget
Predation by animals and birds	<ul style="list-style-type: none"> Fence off the ponds Install nets/screens and put scare crows that can keep away fish predators such as birds and animals 	<ul style="list-style-type: none"> Number of ponds with fence, screens, nets etc 	PMC Fisheries Department	Once and replace them when worn out	Physical inspection	200,000
Siltation of the Ponds	<ul style="list-style-type: none"> Desilt the fish ponds 	<ul style="list-style-type: none"> Number of ponds desilted 	PMC and individual farmers	Annually	Desilting reports	As per the budget
Social Issues						
Increased Spread of COVID-19	<ul style="list-style-type: none"> Raise awareness on the need to take COVID-19 vaccine, Ensuring social distancing of not less than 1.5 	<ul style="list-style-type: none"> No of SOP(s) developed, No of training material developed, No of PPEs purchased and used, 	PMC/ Individual farmers	Continuous	Training records Vaccinations certificates	50,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<p>meters between employees in all directions,</p> <ul style="list-style-type: none"> • Hygiene promotion through suitable hand sanitizing facility or handwashing soap and water • Strict and proper use of face masks throughout all working hours. • Implement Ministry of Health guidelines for staff safety and health including wearing of masks 	<ul style="list-style-type: none"> • No of installed handwashing equipment installed. • No. of farmers on masks 				

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Gender Related Conflicts	<ul style="list-style-type: none"> The PMC should ensure the fish farmer group always comply with 2/3 gender rules where representation from all genders is met. Training on management of funds should be done to all members where both men and women should be encouraged to participate Sensitization on substance and drug abuse should be continuously done on the members 	<ul style="list-style-type: none"> Number of engagements with women & girls Code of conduct prepared No. of GBV risk factor identified No. of plans to mitigate risks developed. No. of Referral mechanisms in place. 	KCSAP and PMC	Continuous	Committee membership Training attendance	80000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<ul style="list-style-type: none"> Put in place mechanism to prevent GBV including code of conduct and identify referrals for GBV victims 					
Pond Security	<ul style="list-style-type: none"> Ensure there is a security personnel to guard the fish ponds 	<ul style="list-style-type: none"> Security guards employed 	PMC	Monthly	Employment and Security records	20,000
Social Conflicts due to resource use	<ul style="list-style-type: none"> Avoid indiscriminate diverting of water from the stream Engage WRA on water regime and follow the guidance issued by WRA and the dept. of fisheries Avoid polluting water for 	<ul style="list-style-type: none"> Adherence to set guidelines 	PMC	monthly	Code of Conduct	-

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	downstream users					
Fish Mortality	<ul style="list-style-type: none"> • Ensure training of farmers on fish rearing and management of fish stress among others • Stock the fish ponds with suitable species of fish that can be resilient to survive harsh water conditions 	<ul style="list-style-type: none"> • No. of trainings conducted • Records of fish species 	KCSAP PMC	At the beginning of operation and quarterly	Training records Records of Fish species	50,000 Variable
Likelihood of Child Labour	<ul style="list-style-type: none"> • Ensure only persons above the age of 18 years should be engaged as workers. • At family level, children should only help out when they are out of school and 	<ul style="list-style-type: none"> • No. of village volunteers child monitors trained. • No. of group members trained on child protection. 	KCSAP, PMC and individual farmers	Continuous	Training records	10,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
	<p>no farmer should be allowed to keep the kids out of school during school going days</p> <ul style="list-style-type: none"> Children should only help out in less energy demanding tasks and should not be engaged in heavy lifting 					
Danger of drowning	<ul style="list-style-type: none"> Erecting a perimeter fence around the fish ponds with a gate which should be kept under lock and key by the PMC The community be sensitized on the potential risk of drowning 	<ul style="list-style-type: none"> Presence of Perimeter fence 	PMC	once	Fence	80,000

Commented [PM4]:

