



**ENVIRONMENTAL AND SOCIAL IMPACT ASSESMENT SUMMARY PROJECT
REPORT**

**FOR THE PROPOSED UPGRADING OF KARIE COFFEE FACTORY IN KIRIMUKUYU
WARD, MATHIRA WEST SUB COUNTY, NYERI COUNTY**



LOCATION GPS COORDINATES: -0.4854, 37.0679

Sponsor	Government of Kenya / County Government of Nyeri with support from the World Bank
Client	Kenya Climate Smart Agriculture Project (KCSAP)
Proponent	Rutuma Amalgamated Farmers' Cooperative Society

DECLARATION

This Environmental and Social Impact Assessment (ESIA) Summary project Report is for the proposed upgrading of Karie Coffee Factory in Kirimukuyu Ward, Mathira West Sub County, Nyeri County on plot No. Kirimukuyu/Kiria/834. The report has been prepared in accordance with NEMA regulations and World Bank environmental and social safeguards policies under the guidance and supervision of a registered NEMA Lead Expert. It meets statutory provisions stipulated in EMCA 1999, the Legal Notice No. 32 and the Environmental (Impact Assessment and Audit) (Amendment) Regulations, 2019; World Bank KCSAP triggered policies OP 4.01, OP 4.10, OP 4.11, OP 4.12 and OP 4.09. I hereby certify that the details herein are correct and true to the best of my knowledge.

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ACKNOWLEDGEMENT

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ACRONYMS AND ABBREVIATIONS

AFFA	Agricultural Fisheries and Food Authority
BOD	Biological Oxygen Demand
COD	Chemical Oxygen Demand
CSR	Corporate Social Responsibility
EDP	Enterprise Development Plan
EIK	Environment Institute of Kenya
EMCA	Environmental Management and Co-ordination Act
Gok	Government of Kenya
IMS	Integrated Management Practices
ISO	Organization for International Standardization
Kgs	Kilograms
KBS	Kenya Bureau of Standards
KS	Kenya Standards
KPIs	Key Performance Indicators
MC	Moisture Content
NEMA	National Environmental Management Authority
OSHA	Occupational Safety and Health Act
OHS	Occupational Health and Safety
PPEs	Personal Protective Equipments
PVC	Polyurethane vinyl Chloride
SOPs	Standard Operating Procedures
RFA	Rain Forest Certification
TCU	True Colour Unit
TOR	Terms of Reference
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
WRA	Water Resources Authority
WIBA	Work Injury and Benefits Act

EXECUTIVE SUMMARY

This Report discusses the results of Environmental and Social Assessment for proposed Upgrading of Karie Coffee factory be located in Karie sub-location, Kirimukuyu ward, about 2.17 Kilometers off the tarmac Nyeri- Karatina (A2) from Ndemu junction The actual proposed construction site is in Karie Village, Kirimukuyu Location, Kirimukuyu Ward within Mathira West Sub County at a private owned land. The Land is registered under Tumutumu Farmers' Cooperative Society a private company on L.R. No. Kirimukuyu/Kiria/834 measuring approximately 9.2 Acres.

The proposed upgrading will be implemented by the Government of Kenya, County Government of Nyeri through the Department of Agriculture, Livestock and Fisheries Development under the Coffee Revitalization Project in collaboration with the KCSAP project.

The proposed project will serve the local community under the larger Kirimukuyu and Nyeri County Coffee producing areas and will be implemented during the 2022-23 financial year.

The project activities will entail construction of two (2) solar Green Houses driers measuring 50ft X 50ft, fourteen (14) Metallic Drying Tables measuring 6m X 150m and five (5) Floodlights.

Already preliminary works; design and documentation including a feasibility (Enterprise Development Plan) study reports have been done. Therefore, the conducting of environmental impacts and social assessment study was carried out pursuant to the requirements of the Environmental Management and Coordination Act Cap 387 and its subsidiary Environmental Impacts Assessment and Audit Regulations of 2003. The law makes it statutory for any new physical development; the proponent shall prepare a Summary Project Report for the same. This assessment is to ensure that proper arrangements and safety measures are taken into account to mitigate against any possible environmental and social risks that may culminate out of the process.

The Project area is within a zone with moderate to high agricultural production potential exacerbated by several factors including active coffee farming communities, access to good infrastructures such as Roads and market, telecommunication networks, and conducive natural ecological resources such as fertile soils, arable land and good climate. According to the bills of quantity, the projected cost is **Ksh. 3.320,000**.

The Lead Expert used various approved techniques and methods to capture both primary and secondary data including; desk review, use of Community Public Participation (CPP) forums, focused Groups discussions, information sourcing and consultations through digital platforms such as telephone, email and WhatsApp and review of related literature materials.

Some of the negative attributes of the proposed project and weaknesses identified during the exercise included generation of biodegradable and non-biodegradable agricultural wastes such as coffee pulp, organic and inorganic garbage at both during construction and operation phases. Bringing in of new entrants such as contractors whose entry may also come with new social, health and security challenges or dynamics in the locality. Delivery of produce through various transport modes may also come with traffic issues. Resource use conflicts such as over exploitation of water resources within the production area for increased agricultural production and operation of the factory will be anticipated after project implementation. However, these anticipated negative attributes are mitigatable by proper impacts management and monitoring plans as agreed among the stakeholders, proponent and the representatives of the local community, and as it has been outlined in the ESMP.

The proposed project will serve a very important role in boosting of coffee production, quality products after processing, as well as bringing of income and employment to Kenyans as well as revenues for both the national and the County governments. Therefore, expert recommendation is that every effort should be made to approve and to help the project realize this noble purpose.

CHAPTER ONE: INTRODUCTION

1.1 Background information

Karie Coffee Factory (Wet mill) is a coffee pulping station located in Nyeri County, Mathira West District, Kirimukuyu Location, Kiria sub location, Kiangoma/ Thaithi village. The site is bounded by coordinates bound the site 0°29'07.5"S 37°04'04.5"E. The factory is 8.7 kilometers from Karatina town ,2.17 km from Ndemu- function along road Karatina –Nyeri Highway (A2). It is part of the Rutuma Amalgamated Farmers' Cooperative Society. It is made up of small farm holders with each farmer having an average of 100 trees. Currently the factory has an active membership of 566. The factory receives between 100,000 to 150,000 kilograms of coffee cherry and its processing machine has a capacity of processing 3,000kgs per hour. The factory is managed by a committee elected by farmers with one elected factory representative sitting at the Rutuma Amalgamated FCS management committee, a body that is involved in making major decisions for the factory and for the Rutuma Cooperative Society as a whole. Varieties of coffee grown by the farmers in the factory include SL 28,SL 34, Ruiru 11 and Batian. Its catchment areas include Mutathi-ini, Ngurumo and Ndemu areas of Kiria Sub-location.

1.2 Project Justification

Coffee is the second most traded commodity after Oil at the world market. The industry contributes significantly towards Nyeri economy and contributes 0.3% to the GDP and 8% to the agricultural sector.

The project was selected after a feasibility study was conducted in the area because of its relevance to KCSAP objective of: increasing agricultural productivity, increasing resilience to climate change (adaptation) and decreasing incidences of greenhouse gas (GHG) emission (mitigation). KCSAP through the coffee value chain has funded factories in the sustainable production of clean coffee. This will enhance the efficiency of coffee factory.

1.3 Justification of conducting SPR

The SPR has been carried out in conformity with the recommendation of the County Director Environment (CDE) based on the screening report, nevertheless, the NEMA Public Notice on ESIA and Legal Notice No 31 which identifies the proposed project as Low risk, thus requiring only SPR (ESIA).

