



SUMMARY PROJECT REPORT

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF FRESH TOMATO AGGREGATION, PACKAGING AND MARKETING IN NORTH UYOMA WARD, RARIEDA SUB-COUNTY, SIAYA COUNTY.





Kenya Climate Smart Agriculture Project

February 2022

Prepared By:

Fredrick O. Aloo, Registration No: 9049,

P.O. Box34188 Nairobi, Kenya

TEL 0726589117

Email: Fredrick.aloo@gmail.com

FACT SHEET

Project Name	Environmental and Social Impact Assessment for the proposed Proposed construction of fresh tomato aggregation, packaging and marketing in Ragengni centre, East Uyoma Location, North Uyoma Ward of Rarieda Sub-County, Siaya County.	
Assignment Name	Environmental and Social Impact Assessment (ESIA) Summary Project Report (SPR)	
Location	Ragengni centre, East Uyoma Location, North Uyoma Ward of Rarieda Sub-County, Siaya County	
GPS Coordinates	Latitude 0°16'18.21396"S and Longitude 34°21'52.86924'E 3980ft above sea level	
Project Description	Aggregation of our fresh market tomatoes, prolong shelf life of tomatoes through cold storage, value addition of tomatoes by engaging in Tomato sauce, paste and juice production together and market. a. Fencing off the area b. Solar Powered Fresh Produce Store. c. Construction of a cold solar powered cold storage facility d. Construction of a building bearing an office, receiving bay, changing bay, tomato washing e. Installation of tomato processing machineries f. Establishment of a shop	
Main source of water	The main source of water for the proposed project is a borehole and water supply Maji milele water project.	
Proponent	Ragengni Kunya (RAKU) Community based organization	
Address of the Proponent	Ragengni Kunya (RAKU) Community based organization P.O. Box 75 Code 40604 Ragengni	

CERTIFICATION

For and on behalf of:

Raku Community Based Organization:

This Environmental Social Impact Assessment (ESIA) Summary Project Report was prepared in accordance with the Environmental Management and Coordination Act (EMCA) 1999 and the Environmental Impact Assessment and Audit Regulations 2003 (revised 2015 & 2019) in order to meet the statutory requirements for the implementation of projects under schedule ii.

I, the undersigned, confirm that the contents of this report are a true representation of the ESIA process for the Proposed construction of fresh tomato aggregation, packaging and marketing in Ragengni centre, East Uyoma Location, North Uyoma Ward of Rarieda Sub-County, Siaya County.

Date. 4/3/2022

LEAD ESIA/ EA EXPERT

FREDRICK ALOO

NEMA REG. No. 9049

P. O. BOX 34188 00100

NAIROBI, KENYA

Lead Expert

₹ ; ()

PROJECT PROPONENT:

Raku Community Based Organization

Ministry of Agriculture, Livestock, Fisheries and Irrigation

P.O. Box 75 Code 40604

Ragengni

Kenya

Name Daniel Otieno Signature

Designation Chairman Date 6/3/2022

ACKNOWLEDGMENT

We, the ESIA study team Mr. Fredrick Aloo (Lead), Mr. Elijah Lwevo (Lead) and Mr. Joh Chege (Associate) wish to acknowledge and express our profound gratitude to the Siaya County Project Coordinating Unit (especially Benard Ayagah) of Kenya Climate Smart Agriculture Project (KCSAP) and the Coordinator Willis Atiang for commissioning this ESIA SPR.

We appreciate the cooperation and contributions of all the stakeholders who we interacted with during this EIA report, without their support this study would not have been successful.

We would also like to affirm our appreciation to Dr. Gilbert Muthee from the National Project Coordinating Unit, World Bank ESIA Experts especially Robert and Kimberly, not forgetting Marian from NEMA Head Office and Violet NEMA Siaya County office for their guidance in the preparation of this SPR. Finally, we wish to appreciate the contributions made by the entire community for providing us with useful information and filling out questionnaires during the field visits and public participation fora.

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LIST OF ACRONYMS AND ABBREVIATIONS

AI Artificial Insemination

AIDs Acquired Immunodeficiency Syndrome

BOQs Bill of Quantities

CBO Community Based Organization
CDE County Director of Environment

C-ESMMP Contractor Environmental and Social Management and Monitoring Plan

CIDP County Integrated Development Plan

CIGs Common Interest Groups

CMS Convention on Migratory Species

CoC Code of Conduct

CPCU County Project Coordination Unit
CSR Corporate Social Responsibility

EAs Environmental Assessments

ECF East Coast Feaver

EIA Environmental Impact Assessment

EMCA Environmental Management and Coordination Act, 1999 Revised, 2015

ESIA Environmental and Social Impact Assessment

ESMMP Environmental and Social Management and Monitoring Plan

ESMP Environmental and Social Management Plan

FGD Focused Group Discussion
GBV Gender Based Violence
GDP Gross Domestic Product

GHG Greenhouse Gases

GPS Global Positioning System

HIV Human Immunodeficiency Virus IFC International Finance Corporation

KCSAP Kenya Climate Smart Agriculture Project

Km Kilometers

Km² Square Kilometers

ESIA for the proposed construction of fresh Tomato aggregation and marketing factory , in Ragengni, Rarieda Sub-County, Siaya County.

Ksh Kenya Shillings

M Meters

m³ Cubic Meter

MEA Multilateral Environmental Agreements

mm Millimeter

MOALF Ministry of Agriculture, Livestock and Fisheries

NEAP National Environmental Action Plan

NEMA National Environment Management Authority

OPs Operational Policies

PAPs Project Affected Persons

PPE Personal Protective Equipment
SEA Sexual Exploitation and Abuse

SESA Strategic Environmental and Social Assessment

SPR Summary Project Report

STDs Sexually Transmitted Diseases

UG Underground

UNFCCC United Nations Framework Convention on Climate Change

VMGs Vulnerable and Marginalized Groups

WRA Water Resources Authority

EXECUTIVE SUMMARY

This document is an Environmental and Social Impact Assessment (ESIA) Summary Project Report (SPR) for the proposed fresh tomato aggregation packaging and marketing in Ragengni Centre, North Uyoma Ward, Rarieda -Sub County, in Siaya County. It is located in GPS coordinates S0° 16'18.21396" E34°21'52.86924". Altitude 3980ft a.s.l. The project aims at aggregation, packaging and marketing of tomatoes in the region and is funded by the Kenya Climate Smart Agriculture Project (KCSAP). A Summary project report has been prepared for submission to the National Environment Management Authority (NEMA) for review and licensing or for further guidance. Among the legislation reviewed included The Constitution of Kenya, 2010; the Environmental Management and Coordination Act, 1999 (Revised 2015) and its subsidiary legislations; the Crop Act 2013, Public Health (Prevention, Control and Suppression of COVID-19) Rules, 2020; and Sexual Offenses Act, 2006.

The scope of the assessment covered impacts directly or indirectly associated with the construction, operation and the decommissioning phase of the project. The consultant used both conventional and participatory approaches in identifying the potential environmental impact and mitigating measures for the proposed project. The approach and methodology comprised of environmental screening, scoping, and data collection through literature review, physical investigation of the site and the surrounding areas, public consultation, photography as well as discussions with the Proponent. The impacts identification, analysis and reporting of findings was done to enable the relevant approving Authorities make an informed decision.

On 21st February 2022, a meeting was held at the proposed site in Ragengni centre in Uyoma with staff and representative stakeholders where 51 participants (35 males and 16 females) participated in the exercise. A total of 15 questionnaires were administered and completed during the public barazas meeting exercise. Some of the concerns raised during public consultation included Post harvest losses—farmers have to be trained on minimizing spoilage - sensitization of beneficiaries on installation of waste recycling plant; increase tomato production since market will be available - The participation of key stakeholders included representatives of Agriculture office at County level, the tomato farmers, RAKU Cooperative society members among others.

There are a number of positive impacts justifying why the project should be developed in the area alongside likely negative impacts. The project will come with numerous positive impacts that include improved livelihoods, increased tomato production, employment creation among others. It is anticipated that the project will benefit approximately 258 members growing tomatoes. Another 1,375 persons will benefit indirectly along the tomato vale chain. Some of the major negative impacts anticipated include occupational health and safety risks throughout the project, increased waste generation, increased pressure on tomato storage and transportation, possible spread of COVID-19, HIV/AIDS and STDs and minimal soil disturbance. The mitigation measures for the negative impacts have been detailed in this report. They include but not limited to establishment of a waste recycle unit, disposal pit, sensitization on Covid 19 and HIV/AIDs. Provision of personal protective equipment's and sensitization on gender based violence

It worth noting that the key responsibilities regarding compliance to the proposed ESMMP during the construction period rest on the Contractor whereas those in operation stage will be the responsibility of the proponent. It is important that the project proponent ensures adequate

ESIA for the proposed construction of fresh Tomato aggregation and marketing factory , in Ragengni, Rarieda Sub-County, Siaya County.

monitoring and evaluation for the Contractor for non-conformances and adequate resources are allocated for operational stage. This summary project report ESMMP estimates that Ksh. 280,000 should be allocated during construction phase and at least Ksh. 210,000 per year during operation phase. Based on the technical design's bills of quantity (BOQ) for the project implementation, the project is estimated to cost Kenya Shillings 22,284,383.

In conclusion positive impact outweighs the negative impacts raised. Mitigation measures for the negative impacts have been given and in the end it is economically viable and therefore it is recommended that project should be approved and allowed to proceed. The proponent should however commit to fully implement the proposed ESMMP to ensure sustainable development.

1 INTRODUCTION

1.1 Background information

The overall national development objectives of the Government of Kenya are accelerated economic growth and rising productivity of all sectors, equitable distribution of national income, alleviation of poverty through provision of basic needs, enhanced agricultural production, industrialization, accelerated employment creation and improved rural-urban balance. These objectives are facilitated through a myriad of interventions that are funded through local (central government and devolved system) and international resource mobilisation (bilateral and multilateral as well as grants). The extent to which these objectives can be realized on a sustainable basis and in an environmentally sound manner is dependent on the degree and economic efficiency with which critical factors of production are made available and combined with each other to produce the desired results that do not compromise the wellbeing of future generations.

The Kenya Climate Smart Agriculture Project (KCSAP) aims at increasing Agricultural Productivity and building resilience to climate change risks in the targeted small holder farming and pastoral communities in Kenya, and in the event of an Eligible crisis or emergency, to provide immediate and effective response. To contribute in achieving this objective, Siaya County has laid emphasis on a number of producer organizations to help attain this objective. It's from this background that the Raku Community based organization, raised a proposal to seek donor support for aggregation and marketing of fresh market tomatoes.

Ragengni Kunya (RAKU) is a community based organization in Ragengni Sub location, East Uyoma location north Uyoma ward of Rarieda Sub County in Siaya County. The Community based organization was started in the year 2004 dated (Reg. No. BON/S.H./1993) with 34 Common interest groups in Open field fresh market Tomato production coming together to aggregate fresh market tomatoes to market for their members. The organisation has a total of two hundred and fifty eight members disintegrated as follows

Table 1.2—1 Members of Raku Community Based Organization by Gender Disegregation

Members above 35 yrs		Youth member	Youth members		
males	Females	Males	females	Total	
93	80	48	37	258	
Total	173	85	258		

Raku C.B.O engages in aggregation of Fresh market tomatoes from individual member groups of the C.B.O and later sell to buyers fetching higher prices to members.

1.1.1 Project justification

Tomato is among the promising commodities in horticultural expansion and development in Rarieda. It accounts for 55% of the total vegetable produce and 35% of total horticultural crops (G.O.K 2012). Rarieda Sub County is the leading producer of tomato in Siaya County with a total production of 7,500 tons per season (F.A.O 2012).

Tomato marketing involves getting the tomato produce from the point of production to the point of consumption. Market inaccessibility has been a major constraint in tomato agribusiness sector. Highlights of major impediments to the market penetration: poor infrastructure, exorbitant cost of transport, high market price fluctuation, poor/lack of storage facility and existence of market cartels. Road infrastructure in Rarieda especially the rural roads are in deplorable condition. Existence of cartels in the market has been a bottle neck to competitive marketing process. Cartels are known for their unjust and iniquitous dominance of the market resulting to poor prices paid to farmers. Appropriate storage of tomatoes warrants the safety of tomato for consumption in the right form and at the right time because tomatoes are perishable in nature so they are prone to low shelf life of fresh tomato produce. In Rarieda availability of tomato storage facilities among the farmers / traders is not available. Therefore there is need for traders, Farmers, development partners and even Government to invest in cooling hubs and facilities to prolong the shelf life of fresh tomato produce.