Anticipated Negative Impacts	Proposed Mitigation Measures	Monitoring Indicators	Responsibility	Frequency	Means of Verification	Cost (Ksh)
Grievances	<ul style="list-style-type: none"> Establish and document a grievance redress mechanism to solve all the grievances raised 	<ul style="list-style-type: none"> No. of complaints/grievances raised and resolved 	PMC	Monthly	GRM	5,000
DECOMMISSIONING PHASE						
Soil erosion and Siltation	Compact loose soil decommissioning	<ul style="list-style-type: none"> Compacted areas 	Contractor	After decommissioning	Physical inspection and level of compacting	50,000
Pollution of nearby stream (due to release of pond water)	Conduct water quality analysis of water from the fish pond before releasing	<ul style="list-style-type: none"> Analysis report 	PMC	Once at the end of project	Analysis reports	100,000
Loss of livelihood	<p>Explore alternative sources of livelihoods</p> <p>Train the community on livelihood diversification</p>	<ul style="list-style-type: none"> Trainings done 	PMC	Quarterly	Training records	50,000

Commented [PM4]:

CHAPTER FIVE: CONCLUSION

The proposed development will have numerous positive impacts as has been outlined in this report. The anticipated positive impacts of the proposed project include creation of employment opportunities; demand for locally available construction materials; improved environmental conditions through agroforestry activities; improved infrastructure through development of foot paths. The anticipated negative impacts of the proposed project include clearance of flora and interference with fauna; encroachment into riparian areas; soil compaction and increased run-off and associated siltation; solid wastes; increased traffic flow; death, predation and theft of fish and excessive fertilization of fishponds; creation of vector and rodents breeding grounds; risks of animals and people drowning in the ponds; contamination of fishpond water and environmental pollution; gender based violence and sexual harassment (GBV/SH); sexual exploitation and abuse by project workers against community members; risk of Increased incidences of HIV/AIDS and STIs; grievances; child abuse; risk of increased spread of COVID-19 at work sites; and risk of Spread of COVID-19 amongst community members during consultations. The negative environmental and social impacts that will result from establishment of the project will be mitigated with the options provided for in this report. The report concludes that if all the suggested mitigation measures and the above recommendations as indicated in the proposed environmental and social management and monitoring plans are implemented, then the proposed project will not adversely impact on the environment. It is also clear that the Proponent has actively involved the key neighbourhood stakeholders and these stakeholders did not object to the implementation of the development. The project has sufficient public support

REFERENCES

1. Kenya gazette supplement Acts 2000, Environmental Management and Coordination Act Number 8 of 1999. Government printer, Nairobi
2. Kenya gazette supplement Acts Land Planning Act (Cap. 303) government printer, Nairobi
3. Kenya gazette supplement Acts County government Act, 2012 ,government printer, Nairobi
4. Kenya gazette supplement Acts Penal Code Act (Cap. 63) government printer, Nairobi
5. Kenya gazette supplement Acts Physical Planning Act, 1999 government printer, Nairobi
6. Kenya gazette supplement Acts Public Health Act (Cap. 242) government printer, Nairobi
7. Kenya gazette supplement number 56. Environmental Impact Assessment and Audit Regulations 2003. Government printer, Nairobi
8. Kenya gazette supplement Acts Water Act, 2016, Government Printers, Nairobi
9. Kenya gazette supplement number 69, Environmental Management and Coordination (Waste management) Regulations, 2006, Government printer, Nairobi
10. Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations, 2009, government printer, Nairobi
11. Busia County Integrated Development Plan 2

ANNEXES

Annex 1: Environmental & Screening Checklist

Annex 12A: Environmental and Social screening Check list
ESM Sub-projects Screening Checklist (Prototype)
 (Sub-projects screening process by benefitting communities/Agencies)
Section A: Background information

Name of County BUSIA
 Name of CPCU /Researcher SAMUEL OMIJO
 Sub-project location... KANAPUNYANGI STR 5 SOUTH S/COUNTY
 Name of CBO/Institution... KANAPUNYANGI DMC
 Postal Address:.....
 Contact Person..... Cell phone:.....
 Sub-project name... BILT POND (AGRICULTURE POND) TERO SOUTH
 Estimated cost (Kshs.)... 6,000,000
 Approximate size of land area available for the sub-project... 2 ACRES
 Objectives of the sub project.....
Increase fish productivity
Increase farmer income
 Activities/enterprises undertaken... Fish Pond, Stocking, (2) rain (harms)
 How was the sub-project chosen? Community participation
 Expected sub project duration... 6 Months