1.4 SPR objectives

- To comply with the Environmental (Impact Assessment and Audit) Regulations, 2003, Regulation 6, which requires that an application for an Environmental and Social Impact Assessment (ESIA) license and applicable World Bank Policies.
- Study the nature of the project supported by design and plan drawn to scale
- Study any environmentally sensitive areas to be affected by the project
- Availability of supportive environmental management infrastructure
- Conformity to land use plan or zonation plan

- Potential environmental and social impacts of the project cycle phase: planning, construction, operation and decommissioning
- Mitigation measures for all potential environmental and social impacts
- Environmental management plan for the entire project life cycle
- Conduct comprehensive public consultation
- To prepare SPR report for the client

1.5 SPR Approach and Methodology

1.5.1 Screening

The second schedule of the environmental management and coordination Act of 1999 (Amendment 2016) provides the types of development projects which must be subjected to the ESIA study process before commencement. Depending on nature and magnitude of potential environmental and social impacts, the development projects are classified as either being Low risk, medium Risk or High risk.

1.5.2 Scoping

The scoping exercise involved identification of significant issues and reasonable project alternatives to the proposed project. This was done to enable the proponent focus on available resources on the assessment of those issues and alternatives. The Environmental Expert identified key stakeholders that would be affected by the project's activities and developed information on the natural resources that would be affected.

1.5.3 Methodology

The study adopted all the convectional guidelines, principles and approaches used and required in conducting of ESIA exercises of such proposed project in; type, impacts and magnitude:

i Data collection

To meet the objectives of the study, the expert adopted systematic, integrated, participatory and collaborative approaches. Information was gathered through document reviews, field investigations and focus group discussions. Key informants' interviews were conducted with among others administrators, scheme leaders and community leaders. Stakeholders' meetings were held, one FDG discussion, meeting with management, neighbors and community members. Questionnaires were administered to the members present. The ESIA experts also examined all legal and regulatory frameworks, socio-economic profiles in the project area, identified environmental impacts and proposed relevant mitigation measures. The report also provides environmental management framework, monitoring and evaluation mechanisms.

ii. Mobilization and Planning

This involved preparations of checklists, identification of stakeholders, mobilization of resources and logistics as well as public consultations. Community, proponent, and stakeholders' expectations were also considered and mainstreamed at this stage. All the

community expectations and concerns as obtained during the public participation were documented and addressed.

iii. Desk Review of Documents

Both Primary and Secondary data, socio-economic and baseline information as well as literature review was done at this stage.

iv. Field Data Collection

This entailed several trips by the ESIA team to the proposed site including transect walks and group/informant meetings and consultations.

v. Project Data Synthesis

The approach included both quantitative and qualitative site description, data analysis and presentation of information in charts, graphs, tables, figures, photographs and other attributes of descriptive (qualitative) statements.

vi. Public Consultation

Several methodologies were employed to collect the required data, including; structured checklists for community consultations to conduct personal interviews and systematized questionnaires to coffee farmers. Stakeholders were consulted in relation to the project. Questionnaires were disseminated to the coffee farmers, dully signed and submitted. The collected data was analyzed and synthesized for the report compilation.

1.6 Structure of the report

- Introduction
- Nature of the project
- The location of the project
- Public participation and stakeholder consultations
- Anticipated impacts and mitigation measures
- Environmental and social management and monitoring plan (ESMMP)
- Conclusion and recommendations
- References
- Annexes

CHAPTER TWO: NATURE OF THE PROJECT

2.1 Introduction

This chapter describes the proposed project activities. The proposed structures have been supported with engineers' designs.

2.2 Project description

The proposed project is in Kirimukuyu Ward, Mathira West Sub County, Nyeri County on plot No Kirimukuyu/Kiria/834. The project is located approximately 8.7 kilometers from Karatina town and 2.17km off Karatina –Nyeri Highway (A2) from Ndemu junction. The site is bounded by GPS Coordinates: latitude -0.4854 and longitude 37,0679 respectively. The area is historically a coffee growing area with potential to sustain the proposed development.

2.2.1 Project activities

The proposed project will involve a number of activities including;

- Installation of five floodlights.
- Installation of two greenhouse solar drier.
- Installation of metallic drying beds.

2.2.2 Materials, Products and By Products

Minimal building materials will be required for the modernization of the coffee factory. These will include sand, ballast, cement, metal sheets, electrical gadgets and steel among others. Most of these materials will be obtained locally. The main sources of energy that will be required for construction of the project will include mains electricity (especially diesel). Electricity will be used for welding, metal cutting/grinding and provision of light. Diesel will run the vehicles that will transport the materials. The proponent shall promote efficient use of building materials and energy through all phases of the project. The expected By-products are mainly debris of construction materials during construction and coffee husks from the processing area. The mitigation measures for these are outlined at the ESMMP.

2.2.3 Processes

The following processes are carried out at the factory

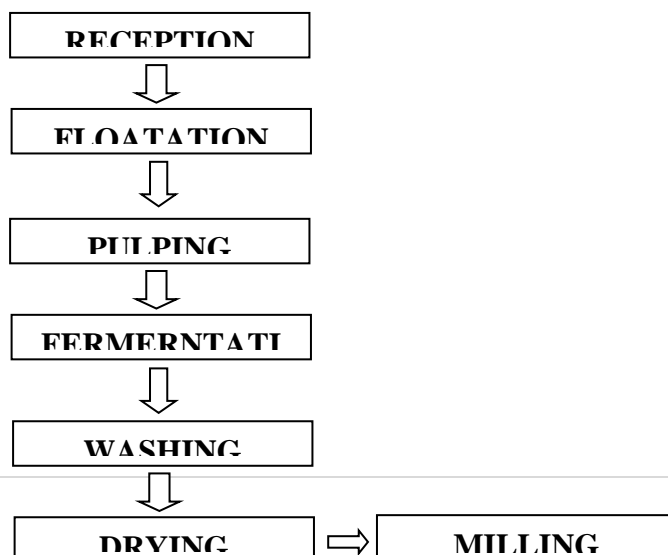


Figure 1 Flow chart showing coffee processing steps

2.2.4 Green Sourcing and transportation of construction materials

Building materials will be transported to the project site from their extraction, manufacture, or storage sites using transport trucks that are well maintained to avoid pollution. The building materials to be used in construction of the project will be sourced locally from Nyeri and Karatina areas. Greater emphasis will be laid on green procurement of building materials from within the local area, which will make both economical and environmental sense as it will reduce distance of travel by the materials transport vehicles.

2.3 Project Layout

2.3.1 Installation of solar powered floodlights

The lights will be installed around the factory facility for security purposes. The engineer on site will identify sites for floodlights installation. Materials for installation will be purchased and assembled on site.

2.3.2 Installation of metallic drying tables

The already existing faulty timber drying beds will be replaced with metallic drying beds that are more sustainable and reduce the uptake of natural resources. The designs, lengths and dimensions of the drying beds are as specified in the BQ annexed (two (2) solar Green Houses driers measuring 50ft X 50ft, fourteen (14) Metallic Drying Tables measuring 6m X 150m and five (5) Floodlights). The byproducts should be reused for other purposes and recycling.

2.3.3 Installation of greenhouse solar drier

The area where the installation will be done is available in the vicinity of the factory. Clearing of vegetation will be carried out but no trees will be cut down during the installation. A solar dryer helps to minimize the moisture contents in coffee beans and thus hastening the drying process.

2.3.7 Other important utilities

Water

The neighborhood get water from various sources; for domestic water the area is connected to MAWASCO, roof harvesting has been done (not the whole facility) and a storage tank available. The factory draws their processing water from Karie stream that is a permanent stream.