High cost of transport has adversely affected the tomato value chain; it arises from poor rural roads. Contractual agreement between the farmers and industrial buyers is still weak and this can be improved by having aggregation centers.

Tomato price fluctuations have been daunting challenge to consumers, this have been caused by the seasonality, another challenge is the perishability or low shelf life of tomatoes, it therefore important for investors to invest in cooling facilities to ensure supply during low season and stability of the price all through.

1.1.2 Overall project objective

To increase value addition and reduce post-harvest loses by increasing Agricultural Productivity and building resilience to climate change risks in the targeted small holder farming.

1.1.3 Specific objective

- Increased household income by aggregation and marketing as a common unit.
- Enhance livelihood diversification by promoting tomato production.
- Food and Nutrition security in form of availability, access, utilization and stability
- Accessibility to improved tomato prices through marketing of value added commodity.

Rationale and Objectives of the Environmental and Social Impact Assessment – Summary Project Report

1.1.4 Rationale for the ESIA

The Kenya government policy on projects, programs or activities such as the proposed Tomato aggregation, packaging and marketing requires that an Environmental and Social Impact

Assessment (ESIA) be carried out at the planning stages of the proposed undertaking to ensure that significant impacts on the environment are taken into consideration during the design, construction, operation and decommissioning of the project. The commissioning of this ESIA was informed by the recommendation of the County Director Environment (CDE) Siaya County, based on the screening report. The recommendation was in line with NEMA Public Notice on ESIA and Legal Notice No. 31 which identifies the proposed project as Low risk, thus requiring only SPR. Besides, the ESIA was prepared as per the provisions of World Bank Operational Policy 4.01, and with other relevant laws and regulations of the Government of Kenya.

The overall objective of KCSAP is to avail to farmers' agricultural technologies, innovations and management practices to enable them cope with the changing climate. The specific objectives are:

- 1. Sustainably increasing agricultural productivity and income
- 2. Adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible.

1.1.5 Objectives of the ESIA- SPR

The principal objective is to highlight the possible positive and negative environmental and social impacts expected during the construction operation and decommissioning of the proposed project, with the aim of proposing the possible mitigation measures to the negative impacts. This is in line with ensuring that such a development does not negatively impact the environment in terms of social, health, economic and physical (soil, water, plant and animals) state of the area hence ensure sustainable development

1.2 ESIA Approach and methodology

1.2.1 Environmental Screening and scoping

The Consultant first undertook environmental screening and scoping to avoid unnecessary data. The screening process (Annex V) revealed that anticipated social issues would be minimal given that there are similar projects at the project site.

The proposed project was found to be under World Bank Category B classification since the project impacts will be site specific, few if any of them are irreversible; and in most cases adverse effects will be limited (some minor including dust, noise and health and safety impacts during construction and operational phases) and mitigation measures can be designed. Such impacts have been clearly identified both at screening stage and in this SPR report with comprehensive mitigation measures being fully designed and described in ESM&MP.

1.2.2 Desktop study

Desktop study included documents review on the nature of the proposed activities, project documents including designs, policy and legislative framework as well as the environmental setting of the area among others. Key documents reviewed included the following: Kenya policies, strategies and guidelines; National and County Laws and regulations; applicable Multilateral Environmental Agreements (MEAs) and World Bank policies safeguards.

1.2.3 Physical inspection of the site and surrounding

Physical inspection of the proposed site which included field investigation at site and surrounding areas was done on 21st February, 2022. The field investigations were meant for physical

inspections of the site characteristics and the environmental status of the surrounding areas to determine the anticipated impacts from the project.

1.2.4 Public Participation

Public participation via the use of public meetings & questionnaires, key stakeholder and informant interviews were carried out during the exercise. A public consultation meeting was held on 28th February, 2022 at Ragegeni centre while observing Covid-19 protocols especially limiting the number of participants where 51 participants (35 Male and 16 Female) attended these meetings (Annex III and Annex II). These were drawn from across the county ensuring gender equity from CIGs, VMGs and special groups like women groups as representatives of the beneficiaries to the project. To ensure adequate public participation in the ESIA process, at least 10 questionnaires were administered to the beneficiaries. The information gathered was subsequently synthesized and incorporated into the EIA summary project report. This was done in order to incorporate the concerns and views of all persons and individuals in the project neighbourhood.

1.2.5 Data Analysis and Documentation

The Environmental Impacts Assessment report was compiled from the findings in accordance with the EIA guidelines issued by NEMA for Summary Project Report. The Consultant ensured constant briefing of the proponent during the exercise.

The exercise culminated with the production and documentation of this summary project report which will be submitted to NEMA for review and approval.

1.2.6 Report Structure

The report structure is organized in 9 chapters. Chapter 1 covers the general introduction of the project and its relation to the KCSAP project. In chapter 2, a description of the nature of the project is given covering what the project entails. Chapter 3 describes the location of the project and its surrounding. Public participation and stakeholder engagement description and methods used to reach them is described in chapter 4. A description of potential impacts and mitigation measures foreseen in the project is provided in chapter 5. Chapter 6 indicates a table that describes the Environmental and Social Management & Monitoring Plan (ESM&MP) that will be implemented by the project. Chapter 7 sums up the conclusion and recommendations for the whole assessment. References and Annexes are given in chapter 8 and 9 respectively.

1.3 Responsibilities and Undertaking

The proponent – KCSAP Shaya provided a technical team to provide information required by the consultant. The proponent also facilitated stakeholder engagement through public participation and provided the relevant project documents and information to enable the consultant compile the report.

2 NATURE OF THE PROJECT

2.1 Introduction

This chapter gives details of the project design. It highlights the project design and materials supported by design and plan drawn to scale and signed by an engineer. Additionally, it provides an overview of project activities during construction, operation and decommisssioning phases. Included is a proof of land ownership and a description of any existing environmentally sensitive areas and description of the project area

2.2 Design Concept and Material

The siting, design concept and criteria for were developed in accordance with the general guidelines and standards used in the design of structures/buildings in Kenya and are in line with international standards for best practice by the County Government of Siaya, through the Kenya Climate Smart Agriculture Project (KCSAP). An approved project designs have been attached to this report (ANNX VII).

2.2.1 Project Design and Main Activities

The main works and activities to be undertaken under this project comprise the following:

- a. Fencing off the proposed site
- b. Installation of a prefabricated container
- c. County agricultural engineering staff capacity development and supporting the infrastructure. The infrastructure will comprise construction of a cold room storage facility and receiving bay, changing room, an aggregation centre and a store (**Designs-***Appendix vii*)
- d. Processing unit where there will be products
- e. Installation of a solar powered energy unit
- f. Construction of a waste handling, recycling and processing unit

2.2.2 Materials, equipment and labour

The project involving construction of a new cold storage facility will be done using modern construction material and procedures while ensuring that the safety of the neighboring communities and the environment is not compromised. These materials that will be used shall be locally and internationally accepted and shall meet the threshold public health, occupational safety and health as well as environmental standards. The main construction materials, equipment and workforce for this project will be;

- Stone masonry
- GCI Roofing
- Paintwork and other finishes
- Hardcore
- Cement
- Steel reinforcement
- General labor force (skilled and unskilled)

- Concrete works (sand and ballast)
- Plumbing works (pipes and fittings)
- Chainlink
- Barbed wire

2.3 Proposed Project Activities

The activities associated with the proposed project have been categorized under four phases of project implementation namely; planning construction, operation, and closure/decommissioning as discussed in the following subsection.

2.3.1 Planning Phase Activities

The main activities considered during this phase are: community mobilization, tendering services as required by procurement regulations, site hand over, hand over of drawing and building plans and site layout.

2.3.2 Construction Phase Activities

This phase comprise fencing, constriuction of a cold storage facility, construction of a receiving bay, aggregation, sorting bay. Installation of a processing unit, solar powered energy. Construction phase entails the following activities: Concrete works, masonry works, plumbing and electrical works, roofing, paintwork and other finishes.

2.3.3 Operation Phase Activities

On project completion the facilities would be utilized for the intended purpose. The project operational activities will include: Aggregation, Sorting, cold storage, processing and packaging for purposes of value addition.

2.3.4 Decommissioning Phase Activities

Decommissioning of the built up structures will become necessary if or when the project goals change, when the need arises, climatic conditions or change of government policy as regards the land use. Once this occurs, the affected structures will be demolished. Non-reusable materials will be sold to licensed scrap metal dealers. The closure of the project will involve stopping all activities and demolishing the built structures and associated infrastructure. The affected land shall be, landscaped and replanted with suitable indigenous grass and trees.

2.4 Project Cost and Implementation Schedule

Based on the technical design's bills of quantity (BOQ) for the project implementation, the project is estimated to cost **Kenya Shillings 10,000,000**

3 LOCATION OF THE PROJECT

3.1 Proof of Land Ownership

The proposed project will be constructed on public land belonging to the ministry of Agriculture, Livestock, Fisheries and Irrigation, County Government of Shaya County. The construction will be undertaken at a place adjacent to the existing building. There will thus be no land acquisition process anticipated as the space is set aside for project development. (Appendix V).

3.2 Project Location

The proposed project construction works for tomato aggregation, preservation, processing and marketing will be located at Located at Ragengni Market Centre along Ndori Luanda Kotieno Road about 0.2 km from the main road..GPS coordinates S 0° 16'18.21396" E34°21'52.86924". Altitude 3980ft a.s.l in Ragengni centre North Uyoma ward Rarieda sub county, Siaya County. (Figure 3-1). There are no environmentally sensitive ecosystems within the proposed project site. The proposed project is in keeping with the surrounding with developed parcels of land in urban environment.

A geographical satellite image of the project location showing proposed Site in Ragengni is presented in figure 3-2 below. Located at Ragengni Market Centre along Ndori Luanda Kotieno Road about 0.2 km from the main road.

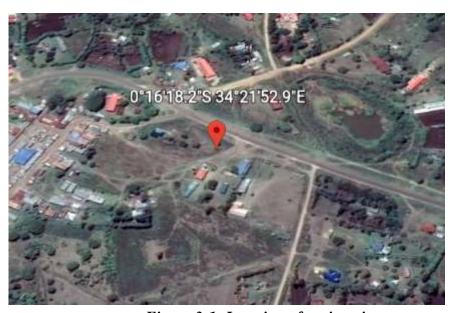


Figure 3-1: Location of project site

3.3 Environmental Management Supportive Infrastructure

The proposed project site requisite environmental supportive infrastructure. There exists Uyoma water pipeline system that connects the proposed infrastructure. There exists an earth access road (about 0.2km) that can be used to access the site. The inhabitants of the area have piped connection to clean drinking water from Uyoma water project. Additionally, the project site is connected to power from the grid. It is anticipated that the proposed project will increase

the number of tomato producers to provide enough quantities that can be kept in the cold storage facility.

3.4 Physiographic and Natural Conditions

3.4.1 Physical & Topographic Features

The project area is within a basin surrounded by relatively plain terrain. Sizeable runoffs are often received during rainy season within this project location though vulnerability to soil erosion is moderate, disturbance of the soils during construction phase can increase soil erosion risks

3.4.2 Geology and Soils

To determine the soil texture, a transect walk was undertaken in and around the proposed irrigation facility. It was noted that the soil texture is uniform in the said area and the soil profile was indicative of moderately calcareous soils. To determine the soil texture further below depth texture, a trial pit was dug to a depth of 1.2m deep. The soils are well drained moderately deep to deep, dark reddish brown to dark red friable to firm, sandy clay to clay in many places with stonelines (chromic VERTISOLs)

The soils are suitable for quite a wide range of horticultural crops and mainly vegetables such as tomatoes, kales, onions, chilies, beans, water melons. It is also suitable for cereal crops including maize, green grains and peas. It therefore provides an opportunity for enhanced tomato production

3.4.3 Climatic Conditions

The proposed project site is in Agro climatic Zone III -3 and is within an altitude of about 1200m above sea level. Rainfall is bimodal; with long rains expected in the months of April to May while the short rains are received in the months of October to November. Rainfall expected per year ranges between 800mm and 1400mm. Temperatures are high all year round ranging from 22° and 24°. The zone is mainly used for agriculture and livestock rearing.

Climate Change issues

The evidence of climate change in the locality and the entire County has been observed in terms of increase in variability of erratic rainfall.

Climate change mitigation strategies which aim at reducing the emission of greenhouse gases (GHGs) from human induced activities need to be put in place. The strategies include: Solar energy, increase in ground cover by planting food crops, quality palatable crops that will enhance carbon sinks and also provide high quality horticultural crops.