Section B: Environmental Issues

Will the sub-project:	Yes	No
Create a risk of increased soil erosion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Create a risk of increased deforestation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Create a risk of increasing any other soil degradation soil degradation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Affect soil salinity and alkalinity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Divert the water resource from its natural course/location?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cause pollution of aquatic ecosystems by sedimentation and agro-chemicals, oil spillage, effluents, etc.?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Introduce exotic plants or animals?	<input type="checkbox"/>	<input type="checkbox"/>
Involve drainage of wetlands or other permanently flooded areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cause poor water drainage and increase the risk of water-related diseases such as malaria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Reduce the quantity of water for the downstream users?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Result in the lowering of groundwater level or depletion of groundwater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduce various types of livestock production?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Affect any watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Focus on Biomass/Bio-fuel energy generation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the answers to any of the above is 'yes', please include an EMP with sub-project application.

Section C: Socio-economic Issues

Will the sub-project:	Yes	No
Displace people from their current settlement?		✓
Interfere with the normal health and safety of the worker/employee?		✓
Reduce the employment opportunities for the surrounding communities?		✓
Reduce settlement (no further area allocated to settlements)?		✓
Reduce income for the local communities?		✓
Increase insecurity due to introduction of the project?	✓	
Increase exposure of the community to HIV/AIDS?	✓	
Induce conflict?	✓	
Have machinery and/or equipment installed for value addition?		✓
Introduce new practices and habits?		✓
Lead to child delinquency (school drop-outs, child abuse, child labour, etc.)?		✓
Lead to gender disparity?		✓
Lead to poor diets?		✓
Lead to social evils (drug abuse, excessive alcohol consumption, crime, etc.)?	✓	

Section D: Natural Habitats

Will the sub-project:	YES	NO
Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?		✓
Adversely affect environmentally sensitive areas or critical habitats – wetlands, woodlots, natural forests, rivers, etc.)?		✓
Affect the indigenous biodiversity (Flora and fauna)?		✓
Cause any loss or degradation of any natural habitats, either directly (through project works) or indirectly?		✓
Affect the aesthetic quality of the landscape?		✓
Reduce people's access to the pasture, water, public services or other resources that they depend on?		✓
Increase human-wildlife conflicts?		✓
Agrochemical use		
Will the micro-project:		
Involve the use of pesticides or other agricultural chemicals, or increase existing use?		✓
Cause contamination of watercourses by chemicals and pesticides?		✓
Cause contamination of soil by agrochemicals and pesticides?		✓
Experience effluent and/or emissions discharge?		✓
Export produce? Involve annual inspections of the producers and unannounced inspections?		✓
Require scheduled chemical applications?		✓

If the answer to any of the above is 'yes', please consult the mitigation measures in the ESMF, and if needed prepare a (Resettlement Action Plan) RAP.

Section H: Proposed action

(i) Summarize the above:	(ii) Guidance
<input type="checkbox"/> All the above answers are 'No' <input type="checkbox"/> There is at least one 'Yes'	<ul style="list-style-type: none"> • If all the above answers are 'No', there is no need for further action; • If there is at least one 'Yes', please describe your recommended course of action (see below).

(iii) Recommended Course of Action

If there is at least one 'Yes', which course of action do you recommend?

These are hard dry ponds which have left effects on the environment. ESMF is therefore recommended.

Completed by: _____
 Name: _____
 Position / Community: _____
 Date: _____
 Field Appraisal Officer (CDE): _____
 Signature: *[Handwritten Signature]*
 Date: _____

NATIONAL ENVIRONMENT
 MANAGEMENT AUTHORITY
 BUSIA COUNTY OFFICE

Signature: _____
 P.O. Box 111 - 50480, BUSIA (K)

Annex 2: Proof of Land ownership

REPUBLIC OF KENYA
THE LAND CONTROL ACT
(Cap. 302)

APPLICATION FOR CONSENT OF LAND CONTROL BOARD
To be submitted in TRIPLICATE in respect of each transaction and sent to or left at the appropriate office of the Commissioner of Lands

To: THE CHAIRMAN
LAND CONTROL BOARD.

L.C.R. No.