Electricity

The facility is connected to KPLC electricity line. A recommendation has been given to the proponent to install solar systems for substitution. The solar energy can be used for the flood lights for security systems.

CHAPTER THREE: THE LOCATION OF THE PROJECT

3.1 Introduction

This chapter gives a description of the siting, proof of land ownership, any environmental sensitive area, availability of supportive environmental management infrastructure and conformity to land use plan and zonation.

3.2 Location Description

The proposed project is in Kirimukuyu Ward, Mathira West Sub County, Nyeri County on plot No. Kirimukuyu/Kiria/834. The project is located approximately 8.7 kilometers from Karatina town along Ndemu- Thaithi-Kiharo road, 2.17 km off Karatina - Nyeri Highway (A2) at Ndemu junction. The site is bounded by GPS Coordinates: latitude **-0.4854** and longitude **37.0679** respectively. The area is historically a coffee growing area with potential to sustain the proposed development.



Figure 2: Map showing the proposed site and the neighborhood

3.3 Proof of Land Ownership

The proposed project site is owned by Rutuma Amalgamated Farmers' Cooperative Society registered under the Lands Act, under title number Kirimukuyu/Kiria/834 measuring approximately 9.2 Acres (*see annex 4*)

3.4 Availability of supportive environmental management infrastructure

3.4.1 Transport infrastructure and communication

The factory is located approximately 8.7 kilometers from Karatina town along Ndemu- Thaiithi-Kiharo road, 2.17 km off Karatina –Nyeri Highway (A2) from Ndemu junction. There are also several other feeder roads which connect the site to the interior of the region and are mainly earth roads, but majority already graded by the County government of Nyeri. Public means of transportation are available and the roads, hence easing product transportation in the area. The main mobile network providers in the sub project area are Safaricom, Telkom Kenya and Airtel Kenya.

3.4.2 Water Resources

The factory sources its water from Karie stream which passes through the factory at the lower side and drains its water in Sagana River which is located one kilometer from the factory. In the factory there is also a water pan whose water is used during the dry season. The pan is fed by water from the stream as well as the underground runoff that flows from the valleys from both sides as the factory. The area is also connected to Mathira Water and Sanitation Company (MAWASCO) for domestic utilization. Water harvesting both roof harvesting and storm water harvesting are a common phenomenon.

3.4.3 Biological Environment

The site environment dominantly consists of indigenous tree species and exotic trees planted on factory farmlands. Avocado, macadamia and *Grevillea robusta* trees have been planted. Major crops grown include, coffee, maize, bananas, beans and other foods. There are also native grasses in the area with some papyrus reeds in the marshy areas. There also exist plantations of napier grass, coffee shrubs, macadamia and *Grevillea robusta* trees. The vegetation cover forms an important habitat for birds and other animal life forms. The project site is not in a protected area and does not have plants that have been marked for protected.

3.5 Conformity to land use or zonation plan

The main economic activity in the area is mixed farming where approximately 87% of farmers grow, coffee, maize, bananas, beans, and other food crops. In terms of effects of the climate change; the area has occasionally experienced a number of challenges in crop farming in the past. The predominant crop pests, and diseases ranging from 63%; and extreme weather conditions of frosts, floods and drought (16%). Livestock farmers have faced high costs of veterinary due to incidences of FMD, LSD, Pneumonia and other diseases, as well as other extension at; (46%) and animal feeds (39%) respectively. Hence the proposed project is intended to provide value addition in terms of proper collection, sorting, grading and handling of such products.

CHAPTER FOUR PUBLIC PARTICIPATION STAKEHOLDER CONSULTATIONS

4.1 Introduction

This chapter discussed the objectives of community and stakeholders' consultations, categorization of the stakeholders, methodology of public participation and summary of the issues raised and responses.

4.2 Objectives of Public Consultation

Public consultations and stakeholders' participation is a requirement under the Constitution of Kenya 2010 and EMCA Cap 387 Laws of Kenya. The World Bank Group (WBG) also recognizes that engaging citizens and mobilizing communities in projects development process helps in achieving greater transparency, accountability, and social inclusion, thus improving development results. This is aimed at;

- Disseminate and correctly inform the stakeholders about the project, its key components, location and expected impacts.
- Awareness creation on the need for ESIA.
- Gather comments, concerns and suggestions of the interested and affected parties.
- Ensure that the decision-makers know the concerns of the stakeholders early enough.
- Incorporate the information collected into the ESIA study.

The purpose for such a process was to identify the positive and negative impacts and subsequently promote and mitigate them respectively. It also helped in identifying any other miscellaneous issues that may bring conflicts in case project implementation proceeded as planned.

4.3 Categorization of Community Participants and stakeholders

4.3.1 Directly Affected People

The project is targeting to reach about 566 (187-F, 379-M) households as direct beneficiaries (mainly local coffee farmers). The households fall under the larger Mathira West Sub County whose feasibility, Enterprise Development Plan (EDP) study has already been carried out.

4.3.2 Indirectly Affected Persons

They included other members of the public, and agencies that will be reached by any form of benefits from the project. These include traders, transporters and even users of the local ecosystem shared resources. This group of stakeholders also includes all those who reside in areas neighboring the project area or are reliant on resources in the project area and will have no change or the project may not adjust their livelihood.

4.3.3 Government Agencies and other organizations

The consultation also sought the participation of various government agencies, ministries, departments and associations. These included Ministry of Agriculture, Local administration,

WRA, Environment and climate change, Trade and Cooperative development and the Social services. In broader extension and especially during the operation phase, the benefits can also directly and indirectly affect other extra departments for example the ministry of; Health and Education.

4.4 Methodology of Data Collection

The consultant held public consultative meetings with the society board members, management, farmers and key stakeholders in conjunction with the local administration where data was collected. The participants were sensitized on proposed project and were asked to give their opinions concerning any issue relating to impacts of the project to the society. The respondents comprised of neighbors, coffee farmers, community members and other relevant stakeholders. Through the public consultations, written and oral information was obtained on the benefits, anticipated negative impacts and mitigation measures.

4.5 Summary of issues raised by the community and stakeholders' responses

The following is a summary of issues raised by the members who attended the meeting:

4.5.1 Perceived Benefits

The proposed project will create significant economic and social benefits to the coffee factory members who will be delivering more coffee cherries and thus contributing to the attainment of the National priority goals and ongoing county efforts to accelerate economic growth and alleviate poverty. Installation of machines and appliances at the factory will reduce post-harvest losses of coffee during the drying processes hence contributing to enhanced food security and improved production of quality coffee. The installation of the machines will enhance the processing of coffee into parchments.

Income diversification strategy; Investment in the development is a strategy in reducing risks associated with livelihood variability and related challenges. Employment opportunities will be offered to the construction workers and any other person who will be hired to provide her/his services during the construction phase. In addition to direct employment supplies of basic necessities to the workers will also lead to more employment opportunities and acquisition of entrepreneurial skills. This will inculcate a sense of project ownership within the community. The project will improve the coffee industry in Mathira West Sub-county and in the County. The project will also play a role in reduction of idleness particularly amongst the youth due to an increase in income generating activities either directly or indirectly. The project will also ease the direct resource dependency pressures on forest resources and energy due to the diversification in sources of livelihood and provision of services.

Reduced poverty levels through increased incomes and improved livelihoods resulting from construction of the proposed project and maintenance employment and consumption from the local markets, emergence of other associated economic opportunities and activities.

The project will contribute to the development of Kirimukuyu ward and thus encouraging new investors and developers.

4.5.2 Issues and Concerns

Increased production of waste due to the increased production. Increase cost due to land transfer charges.