3.5 Infrastructure

The proposed project site is accessible through Ndori, Luanda Kotieno tarmac road off Gagra Madiany murram road about 2km from the road. The Location has electricity supply and is connected to the national grid the nearest transformer is about 2meters from the site. However, the main source of energy for cooking is fire wood. There is low utilization of other sources of energy like Liquefied petroleum gas (LPG), fuel, solar and wind. Telecommunication network is good. Housing and shelter is largely semi-permanent houses which are iron roofed. The most or notable infrastructure include primary schools and Secondary Schools. The nearest health facility is at about 10 meters away and a chief's camp is about 10 meters from the proposed site.

3.5.1 Land and Land use/Zonation

Land has aesthetic, cultural and traditional values and is a vital factor of production in the local economy. The project site lies within Ragengni, he ward supports rain fed crops and is characterized by patches of sparse vegetation cover. Majority of farm holding in the areas are small scale farmers majority of whom practice crop farming. The farm holding agricultural potential area is rain fed with an average area of about 0.4 Ha. The project conforms to the existing zonation.

3.5.2 Flora and Fauna

It was observed during fieldwork that the area is developed and largely characterized by built-up areas, mature indigenous trees, mature exotic trees, farmlands, some shrubs and grasslands. The surrounding vegetation mostly comprise of indigenous natural vegetation that include eucalyptus, gravellier, ferns among others. Grass and shrubs thrive during the rainy season, and quickly dry up during the dry season. Some of the trees are deciduous as an adaptive mechanism to the dry conditions. The high altitude favour deciduous broad leaved trees which can be observed in the surrounding. The most common fauna found in the project area include birds, insects, rodents, snakes and livestock.



Plate 3-1: Trees observed in the surrounding

3.5.3 Environmentally sensitive areas

The area is a fairly flat areas, situated along the Ndigwa Ragegni Luanda Kotieno road. The location does not have any biologically sensitive flora and fauna

3.6 Socio-economic Environment

3.6.1 Population

The population figures used in calculating the water demand are based on Kenya Population and Housing Census 2019. As per 2019 population census, the growth rate for Rarieda Sub County was 2.6% per annum. Therefore, the 2.6% rate will be used in projecting the population.

Number of households = 1362

Average number of persons per household =4

Total number of persons = 5448

School going children (42%) = 2288Adults 58% = 3160

3.6.2 Infrastructure and Access, Road, Rail Network, Ports and Airports, Airstrips.

The area is connected to the national grid and there is electricity in the neighbouring communities. There project site is connected to piped water infrastructure from Milele water project. The road network is good and is tarmacked (Ndori to Luanda Kotieno road).

3.6.3 Housing

In Siaya sub-County where the project area is situated, 49% of the households have earthen floor, while 44.8% use concrete/cement floor (KNBS 2019). At the project site and its surrounding, the dominant roofing material is iron sheets. The dominant wall type comprises covered adobe at 29%, bricks at 25% and uncovered at 15%.

3.7 Conflict and Grievance Resolution Mechanism (GRM)

The main grievances were those involving succession and inheritance, natural resources, grabbing of public utility spaces and land boundary disputes, tenancy and labour. Domestic violence relating to sexual exploitation and abuse and gender-based violence are some the cases relevant to project implementation. Several methods are used in resolving these household conflicts as reported during the survey.

- -The instruments used in the resolution of the reported conflicts in the area include.
- -Extended family members
- -Religious institutions/ religious leaders
- -Chief/Assistant chief
- -Elders

Even though men make decisions in the whole process of development, all the genders including men, women and youth implement the activities. The positive side in the project area is that the Nyumba Kumi head and village elder has been bestowed on female gender to signal that gender roles will not limit community responsiveness and implementation. As this project is guided by the Social Accountability and Integrity Committee principles, the PMC has been tasked with forming an Accountability subcommittee to provide leadership in the GMR process.

4 PUBLIC PARTICIPATION AND STAKEHOLDER CONSULTATIONS.

4.1 Overview

The Kenyan government has enshrined the need for human societies' involvement in project development in the Constitution of Kenya 2010. This has been set out in the EMCA, 1999 and Environmental (Impact and Audit) Regulations, 2003 and subsequent ammendments (2015)

&2019). The proposed project has incorporated public consultations in order to understand the local impacts, needs and wishes of the community and eventually incorporate them into the final designs and operations of the project.

4.2 Objectives

The key objectives of the consultation and public participation for proposed tomato aggregation, preservation, packaging and marketing facility was to:

- i. Disseminate and inform the public and stakeholders about the project with Special reference to its key components and description
- ii. Create awareness among the public on the need for the ESIA for the proposed project
- iii. Gather comments, suggestions and concerns of the interested and affected parties
- iv. Incorporate the information collected in the ESIA
- v. Build community consensus and acceptance of the proposed project.

4.3 Methodology

4.3.1 Stakeholder mapping

Public participation for the proposed project was conducted through the public consultative meetings and admission of questionnaires to allow for systematic understanding and interaction of the project beneficiaries, neighbors, local community members/surrounding enterprises and any other would be affected/interested parties. Prior to the public participation and stakeholder consultation, a stakeholder mapping was carried out to identify key stakeholders to be invited for the meetings. Stakeholders that were directly affected by the proposed project and key government institutions, Ward Agriculture Officer, Project committee members, as well representatives of RAKU Tomato farmers drawn from different sub-locations were invited. Due to the Ministry of Health protocols on controlling Covid-19 pandemic, the number of stakeholders invited to attend the public consultations was limited to not more than 25 persons meeting that captured 5 participants with representation from beneficiaries, CIGs, VMGs, implementing staff from the County Government, stakeholders and other special groups.

4.3.2 Public consultation questionnaires

ESIA questionnaires were administered, to gather information from the stakeholders and the members of the public. This was done using structured questionnaires to assess the environmental and socio-economic views of the respondents. A total of 15 questionnaires were administered in the project area. Sample filled questionnaires administered in the project area are appended to this report (**Annex I**)

4.3.3 Public consultation meetings

In seeking the views of the key stakeholders, and any other would be affected/interested parties the consultant organized meetings targeting the tomato value addition and digitization of producer organization members/beneficiaries, the administration, the proponent key staff at County and sub-county level and other key staff. A focus group discussion (FGD) method held on 27/2/2022 was used on when consulting County and Administration staff while on 28^{th} February, 2022, public barazas was held when consulting beneficiaries to the project. All the above meetings were held while observing the Ministry of health protocols in controlling Covid-19 pandemic. These meetings were used to publicize the proposed Tomato value addition factory and the anticipated effects and benefits. The list of participants is appended to this report (**Annex III**).

During the consultations, presentation of the project scope was outlined, after which an open discussion forum followed during which all pertinent issues were raised and agreed upon with all stakeholders. In the public participation meeting, stakeholders had a chance to interact with the proponent represented by the ESIA expert and ministry of agriculture officials at county level and key partner PLAN INTERNATIONAL a Non Governmental Organization . The findings are incorporated into this report and captures the issues, suggestions, concerns and recommendations from FGD and public meetings on site. The meetings were well attendend and the attendees participated actively during the meetings (Plate 4-1 and 4-2).





Plate 4-2: Ongoing public meeting

Plate 4-1: Public meeting attendants

4.4 Consultation and Disclosure Outputs

The Appendices present the information on the public consultations undertaken under the environmental impact assessment for the proposed Cold storage tomato aggregation, packaging and marketing facility. This information includes selected responses as detailed in the minutes (*Annex ii*). It was noted that members lauded the project and were eager to see the start of the project. However, there were a few areas that the members sought clarity. A summary of the key concerns raised by the participants is provided in table 4-4 below:

Table 4.4—1: Stakeholder Consultative meeting key concerns

SN.	Issues raised by the members	Brief explanation	Response
1		what assurance they will have	The technical team responded that the wastes will be categorized tomato wastes will be recycled and used as
	tomatoes	will be contaminated with	wastes will be recycled and used as

		rotten tomatoes and wastes littered all over	fertilizers or dried and converted to animal feed Wastes from litters and containers if
			they are plastics or metallic then they will be recycled
			If the wastes are cartons or flammable liquids then they will be collected and deposited at designated places as per the NEMA regulation
2.	Noise pollution	There was a concern raised on increased noise pollution from the running of the factory while washing the tomatoes	The concern was noted. The members responded that persons working in factory will be provided with PPEs including ear protection gears. The machines will be installed with sound proof gadgets to minimize noise pollution
3.	Increased water requirements	The members noted that due to food hygiene there will be through washing of the tomatoes at the plant before processing and packaging	It was agreed that there is a borehole near the chief's office where the site of the plant was proposed. There is also a water pipeline nearby which can be tapped.
4.	Fear of contaminated tomato fruits	There was concern that the fruits may be contaminated with chemicals from the field	A small laboratory for analyzing tomato fruits from the farms will be installed in the plant. Tomato farmers will also be encouraged to use biodegradable chemicals that are not hazardous and do not have a long shelf life
5.	Fear of conflicts	Some farmers raised fears that once the factory is established there will be increased conflicts over employment	A grievance redress mechanism will be established in place to handle conflicts
6	Influx of people from outside	Members felt that there may be influx of people resulting to increased incidences of insecurity and cases of HIV Aids	The chief and ward administrator were in agreement that Nyumba Kuni will be strengthen to monitor influx of people and install appropriate measures where appropriate

4.5 Salient issues

4.5.1 Opinion on Project implementation

It is clear from the questionnaires received back that the proposed tomato aggreggation and marketing factory will serve an important role of providing the community with increased income and market. All the residents admitted that they were interested in this project more

solely for their improved income from value addition, selling of tomatoes and in so doing pointed to the benefit that will accrue to them.

4.6 Anticipated impacts

4.6.1 Positive Impacts

Positive impacts identified by stakeholders include the following:

- Increased toamto production
- All the farmers in the county and particularly tomato farmers and agricultural officers will benefit from trainings on modern farming techniques
- Anticipated improved income levels from sell of tomatoes and increased production.
- Reduced diseases/ pest incidences that are normally spread across the farms. There
 will be trainings on integretad pest management. A pest management plan will be
 developed
- The proposed construction will ensure the storage can be done appropriately limiting chances of exposure/expiry of tomato products .
- The youth will be trained on sutainable management and maintainance of small cottage industries

4.6.2 Anticipated negative impacts

Some of the negative impacts identified include the following:

- Dust and air pollution during construction and paints
- Increased waste from tomato processing
- Anticipated possible conflicts when whehn there is a high influx of people
- Management conflicts could result from availability of funding and shared public resource
- Increased pressure on water resources
- Occupational hazards from construction works

4.6.3 Suggestions and comments from public consultations

- In situations where there will be dust emission then the contractor will spinkle the site to minimise dust and the site will be convered with dust nets where applicable
- The waste from construction materials will be sorted and some will be recycled while otherswill be deposited at designated areas
- Will ensure constnat supply of power either solar or electric on the cold storage facility in order to enhance the shelf life of the products and minimize post harvest losses.
- Intiate or strengthen Nyumba Kumi in order monitor and record influx of immigrants
- Tomato producers' views should be incorporated in the programme. They suggested to have a dedicated committee to be airing farmers concerns.
- Undertake capacity building on good crop husbandry practices
- Ensure the workers/employees of the proposed project are insured through WIBA for adequate compensation due to injury while at work.
- Jobs opportunities that will arise during the construction and operation phase of the tomato aggregation, processing, packaging and marketing faicility, should be reserved for the residents of the project areas.

- Construction work should strictly observe standards of Occupational Health and Safety
 including use of appropriate PPE. During operation, need for appropriate PPE such as
 gloves, gumboots to prevent occupational diseases, injuries and accidents should be
 emphasized.
- The contractor should have a holding/launching yard for materials and equipment to control environmental pollution.
- The contractor should also strive to use high quality construction materials as detailed in the design
- Educating on HIV aids control and COVID-19 prevention

5 POTENTIAL IMPACTS AND MITIGATION MEASURES

This chapter presents the assessment of the issues likely to arise as a result of implementation of the proposed project. The impacts are presented in-regard to their likelihood of occurrence on the physical, biological, occupational and socio-economic environments.