I HEREBY apply to the AMUKURA
Land Control Board for its consent to the transaction described below, and give the following information:

1. (a) Present registered holder of interest (full name in BLOCK LETTERS):
RICHARD RICH IOHANI
ID/Nº 11596327
- (b) Nationality KENYAN
- (c) Address P.O. BOX 91-50403 AMUKURA
2. (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS) COUNTY GOVERNMENT OF BUSIA
KAMARINYANG A@UA PARK
- (b) If a limited liability company, names of directors, authorized and issued share capital and principal shareholders; if a co-operative society, names of chairperson, secretary and treasurer and total number of members—
.....
.....
- (c) Nationality KENYAN Certificate No.
- (d) Address P.O. BOX 142-50400 BUSIA
3. Nature of transaction (e.g. sale, gift, lease, mortgage, charge, etc.; if sale or allotment of shares name of company, number and particulars of shares to be transferred)
TRANSFER OF LAND
4. Term (i.e. the length of time for which the land affected is to be transferred or leased if sale or allotment of shares, authorized share capital of the company and numbers of shares issued at date of application)
ABSOLUTE
5. Description of Land—
L.R. or Parcel No. SOUTH TESO / APOKOR / 3934
Area 0.70 HECTARES
Locality KAMARINYANG
County OF BUSIA

6. (a) Purchase price, if a sale or option KSh.
 Rent KSh.
 Estimated value of the land (if a gift) KSh.
 Amount of loan (if a mortgage or charge) KSh.
 Rate of interest (if a mortgage or charge) %
 Any other information affecting the amount of the consideration, particularly regarding the description and area of crops with estimated yields and value thereof included in the purchase price

(b) Full description and approximate value of improvements on land included in the consideration

(c) Any other consideration passing between the parties

7. If transfer or lease of the land —
 Proposed development programme of purchaser, including funds available thereof with approximate date

Does the purchaser/lessee intend to reside on the land?

8. (a) Other agricultural land registered in the name of or held under contract for sale by the proposed purchaser, transferee, lessee or allottee, or any member(s) of his immediate family, or any company in which he has an interest (state the nature of any interest in such company) —
 L.R. or Parcel Nos. Area

Owner

Nature of interest

Whether contiguous to land being purchased

(b) Particulars of agricultural land held and disposed of by purchaser or lessee in the last three years —
 L.R. or Parcels Nos. District Area

L.R. or Parcels Nos. District Area

9. Farming experience of transferee

.....

We hereby declare that the above information is true to the best of our knowledge and belief.

Signature of purchaser, lessee
 Mortgagee, chargee, or authorized agent or agents, etc.

Date

* *[Signature]*
 Signature of owner, lessor,
 mortgagor, chargee, or authorized agent or agents, etc.

Date

If spaces allowed under any particular item are insufficient for the information, a separate sheet with item numbers and duly signed by all parties or their authorized agent should be attached.

G.M.C.L.

REPUBLIC OF KENYA
THE LAND CONTROL ACT
(Cap. 302)

APPLICATION FOR CONSENT OF LAND CONTROL BOARD

To be submitted in TRIPPLICATE in respect of each transaction and sent to or left at the appropriate office of the Commissioner of Lands

To: THE CHAIRMAN
LAND CONTROL BOARD.

LCR No.

I HEREBY apply to the AMUKURA

Land Control Board for its consent to the transaction described below, and give the following information:

- (a) Present registered holder of interest (full name in BLOCK LETTERS):
GABRIEL CHATAMBE OILE
ID/No 20306602
- (b) Nationality KENYAN
- (c) Address P.O. Box 91-50403 AMUKURA
- (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS) COUNTY GOVERNMENT OF BUSIA
KAMARINYANG AQUA PARK
- (b) If a limited liability company, names of directors, authorized and issued share capital and principal shareholders; if a co-operative society, names of chairperson, secretary and treasurer and total number of members—
.....
.....
- (c) Nationality KENYAN Certificate No.
- (d) Address P.O. Box 142-50400 BUSIA
3. Nature of transaction (e.g. sale, gift, lease, mortgage, charge, etc.; if sale or allotment of shares name of company, member and particulars of shares to be transferred)
TRANSFER OF LAND
4. Term (i.e. the length of time for which the land affected is to be transferred or leased if sale or allotment of shares, authorized share capital of the company and numbers of shares issued at date of application)
ABSOLUTE
5. Description of Land—
L.R. or Parcel No. SOUTH TENO/APOKOR/0869
Area 0.80 HECTARES
Locality KAMARINYANG
County OF BUSIA