Possibility of insecurity, conflicts and traffic issues as a result of transportation and entry of various people to provide services and derive benefits out of the proposed project. These are low and mitigatable by the various measures to be addressed in the management plans.

Increase in costs of utility bills in terms of energy and water during construction phase. These will be mitigated by capacity building users on utility-efficient use measures such as saving mechanism, and diversification to renewable energy sources such as solar panels; or putting up of a biogas system to utilize the mentioned biodegradable agricultural wastes.

4.5.3 Summary of issues and Concerns raised

Almost all the respondents (95%) had a strong conviction on the key benefits they would accrue from the proposed project. This is mainly associated with higher cherry payment due to reduced cost of production and time during drying, creation of employment, income and other socio-economic benefits. The perception of such benefits is an indication that there is a serious need for such a project and feasibility of demand. Equally, most respondents (97%) were willing to pay for the services associated with the proposed project. Already project site have identified with the factory among many other contributions both in monetary and in kind, in order to ensure that the project materializes. Similarly fundamental is the contributions also made by the other key stakeholders namely KCSAP, Department of Agriculture and the County Government of Nyeri. Therefore, the ability to handle all these issues makes it a key indicator of potential project success.

4.5.4 VMGs as beneficiaries

The community members informed the ESIA team that women and children will be the greatest beneficiaries of the proposed project as they are the ones exposed to the danger of poverty when no socio-economic aspects are running well in the community.

CHAPTER FIVE: ANTICIPATED ENVIRONMENTAL AND SOCIAL IMPACTS AND THEIR MITIGATION MEASURES

5.1 Introduction

This chapter discusses the potential positive and negative environmental and social impacts and mitigation measures for the potential negative impacts for the three project phases i.e., construction, operational and decommissioning Phases.

5.2 Anticipated Positive Environmental and Social Impacts

a) Creation of Employment Opportunities to the Community

The proposed project activities are expected provide short term employment opportunities to the host community for both skilled and unskilled workers. This will be beneficial both from the economic and social point of view. Economically, people employed will earn income which will improve their livelihoods and those of their families. Socially, the workers who will be engaged in productive employment which will translate into reduced social ills at the same time fostering healthy interaction thus social integration.

b) New Business Opportunities for the Host Community

In the construction phase the local community will benefit from supply of essential items to the workers on site such as foodstuffs and construction material. This will contribute to increased household income. Market will be created for local transporters who will get the opportunity to ferry construction materials to the site and for the vehicle fuel filling stations that will get the business opportunity to sell fuel to vehicles and for machinery attached to the construction.

c) Source of Revenue for Government

The supply of construction materials to the project and fuel will contribute revenue to the county and national government in form of VAT, Cess, fuel levies among others.

d) Market for Construction Materials

The construction works will provide ready market for locally available construction materials such as cement, sand, timber, and steel, building stones and other necessary materials. This will result in a boost in the local economy.

e) Improved socialization in the community

The proposed project will bring together people from different parts of the county and the country and thus bringing socialization in the community.

f) Improved Well-being of Women and Children:

In most cases, at the household level, women and children bear the burden of farming when the practice is not flourishing. The proposed project will encourage adoption of TIMPs in farming practices and thus time saved would be invested in agricultural production and other engagements that could bring financial benefits to the family and increased time for studies for the children.

5.3 Anticipated Negative Impacts and Mitigation Measures in Preparatory Phase

a) Conflicts over project designs, project siting and project membership

The community members may disagree on the components of the designs of the project. The project site is part of the community contribution. This can bring conflicts in financial

contribution towards the project implementation. Some might want to join the cooperative because of the proposed project against the bylaws.

Mitigation measures

- a) Provision of well defined by laws that elaborate on the issues of memberships for the new and existing members. This will ease and accommodate new members.

5.4 Anticipated Negative Impacts and Mitigation Measures in construction Phase

Environmental impacts

a) Soil Erosion and Soil Quality Degradation

Installation activities and transportation associated with heavy machines have the potential to loosen soils as a result of removal of vegetation and soil disturbance during transportation.

Mitigation Measures:

- Controlled movement of machinery at the site.
- Landscaping of the area that has bare soil.

b) Dust Generation

Dust will be emitted during movement of vehicles and related earthworks. Particulate matter pollution is likely to occur during excavation and related earthworks. This is likely to affect site workers and the project neighbors. Long hours of exposure might lead to respiratory and eye related complications.

Mitigation Measures

- Construction workers will be provided with proper PPEs including dust masks to mitigate against occupational health risks of inhaling dust
- Routine sprinkling of water on bare surfaces and dusty grounds;
- Contractor to enforce strict use of personal protective clothing.

c) Water pollution

The interactions between machinery use and water during construction/installation activities at the factory that may lead to pollution of the water. The large volumes of wastewater generated if not treated may lead to water pollution.

Mitigation measures

- Controlled water usage, water should be used only when necessary.
- The factory treatment lagoons should meet the NEMA recommendations and should be well managed to avoid pollution.
- Avoid oil spillages at the factory.

d) Noise and Excessive Vibrations

The proposed project is likely result in noise emission because of machines such as electrical works, minor construction on site. Noise could affect negatively on the workers involved in the construction works. Noise can also be a nuisance to the local community near the site

Mitigation Measures

- Contractor to ensure the use of well-maintained machinery/equipment and vehicles
- All construction work to be limited to daytime only;
- Immediate neighbors to be notified in advance on the date of commencement of construction work and possible date of completion of works at the site.
- All employees likely to be exposed to ear noise to be provided with ear protectors;
- Avoid idling of Machines and vehicles engines and turn off when not in use.
- Where possible fit all noisy machines and equipment with noise arresters.

e) Generation of Solid Waste

Waste during the construction period will arise from operations at the site. There will be a likelihood of accumulation of general solid waste at the site area.

Mitigation Measures

- The proponent should ensure recycling, reuse, reduction or disposed of waste in the designated and at the approved dumpsite.
- Provision of solid waste receptacles (waste bins)
- Sensitization of construction workers on proper disposal of solid wastes

f) Occupational Health and Safety Issues

It is expected that employees are likely to be exposed to occupational health risks due to accidents at the construction site. Injuries can arise from use of tools and equipment general site preparation. The injuries can include cuts, bruises, falling from height and colliding. This exposure to risks of accidents and injuries is likely to extend to the pedestrians along the access road as a result of moving machinery to the site.

Mitigation Measures

- Provision of suitable protective gear – PPE. The contractor should provide face overalls, helmets, safety boots, earmuffs, nose masks and gloves to the workers.
- Put in place appropriate safety signage along the construction route cautioning against various health and safety risks and prescribing particular mandatory actions
- The contractor should ensure there are no oil spills, no smoking, and no sources of ignition and proper use of warning signs in an explosive environment.
- Discourage unauthorized people from the project site- secure the site by fencing.

Social impacts

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

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

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

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

- Ensure clear human resources policy against sexual harassment that is aligned with national law.
- Integrate provisions related to sexual harassment in the employee Code of Conduct.
- Ensure appointed human resources personnel to manage reports of sexual harassment according to policy.
- The contractor(s) shall require employees, sub-contractors, sub-consultants, and any personnel thereof engaged in construction works to individually sign and comply with a Code of Conduct with specific provisions on protection from sexual exploitation and abuse.

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

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

Mitigation measures

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

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

During project execution (civil works), large numbers of workers will be required to assemble together in meetings, toolbox talks and even at work sites; varied number of workforce including suppliers of material and services are also expected to come in from various places in the country and interaction of workers with the project host community will happen as workers find accommodation close to work sites, and/or return to their homes after works. The potential for the spread of any infectious disease like COVID-19 by projects is high. There is also the risk that the project may experience large numbers of its workforce becoming ill and will need to consider how they will receive treatment, and whether this will impact on local healthcare services including the project host community.

