



**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)  
FOR  
PROPOSED BUTULA AQUACULTURE PARK PROJECT IN SIUNGA VILLAGE,  
BUTULA SUB COUNTY, BUSIA COUNTY.**



**PROONENT  
SIUNGA COMMUNITY PROJECT MANAGEMENT COMMITTEE  
P.O BOX 392-50400  
BUSIA**

**FEBRUARY 2022**

## CERTIFICATION

### ESIA/EA EXPERT

Name of Expert	Details /Specialization	Signature
DENIS CHIRANDE	NEMA LEAD NO. 6511	

### PROPONENT

Name	Contact Person and Mobile Number	Signature
SIUNGA COMMUNITY PROJECT MANAGEMENT COMMITTEE. P.O BOX..... BUSIA	MRS EVERLYNE ADHIAMBO	

### CLIENT

Name	Contact Person and Mobile Number	Signature
KENYA CLIMATE SMART AGRICULTURE (KCSAP) COUNTY PROJECT COORDINATION UNIT BUSIA COUNTY	MRS EVERLYNE ADHIAMBO	

## **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

Table of Contents

<b>LIST OF ACRONYMS</b> .....	<b>iii</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>v</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
<b>1.1 Background</b> .....	<b>1</b>
<b>1.2 Justification for the Aquaculture Park project</b> .....	<b>1</b>
<b>1.4 project description</b> .....	<b>2</b>
<b>CHAPTER TWO : POTENTIAL IMPACTS AND MITIGATION MEASURES</b> .....	<b>3</b>
2.1 Introduction .....	3
<b>2.2 Impacts during the construction phase</b> .....	<b>3</b>
2.3 Impacts during the operation phase .....	6
<b>THE ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN</b> .....	<b>Error!</b>
Bookmark not defined.	
<b>CHAPTER THREE: ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MAONITORING PLAN</b> .....	<b>12</b>
Table 4.1: Proposed environmental and social monitoring plan for the proposed project .....	12
<b>CHAPTER FOUR: CONCLUSION</b> .....	<b>17</b>
<b>4.1Conclusion</b> .....	<b>17</b>
<b>REFERENCES</b> .....	<b>18</b>
<hr/>	<b>18</b>

## **EXECUTIVE SUMMARY**

This Environmental and Social Management Plan (ESMP) presents the outcome of an Environmental and Social Impact Assessment for Butula Aquaculture Park Project proposed by Siunga Project Management Committee. The park will be located in Siunga Village, Marachi East Ward, Butula 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 257 (Male 175, Female 82). 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 70 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 total project cost is estimated at Kshs. 45,000,000/=. Total costs for implementing the ESMP is Kenya shillings 2,613,000.00.

The ESMMP will be shared with the contractor selected for implementation.

## CHAPTER ONE INTRODUCTION

### 1.1 Background

The project entails construction of 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 70 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.

### 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.

### 1.2 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.

### 1.3 Location of the project

The proposed project site is located within the Butula sub County siunga village Village in Busia County. 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*). Its located on GPS Coordinates: **Latitude: 0.339919** and **Longitude: 34.336978**

**Commented [PM1]:** There is need to ascertain the status of land ownership. Should be mentioned here and backed up by annexes.