6. (a) Purchase price, if a sale or option ... KSh.
 Rent ... KSh.
 Estimated value of the land (if a gift) ... KSh.
 Amount of loan (if a mortgage or charge) ... KSh.
 Rate of interest (if a mortgage or charge) ... %
 Any other information affecting the amount of the consideration, particularly regarding the description and area of crops with estimated yields and value thereof included in the purchase price

(b) Full description and approximate value of improvements on land included in the consideration

(c) Any other consideration passing between the parties

7. If transfer or lease of the land—

Proposed development programme of purchaser, including funds available thereof with approximate date

Does the purchaser/lessee intend to reside on the land?

8. (a) Other agricultural land registered in the name of or held under contract for sale by the proposed purchaser, transferee, lessee or allottee, or any member(s) of his immediate family, or any company in which he has an interest (state the nature of any interest in such company)—

L.R. or Parcel Nos. Area

Owner

Nature of interest

Whether contiguous to land being purchased

(b) Particulars of agricultural land held and disposed of by purchaser or lessee in the last three years—

L.R. or Parcels Nos. District Area

L.R. or Parcels Nos. District Area

9. Farming experience of transferee

We hereby declare that the above information is true to the best of our knowledge and belief.

Signature of purchaser, lessee
 Mortgagee, chargee, or authorized
 agent or agents, etc.


 Signature of owner, lessor,
 mortgagor, or other person in whose favor the land is transferred
 agent or agents, etc.

Date

Date

If spaces allowed under any particular item are insufficient for the information, a separate sheet with lines numbered and duly signed by all parties or their authorized agent should be attached.

CP/12

REPUBLIC OF KENYA
THE LAND CONTROL ACT
(Cap. 302)

APPLICATION FOR CONSENT OF LAND CONTROL BOARD

To be submitted in TRIPLICATE in respect of each transaction and sent to or left at the appropriate office of the Commissioner of Lands

To: THE CHAIRMAN
LAND CONTROL BOARD.

L.C.R. No.

I HEREBY apply to the AMUKURA

Land Control Board for its consent to the transaction described below, and give the following information:

1. (a) Present registered holder of interest (full name in BLOCK LETTERS):
MARK ILUKU
ID/No 20127080
- (b) Nationality KENYAN
- (c) Address P.O. BOX 91-50403 AMUKURA
2. (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS):
COUNTY GOVERNMENT OF BUSIA
KAMARINYANG AQUA PARK
- (b) If a limited liability company, names of directors, authorized and issued share capital and principal shareholders; if a co-operative society, names of chairperson, secretary and treasurer and total number of members—
.....
.....
- (c) Nationality KENYAN Certificate No.
- (d) Address P.O. BOX 142-50400 BUSIA
3. Nature of transaction (e.g. sale, gift, lease, mortgage, charge, etc.; if sale or allotment of shares name of company, number and particulars of shares to be transferred)
TRANSFER OF LAND
4. Term (i.e. the length of time for which the land affected is to be transferred or leased if sale or allotment of shares, authorized share capital of the company and numbers of shares issued at date of application)
ABSOLUTE
5. Description of Land—
L.R. or Parcel No. SOUTH TEJO/APOKOR/3936
Area 1.110 HECTARES
Locality KAMARINYANG
County OF BUSIA

Form LRA 33

6. (a) Purchase price, if a sale or option KSh.
 Rent KSh.
 Estimated value of the land (if a gift) KSh.
 Amount of loan (if a mortgage or charge) KSh.
 Rate of interest (if a mortgage or charge) %
 Any other information affecting the amount of the consideration, particularly regarding the description and area of crops with estimated yields and value thereof included in the purchase price

(b) Full description and approximate value of improvements on land included in the consideration

(c) Any other consideration passing between the parties

7. If transfer or lease of the land—
 Proposed development programme of purchaser, including funds available thereof with approximate date

Does the purchaser/lessee intend to reside on the land?