Mitigation Measures

- The contractor(s) will develop SOPs for managing the spread of COVID-19 during project execution and submit them for the approval of the Supervision Engineer and the Client before mobilization. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions.

d) Child abuse

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

Mitigation measures

- Comply with all relevant local legislation, including labour laws in relation to child labor specifically provisions of Kenya's Employment Act, 2007 (Cap. 226) Part VII on protection of children against exploitation.
- The contractor will develop and implement a Children Protection Strategy that will ensure minors are protected against negative impacts associated with the project.
- All staff must sign, committing themselves towards protecting children, a contract which clearly defines what is and is not acceptable behavior.
- Children under the age of 18 years will not be hired on site as provided by Child Rights Act (Amendment Bill) 2014.

e) Grievances/conflicts

Common grievances expected to arise during the proposed project implementation include: Worker's interaction with the project and even the neighbors. Negative project impacts which may include disruption of income streams, physical harm, and nuisance from construction activities; Health and safety risks; Socially-unacceptable project staff relations with the communities and other stakeholders;

Mitigation measures

The following are possible mitigation measures to manage grievances:

- Establish a grievance redress mechanism (GRM) for the proposed project;
- Put in place a pre-emptive community liaison structure aimed at identifying potential issues arising from project-related impacts and addressing them before they become grievances;
- Establish a grievance redress mechanism targeting communities and other project stakeholders but not applicable to commercial and employee-employee relationships, and which will allow stakeholders to easily put forth their concerns relating to the project, implementation and have them addressed in a prompt and respectful manner;
- Address all raised grievances, real or imagined and take reasonable steps to maintain confidentiality of the parties to the mechanism and regardless of the complainants' participation in this process, give a guarantee that the complainant's statutory rights to undertake legal proceedings remain unaffected; and
- Educate all project stakeholders on the availability and use of the grievance redress mechanism in a manner that is understandable to all, before, during and after construction of the proposed project.

5.5 Anticipated Negative Impacts and Mitigation Measures during Operational Phase

a) Insecurity

This will be as a result of so many different people entries and moving in and out of the site for delivery of various coffee. Insecurity can also be associated with the reason that more machines have been installed at the factory. Measures proposed to mitigate here include: establishment of a strict security management systems and program, employment of day and

night security personnel, installation of CCTV cameras and also fencing of the site with a permanent perimeter fence.

b) Conflicts

Social conflict as a result of competition for community goods and services, economic gains as well as resource use conflicts are always associated with almost every project. These will be mitigated by established problem and conflict resolution mechanisms spearheaded by the proponent, community, key stakeholders and the local administration.

c) Solid wastes

Operationalization of the project is expected also to increase the volume and other output of the benefits and also related adverse impacts such as generation of garbage from the operations of the project. These include packaging, food leftovers and farm produce that may go bad in process of bad transportation. Proper measures on waste management shall be implemented among them:

- Use of the coffee husks waste as an input in the production of green manure for the farmers.
- Composting to utilize coffee solid wastes as bio fertilizer

d) Effluent/Liquid Waste management

The process of coffee pulping will result in release large quantities of wastewater which will require proper management through the following mitigation measures:

- Adopt Eco-pulping machine which are more environmentally friendly as opposed to old technology that uses a lot of water for pulping.
- Continuously monitor the lagoons for any discharge to the environment
- Conduct sampling and analysis of effluent
- Apply for Effluent Discharge License (EDL) on annual basis
- Separating the coffee husks from the effluent channels
- Promptly detect and repair of any leakages i.e lagoons
- Ensure proper siting of the lagoons away from the nearby river/streams

5.6 Anticipated Impacts during the Decommissioning Phase

a) Solid Waste generation:

During the decommissioning phase various activities will be carried that are likely to generate solid waste at the site thus a likelihood of accumulation of general solid waste at the site area.

Mitigation Measures

- The proponent should ensure recycling, reuse, reduction or disposed of waste in the designated and at the approved dumpsite.
- Provision of temporary solid waste receptacles (waste bins)
- Sensitization of construction workers on proper disposal of solid wastes

- The Proponent to liaise with the County Government of Nyeri and NEMA office for guidance on licensed waste collectors and suitable dumping sites for generated wastes.

b) Noise and vibrations:

Noise emission and vibrations is generated by machines like excavators used on site during demolition. Noise could impact negatively on the workers involved in the construction work. Noise can also be a nuisance to the local community near the site if works begins early in the morning to late in the night.

Mitigation Measures

- Maintain the levels of noise pollution from the machinery in accordance to the manufacturer’s specifications
- All construction work to be limited to daytime only;
- Immediate neighbors to be notified in advance on the date of commencement of construction work.
- All employees likely to be exposed to ear noise to be provided with ear protectors;
- Contractor to ensure strict enforcement on use of ear protectors

c) Occupational Health and safety Risks

It is expected that employees are likely to encounter occupational health risks due to accidents during demolition at the project site. Because of demolition activities, workers are exposed to risks of accidents and injuries. Injuries can arise from use of tools and equipment general site preparation. The injuries can include cuts and bruises. Injuries from construction work can include falling from height and colliding.

Mitigation Measures

- Adhere to Site Occupational Health and Safety rules and regulations as stipulated in the Occupational Safety Act of Kenya of 2007 and revised in 2010.
- Erect an appropriate project signboard as directed by the proponent
- Erect the appropriate safety signage along the construction route cautioning against various health and safety risks and prescribing particular mandatory actions
- Provide adequate first-aid facilities in the project sites to handle medical emergencies during construction and PPEs
- Comply with the National and International Labor laws
- Install adequate warning signages in all potentially risky i.e slippery floors, lagoon area etc.
- Fence the lagoon and mark it appropriately

CHAPTER SIX: ENVIRONMENTAL AND SOCIAL MANAGEMENT & MONITORING PLAN (ESM&MP)

6.1 Introduction

The Environmental and Social Management Plan (ESMMP) developed for the proposed upgrading of Karie Coffee Factory shall be implemented and operationalized by Project stakeholders to ensure objective management of environmental and social issues throughout the project cycle.

6.2 Environmental and Social Management & Monitoring Plan (ESM&MP)

(a) Construction phase Environmental Management & Monitoring Plan						
Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
Risk of Soil Erosion	<ul style="list-style-type: none"> Apply soil erosion control measures such as leveling the project site to reduce run-off; Ensure proper landscaping of the affected areas within the compound, and Ensure compacted areas are 	<ul style="list-style-type: none"> Visible soil erosion control measures in place Areas already landscaped 	<ul style="list-style-type: none"> Contractor/ Supervising engineer/work foreman 	<ul style="list-style-type: none"> Photos of original site and current site status 	monthly	50,000

(a) Construction phase Environmental Management & Monitoring Plan

Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	<ul style="list-style-type: none"> ripped off to reduce run-off Controlled movement of vehicles. 					
Risk of oil spillage	<ul style="list-style-type: none"> Employ safety procedures to prevent oil spillage Ensure that oil/grease spills are immediately removed along with all contaminated material and disposed of at an approved waste disposal site. 	<ul style="list-style-type: none"> No oil spills cases reported 	<ul style="list-style-type: none"> Contractor/Supervising engineer/work foreman 	<ul style="list-style-type: none"> Records Tracking documents 	monthly	20,000
Generation of Solid and Liquid waste	<ul style="list-style-type: none"> Coffee husks should be used 	<ul style="list-style-type: none"> Quantity of wastes generated, reused or recyclable 	<ul style="list-style-type: none"> Contractor/Supervising engineer/work foreman 	<ul style="list-style-type: none"> Tracking documents Receipts 	Weekly	20,000