Table 4.5—1 Summary of expected impacts, rating and development stage

Impact	Impact rating	Phase
Impacts on public health and	Low (negative)	Construction and operation
safety		
Soil erosion impacts	Low (negative)	Construction phase
Impacts on air quality	Low (negative)	construction
Waste generation	Low (negative)	Construction and operation
Socio-economic impacts	High (positive)	Operation
Visual impacts	Low	construction

5.1 Positive Environmental and Social Impacts

The anticipated positive impacts include the following:

5.1.1 Positive environmental impacts

5.1.1.1 Erosion control

The proposed project will control erosion through planting of grass cover and trees in the project site.

5.1.1.2 Rainwater harvesting

The proposed construction works will come along with installation of gutters and rainwater harvesting systems to increase water storage and reduce pressure on existing water resources.

5.1.1.1 Improved management of liquid waste

The proposed sub-project construction works include augmentation of existing drainage works for storm water and foul/grey water evacuation and construction of a soak pit.

5.1.2 Positive social impacts

5.1.2.1 Improved Income levels

The proposed project will allow tomato farmers to increase production and provide value addition. Additionally, the resources that would otherwise be wasted such as produce from the farms will be recycled for animal feeds or manure. The cumulative effect would lead to an overall improved livelihood at household level

5.1.2.2 Capacity building of farmers and county agriculture office

The proposed sub-project has an extensive capacity building component for farmers. Through the county department of agriculture farmers will be trained on crop husbandry practices especially management of tomatoes all the way to the market.

5.1.2.3 Creation of employment opportunities for residents of the project area

The proposed project will provide short term and long-term employment opportunities to the local community. The construction phase will provide short-term opportunities for casual work

and semi-skilled labour. During the operational phase, long-term employment opportunities will also be created which will generate income and improve their livelihoods

5.1.2.4 Creation of business opportunities

Residents of the wards will benefit from taking their produce to the tomato aggregation facility. There will be minimal post-harvest loses and the shelf life of the farm produce will be prolonged hence providing an opportunity to sale the produce when prices are favourable to the producers. The fresh tomatoes can even be value added to increase the shelf life and prices

5.1.2.5 Increased revenue generation by the County and National Government

The project will contribute to the county and national government kitty. The contractor will pay Value Added Tax (V.A.T) on purchasing materials for the project. Construction workers will also pay income tax from their earnings while working on the project. The project after completion will allow the county government to collect revenue from provision of selling of tomatoes through cess.

5.1.2.6 Injection of money to the local economy

There will be a short-term increase in economic activity around the project area. The construction labour force will require food and other items that will be bought from the local community. The procurement of tomato processing unit and it other auxiliaries will provide opportunities for injection of money to the local economy.

5.1.2.7 Proper utilization of available space

The proposed project will ensure proper utilization of the existing otherwise un-utilized space to include all the amenities necessary at the factory. In the absence of the producer organization, the space would lie idle and the existing offices would remain in dilapidated form in dire need of refurbishment.

5.2 Negative Environmental and Social Impacts during the Construction Phase and Mitigation Measures

5.2.1 Negative environmental impacts during construction phase

5.2.1.1 Increased exposure to loose black cotton soils

The proposed project site is characterised by black cotton soils, where cost of construction works is high. This will provide an opportunity to install a container because digging a foundation to construct the facility would end up being expensive

Mitigation:

The following control measures have been proposed.

- Install prefabricated containers and improve on the infrastructure for the building works
- Ensure the building are oriented with the existing contours to minimise soil disturbance and exposure to erosion.

5.2.1.2 Increased noise and vibration generation

The main sources of noise expected from the construction activities will be from vibrations from construction equipment during foundation works, hacking of surfaces during building refurbishments, incoming construction vehicles to materials and equipment. Occupants of

nearby government offices and the site workers are likely to be affected by the occasional noise but this can be controlled within acceptable limits.

Mitigation:

The following noise-suppression techniques will be employed to minimise the impact of temporary construction and refurbishment noise at the sub-project site.

- Ensure PPE such as ear muffs are provided to the workers where necessary
- Construction works should be done during the day when people are away and also the outside environment is also noisy.
- Ensure that the machines are serviced promptly as required.

5.2.1.3 Air quality degradation due to dust and exhaust emissions

Potential air quality degradation will occur as a result of vehicular and equipment emissions/exhaust gases. Additional air quality degradation will occur during painting especially from refurbishment works and construction finishes. Most Paints release VOCs (Volatile Organic Compounds) – chemicals that readily evaporate into the air that could cause indoor air quality problems. Dust generation could also occur during soil stripping for foundation works and vehicular movements on earth roads

Mitigation:

- Evacuate all occupants of the buildings to be refurbished until the refurbishment works are complete.
- Construction workers should be provided with appropriate PPE
- Sprinkle water on uneven project site areas and nearby access roads to site to minimise dust

5.2.1.4 Increased generation of solid wastes

Project construction activities will generate minimal solid wastes since the project involves minimal earthworks, concrete works and roofing. It anticipated that there will be waste from packaging, excavation overburden, and steel wrappings, timber remains from formwork, stone pitching chippings, paint chippings and packaging among others.

Mitigation:

- Use of an integrated solid waste management system i.e., the 3 R's: 1. Reduction at source
 Reuse 3. Recycle where possible.
- Reuse packaging materials such as cartons, cement bags, empty metal and plastic containers to reduce waste at site;
- Waste collection bins / receptacles to be provided at the project site

5.2.1.5 Visual impacts and aesthetics

Excavation and refurbishment works will result in changes in the physical appearance of the project site. Volumes of earth will be excavated and stockpiled while construction materials such as sand and ballast will also be stockpiled at the site. Construction waste may also litter the site and the surrounding area and cause visual intrusion. This will be of a low magnitude and will only occur during construction phase.

Mitigation

- Regular site clean-up to prevent littering
- All excavated material should be compacted to minimize soil erosion
- Restrict project activities to the actual project site
- Establishment of a site store for storage of materials, tools and equipment

Negative Social impacts during construction phase

5.2.1.6 Occupational Health and Safety Hazards

During construction the movement of construction materials may result in accidents if good supervision is not provided. Accidental cuts and bruises are common among construction workers as a result of the use of machinery and hand tools, an impact that needs due consideration.

Mitigation:

- Provide appropriate personal protective equipment (PPE).
- Implement a programme of assessment of routine monitoring of worker health.
- Redesign manual processes and rotate work tasks to reduce heavy lifting/repetitive activities, and where possible install mechanical lifting aids.
- Train workers in general safety procedures including first aid and fire safety.
- Use designated routes for machinery and personnel
- Engineer out sharp edges and access to dangerous parts of machinery through a hierarchy of controls (permanently fixed physical barrier, interlocked physical barrier, physical barrier, presence sensing system).
- Ensure that there are provisions for reporting incidents, accidents and dangerous occurrences

5.2.1.7 Increased Spread of STD, HIV & AIDS

There is likely increase in incidences of health impacts such as sexually transmitted diseases including HIV & AIDS especially during construction of the project. Possible illicit behaviours such as prostitution may increase in the town leading to spread of STD, HIV/AIDS due to influx of workers and perceived 'quick money' from the sub-project albeit on a smaller scale.

Mitigation

The following should be implemented to mitigate sspread of STD, HIV & AIDS:

- Contractor to develop appropriate awareness content and implement awareness sessions for workers on HIV/AIDs and other STDs. This can be done through the use of educative posters and tool box meetings.
- Ensure an adequate and accessible provision of condoms to workers both male and female.
- Contractors to develop a code of conduct and ensure it's signed by all workers with physical presence on site as well as within the project area.

5.2.1.8 Increased Spread of COVID-19

The construction activities will introduce new workers to the site increasing the risk of contracting and spreading COVID-19 from workers who could be infected with the virus. Due to the current spread of COVID-19 which has become a pandemic, if not well mitigated this impact may be high.

Mitigation

The project contractor to establish prevention and mitigation measures against COVID-19 and arrangements for dealing with suspected and confirmed COVID-19 cases. The measures should include but not limited to:

- 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 use of suitable hand sanitizers or handwashing with soap and water
- Strict and proper use of face masks throughout all working hours and public places.
- Implement Ministry of Health guidelines for staff safety and health, including daily temperature checks for everyone in the workplace
- Increase frequency of disinfecting commonly touched surfaces/objects

5.2.1.9 Gender Based Violence(GBV) and Sexual Harassment

This impact is triggered during project construction phase when the contractor fails to comply with the gender inclusivity requirements in hiring of workers and entire project management as per required by Gender Policy 2011 and 2/3 gender rule.

Mitigation

- Ensure clear human resources policy against sexual harassment that is aligned with national law
- Integrate provisions related to sexual harassment in the employee COC
- Ensure appointed human resources personnel to manage reports of sexual harassment according to policy
- The Contractor shall require his 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 will implement provisions that ensure that gender -based violence at the community level is not triggered by the Project, including:
- Effective and on-going community engagement and consultation, particularly with women and girls;
- Review of specific project components that are known to heighten GBV risk at the community level, e.g., compensation schemes; employment schemes for women; etc.

5.2.1.10 Sexual Exploitation and Abuse (SEA)

This impact refers to sexual exploitation and abuse 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.

Mitigation

Given that the project will be smaller in nature, it is anticipated that the mitigation will be through management and coordination to include integration of SEA in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection and investigation and disciplinary procedures; training for all project management; management of coordination

mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated PSEA focal points in the project and trained community liaison officers.

5.2.1.11 Child Abuse

Children within project areas 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

- The contractor will develop and implement a Children Protection Strategy that will ensures minors are protected against negative impacts associated by the Project including on SEA...
- All staff must sign, committing themselves towards protecting children, a contract which clearly defines what is and is not acceptable behaviour
- Children under the age of 18 years should not be hired on site as provided by Child Rights Act (Amendment Bill) 2014.
- Wherever possible, ensure that another adult is present when working in the proximity of children.
- Refrain from hiring children for domestic or other labour, which is inappropriate given their
 age, or developmental stage, which interferes with their time available for education and
 recreational activities, or which places them at significant risk of injury.

5.3 Negative Environmental and Social Impacts during Operational Phase and Mitigation Measures

5.3.1 Negative environmental impacts during operational phase

5.3.1.1 Solid waste generation from tomato processing facility

The proposed tomato aggregation, cold storage, processing and marketing will translate to more waste. Additionally, the processing leads to production of PPE waste and plastic waste used for packaging.

Mitigation:

- The tomato production farmers to be trained on appropriate waste management
- Farmers to be trained on use of the stalks to make animal feeds
- The waste to be used as manure for crops/pasture

5.3.1.2 Pressure on the influx of people from outside

Influx of people seeking for jobs will create discomfort to the community cases of insecurity is likely to rise. There will be increase in conflict over access to employment opportunities

Mitigation:

- Sensitize and create awareness to the local administration and the community
- Establishment of support to structures and control measures;
- All new persons to register with the local administration

5.3.1.3 Pressure on the water resource/increased demand

Water availability and quality are important to facility since this is a food processing facility. Water is supplied for cleaning the tomatoes upon receivership at the waiting bay. Therefore,

appropriate water conservation measures will need to be continuously in place to ensure no water is wasted and that there is sufficient water to meet daily water usage in the tomato factory

Mitigation:

- Sensitize workers or management to ensure expeditious repair of pipe leaks and any breakages.
- Sensitize management to install floats with shut-off when filling drinking tubs or sinks;
- Rinse small equipment in sinks/buckets rather than running water.

5.3.2 Negative social impacts during operational phase

5.3.2.1 Leadership issues in management

During operation, the management of the group will be exposed to the group increased income levels. As such, there will be tendency to mismanage funds meant for group advancement/development due to personal interests. This may limit the group growth and risk membership loss.

Mitigation:

- Capacity building to the management committee should be undertaken periodically by KCSAP
- The management of funds should be handled by dully elected finance committee with appropriate gender representation.
- There should be periodic update to the members on the incomes received and the expenditure to enhance transparency and confidence in the committee.

5.3.2.2 Conflicts on employment

There is therefore likelihood in conflicts arising from differing interest from the members. This may lead to a possible fall-out that would be detrimental to the advancement of the project.

Mitigation:

- The management committee should be constituted by representatives from all the tomato production catchment areas to include men, women and the youth.
- Training on management should be continuous to enlighten the management on the importance of shared goals

5.3.2.3 Occupational Health and safety Hazards

It's notable that the operational activities of the project will present various risks ranging from storage, preservation, processing unit where machines will be installed among others. Therefore, there needs to be measures in place to ensure the exposure to the risk is minimized.

Mitigation:

- Ensure that all factory staff undergo requisite trainings and possess relevant skills.
- Ensure the personnel are provided with appropriate PPE for carrying out the procedure such as gloves, gumboots and overalls.