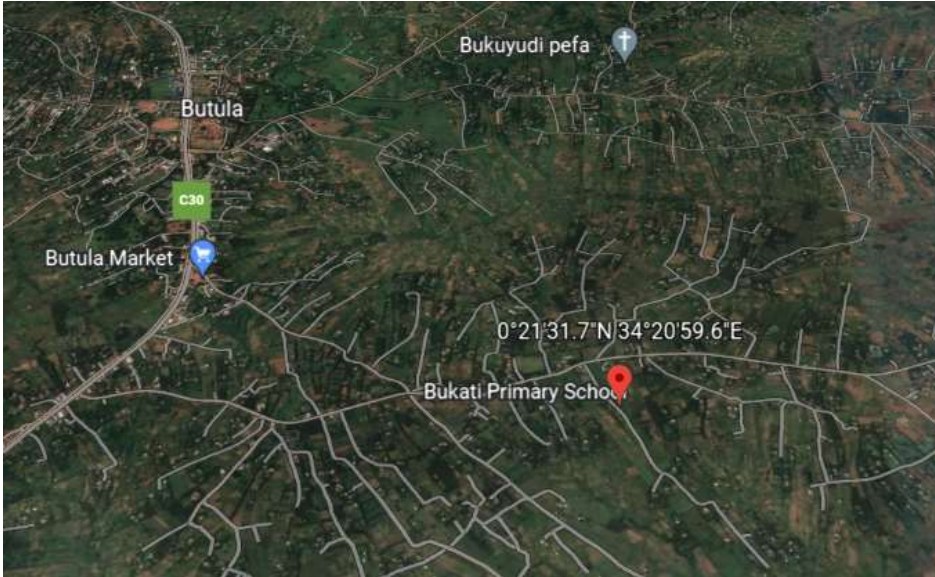


Figure 2.1: Project location

Source: Google Earth

#### 1.4 Project Cost

The aquaculture project involves excavation of 70 ponds fencing of the project site with chain-link wire, installation of CCTV stocking of the ponds with fingerlings the construction of a small office. All these is at a cost of Ksh. 45,000,000. Total costs for implementing the ESMP is Kenya shillings 2,613,000.00.

## CHAPTER TWO: POTENTIAL IMPACTS AND MITIGATION MEASURES

---

### 2.1 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.

### 2.2 Impacts during the construction phase

#### 2.2.1 Anticipated positive impacts

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

##### *2.2.1.1 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.

#### 2.2.2 Anticipated negative environmental impacts

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

##### *2.2.2.1 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.

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

- a) Sensitize the community on the dangers of farming in the riparian areas.



- b) Fence the project site/rehabilitate the existing fence to prevent interactions with the external environment including the riparian area.

#### ***2.2.2.2: 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

- a) Construct drainage works for storm in adherence to the Public Works specifications.
- b) 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.

#### ***2.2.2.3 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.

Mitigation measures

- a) Utilize the excavated soil at the site to adjust levels.
- b) Excess soil could be used in filling road potholes among many other uses.

### **2.2.3 Social and health impacts**

#### **2.2.3.1 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:

- a) Gender Inclusivity requirements in hiring of workers and entire project management as required by Gender Policy 2011 and 2/3 gender rule; and
- b) 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:

- a) Ensure clear human resources policy against sexual harassment that is aligned with national law.

- b) Integrate provisions related to sexual harassment in the employee Code of Conduct.
- c) Ensure appointed human resources personnel to manage reports of sexual harassment according to policy.
- d) 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.
- e) The contractor shall develop specific plan for mitigating these known risks, e.g. sensitization around gender-equitable approaches to compensation and employment.
- f) 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.

#### ***2.2.3.2 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.

Proposed mitigation measure for this are:

- a) 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.

#### ***2.2.3.3 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:

- a) The contractor(s) shall put in place measures to prevent and manage the spread of the COVID-19.
- b) 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.
- c) Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel.

- d) The project shall put in place means to support rapid testing of suspected workers for COVID-19.

#### **2.2.3.4 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

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

### **2.3 Impacts during the operation phase**

#### **2.3.1 Anticipated positive impacts**

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

##### **2.3.1.1 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.

##### **2.3.1.2 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

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

### **2.3.1.3 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.

### **2.3.2 Anticipated negative environmental impacts**

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

#### **2.3.2.1 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

- a) 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.
- b) Minimize regular contacts between such waters and the natural water systems.
- c) Ensure frequent water quality monitoring to determine the level of pollution and contamination.

#### **2.3.2.2 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

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

#### **2.3.2.3 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

- a) 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.
- b) Where possible material considered as waste may be re-used or recycled or be given to who may consider them useful for others uses.
- c) Regularly collect solid wastes and dispose them to prevent accumulation at collection areas.