(a) Construction phase Environmental Management & Monitoring Plan

Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	by farmers as green manure; <ul style="list-style-type: none"> • Provide solid waste facilities (waste bins) • Liaise relevant agencies for the management of pesticides containers. 	<ul style="list-style-type: none"> • No of litter bins • Waste disposal site • No of farmers using the husks 	<ul style="list-style-type: none"> • Coffee factory management 	<ul style="list-style-type: none"> • Photos 		
Air quality degradation/ dust emissions	<ul style="list-style-type: none"> • Secure the site where this can happen with appropriate dust screens • Regular sprinkling of water to be done on open surface and dust grounds unless paving is done; 	<ul style="list-style-type: none"> • No of well-maintained machinery • Water sprays and mists • No. of designated hauling/stockpiles areas. • No of suitable PPE 	<ul style="list-style-type: none"> • Contractor/Supervising engineer/work foreman • NEMA 	<ul style="list-style-type: none"> • LPOs • Reports • Signed contracts between Contractor & employees 	Weekly	30,000

(a) Construction phase Environmental Management & Monitoring Plan

Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	<ul style="list-style-type: none"> Landscaping of the bare spaces. Provision of appropriate PPEs. 					
Noise Pollution and vibrations	<ul style="list-style-type: none"> Maintain the levels of noise pollution from the machinery in accordance to the manufacturer's specifications All construction work to be limited to daytime only; Immediate neighbors to be notified in advance on the date of commencement 	<ul style="list-style-type: none"> Number of PPEs purchased. Number of workers using PPEs. Available servicing cards/receipts 	<ul style="list-style-type: none"> Contractor/ Supervising engineer/ work foreman. 	<ul style="list-style-type: none"> Local purchase orders Reports Receipts Work plan 	Daily and weekly	30,000

(a) Construction phase Environmental Management & Monitoring Plan

Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	<p>nt of construction work.</p> <ul style="list-style-type: none"> • Provision of appropriate PPEs 					
Occupational Health and Safety (OHS)	<ul style="list-style-type: none"> • Proper barricading of the construction site • The contractor to provide all workers with full protective gear (PPEs) • The contractor to train and provide First-aid Kit to the workers and provide Incident and Accident Registers on site for 	<ul style="list-style-type: none"> • No of Labels and warning signs • No of workers using PPEs on use by those involved at the site • Trained officers on First-aid Kit • Incidents reported • Number of COVID-19 sensitizations conducted. • Emergency contacts at the site 	<ul style="list-style-type: none"> • Contractor/Supervising engineer/work foreman • Directorate of Occupational Health and Safety (DOSHS) 	<ul style="list-style-type: none"> • Purchase receipts • Reports • Attendance register • Contingency plan for accident response in place 	Weekly	40,000

(a) Construction phase Environmental Management & Monitoring Plan

Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	recording of injuries or any OHS incidence <ul style="list-style-type: none"> • Compliance with MOH COVID 19 regulations. • Displaying of OSH guidelines on site 					
Increased demand for water	<ul style="list-style-type: none"> • Water saving devices such as push taps to be installed to minimize lose. • Installation of roof rainwater harvesting systems at the premise. • Construction workers to be sensitized on appropriate 	<ul style="list-style-type: none"> • water bills paid to WRA • No. of gutters installed for water harvesting • No, of onsite tanks • Rate of metered water consumption 	<ul style="list-style-type: none"> • Contractor/ Supervising engineer/work foreman 	<ul style="list-style-type: none"> • Records • Purchase receipts • WRA permits 	Monthly	10,000

(a) Construction phase Environmental Management & Monitoring Plan						
Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	water use and conservation technologies applicable.					
(b) Construction phase Social Management & Monitoring Plan						
Social impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
Social conflict	<ul style="list-style-type: none"> • Involve local administration and other social groups like the church in social mediation and moderation • Notify all the affected persons of any incident • Establish an effective and efficient grievance redress 	<ul style="list-style-type: none"> • No. of cases/incidents/conflicts addressed 	<ul style="list-style-type: none"> • Contractor/Supervising engineer/work foreman. • Local administration. 	<ul style="list-style-type: none"> • Incident Register 	1 month	10,000

(a) Construction phase Environmental Management & Monitoring Plan

Environment al impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Frequency / Time Frame	Est. Cost (Ksh.)
	mechanism where all conflicts related to the project are addressed.					

(a) Operation phase Environmental Management & Monitoring Plan

Environmental impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
Increased demand for Energy	<ul style="list-style-type: none"> • Use of energy saving bulbs (LED lighting). • Optimize use of natural light during the day. • Install solar panels to limit energy use • Undertake regular energy audits. 	<ul style="list-style-type: none"> • No. of Energy saving bulbs in place; • No. of solar panels in place; • Energy audits conducted. 	<ul style="list-style-type: none"> • Coffee Factory Management • CPCU • Energy experts 	<ul style="list-style-type: none"> • Receipts • Bills • Reports • Photos 	3 months	40,000
Generation of Solid waste	<ul style="list-style-type: none"> • Provide solid waste facilities (waste bins) • use coffee husks as green manure 	<ul style="list-style-type: none"> • Quantity of waste collected • No. of waste receptacles • No. farmers using green manure 	<ul style="list-style-type: none"> • Coffee factory management 	<ul style="list-style-type: none"> • Tracking records • Photos • Copies of license 	3 months	10,000
Water pollution	<ul style="list-style-type: none"> • Regular maintenance and management 	<ul style="list-style-type: none"> • No of times maintenance done 	<ul style="list-style-type: none"> • Coffee factory management 	<ul style="list-style-type: none"> • Tracking records • Licenses • Photos 	2 years	10,000

(a) Operation phase Environmental Management & Monitoring Plan

Environmental impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
	of the waste lagoons.					
Occupational Health and Safety risks	<ul style="list-style-type: none"> Adhere to Site Occupational Health and Safety rules and regulations Sensitize all workers on occupational health and safety Provide adequate first-aid facilities in the project sites to handle medical emergencies 	<ul style="list-style-type: none"> No of Labels and warning signs. No of workers using PPEs on use by those involved at the site. Trained workers on basic first-aid. Incident report Number of COVID-19 sensitizations conducted and Records of participants etc. Emergency contacts at the site. 	<ul style="list-style-type: none"> Coffee Factory Management. Directorate of Occupational Health and Safety (DOSHS). 	<ul style="list-style-type: none"> Purchase receipts Reports Attendance Register 	3 months	10,000

(b) Operational phase Social Management & Monitoring Plan

Social impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (Ksh.)
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(a) Operation phase Environmental Management & Monitoring Plan

Environmental impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
Social Conflict	<ul style="list-style-type: none"> Involve local administration and other social groups like the church in social mediation and moderation Notify all the affected persons Establish a grievance redress mechanism where all conflicts related to the project are addressed 	<ul style="list-style-type: none"> No. of cases/incidents/conflicts addressed 	<ul style="list-style-type: none"> Coffee Factory Management , CPCU 	<ul style="list-style-type: none"> Incident Register GRMs policy 	3 months	10,000
Theft, vandalism and destruction of infrastructure	<ul style="list-style-type: none"> Ensure the general safety and security of the facility at all times by 	<ul style="list-style-type: none"> Presence of a day and night security guard No. of complaints 	<ul style="list-style-type: none"> Coffee Factory Management CPCU 	<ul style="list-style-type: none"> Incident Register 	monthly	20,000

(a) Operation phase Environmental Management & Monitoring Plan

Environmental impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
	providing day and night security guards <ul style="list-style-type: none"> • Ensure only authorized personnel get access to the site facility. • Develop mechanism to address 					
Sexual Exploitation and Abuse	<ul style="list-style-type: none"> • Develop and implement a SEA action plan • Ensure necessary steps are in place for: Prevention of SEA: • Management and Coordination: including 	<ul style="list-style-type: none"> • SEA Action Plan • Code of Conduct • Number of staff trainings • SEA FP • Community Liaison trained on PSEA 	<ul style="list-style-type: none"> • Coffee Factory Management • CPCU • GBV Expert 	<ul style="list-style-type: none"> • SEA action plan • Attendance registers 	3 months	10,000

(a) Operation phase Environmental Management & Monitoring Plan

Environmental impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
	integration of SEA in job descriptions, employments contracts, performance appraisal systems, etc.					