5.3.2.4 Spread of COVID-19

The potential for the spread of any infectious disease like COVID-19 is high. The project operational activities will involve among others aggregation and marketing. There is also the

risk that the project may experience large numbers of community becoming ill and will need to consider how they will receive treatment, and whether this will impact on local healthcare services

Mitigation

The project management committee will develop SOPs for managing the spread of Covid-19 during project operations. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions; -

- Ensure all County staff are vaccinated against COVID-19 and sensitize farmers to take up the vaccine
- Avoid concentrating of more than 15 persons or workers at one location. Where more than one person is gathered, maintain social distancing of at least 2 meters
- The project shall put in place means to support rapid testing of suspected workers for covid-19:
- Install handwashing facilities with adequate running water and soap, or sanitizing facilities at receiving bay and meetings and ensure they are used;
- Ensure routine sanitization of shared social facilities and other communal places routinely

5.3.2.5 Gender Based violence and Sexual Harassment

While such cases are difficult to assess, there is likelihood of rape cases during project operations. This impact is triggered during project operation phase when the project management unit fails to comply with the Gender Inclusivity requirements in entire project management team as required by Gender Policy 2011 and 2/3 gender rule.

Mitigation

- Integrate provisions related to sexual harassment in the employee COC in project management committee
- The Project management committee in collaboration with county department of social services will implement provisions that ensure that gender-based violence at the community level is not triggered by the Project, including: effective and on-going community engagement and consultation, particularly with women and girls; review of specific project components that are known to heighten GBV risk at the community level, e.g. compensation schemes; employment schemes for women
- The project management committee in collaboration with county department of social services shall develop specific plan for mitigating these known risks, e.g. sensitization around gender-equitable approaches to compensation and employment; etc.
- The project management committee will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project management unit.

5.3.2.6 Sexual Exploitation and Abuse (SEA)

This impact refers to sexual exploitation and abuse committed at all stages of the Project, especially when employees and community members are not clear about prohibitions against SEA in the Project.

Mitigation

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). The SEA action plan will include how the project will ensure necessary steps are in place for:

- Response to SEA: including survivor-cantered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures; staff reporting mechanisms; written procedures related to case oversight, investigation and disciplinary procedures at the project level, including confidential data management;
- Engagement with the community: including development of confidential community-based complaints mechanisms discrete from the standard GRM; mainstreaming of PSEA awareness-raising in all community engagement activities; community-level IEC materials; regular community outreach to women and girls about social risks and their PSEA-related rights;

5.4 Negative Environmental and Social Impacts during Decommissioning Phase and Mitigation Measures

5.4.1 Negative environmental impacts during decommissioning phase

5.4.1.1 Air Quality Degradation due to dust and exhaust emissions

Potential air quality degradation will occur as a result of vehicular and equipment emissions/ exhaust gases. Generation of dusts from trucks and vehicles accessing the project site as well as piling of demobilised material is expected to degrade the local air quality.

Mitigation:

- Workers engaged in decommissioning should be provided with appropriate PPE
- Sprinkle water on uneven/bare areas at project site areas and nearby access roads to minimise dust

5.4.1.2 Increased generation of solid wastes

Decommissioning activities will generate various solid wastes ranging from debris, wrappings, concrete, human wastes to food wastes etc. Poor handling and disposal of such waste will lead to environmental pollution.

Mitigation:

- Careful dismantling to ensure materials remain as re-usable as possible
- Selling or donating the re-usable or recyclable materials to avoid waste
- Cleaning and proper site rehabilitation by adhering to a NEMA approved Decommissioning plan

5.4.2 Negative social impacts during decommissioning phase

5.4.2.1 Loss of livelihood

During project operation there will be income generated from undertaking tomato production and value addition. The income is expected to reduce following termination of the project.

Mitigation

 The impact is low as it is anticipated and can be mitigated by training farmers on other forms of business and other strategies for continuous improvement

5.4.2.2 Occupational Health and Safety Hazards

During decommissioning phase, the movement of construction materials may result in accidents if good supervision is not provided. These is anticipated to occur at decommissioning stage of project whereby safety risks resulting from any steel cuttings, uncovered manholes and steel structures which are potential causatives of physical injury to passers-by if this phase is not well handled.

Mitigation:

- Provide appropriate personal protective equipment (PPE).
- Ensure all waste is removed and appropriately disposed as per the decommissioning plan.
- Ensure that there are provisions for reporting incidents, accidents and dangerous occurrences

6 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN (ESM&MP)

Introduction

The project proponent acknowledges that the proposed project activities will have some impacts on the biophysical environment, health and safety, and socio-economic well-being of Tomato farmers and nearby occupants. Thus, the main focus will be on reducing the negative impacts and maximizing the positive impacts associated with the project activities through a programme of continuous improvement. An environmental and social management and monitoring plan has been developed to assist the proponent in mitigating and managing environmental and social impacts associated with the life cycle of the project. It is noteworthy that key factors and processes may change through the life of the project and considerable provisions have been made for dynamism and flexibility of the ESM&MP. As such, the ESM&MP should be subjected to periodic review for improvement purposes.

Tables 6-1 form the core of this ESM&MP for the construction, operational and decommissioning phases of the proposed Raku tomato aggregation, processing and marketing facility. In general, the tables outline the potential environmental, socio-economic, health and safety risks associated with the project and details all the necessary mitigation measures, their financial costs, as well as the persons responsible for their implementation and monitoring. The ESM&MP should be used as checklist in the initial environmental audit of the project.

It worth noting that the key responsibilities regarding compliance to the proposed ESM&MP during the construction period rest on the Contractor whereas those in operation stage will be the responsibility of the proponent (Raku Community Based organization). It is important that the project proponent ensures adequate monitoring and evaluation for the Contractor for non-conformances and adequate resources are allocated for operational stage.

Table 5.4—1: Environmental and Social Management and Monitoring Plan (ESM&MP)

	nvironmental and Social Management and I			•	N/I	C4
Potential Impact	Proposed Mitigation Measures	Responsibi lity	Timeline	Performance	Means of Verifying	Cost (Ksh)
_		пц		Indicator		(KSII)
Construction ph		T				Ī
Increased	• Erosion control through planting of grass	Contractor	Continuous	• Number of trees	• % slope at the project	Contactor
exposure to	cover and trees in the project site		during	planted and amount	site	cost
soil erosion	• .Ensure the building is oriented with the		Construction	of grass	 Soil loss rate 	
	existing contours to minimise soil			Direction/orientatio		
	disturbance and exposure to erosion			n of the building		
Increased	• Ensure PPE such as ear muffs are provided	Contractor	Continuous	• PPE provided to	 Noise Levels 	Contactor
noise and	to the workers where necessary		during	workers	• Duration/time of the	cost
vibration	• Construction works should be done during		Construction	• No. of cases	day	
generation	the day when people are away and also the			reported relating to	Reports	
	outside environment is also noisy.			noise pollution		
	• Ensure that the machines are serviced					
	promptly as required					
Air Quality	• Construction workers should be provided	Contractor	Continuous	• No of Workers/	• Frequency of water	Contactor
Degradation	with appropriate PPE		during	vehicle operators	sprinkling	cost
due to dust and	• Sprinkle water on uneven project site areas		Construction	sensitized on	• PPE provided to	
exhaust	and nearby access roads to site to minimise			reduced emission	workers	
emissions	dust			• No. of PPE	•	
			~ .	supplied		
Increased	• Use of an integrated solid waste	Contractor	Continuous	• No. of waste	• Type of waste	Contactor
generation of	management system i.e., the 3 R's: 1.		during	bins/receptacle	Designed waste	cost
solid wastes	Reduction at source 2. Reuse 3. Recycle		Construction	Quantity of Waste	collection points	
	where possible.			No of designated	established	
	• Reuse packaging materials such as cartons,			waste collection	• Waste collection	
	cement bags, empty metal and plastic			points	company engaged	
	containers to reduce waste at site;					
	Waste collection bins / receptacles to be provided at the project site.					
372	provided at the project site	Controcts	Therewaleast	X/ 1 C	C1 · · · · ·	Cantasta
Visual Impacts	Regular site clean-up to prevent littering	Contractor	Throughout		• Cleaning up of waste	Contactor
and aesthetics			the	cleaned up		cost

	All excavated material should be compacted		construction	•	Area compacted	•	Compacting loose	
	to minimize soil erosion		phase	•	Number and size of		soils	
	Restrict project activities to the actual project		phase		materials stores	•	Establishment of a	
	site				erected stores	•	materials store	
	• Establishment of a site store for storage of			•	Area of site	•	Site rehabilitation	
	materials, tools and equipment				rehabilitated	•	Site renaumation	
Occupational	1 1	Contractor	Continuous		No. of HSE	_	DDE massided	Contactor
Health and	• Provide appropriate personal protective equipment (PPE).	Contractor	during	•	trainings	•	PPE provided	cost
safety Hazards			construction		U	•	Recorded accidents	Cost
Safety Hazarus	• Implement a programme of assessment of routine monitoring of worker health.		construction	•	No. PPE provided First Aid Kits		occurrences and near	
	<u> </u>			•			misses	
	Redesign manual processes and rotate work tasks to reduce heavy lifting/repetitive				availability	•	OSH sensitization conducted	
	activities, and where possible install			•	Availability of		conducted	
	mechanical lifting aids.				sanitation facility Potable water			
	Train workers in general safety procedures			•				
	including first aid and fire safety.			•	No. of Accidents/incidents			
	 Use designated routes for machinery and 				incidents			
	personnel							
	• Engineer out sharp edges and access to							
	dangerous parts of machinery through a							
	hierarchy of controls (permanently fixed							
	physical barrier, interlocked physical barrier,							
	physical barrier, presence sensing system).							
	• Ensure that there are provisions for reporting							
	incidents, accidents and dangerous							
	occurrences							
Increased	1 11 1	Contractor	Throughout	•	No of Cartons of	•	Presence of Condoms	Contactor
Spread of STD,	content and implement awareness sessions		construction		condoms	•	Number of persons	cost
HIV & AIDS,	for workers on HIV/AIDs and other STDs i.e.		Period		distributed and to		sensitized/ workshops	
	use of educative posters and tool box				the relevant persons			
	meetings.			•	No. of HIV			
	Ensure an adequate and accessible provision				trainings and			
	of condoms to workers both male and female.				awareness			
					campaign			

	• Contractors to develop a code of conduct and ensure it's signed by all workers with physical presence on site as well as within the project area.			•	Code of Conduct			
Increased Spread of COVID-19	 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 Strict and proper use of face masks throughout all working hours and public places. 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 	Contractor	Throughout construction Period	•	Number of Handwashing facilities/sanitizers No. of appropriate PPE (Face Masks) distributed No. of trainings Vaccinations undertaken No. of Covid-19 incidences reported Number of persons working at the site	•	Incidences reported Reusable phase masks distributed Hand washing facilities Observance of social distance	30,000
Gender based violence and sexual harassment	 Integrate provisions related to sexual harassment in the employee COC The Contractor to ensure compliance with a Code of Conduct with specific provisions on protection from sexual exploitation and abuse Community and construction workers awareness on GBV Separate toilets for each gender Establishment of appropriate grievance redress mechanisms 	Contractor	Throughout construction Period	•	No. of cases of GBV reported Number of sensitization workshops	•	Human resource policy in place Code of Conducts signed Separate sanitary convenience	10,000
Child abuse	Contractor develop and implement a Children Protection Strategy	Contractor	During construction	•	Number of school going children who have dropped out of school	•	Child Protection Strategy	20,000

	 All staff signing and committing themselves towards protecting children, a contract which clearly defines what is and is not acceptable behaviour Children under the age of 18 years should not be hired on site as provided by Child Rights Act (Amendment Bill) 2014. 			•	Number of workers to have ratified to child protection strategy No. of children/persons below the age of 18 yrs employed	•	Workers signing and committing to child protection strategy Age of employees Sub-Total	280,000
Operation phase	· · · · · · · · · · · · · · · · · · ·						Sub Total	200,000
Solid Waste generation from tomato processing factory Inadequate skilled manpower	 The farmers to be trained on appropriate waste management Workers/Farmers to be trained on use of tomato waste to generate manure The tomato waste to be used as manure for crops or animal feed Training farmers on best practices of sustainable tomato production and storage. Establishment of support structures such as cold storage facilities 	Proponen t RAKU community based CBO Proponen t RAKU communi ty based CBO	Throughout operation Throughout operation	•	Number of trainings conducted Volume of manure generated per household Number of trainings conducted	•	Trainings on waste management Quantities of tomato product waste generated in the factory and farm level Trainings on tomato management	30,000
Pressure on influx of people	 Link up with the local administration and provide jobs to the local Engage nyumba Kumi and monitor influx 	RAKU communi ty based CBO	Throughout operation	•	Number of people migrating to the factory area	•	Record of the immigrants and their potential capacity	
Pressure on the water resource/incre ased demand	 Sensitize workers to ensure expeditious repair of pipe leaks and any breakages. Rinse small equipment in sinks/buckets rather than running water. Installation of water storage facilities in the facility 	Proponent RAKU communi ty based CBO	Throughout operation	•	Number of sensitization workshops held	co	Water storage facilities at farm level Sensitization workshops held stalled water inservation ructures/facilities	20,000