#### **2.3.2.4 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

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

### **2.3.3 Anticipated health and social impacts**

#### **2.3.3.1 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

- a) All hollow areas at the site should be filled with soil to prevent stagnation of water.
- b) 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.
- c) Bushes and long grass around the fishponds will be cleared to prevent breeding of mosquitoes.

### ***2.3.3.2 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

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

### ***2.3.3.3 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:

- a) Gender Inclusivity requirements in hiring of workers and entire project management as required by Gender Policy 2011 and 2/3 gender rule; and
- b) 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:

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

### ***2.3.3.4 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:

- a) Develop and implement a SEA action plan with an Accountability and Response Framework as part of the C-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).

#### **2.3.3.5 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:

- a) 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.
- b) Controlled access to private offices and working places by outsiders.

#### **2.3.3.6 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

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

#### **2.3.3.7 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:

- a) The Proponent shall put in place measures to prevent and manage the spread of the COVID-19.
- b) 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.

#### **2.4 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:

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

#### **Mitigation measures**

- a) The following shall be adhered to during the decommissioning process:
  - i) Supervise all decommissioning works at the site especially any demolition of structures.
  - ii) Keep all passages clear at all times.



### CHAPTER THREE

#### ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MAONITORING PLAN

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

Parameter to be monitored	Where to be monitored	How to monitor	Frequency of monitoring	Indicators of performance	Responsibility for monitoring	Estimated Cost (KES)
<b>Construction and operation phase</b>						
Technical specifications	N/A	Review and appraisal by a panel of experts	Before commencement of construction	Detailed design that is easy to interpret	CPCU and Fisheries dept.	20,000
Flora and fauna	Site and riparian area	Survey of plant cover	Before and after construction	<ul style="list-style-type: none"> <li>• Percentage of plant cover</li> <li>• State of riparian area</li> </ul>	Contractor	–
Solid wastes	At the site	Assessment of solid wastes	Weekly	<ul style="list-style-type: none"> <li>• Amounts and categories of solid wastes at the site</li> <li>• Reported cases of nuisance as a result of unmanaged solid wastes</li> <li>• Number of waste bins installed</li> <li>• Number of workers/beneficiaries sensitized on waste management</li> </ul>	Contractor	30,000
GBV/SH	Within and outside the site	Audit to confirm compliance with policies against sexual harassment and Code of Conduct	Monthly	<ul style="list-style-type: none"> <li>• Number of cases of GBV/SH</li> </ul>	Contractor	50,000

<b>Parameter to be monitored</b>	<b>Where to be monitored</b>	<b>How to monitor</b>	<b>Frequency of monitoring</b>	<b>Indicators of performance</b>	<b>Responsibility for monitoring</b>	<b>Estimated Cost (KES)</b>
Fire	At and near work site	Fire risk assessment	Weekly	<ul style="list-style-type: none"> <li>• Number of flammable materials at the site</li> <li>• Number and types of fire suppression and management equipment/measures</li> </ul>	Contractor	50,000
HIV/AIDS and STIs	Within and outside the site	Ensure awareness workshops for project staff and workers on HIV/AIDS and STIs and other communicable diseases are carried out	Monthly	<ul style="list-style-type: none"> <li>• Rate at which dispensed condoms are used up/picked</li> <li>• Number of sensitization meetings on HIV/AIDS and STIs</li> </ul>	Contractor	–
Child abuse and/or child labour	Within and outside the site	Audit to confirm compliance with child protection measures outlined in the project documents	Monthly	Number of cases of child abuse	Contractor	50,000