Environmental and Social Management & Monitoring Plan (ESMP) for the Decommissioning Phase

(a) Decommissioning phase Environmental Management & Monitoring plan

Environmental impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (KShs.)
Air quality/dust emissions	<ul style="list-style-type: none"> • Dust suppression through water sprinkling. • Proper servicing of equipment to reduce exhaust fumes. • Proper communication engagement 	<ul style="list-style-type: none"> • No. of Equipment Serviced • No. of forums held • No. of complaints raised 	<ul style="list-style-type: none"> • Contractor • Coffee Factory Management • CPCU 	<ul style="list-style-type: none"> • Records of servicing, • Registers • Photos 	1 month	10,000

Generation of Solid and Liquid waste	<ul style="list-style-type: none"> • Debris from demolition and all other solid waste to be handled, managed and disposed according to the EMC (Waste Management) Regulations 2005. • Solid waste to be disposed only at licensed disposal sites. 	<ul style="list-style-type: none"> • Quantity of debris collected • No. of licensed waste handlers. 	<ul style="list-style-type: none"> • Contractor • Coffee Factory Management • CPCU 	<ul style="list-style-type: none"> • Tracking records • Photos • Copies of license 	1 month	10,000
Occupational Health and Safety risks	<ul style="list-style-type: none"> • Sensitize the decommissioning team on occupational health and safety • Discourage unauthorized idlers at the site • Provide adequate PPE's to workers • Adhere to Site Occupational Health and Safety rules and regulations as stipulated in the Occupational Safety Act of Kenya of 2007 and revised in 2010. 	<ul style="list-style-type: none"> • No. of sensitization meetings done • No of workers using PPEs on use by those involved at the demolition site • Number of COVID-19 sensitizations conducted and Records of participants etc. 	<ul style="list-style-type: none"> • Contractor • Coffee Factory Management • CPCU • Directorate of Occupational Health and Safety (DOSHS) 	<ul style="list-style-type: none"> • Purchase receipts • Reports • Attendance Register 	3 months	10,000
Noise Pollution and vibrations	<ul style="list-style-type: none"> • Maintain the levels of noise pollution from the machinery in accordance to the manufacturer's specifications 	<ul style="list-style-type: none"> • Number of PPEs purchased. 	<ul style="list-style-type: none"> • Contractor/Supervising engineer/work foreman 	<ul style="list-style-type: none"> • Local purchase orders • Noise survey Reports 	3 months	10,000

	<ul style="list-style-type: none"> All work to be limited to daytime only; Immediate neighbors to be notified in advance on the date of commencement of demolition work. 	<ul style="list-style-type: none"> Number of workers using PPEs. Available servicing cards/receipts 		<ul style="list-style-type: none"> Receipts Work plan 		
Water Pollution	<ul style="list-style-type: none"> Waste to be disposed off through a NEMA registered waste disposal company and in a designated site only. Exhaust the septic tank fully through a licensed exhauster 	<ul style="list-style-type: none"> Quantity of waste debris collected and disposed accordingly Licensed exhauster No of times site is remediated from spills. 	<ul style="list-style-type: none"> Coffee Factory Management CPCU <ul style="list-style-type: none"> NEMA 	<ul style="list-style-type: none"> Receipts, Reports, Copies of licenses, MoU, Photos 	3 months	10,000

(a) Decommissioning phase Social Management & Monitoring Plan

Social impact	Proposed Mitigation Measures	Indicator	Responsibility	Means of Verification	Time Frame	Est. Cost (Kshs)
Theft, vandalism and destruction of infrastructure	<ul style="list-style-type: none"> Provide day and night security guards Ensure only authorized personnel get access to the decommissioning site 	<ul style="list-style-type: none"> Presence of a day and night security guard No. of complaints 	Contractor Coffee Factory Management, CPCU	Incident Register Records of employment	monthly	20,000

<p>Increased risk of illicit behavior and crime</p>	<ul style="list-style-type: none"> • Sensitize community and workers on expected code of conduct • The proponent to ensure that the contractor prioritize the employment of locals and only use the immigrant workers where the skills or capacity lacks. • The Contractor to ensure that comprehensive data on all workers involved in the project during construction is kept (register of all workers kept on site). 	<ul style="list-style-type: none"> • No. Sensitized workers on national code of conduct. • Register of all worker on site • Review report on workers behavior. 	<p>Contractor/Work s foreman</p>	<p>Minutes Reports Attendance registers</p>	<p>6 months</p>	<p>10,000</p>
<p>Loss of employment</p>	<ul style="list-style-type: none"> • Prior notification of the facility management, employees, local community members and relevant local leaders • Where possible provide an alternative source of livelihood 	<ul style="list-style-type: none"> • Notifications issued. • No. of forums held. 	<ul style="list-style-type: none"> • Contractor • Coffee Factory Management • CPCU. 	<ul style="list-style-type: none"> • Memos • Letters 	<p>3 months</p>	<p>30,000</p>

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATION

7.1 Conclusions

The Environmental and Social Impact Assessment has established that several positive impacts which will accrue as a result of implementing the proposed project far much outweigh the anticipated negative impacts which can however be adequately mitigated. The Study has established the baseline information of the project area against which any changes will be monitored. The proponent will be committed to maximizing on the positive impacts which will have far reaching effects while mitigating the adverse impacts as per the ESMP in chapter six. This study therefore concludes that the proposed upgrading of the coffee factory will result to insignificant negative impacts that can compromise the ecological, socio-cultural, economic and environmental integrity of the host environment as well as health and safety of the residents. There was no objection on the proposed project from the community and the stakeholders

7.2 Recommendations

- This study recommends that the proposed project proponent be allowed to proceed with the proposed project with strict adherence to the ESMP. The ESMP should be shared with the Contractor to ensure the responsibilities assigned in the ESMP. The contractor will also be required to engage a qualified Environmental and Social Safeguards specialist as well as Safety and Health officer to oversee implementation of the ESMP.
- The proponent should share the ESMP with the all-other responsible stakeholders and that the ESMP form part and parcel of the Contractor's contract to ensure that their obligations as outlined in the ESMP are executed.
- The proponent will be required to undertake annual environmental audit pursuant to the provisions of EMCA.

The proponent will apply to relevant authorities for various inspection, licensing and permits including public health and the County Government whenever applicable.