8. (a) Other agricultural land registered in the name of or held under contract for sale by the proposed purchaser, transferee, lessee or allottee, or any member(s) of his immediate family, or any company in which he has an interest (state the nature of any interest in such company)—
 L.R. or Parcel Nos. Area
 Owner
 Nature of interest
 Whether contiguous to land being purchased

(b) Particulars of agricultural land held and disposed of by purchaser or lessee in the last three years—
 L.R. or Parcels Nos. District Area
 L.R. or Parcels Nos. District Area

9. Farming experience of transferee

We hereby declare that the above information is true to the best of our knowledge and belief.

Signature of purchaser, lessee
 Mortgagee, chargee, or authorized
 agent or agents, etc.

[Signature]
 Signature of owner, lessee,
 mortgagee, chargee, or authorized
 agent or agents, etc.

Date

Date

If spaces allowed under any particular item are insufficient for the information, a separate sheet with item numbers and duly signed by all parties or their authorized agent should be attached.

REPUBLIC OF KENYA
THE LAND CONTROL ACT
(Cap. 302)

APPLICATION FOR CONSENT OF LAND CONTROL BOARD

To be submitted in TRIPPLICATE in respect of each transaction and sent to or left at the appropriate office of the Commissioner of Lands

To: THE CHAIRMAN
LAND CONTROL BOARD.

L.C.R. No.

I HEREBY apply to the AMUKORA
Land Control Board for its consent to the transaction described below, and give the following information:

1. (a) Present registered holder of interest (full name in BLOCK LETTERS):
XAVIER FRANCIS ICHAN
ID/NO 14531361
- (b) Nationality KENYAN
- (c) Address P.O. BOX 91-50403 AMUKORA
2. (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS):
COUNTY GOVERNMENT OF BUSIA
KAMARINYANG AQUA PARK
- (b) If a limited liability company, names of directors, authorized and issued share capital and principal shareholders; if a co-operative society, names of chairperson, secretary and treasurer and total number of members—
.....
.....
.....
- (c) Nationality KENYAN Certificate No.
- (d) Address P.O. BOX 142-50400 BUSIA
3. Nature of transaction (e.g. sale, gift, lease, mortgage, charge, etc.; if sale or allotment of shares name of company, number and particulars of shares to be transferred)
TRANSFER OF LAND
4. Term (i.e. the length of time for which the land affected is to be transferred or leased if sale or allotment of shares, authorized share capital of the company and numbers of shares issued at date of application)
ABSOLUTE
5. Description of Land—
L.R. or Parcel No. SOUTH TESO/ AMUKORA / 3935
Area 0.80 HECTARES
Locality KAMARINYANG
County OF BUSIA

6. (a) Purchase price, if a sale or option ... KSh.
 Rent ... KSh.
 Estimated value of the land (if a gift) ... KSh.
 Amount of loan (if a mortgage or charge) ... KSh.
 Rate of interest (if a mortgage or charge) ... %
 Any other information affecting the amount of the consideration, particularly regarding the description and area of crops with estimated yields and value thereof included in the purchase price

(b) Full description and approximate value of improvements on land included in the consideration

(c) Any other consideration passing between the parties

7. If transfer or lease of the land—
 Proposed development programme of purchaser, including funds available thereof with approximate date

Does the purchaser/lessee intend to reside on the land?

8. (a) Other agricultural land registered in the name of or held under contract for sale by the proposed purchaser, transferee, lessee or allottee, or any member(s) of his immediate family, or any company in which he has an interest (state the nature of any interest in such company)—
 L.R. or Parcel Nos. Area

Owner

Nature of interest

Whether contiguous to land being purchased

(b) Particulars of agricultural land held and disposed of by purchaser or lessee in the last three years—
 L.R. or Parcels Nos. District Area

L.R. or Parcels Nos. District Area

9. Farming experience of transferee

We hereby declare that the above information is true to the best of our knowledge and belief.

Signature of purchaser, lessee
 Mortgagee, chargee, or authorized
 agent or agents, etc.

Signature of owner, lessor,
 mortgagee, chargee, or authorized
 agent or agents, etc.