Leadership issues in management	 Periodical capacity building to the RAKU producer organization by KCSAP Elected finance committee with appropriate gender representation to handle funds. Periodic update to the members financial status- transparency 	Proponent RAKU and KCSAP county office Throughou operation	 Number of trainings conducted Number of meetings held No of reported grievances Periodic financial status updating 	 Training of PMCs GRM mechanisms Periodic financial status update 	10,000
Conflicts management of the tomato processing facility	 The management committee should be constituted by representatives from all the sectors to include men, women and the youth. Training on management should be continuous to enlighten the management on the importance of shared goals 	Raku Tomato Communit y based organizatio n	 Number of persons under age of 35 yrs in management committees Number of trainings carried out Number of women engaged in management 	 Presence of Women, youth and men in management committees Management Trainings Genders representation level 	20,000
Occupational Health and safety Hazards	Ensure the personnel are provided with appropriate PPE for carrying out the procedure such as gloves, gumboots and overalls.	Raku Throughout operation Communit y based organizatio n	 No. of accidents reported Number and types of PPE procured No. of sensitization meetings 	 PPE procured Accidents register Safety awareness sensitization workshops/ meetings 	40,000
Spread of Covid 19	 Sensitize dairy farmers and county staff to take up COVID-19 vaccine Avoid concentrating of more than 15 persons or workers at one location. Where more than one person is gathered, maintain social distancing of at least 2 meters The project shall put in place means to support rapid testing of suspected workers for covid-19; 	Raku Tomato Communit y based organizatio n and County health department Throughou operation Period Period	Š	 Incidences reported Reusable phase masks distributed Hand washing facilities Observance of social distance 	30,000

	 Install appropriate handwashing at designated locations; Ensure routine sanitization of shared social facilities and other communal places routinely 			•	No. of Covid-19 incidences reported at offices			
GBV and Sexual harassment	 Integrate provisions related to sexual harassment in the employee COC in project management committee PMC in collaboration with county department of social services ensure that gender-based violence at the community level is not triggered by the Project The project management committee will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project management unit. 	Raku Tomato Communit y based organizatio n and Gender consultant	Throughout operation period	•	Number of recorded cases Number of sensitization workshops Human resource policy	•	Code of Conducts signed No. of cases of GBV reported	10,000
Sexual exploitation and Abuse (SEA)	 Response to SEA: including survivor-centered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures; staff reporting mechanisms; written procedures related to case oversight, investigation and disciplinary procedures at the project level, including confidential data management; Engagement with the community: including development of confidential community-based complaints mechanisms discrete from the standard GRM; mainstreaming of PSEA awareness-raising in all community engagement activities; community-level IEC materials; regular community outreach to women and girls about social risks and their PSEA-related rights; 	Raku Tomato Communit y based organizatio n and Gender consultant	Throughout operation phase	•	Number of recorded cases Number of sensitization workshops Human resource policy	•	Code of Conducts signed No. of cases of GBV reported	10,000

						Sub-Total	200,000
Decommissionin	g phase						
Air Quality Degradation due to dust and exhaust emissions	 Workers engaged in decommissioning should be provided with appropriate PPE Sprinkle water on uneven/bare areas at project site areas and nearby access roads to minimise dust 	Contractor	Continuous during decommissio ning	•	No. of workers sensitized PPE provided Frequency of watering	 Workers/vehicle operators sensitized on reduced emission PPE provided to workers Sprinkling of water 	10,000
Increased generation of solid wastes	 Careful dismantling to ensure materials remain as re-usable as possible Selling or donating the re-usable or recyclable materials to avoid waste Cleaning and proper site rehabilitation by adhering to a NEMA approved Decommissioning plan 	Contractor	Continuo us during decommi ssioning	•	Recycling solid waste Rehabilitated site Designed waste collection points established Waste collection company engaged	 Quantity of waste Area rehabilitated No. of solid waste bins/receptacles Type of Waste 	10,000
Noise Generation from dismantling of machinery	 Ensure PPE such as ear muffs are provided to the decommissioning workers where necessary Decommissioning works should be done during the day. Ensure that the machines are serviced promptly as required 	Contractor	Continuous during decommissio ning	•	PPE provided to workers No. of cases reported relating to noise pollution	 Noise and Vibration levels PPE provided Time of Operation 	20,000
Loss of livelihood	The impact is low as it is anticipated and can be mitigated by training farmers on other forms of business and other strategies of survival	Proponent	Continuous during decommissio ning	•	Training on alternative business	No. of trainings conducted	20,000
Occupational Health and Safety Hazards	 Provide appropriate personal protective equipment (PPE). Train workers in general safety procedures including first aid and fire safety. 	Contractor	Continuous during decommissio ning	•	Training of workers on safety Provision of PPEs Install first aid kits	 No. of HSE trainings Number of PPEs provided First Aid Kits availability 	30,000

ESIA for the prope	osed fresh Tomato	, in Ragengni	, Rarieda Sub-Count	v, Siava County.
Estimate the prop	0000 11 0011 1 0111010	// ····· // - · · // // // // // // // // // // // //	, 1101110010101010	,, 0 201, 01 00 012 10, 1

March, 2022

 Use designated routes personnel Ensure that there are proincidents, accidents occurrences 	•	Reporting of incidents Set up sanitation facilities Designated routes for machinery and personnel	incidentsExistence of routes	
			Sub-To	otal 110,000
Total Cost of ESM&MP(Kshs)				600,000

7 CONCLUSION AND RECOMMENDATION

The Tomato aggregation, packaging and marketing producer organization has minimal impacts to the environment, social and economic being of the project site during the various phases of project. To enable the project to be realized then, specific mitigation measures have been proposed. The following recommendations are prescribed for the avoidance and mitigation these environmental and social impacts from the proposed project are as highlighted.

- (i) A complete audit of the tomato factory be undertaken and submitted to NEMA a year after the project is commissioned to ensure that all the proposed mitigation measures have been complied with;
- (ii) The community members suggested that they be provided with manuals and learning materials where they can get more information about increased quality tomato production
- (iii)Training of trainers who will reach out to more farmers. Suggestions were made to have representatives who can channel farmer views to the Ragegni Agriculture offices.
- (iv) The County Director of Agriculture and department of food science to provide technical guidance on running of the tomato factory. The proponent, supervising engineer and the contractor should be provided with a copy of the ESMMP and hence should work together to ensure full implementation of the ESMMP for proper enhancement and mitigation of impacts emanating from the project
- (v) Capacity building to include child labour rights, alcohol and drug abuse and gender related aspects to ensure gender mainstreaming.

It therefore concluded that the positive impact outweighs the negative impacts raised. Mitigation measures for the negative impacts have been given and in the end it is economically viable and therefore the project should be allowed to proceed.

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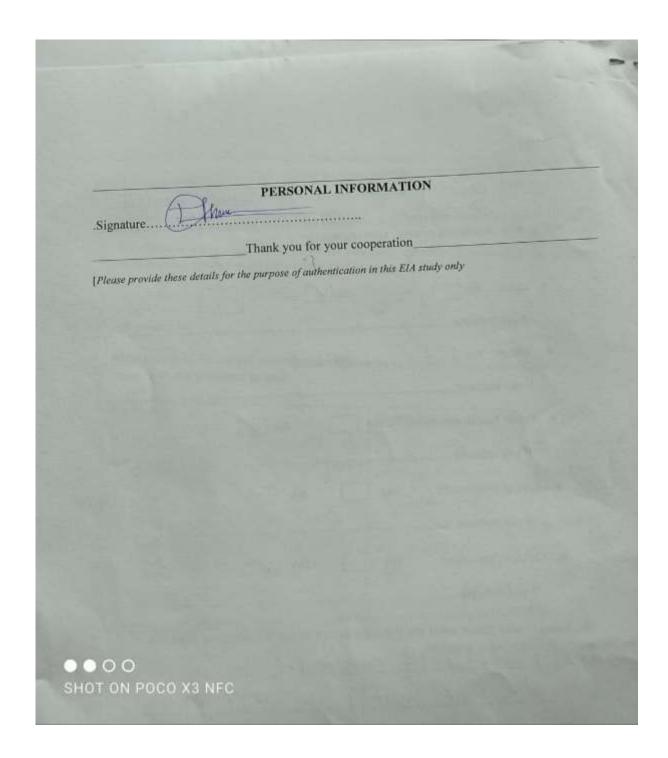
APPENDICES

i) Copies of filled questionnaires

CONCEDITION OF EDEEN TO	L AND SOCIAL IMPACT ASSES OMATO AGGREGATION PACKAGING AST UYOMA LOCATION NORTH UYOR	AND MARKETING UNIT III
department of Crops through (KCSAP), intend to support a ORGANIZATION to construct a in a bid to ensure safe and sus Authority (NEMA) under EMCA impact Assessment is done an concerns of the interested a community/group/institution of your comments on the expect project.	Livestock, Fisheries and Cooperation World Bank Funded Kenya Climat the proponent RAGENGNI KUNYA solar powered tomato aggregation, pstainable environment, the National A (Amendment) of 2015 Section 58 red public participation be undertaked ind/or affected stakeholders. Thus within/around the proposed projected socio-economic and environment.	RAKU) COMMUNITY BASED sackaging and marketing unit. Environmental Management quires that an Environmental in to establish the views and as a member of the local it area we kindly request for
Your response will be treated v	with utmost confidentiality	
Section A		
Response details		Telephone
Name	Institution/Organization	
ODWING O'	MAD-HET CIBO	0727799943
1. Gender Male	Female	
Male L	Commission of the commission o	
Age of the Respondent.	38 JEPPU	y 2002 (years)
Age of the Respondent. For how long have you k	38 YEARL	y 200λ (years)
Age of the Respondent For how long have you keetion B	38 JEANS	у <u>2002</u> (years)
Age of the Respondent. For how long have you keetion B	38 JEANS	
Age of the Respondent. For how long have you keetion B luman Natural Environmental (38 JEPPU known or worked with the Societ	
2. Age of the Respondent 3. For how long have you know the section But an analysis of the property of the	28 JEPPU cnown or worked with the Societ Concerns oposed Tomato aggregation (pro	ocessing and bulking) unit

Yes No	
If yes explain	cord construction/establishment of the
If yes explain Do you have any rejection/reservation on propo multipurpose tomato aggregation, storage and s	packaging unit
Yes No	1
If yes explain JB	and environmental
If yes explain	socio economic eno cirr
	Negative
Positive Hacill Act No.	- Lecrons of he A Material vall
Will get Job Will Emporter the	affect here
Commund	- Worke disposal effects on
the burty	human health
- Value addition of 1941 towards increase shelf litt.	- Noise pollution
formers and products	
5 Suggest mitigation measure for any negative	impact that may result from implementing
the mediact	The state of the s
- Curstuct a soute 2 V	014
- Mountainy author of	resple

5 Suggest mitigation measure for any negative impact that may result from implementing the project CHCDNG answered the public health. 6 a) Do you anticipate any conflict or complain against the proposed poultry slaughtering, selling and marketing project with respect to:
Land Yes No If yes indicate
Water Yes No If yes Indicate
Public health and safety? Yes No
If yes indicate Loss of livelihood? Yes No
If yes indicate Cultural/heritage? Yes No
If yes indicate Others (b) If any in 6(a) above what are the mechanism to put in place to resolve the conflicts/complaints amicably the awarenes i. Longland Sceunly / Outsower Experts ii.
7 On the whole, would you have any objections to the project being implemented?
8 In which category do you fall? (tick where applicable: you can tick more than one box) Neighbour resident Project official Stakeholder
Stakeholder Community leader/Member Community leader/Member SHOT ON POCO X3TNFC
SHOT ON POCO X3 NFC



ii) Minutes of public consultation meeting







MINUTES OF PUBLIC CONSULTATION MEETING FOR PROPOSED CONSTRUCTION OF FRESH TOMATO AGGREGATION, PACKAGING AND MARKETING AT THE CHIEF'S COMPOUND AT RAGENGNI CENTRE ON 28th, February, 2022 AT 10:00 AM.