<b>Parameter to be monitored</b>	<b>Where to be monitored</b>	<b>How to monitor</b>	<b>Frequency of monitoring</b>	<b>Indicators of performance</b>	<b>Responsibility for monitoring</b>	<b>Estimated Cost (KES)</b>
Sexual Exploitation and Abuse (SEA) by project workers against community members	Within and outside the site	Audit to confirm compliance with SEA Action Plan	Monthly	Number of cases of SEA	Contractor	50,000
Risk of spread of COVID-19	Within and outside the site	Audit to confirm compliance with Government of Kenya directives for prevention of COVID-19	Weekly	Reported cases of COVID-19 at the site	Contractor	50,000
Incidents and accidents	At the site	Assessment to ensure compliance with occupational health and safety management	Weekly	Number of incidents and accidents at the site	Contractor	50,000
Sanitary conveniences	At the site	Assessment to ensure presence of sanitary facilities	Before commencement of construction	Number and state of sanitary facilities	Contractor	–
Exhaust fumes and dust	At work site	Inspection	During construction	Reported incidences of air pollution	Contractor	20,000

Parameter to be monitored	Where to be monitored	How to monitor	Frequency of monitoring	Indicators of performance	Responsibility for monitoring	Estimated Cost (KES)
Protective equipment	At work site	Inspection	Unannounced inspections during work	<ul style="list-style-type: none"> <li>• Number of PPEs procured</li> <li>• Number or proportion of workers with requisite PPEs</li> </ul>	Contractor	5,000
Risks of animals and people drowning in the ponds	At the site	Observations	Daily	Number of reported cases of drowning in the fishponds	Fisheries dept and community	–
Sediment disposal	Riparian area	Observation	Every week especially after stormy days	Volumes of silt deposits at the streams	Fisheries dept and community	5,000
HIV/AIDS and STIs	Within and outside the site	Ensure awareness workshops for project staff and workers on HIV/AIDS and STIs and other communicable diseases are carried out	Monthly	<ul style="list-style-type: none"> <li>• Rate at which dispensed condoms are used up/picked</li> <li>• Number of sensitization meetings on HIV/AIDS and STIs</li> </ul>	Fisheries dept and community	–
Child abuse and/or child labour	Within and outside the site	Audit to confirm compliance with child protection measures outlined in the project documents	Monthly	Number of cases of child abuse	social services Fisheries dept and community	50,000

<b>Parameter to be monitored</b>	<b>Where to be monitored</b>	<b>How to monitor</b>	<b>Frequency of monitoring</b>	<b>Indicators of performance</b>	<b>Responsibility for monitoring</b>	<b>Estimated Cost (KES)</b>
Sexual Exploitation and Abuse (SEA) by project workers against community members	Within and outside the site	Audit to confirm compliance with SEA Action Plan	Monthly	Number of cases of SEA	Health dept. Fisheries dept and community	50,000
Risk of spread of COVID-19	Within and outside the site	Audit to confirm compliance with Government of Kenya directives for prevention of COVID-19	Weekly	Reported cases of COVID-19 at the site	Fisheries dept and community	50,000
Incidents and accidents	At the site	Assessment to ensure compliance with occupational health and safety management	Weekly	Number of incidents and accidents at the site	Dept of fisheries and community	50,000

## **CHAPTER FOUR: CONCLUSION**

---

### **4.1 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: ESS 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 Sagwa Oniso  
 Sub-project location Sungu Buhig sub-county  
 Name of CBO/Institution Sungu P.M.C  
 Postal Address: .....

Contact Person Agnes Oniso Cell phone: 0712112394  
 Sub-project name Fish Ponds (Aquaculture P.M.C) Sungu  
 Estimated cost (Kshs.) 4,000,000  
 Approximate size of land area available for the sub-project 4 Acres  
 Objectives of the sub project  
Increase fish productivity  
Provide food  
 Activities/enterprises undertaken Fish ponds, Storage, cold room, cooling  
 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?	✓	
Create a risk of increased deforestation?		✓
Create a risk of increasing any other soil degradation soil degradation?		✓
Affect soil salinity and alkalinity?	✓	
Divert the water resource from its natural course/location?		✓
Cause pollution of aquatic ecosystems by sedimentation and agro-chemicals, oil spillage, effluents, etc.?	✓	
Introduce exotic plants or animals?		
Involve drainage of wetlands or other permanently flooded areas?	✓	
Cause poor water drainage and increase the risk of water-related diseases such as malaria?	✓	
Reduce the quantity of water for the downstream users?		✓
Result in the lowering of groundwater level or depletion of groundwater?		✓
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?		✓
Reduce various types of livestock production?		✓
Affect any watershed?		✓
Focus on Biomass/Bio-fuel energy generation?		✓