Date

Date

If spaces allowed under any particular item are insufficient for the information, a separate sheet with item numbers and duly signed by all parties or their authorized agent should be attached.
 CPK(L)

Annex 3: Public Participation and Consultation Questionnaire

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN KAMARINYANG VILLAGE

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project at Kamarinyang Village, Teso South Sub County, Busia County. The requirements of EMCA of 1999 section 58 requires that environmental assessment and public participation be undertaken. We are seeking your views as stakeholders regarding the proposed project to enable us compile ESEA project report for submission to National Environment Management Authority (NEMA).

NAME: Florence Awit

ADDRESS: P.O. Box 129, Amthusa

1. For how long have you been residing in this area
13 years
2. What positive impacts do you foresee from the proposed project?
- Improved livelihoods
- Food security
3. What adverse environmental/social impacts according to your opinion will arise from the project?
- Loss of biodiversity
4. What remedies do you think may mitigate these negative impacts if any?
- Revegetating and landscaping
5. Do you have any other information?

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN KAMARINYANG VILLAGE

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project in Kamarinyang Village, Teso South Sub County, Busta County. The requirements of EMCA (1999) section 58 requires that environmental assessment and public participation be undertaken. We are seeking your views as stakeholders regarding the proposed project to enable us complete an EIA project report for submission to National Environment Management Authority (NEMA).

NAME: AT Nyango Medina

ADDRESS: NONE

1. For how long have you been residing in this area?
4 years
2. What positive impacts do you foresee from the proposed project?
 - Increased Employment creation
 - Improved physical amenities eg good access roads.
 - Improved livelihoods
3. What adverse environmental/social impacts according to your opinion will arise from project?
 - Interference with biodiversity.
 - Reduced aesthetic view.
4. What remedies do you think may mitigate these negative impacts if any?
 - Landscaping
 - Planting of trees vegetating the area.
5. Do you have any other information?

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN KAMARINYANG VILLAGE

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project at Kamarinyang Village, Ieso South Sub County, Busia County. The requirements of EMCA of 1999 section 58 requires that environmental assessment and public participation be undertaken. We are seeking your views as stakeholders regarding the proposed project to enable us compile an ESIA project report for submission to National Environment Management Authority (NEMA).

NAME: Wladyslaw Nyang

ADDRESS: Po Box 435, Amulakira

1. For how long have you been residing in this area
10 years
2. What positive impacts do you foresee from the proposed project?
 - Employment
 - Improved nutrition
3. What adverse environmental/social impacts according to your opinion will arise from the project?
 - Vegetation clearance
 - Population growth pressure on available facilities
4. What remedies do you think may mitigate these negative impacts if any?
 - Providing more facilities to support the growing population
5. Do you have any other information?

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN KAMARINYANG VILLAGE

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social, Management and Monitoring Plan Report for the proposed Aquaculture park project at Kamarinyang Village, Teso South Sub County, Busia County. The requirements of EMCA of 1999 section 58 requires that environmental assessment and public participation be undertaken. We are seeking your views as stakeholders regarding the proposed project to enable us compile E/SIA project report for submission to National Environment Management Authority (NEMA).

NAME: Etyang' Oplie philipo

ADDRESS: 7, Amakura

1. For how long have you been residing in this area

32 years

2. What positive impacts do you foresee from the proposed project

- ✓ Job opportunities -
- ✓ Food availability -
- ✓ Revenue collection to County -

3. What adverse environmental/social impacts according to your opinion will arise from the project?

- Vegetation disturbance.
- Dust During construction.

4. What remedies do you think may mitigate these negative impacts if any?

- Planting trees on space left.
- ✓ Observe convenient working hrs

5. Do you have any other information?

No.

Annex 4: Design of the proposed project



Annex 5: Expert's Practicing License

FORM 7

 nema
NATIONAL ENVIRONMENTAL MANAGEMENT AUTHORITY
THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

ENVIRONMENTAL IMPACT ASSESSMENT/AUDIT (EIA/EA) PRACTICING LICENSE
License No. NEMA/DA/TRPL/14939
Application Reference No: NEMA/EA/EL/19249

M/S **Chirande Dennis**
(individual or firm) of address
P.O. Box 140-50400 Busia.

is licensed to practice in the
capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Lead Expert**
registration number **6511**
in accordance with the provision of the Environmental Management and Coordination Act Cap 387.

Issued Date: **3/5/2021** Expiry Date: **12/31/2021**

Signature.....
(Seal)
Director General
The National Environment Management
Authority



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