MEMBERS PRESENT

Attached as an Appendix – List of Participants

AGENDA

- 1. Introductions and opening remarks
- 2. Purpose of the meeting
- 3. Proposal by RAKU Community based organization on Fresh Tomato Brief
- 4. ESIA Lead Expert enlightenment and sensitization
- 5. Concerns, Questions and Responses
- 6. A.O.B. & adjournment

PRELIMINARY

The meeting started with a word of prayer from the secretary Emily Otieno at 10:00hrs. The meeting was held at local administration compound on 21st February, 2022. The meeting was hosted and chaired by Chairman RAKU Tomato farmers Community based organization. A total of 50 members attended the ESIA public meeting. The meeting started at 10:15 hrs.

MIN. 1 – 28/2/2022: INTRODUCTION & OPENING REMARKS

The project coordinator Siaya County welcomed the attendants for a round of introductions starting by highlighting the need to put in place measures for covid-19 prevention by adhering to Ministry of Health guidelines that included wearing of appropriate masks, washing hands regularly or using alcohol based sanitizer and social distancing. The County Agriculture office representative introduced the members, thereafter Kenya Climate Smart Agriculture Project (**KCSAP**) County Environment and Social Safeguard Officer (**CESSCO**) Bernard Ayagah introduced himself. This was followed by introductions from the ESIA consultants.

MIN. 2 – 28/2/2022: PROJECT BRIEF

The ESIA lead Consultant welcomed KCSAP CESSCO to give a brief about the proposed project. Mr. Bernard Ayagah from KCSAP Siaya County explained that the proposed project was a Tomato Aggregation packaging and marketing Project comprising of; development of receiving bay, sorting bay, cold storage facility, store installation of a processing unit, and shop. The KCSAP through county office will support Staff Capacity Development and supporting the infrastructure

He emphasized that the project will be owned by the community and the need for the active involvement of members. He gave a brief overview of KCSAP support to producer organization in the county among them being

RAKU Tomato aggregation, processing packaging and marketing, support to reduce post-harvest losses

He recognize the presence of PLAN International which has been partnering with RAKU tomato farmers and introduce Mr Dan from plan who promised to cooperate with the team in promoting production and market access

MIN. 3 – 28/2/2022: PURPOSE OF THE MEETING

The consultant explained to the participants that consultation and public participation process is a requirement by the Kenyan Constitution and a mandatory procedure stipulated in the Environmental Management and Coordination Act (EMCA) CAP 387 Section 58. According to section 59, and the second schedule of EMCA (Amendments 2019) new projects like the proposed RAKU Tomato, must undergo Environmental and Social Impact Assessment that includes conducting public meetings for the stakeholders, project affected persons, local community/ surrounding enterprises or interested and affected parties. The resulting summary project report must be submitted to the National Environment Management Authority (NEMA) for public and technical review, approval and subsequent issuance of relevant license to enable commencement of project implementation. The consultant also underscored the fact that the project will be funded by World Bank and the need to meet the operational safeguards which require that the project submits a summary project report prior to facilitation.

The main objective of the consultation meeting was to

- 1. Gather comments, suggestions and concerns of the interested and affected parties in the proposed project, and incorporate them in the summary project report (SPR).
- 2. Disseminate and inform the public and stakeholders about the project with Special reference to its key components and description
- 3. Create awareness among the public on the need for the ESIA for the proposed project

The ESIA team Leader then welcomed the attendants to raise their comments, concerns and suggestions anticipated from the proposed tomato aggregation and value addition enterprise

MIN. 4 -28/2/2022: POSITIVE IMPACTS ANTICIPATED BY MEMBER FROM THE MEETING

The community welcomed the project. Some of the positive impacts raised by members are listed below:

- 1. <u>Dan Okumu:</u> welcomed the project highlighting that they anticipated to benefit from improved production and reduced post-harvest losses. The members also anticipated lower cost of storage this is to prolong the value of the tomato and its products
- 2. **Grace Abungu:** Appreciated that they will be having a place to sale store their tomatoes while accessing markets outside the county
- 3. **John Ogola reiterated** that they anticipated improved income levels. He further added that they will not be incurring huge losses which may end up eating into their profits
- 4. <u>Thomas Oyoko:</u> Cautioned that the project being a mini-processing plant requires both skilled and unskilled labor. It will therefore create employment to some of the community and members of the organization
- 5. <u>Ogwang:</u> Was hopeful that the project will increase reliability. He noted that in the past, the farmers had to sell their tomatoes to middlemen at a lower price and at times incurring huge losses due to market inefficiencies.

MIN 5 – 28/2/2022: CONCERNS, QUESTION & ANSWER SESSION AND RESPONSES

The Consultant assisted by the group chairman chaired the session to allow greater participation. The community were allowed to raise questions and concerns on the project and its possible impacts. The consultant, and KCSAP representative were available to answer and provide relevant explanations to the satisfaction of participants where possible. The feedback is summarized in the Table below.

Table 1.1 Concerns by ESIA meeting attendants and Responses by Consultants and KCSAP

SN.	Issues raised by	Brief explanation	Response
	the members		
1.	Noise pollution	Members wanted to know that the plant will emit noise which will create discomfort to the residents	The technical team responded measures will be put in place to install machined with admissible noise pollution levels
2.	Waste management	There was a concern on waste from spoilt tomatoes, packaging materials and water after cleaning the tomatoes	The response was that there will be recycling of organic wastes that can be converted to manure or animal feeds Solid wastes from the packaging materials will be disposed as per the NEMA regulation either at designated places or burnt in an incinerator A waste disposal site and a soak pit will be constructed to absorb liquid waste There will be regular monitoring of the liquid effluent waste by testing it on regular basis in order to comply with NEMA industrial liquid waste disposal regulations
	Influx of people	The members reported that there will be increased influx of outsiders resulting in discomfort	The Chief and ward admin agreed that there will be a register of outsiders and their capabilities. They will also sensitize the outsiders on the need for cordial relationship
	Disposal of oils and lubricants	There was a concern on how to dispose oil spills and lubricants form the processing machine	It was agreed that there will be a designated site for collection all the spills through a drainage system and deposit in a container for disposal
5	Sexual harassment	There was concern on sexual harassment during construction and operation phase	Sensitization on SEA and harassment will be done during all phases of the project in order to create awareness

MIN 6 - 28/2/2022: SUGGESTIONS FROM MEMBERS IN ATTENDANCE

- The community recommend that more field agriculture officers to be employed to ensure timely delivery of extension service.
- The community members suggested that they be provided with capacity building in tomato production and where possible inputs to enhance tomato production
- Training of trainers who will reach to more farmers. Suggestions were made to have representatives who can channel farmer views to agriculture offices.
- The tomato waste can also be used as manure for crops and pasture.

MIN 7 – 28/2//2022: A.O.B AND ADJOURNMENT

There being no other business, the meeting ended with a word of prayer from Grace Abungu at 15.00hrs.

Signed by:

Mr. Blaise Okinyi

Environmental Social Consultant

and 28/02/2022



iii) Public participation attendace list



Kenya Climate Smart Agriculture Project (KCSAP)

Office of the CPCU - Siaya

ACTIVITY: PURIC PARTICIPATION WITH RAKY PO DATE BIJOS DATE.

NO	NAME	ORGANIZATION DESIG			CONTACT	12020	
1.			52316	MOBILE	EMAIL	SIGN	
2.	Rosemary Diango	RAKu		0723 788 381		Ru	
	MERCHLINE ADIPO	RAKU		0701140597		TOTAL	
3.	EVENS O. Avenuent	Profe	-		Grans a region com	EL.	
4.	ISABELLA A. ARUGA	RAKU		0714517214	DAG TINGE	Ku	
5.	MARGARET - X. NTAKELH	RAKU		D7254667471		18/100	
б.	MORNICA LOWS BUSIN	RAKU		0726466471			
7.	PHOEBE ADHIANGO OTIEND	DAVIS		0720623544		MO	
1	Jane Adhiambo	RAKL		072476183		#\$ ACL	
9.	William Odhiambo	Daks		0728171311		@	
	SARKLINE A. OCHIENIG			0713273515		De	

P. O. Box 3 - 40600, SIAYA

Mob: +254 722 943269





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NO	NAME	ORGANIZATION	DESIG		TACT	20000
1.		200000000000000000000000000000000000000	,	MOBILE	EMAIL	SIGN
	FRILLIE A - OTHER	RAKU	SEC	0725843402		Acce
2.	EVERLINE A STIEND	RAKU		072999999		E A
3,	JOSHUN AGIDA	RAKU	0.000	0743784000		1.05
4.	JOHN Wangane 42014	RAKU		070548373		-11
5.	CHRISTO PHER TABA	RAKE		0795970711		Mundy
6.	DOEPH JUMA MADARA	ZAKU	transport reserve	0740430759		Street
	PETER ANDHO ODUNDO	RAKU		0758373709		of Do
8.	Vincent OKOH Avorgo		TEST TRUTT	0740430954		mil
9.	JEHIPHER ATIEND	RAKU	M	0710858536		100
10.	MARY DRIGI	1,	M.	0723842295		40

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ya Spra Chang Name

ACTIVITY:	urlic EV	Myment 1	THE	SITE	DATE 03	spans.
110	NAME	ORGANIZATION			CONTACT	SIGN
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NO	NAME	ORCANIZATION	DECLE	CON	CONTACT	
NO	NAME	ORGANIZATION	DESIG	MOBILE	EMAIL	SIGN
1.	CHREN ANTHINGO OMBOZO	RAKU		0713748710		S.h.0
2.	CARROLINE AKINY, DIENDO	PAKE		0707074349		Com
3.	NELLY ANTANOO ALAMA	gavo		019982201		No.
4.	MOSES DRENOS OCHORO	PLANCO		C459101010		en · 0
5,	COLER CHAR	124160		07224977.52		- COL
6.	MARKARET TERRESA ANNUA	RAKU		0712693446		199
7.	TRENE MANANGO ODERO	KAKO		0712941127		70
8.	ALICE AUMA OCHIENS	RANO		0759388149		Pro-
9.	DANIO U DRODU	RAKO		6740920459		11/22
10.	REMAN OCHEL	BAKO		0399861708		NP.

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ACTIVITY: PUBLIC ENLACEMENTS REGISTRATION FORM SILE NO Project design/layout CONTACT DESIG iv) 1. MOBILE SIGN EMAIL MILLICENT APONDI ALVOSLI RAKY O TOLARDICE LETTEER ACTIONS OMBRIDA DAKU 070539466 CARSLINE ACHIENG RAKKU 074881 - 244 DNVOGE 只有655 15 Yo TERESA 11 OFDNOF exiens RAKU ROSELINE 0715191164 500 Dunto BAKU DASATSEOUS 5.0 EUNICE CINZITA RAKU 0701259800 EN DIMENIG FRICK RAZU O3:03:03:02 OGONGA DAKU

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Mart Agriculture Project (KCSAP)

Office of the CPCU - Siaya



NO	NAME		in and it	E SITE	DATE_03	103/2022
1.		ORGANIZATION	DESIG	CON	ITACT	-
2.	MARY OCHELLE	RAKU		MOBILE	EMAIL	SIGN
3.	ROSEMARY A. MUNDA					MO
4.	EUNIGE A- ONLI	RAKU		0724457005		losengue
5.	JOYCE AWIND DWITE	RAKU		0729673244		币
6.	JOYCE AOKO ATITO	RAKU		25/10/2		- B
7	BAKE PAULINE I	RAVO		0717461319		TEN
	PAMELA - A. ODHIAMBO	RAND				Red
	MART A DUMA	RAKU		0729887221		-
9	CAREN ALMA TOCHU	RAKU		0786258264		M-0
10.		RAKU		0 4005 = 3454		3

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ACTIVITY: MEETING WITH LAKY STAKEHULDERS (PLAN)

DATE 28 2/2022.