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?		✓
<b>Agrochemical use</b>		
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?		✓

Require chemical application even to areas distant away from the focus?		✓
Require chemical application to be done by vulnerable group (pregnant mothers, chemically allergic persons, elderly, etc.)?		✓
Use irrigation system in its implementation?		✓

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

**Section E: Pesticides and Agricultural Chemicals**

Will the sub-project:	YES	NO
Involve the use of pesticides or other agricultural chemicals or increase existing use?		✓
Cause contamination of watercauses by chemicals and pesticides?		✓
Cause contamination of soil by agrochemicals and pesticides?		✓
Experience effluent and/or emission discharge?		✓
Export produce? Involve annual inspections of the producers and unannounced inspections?		✓
Require scheduled chemicals applications?		✓
Require chemicals application even to areas distant away from the focus?		✓
Require chemicals application to be done by vulnerable group (pregnant mothers,chemically allergic persons,elderly,etc		✓

**Section F: Vulnerable and Marginalized Groups meeting requirements for OP 4.10**

Are there:	Yes	NO
People who meet requirements for OP 4.10 living within the boundaries of, or near the project?	✓	
Members of these VMGs in the area who could benefit from the project?	✓	
VMGs livelihoods to be affected by the sub project?	✓	

*If the answer to any of the above is 'yes', please consult the VMGF that has been prepared for the project.*

**Section G: Land Acquisition and Access to Resources**

Will the sub-project:	Yes	No
Require that land (public or private) be acquired (temporarily or permanently) for its development?	✓	
Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests)	✓	
Displace individuals, families or businesses?		✓
Result in temporary or permanent loss of crops, fruit trees and pasture land?		✓
Adversely affect small communal cultural property such as funeral and burial sites, or sacred groves?		✓
Result in involuntary restriction of access by people to legally designated parks and protected areas?		✓
Be on monoculture cropping?		✓

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**

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

**(iii) Recommended Course of Action**

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

Hand dug ponds have little or no negative environmental impacts  
ESMP is therefore recommended.

Completed by: \_\_\_\_\_  
Name: \_\_\_\_\_  
Position / Community: \_\_\_\_\_  
Date: \_\_\_\_\_  
Field Appraisal Officer (CDE): \_\_\_\_\_  
Signature:   
Date: \_\_\_\_\_

NATIONAL ENVIRONMENT  
MANAGEMENT AUTHORITY  
BUSIA COUNTY OFFICE

Sign: \_\_\_\_\_  
P. O. Box 441 - 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 BOTOLA  
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):  
ALFRED OSANNO OCHIENG ID/NO. 752967  
OWINO OCHIENG FRANCIS ID/NO. 7557615
- (b) Nationality KENYAN
- (c) Address P.O. BOX 224 BUSIA
- (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS) COUNTY GOVERNMENT OF BUSIA  
SUNGA 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. MARACH / ERUKONGO / 2911  
Area 1.175 ACRES  
Locality ERUKONGO  
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 of owner, lessor,  
 mortgagee, 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.  
 OPKUL

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 BUTULA  
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):  
JOHN NDENGA TOLE  
ID/Nº 7526145.  
(b) Nationality KENYAN.  
(c) Address P.O. BOX
2. (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS) COUNTY GOVERNMENT OF BUSIA  
GUNGA 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. NARACH/ELUKONGO/1814  
Area 1.2 ACRES  
Locality ELUKONGO  
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 .....

(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 .....