NO	NAME	ORGANIZATION	DESIG		CONTACT	SIGN
NO	HAME	ORGANIZATION	DESIG	MOBILE	EMAIL	SIGN
1.	Cymain Gugg	Plan		0721863927	gregingina @ Juliso . Co. W.	- ANS
2.	Kelvin Mongare	Plan		0702326644	Kelin mong'sie Edgined	8
3.	Namatsi Janesje	Plan		0722373989	Juneae namotiagnalian	- Start
4.	MOSES KAMATO	PLANS		0710426877	MKamaya@yakoo, com	Hay or
5.	David Musullita	Plan Inta		0722360850	dande Qyohus . Cor	DO!
6.	EMER GOORGO	000		0704161211	edongo Pelx 750 gmal-	Spran
7.	Richard Juse	BOALF		072188937	Jano jul 4 Egmail Com	4
8.	JAME ATIENLO	plan		0790520153		Jan
9.	PITELISTUS SOPHIE OKUSI	plan		0724965952		CE
10.	Lavender Awyor	PEn		074652782	5	6 A

Mob: +254 722 943269

P. O. Box 3 - 40600, SIAYA

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REGISTRATION FORM

NO	NAME	ORGANIZATION	DESIG		TACT	SIGN
1.				MOBILE	EMAIL	Sidiv
_	BEATRICE ACHIENG	RAKU	ASS-SEC	0195179690		1
2.	PHELISTUS SOPILIE OKUS	RAKU		6724965952		٥.
4.	LAVENDO DINUGE	IZAICU		0746527885		4-6
5.	LUCIA A- AJOK	RAKU		0707077764		حبيا
6.	CHARGE ADHIAMBE EDGRY	RAKU		079631720		5
	GARAH JOYCE ATIENO	RAKU		0796306809		Tel.
7.	Titus offers OBENES	RAKU		0722641822		Maria La
	AMOS ONYANGO OTIENO	RAKU		0790570463		A .
9.	Tamwel Kolda Obeoch	Raw		0796906482		Tolen
10.	Gideen O. Aich	Quiku (Month Ly	0717490 990		Q

P. O. Box 3 - 40600, SIAYA

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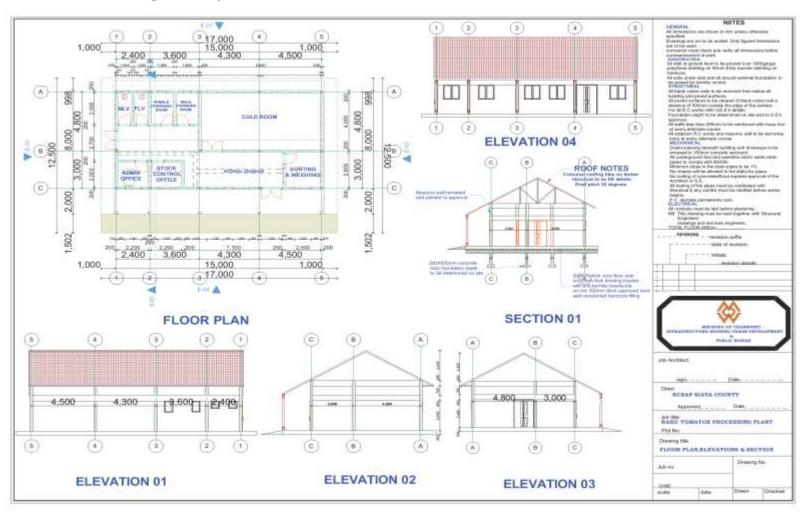


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1.		ORGANIZATIO	N DESIG		CONTACT DATE OF TOTAL	(mr.
2.	ALICE DOHLAMBO	HAKU		MOBILE	EMAIL	SIGN
3.	ESTER DELA	BAKU		0746201617		De
4.	SUDITH OMOLO	RAKU		0704737166		
5.	GRACE ABANGA	RAKU			abangagrace # 20 gmail com	
6.	MILICA ACHIENS	RAKU		0735334240	J J 77 AC JMILLION	TOA
7.		DAKu		p725666793		20
8.	NPSHON V. 6820	ROTO		0721755/17		Pin
9.	PHYMALL SAMEY OVER	BAIN	HEMBER	0714963940	Ogwany jums 30 O gram	Sunt
10.	TO RELOTE R. CISUON	RAKU	MEMOER	0748842102		De .

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v) Design and layout



iv Screening Checklist







Producer Organization Screening Checklist 2022

Name of CPCU/NEMA ... Y.ISLET.... ALIEMS.... Producer Organization Ward... NRETH.....

Contact Person, DAMISA, OTHERS, Cell phone, Q193201317

Producer Organization name, RAKA,

Estimated cost (Ksh.)

Approximate size of land area available for the producer organization. ALACRE
Objectives of the producer organization. ATORAGE, PROCESSING, AND MARKETING OF TOMARGE Activities/enterprises undertaken. ATORAGE, PROCESSING, AMPRICTING OF TOMARGE HOW was the producer organization chosen? HIGHET PERISTABLE WHEN DEMAND IS LOW Expected producer organization duration.

Section B: Environmental Issues	9.10	**-
will die producer gevanization		
Create a risk of increased soil receion?	Yes	No
Create a risk of increased deforestation?	V	-
Create a risk of increasing any other soil degradation?	V	
Affect soil salinity and alkalinity?	V	
Divert the water resource from its natural	V	
Cause pollution of aquatic ecosystems by sedimentation and agro-chemicals, oil spillage, effluents, etc.?		4
Introduce exotic plants or animale?		V
Involve drainage of wetlands or other parameters 2		レン
Cause poor water drainage and increase the risk of water-related diseases such as malaria?		V
Reduce the quantity of water for the downstream users?	V	
result in the lowering of groundwater lavel and the		1
Create waste that could adversally office the depletion of groundwater?		1
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	1	
Reduce various types of livestock production?		
Affect any watershed?		1
Focus on Biomass/Bio-fuel energy generation?		1
was one gy generation?		1

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

Section C: Socio-economic Issues	Lac	Mar
Will the producer organization:	Yes	No
Displace people from their current settlement?	_	V
Interfere with the normal health and safety of the worker/employee?	V	
Reduce the employment opportunities for the surrounding communities?		
Reduce settlement (no further area allocated to settlements)?		6
Reduce income for the local communities?		V
Increase insecurity due to introduction of the project?	V	
Increase exposure of the community to HIV/AIDS?	1	
Induce conflict?	1	
Have machinery and/or equipment installed for value addition?	V	
Introduce new practices and habits?	V	
Lead to child delinquency (school dropouts, child abuse, child labour, etc.?		1
Lead to gender disparity?	V	
Lead to poor diets?		V
Lead to social evils (drug abuse, excessive alcohol consumption, crime, etc.)?	V	
and the same of th		

Section D: Natural Habitats		
Will the producer organization:	YES	NC
Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?		
Adversely affect environmentally ensitive areas or/critical habitats – wetlands, woodlots, natural foresty, 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 producer organization:		
Involve the use of pesticides on 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 d/scharge?		
export produce? Involve annual inspections of the producers and mannounced inspections?		
equire scheduled chemical applications?		
equire chemical application even to areas distant away from the		
equire chemical application to be done by vulnerable group (pregnant others, chemically allergic persons, elderly, etc.)?		

marketing?			
6.Training			
Any and any training on any of the follow production?			
production? received any training on any of the follow	ving to	pics re	lated to c
integrated Pest Management V		1	
No. of times/past year.		1	
The state of Diagrams and Atlanta		/	
	1	0.0	
A CONTROL SHIELD, AND	/		
No. of times/past year	/		
- misce identification Ves / NA	/		
No. of times/past year			
e). Disease Identification Yes			
No. of times/past year.			
f). Quality aspects of production Yes. No			
No. of times/past year			
7) Is there anything else that you want us to know about you	r cros	produ	ction?
		P	
If the answer to the above is 'yes', please consult the IP.	M tha	thus h	en prepa
for the project.			
Section F: Vulnerable and Marginalized Groups meet	ing re	quiren	nents for
Are there:	- 1	Yes	NO
People who meet requirements for OP 4.10 living within the boundar	Inc.	i es	NO
of, or near the project?	358.9		
Members of these VMGs in the area who could benefit from the project	43		
VMGs livelihoods to be affected by the sub project?	1:	-	-
If the answer to any of the above is 'yes', please consult the VMC	70.4		
for the project.	ir Inc	it han h	een prepa
Section G: Land Acquisition and Access to Resources			
Will the producer organization:		Twee	7.0
Require that land (public or private) be acquired (temporaril	_	Yes	No
permanently) for its development?	y or	12	311
Use land that is currently occupied or regularly used for productive pur		-	
(e.g. gardening, farming, pasture, fishing locations, forests)	poses		W
Displace individuals, families or businesses?		-	-
Result in temporary or permanent loss of sever fruit	- 10	-	1
Result in temporary or permanent loss of crops, fruit trees and pasturel	and?	-	V
Adversely affect small communal cultural property such as funeral and listes, or sacred groves?	burial		1

esult in involuntary restriction of	access by people to legally designated	
arks and protected areas?		
e on monoculture cropping?		1
Section H: Proposed action	bove is 'yes', please consult the mitigation is a (Resettlement Action Plan) RAP.	casures in the
Summarize the above:	(ii) Guidance	
All the above answers are 'No'	If all the above answers are 'No', there	is no need
There is at least one 'Yes'	for further action; If there is at least one 'Yes', please des recommended course of action (see below	cribe your
(iii) Recommended Course	of A sties	
and also in the following area(from CDE and CPCUs regarding sub-project s (s) ns/proposals MUST include a completed ES will review the sub-project applications/pro the submitted to NPCU for clearance for imple tubprojects. through the Department of Monuments an can assist in identifying and, mapping of m if recommended, must be carried out by exp	MF checklist. posals and the ementation by d Sites of the onuments and erts registered
an EIA the proponent shall seel The WB policy set out in OP 4. disclosure of EIA's conclusion	y monitoring and review. During the process k views of persons who may be affected by the 01 requires consultation of sub-project affects s. In seeking views of the public after the a I avail the draft ESIA report at a public place al NGOs/CSOs.	e sub-project. ed groups and pproval of the
Name: DANIEL	OTIENO ONAM	
	ALRMAN.	
Date: 9 2 3022	Λ.	
Field Appraisal Officer (CDE):	Littlian Colon	
Signature:	7)	
Date: 9/2	2 2	

vi) Land Ownership Documents



OFFICE OF THE COUNTY COORDINATOR

Tel: 0726881557

Ardhi House, 1st Floor P.O. Box 803- 4060 Siaya

Ref: NLC /CC/SYA/GEN/VOL1 (11)

29th March, 2022

Project manager,

Kenya climate smart agriculture

Project (KCSAP)

Dear Sir,

RE: PARCEL NO.UYOMA/RAGEGNI/508

This is to confirm that the above parcel of land is public land reserved for Ragegni sports ground. The current users in the ground are; Chiefs Camp Dispensary and Resource centre. RAKU Community based organization through community participation requested to be given a portion within the said land to carry out their group activities which are directly beneficial to the community. It was agreed that the parcel be sub-divided into four so that each group be given separate title.

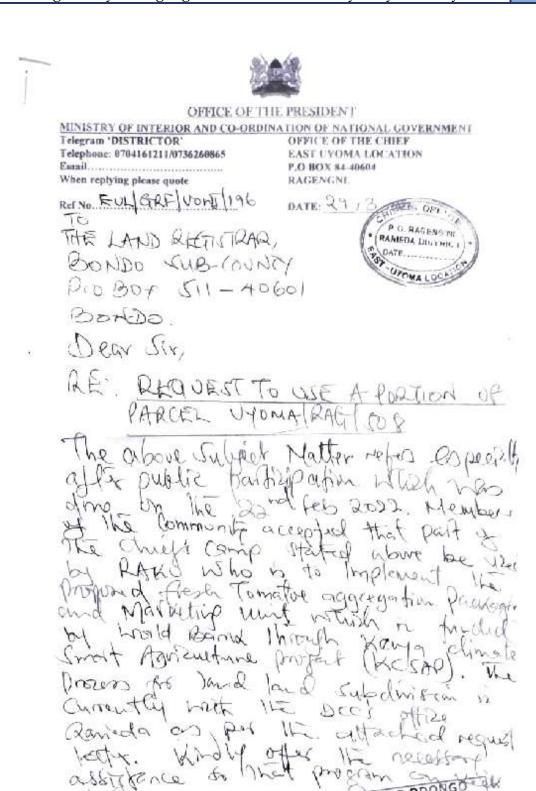
The purpose of this letter is to request you to offer any necessary assistance to RAKU CBO as we formalize the process of sub-division and issuance of title fleed NATIONAL LAPP COMMISSION IN THE PROPERTY OF THE PROPERTY OF

kind regards,

Richard Kigai

For .County Coordinator

THUSTY DOGROUMATOR SIAV



vii) Certificate of Practice of the Lead Expert