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 agents should be attached.

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 BUTULA

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 ONYANGO OLANGO ID/NO. 37572621  
CHARLES ODHAMBO OLANGO ID/NO. 16118357  
JOSEPH OLOO OLANGO ID/NO. 7525141  
CHARLES OJINGO ODHAMBO ID/NO. 2766056  
GABRIEL ODHAMBO OLANGO ID/NO. 0722762
- (b) Nationality KENYAN
- (c) Address P.O. BOX 224 BUTULA
2. (a) Proposed purchaser, transferee, mortgagee, chargee, allottee, etc. (full name in BLOCK LETTERS) COUNTY GOVERNMENT OF BUSIA  
LUNGA 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. MARACH/ELUKONGO/1617  
Area .....  
Locality ELUKONGO  
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 lands available thereto 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 of owner, lessor, mortgagee, 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 agents should be attached.

(PRINT)

Annex 3: Public Participation Questionnaires

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN SHUNGA VILLAGE

Kenya Climate Smart Agriculture Project (KUSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project at Shunga village in Butula Sub County Busia County. The requirements of E.M.C.A of 1999 section 5B 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.S.M.M project report for submission to National Environment Management Authority (NEMA).

NAME: EMAN AGOR

ADDRESS: BUTULA

1. For how long have you been residing in this area  
28 years
2. What positive impacts do you foresee from the proposed project  
It will create employment  
It will promote business when fish is sold  
It will improve living standards of people from my area.
3. What adverse environmental social impacts according to your opinion will arise from the project?  
- loss of biodiversity from the area where the project will be undertaken
4. What remedies do you think may mitigate these negative impacts if any?  
More trees should be planted near the site of the project
5. Do you have any other information?  
I highly recommend the project to commence.

**PUBLIC PARTICIPATION**

**PROPOSED AQUACULTURE PARK PROJECT IN SIUNGA VILLAGE**

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project at Siunga village in Butula Sub County Busia County. The requirements of E.M.A of 1999 section 5B requires that environmental assessment and public participation be undertaken. We are seeking your views as stakeholders regarding the proposed project to enable us compile EIA project report for submission to National Environment Management Authority (NEMA).

NAME Cathie Wakwire

ADDRESS SAMAH

1. For how long have you been residing in this area  
*8 months*
2. What positive impacts do you foresee from the proposed project  
*Increased food production - fish  
Employment and business opportunities*
3. What adverse environmental/social impacts according to your opinion will arise from the project?  
*Loss of vegetation cover*
4. What remedies do you think may mitigate these negative impacts if any?  
*maintaining the remaining cover of land and planting trees*
5. Do you have any other information?  
*NO*

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN SUNGA VILLAGE

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project at Sunga village in Butula Sub County Bustia County. The requirements of EMOA 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 EIA project report for submission to National Environment Management Authority (NEMA).

NAME: DAN Ouma

ADDRESS: Butula

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

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

- Increased revenue collection.
- Job opportunities.

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

- Dust generation.
- Loss of trees.

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

- Use masks to protect dusts.
- Carry out reforestation.

5. Do you have any other information?

N/A.

PUBLIC PARTICIPATION

PROPOSED AQUACULTURE PARK PROJECT IN SIUNGA VILLAGE

Kenya Climate Smart Agriculture Project (KCSAP) has commissioned an Environmental, Social Management and Monitoring Plan Report for the proposed Aquaculture park project at Siunga village in Butula 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: AGNES AKINYI

ADDRESS: 0700293046

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

10 years.

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

- Create employment.

- Increased food availability

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

- Waste generation.

- Loss of vegetation

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

- Plant cover crops.

- Ensure sustainable collection of wastes.

5. Do you have any other information?

NTA

Annex 4: Experts License

FORM 7



01/20

**NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY(NEMA)**  
THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT

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

License No: NEMA/EA/TRPL/14988  
Application Reference No: NEMA/EA/EI/19249

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

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



Scanned by TapScanner