ANNEXES

Annex 1: ESS Screening Checklist

ANNEXES

Annex 1: Environmental and Social Screening Checklist
 ESS / Sub-projects Screening Checklist (Prototype)
 (Sub-projects screening process by benefitting communities/Agencies)
 Section A: Background information

Name of County	NYERI	
Name of CSU/Monitoring Officer/Researcher		
Sub-project location	N. ATHIRA WEST SUB COUNTY	
Name of CEO/Institution	Lytima AMALGAMATED FARMERS KARAN COFFEE FACTORY Co. Ltd	
Postal Address	P.O. Box 1935 KARATINA	
Contact Person	BENTICE Numbi Kacell	
Phone	0700513798	
Sub-project name	KARIE COFFEE FACTORY	
Estimated cost (KSh.)	3,300,000	
Approximate size of land area available for the sub-project	9.2 ACRES	
Objectives of the subproject	To evaluate factory compliance with statutory requirements and regulations governing the coffee industry to relevant legislation, to access extent to which the existing E.M.P. is being used as an environmental management tool To reduce the cost of processing coffee thereby increasing the coffee prices to the coffee farmers (Adoption of Imps)	
Activities/enterprises undertaken	Construction of C.H., installation of Flood lights and construction of Metallic drying Beds	
How was the sub-project chosen?	During Coffee Revitalization Project mobilization	
Expected subproject duration	f.r. 2021/2023	

Section B: Environmental Issues

Will the sub-project:	Yes	No
Create a risk of increased soil erosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Create a risk of increased deforestation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Create a risk of increasing any other soil degradation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Affect soil salinity and alkalinity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Divert the water resource from its natural course/location?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cause pollution of aquatic ecosystems by sedimentation and agro-chemicals, oil spillage, effluents, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Introduce exotic plants or animals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involve drainage of wetlands or other permanently flooded	<input type="checkbox"/>	<input checked="" type="checkbox"/>

areas?		
Cause poor water drainage and increase the risk of water-related diseases such as malaria?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduce the quantity of water for the downstream users?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Result in the lowering of groundwater level or depletion of groundwater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduce various types of livestock production?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Affect any watershed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Focus on biomass/bio-fuel energy generation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Section C: Socio-economic Issues

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

Section D: Natural Habitats

Will the sub-project:		
Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		
Adversely affect environmentally sensitive areas or critical habitats – wetlands, woodlots, natural forests, rivers, protected areas including national parks, reserves or local sanctuaries, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		

Affect the indigenous biodiversity (flora and fauna)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		
Cause any loss or degradation of any natural habitats, either directly through project works) or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		
Affect the aesthetic quality of the landscape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reduce people's access to the pasture, water, public services or other resources that they depend on?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Increase human-wildlife conflicts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Use irrigation system in its implementation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>NB: If the answers to any of the above is 'yes', please include an ESMP with sub-project application.</i>		
SECTION E: Pesticides and Agriculture Chemicals		
Will the sub-project:		
involve the use of pesticides or other agricultural chemicals, or increase existing use?		✓
Cause contamination of watercourses by chemicals and pesticides?		✓
Cause contamination of soil by agrochemicals and pesticides?		✓
Experience effluent and/or emissions discharge?	✓	
Export produce? Involve annual inspections of the producers and announced inspections?		
Require scheduled chemical applications?		✓
Require chemical application even to areas distant away from the focus?		
Require chemical application to be done by vulnerable group (pregnant mothers, chemically allergic persons, elderly, etc.)?		✓

If the answer to the above is 'yes', please consult the IPM that has been prepared for the project.

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

Are there:		
People who meet requirements for OP 4.10 living within the boundaries of, or near the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Members of these VMGs in the area who could benefit from the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VMGs livelihoods to be affected by the subproject?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Section G: Land Acquisition and Access to Resources

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

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

Section H: Proposed action

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

Annex 2: Coffee Revitalization Minutes



County Project Coordinating Unit-Nyeri

REF: KCSAP/NYI/COFFEE GEN/VOL I

DATE:18/11/2021

BACK TO OFFICE REPORT: INNITIAL COFFEE REVITALISATION FCS MEETING

Date:18.11.2021, Venue: RUTUMA FCS.

Present

1. Patrick Mwangi-director Agribusiness & Marketing
2. Mary Ann Wanjiru-coffee Desk officer KCSAP/CRP
3. Ephantus Mwangi -Value chain expert -Coffee
4. Beatrice Theuri-CASO/PO lead
5. Joseph Imboba-coffee factory officer
6. Ndirangu Kimunyu- Coffee Officer Mathira West.

Rutuma FCS attendance

1. Samuel Maregwa
2. Isaya Kahihu
3. Joel K. Ndebu
4. Solomon Nduiki
5. Moses Muriithi
6. Beatrice Mumbi

MEETING OBJECTIVES.

- Sensitization of the coffee society management on the coffee Revitalization project and the activities to be involved.
 - Objectives of the CRP.
- The main project activities being:
 - Capacity building of the beneficiaries.
 - Development of the modernization EDP

- Development of farm input proposals.
- capacity building of young coffee Agri-entrepreneur

Key issues on EDPs as discussed

- The management was given an outline of the project and being a conditional grant, all the conditions were highlighted as below:
 - Land on which factory modernization search must be consistent with the FCS name
 - The project cost for modernization is 12,666,000 and for inputs 2,060,000.
 - The 30% modernization FCS contribution. 8,866,000
 - Total FCS CONTRIBUTION: 3,799,715.
 - MOU between County government of Nyeri and FCS management.
 - Tax compliance -up to date
 - Supervisory committee on board
 - Project Account Introduced by CPCU for the FCS signatories to KCSAP banker
 - Up to date audited accounts/report
 - Any other condition put u by the donor.

Way forward

- The society management to hold a meeting and discuss the project.
- Each society to make a draft EDP from the given format through the secretary manager.
- Each society to get a way of raising the 30% required for each EDP.
- The management to select the factories that will be modernized/upgraded.
- The management to inform its members of the project activities.
- The secretary manager to be in charge of the EDP development in consultations with the Chairman.



Capacity building session with the Rutuma management

Prepared by
 Mary Ann Maina
 Coffee Officer – KCSAP Nyeri.

Annex 3: Certificate of Registration of the Cooperative Society



REPUBLIC OF KENYA

THE CO-OPERATIVE SOCIETIES ACT
(Cap. 490, Section 6 (3))

Certificate of Registration

REGISTRATION No. CS/10644

I hereby certify that the society under the name of

~~RUTUMA AMALGAMATED FARMERS CO-OPERATIVE SOCIETY LIMITED~~

and its by-laws have this day been duly registered by me in the Register of Co-operative Societies, in pursuance of the provisions of the Act and the Rules made thereunder.

Given under my hand at Nairobi

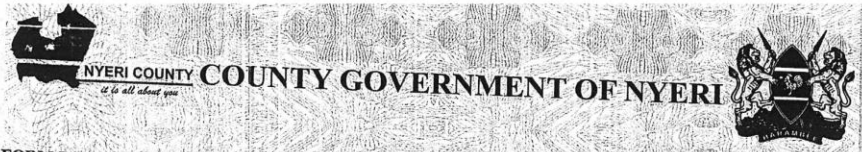
this 5TH day of JANUARY, 2005



F.F. ODHIAMBO

Commissioner for Co-operative Development

Annex 4: Karie Factory Pulping Station License



FORM B2

PULPING STATION LICENCE

Valid from 1ST JULY 2021 To 30TH JUNE 2022
 1. Name KARIE FACTORY Grower's Code KA 661 (F02)

2. Contacts:
 Postal Address 1935-10101 KARATINA
 E-mail MULUMA P.F.S @ YAHOO.COM
 Telephone 0721589423

3. Location:
 County NYERI Sub County MATHYA WEST Ward KIRIMUKURU
 Village/Road Kiangonia Thambi
 Name of farm (where applicable): RUTUMA K.F.S KARIE FACTORY

I/are hereby authorized to operate a factory for the pulping of cherry and may undertake hulling of own parchment or buni.

SINGLE BUSINESS LICENCE

Official Use
 Issued by:
 Receipt No. 019107A202102/0000089
 The CEC or authorized County Officer's name James Wachih
 Designation CECM - Agriculture
 Signature [Signature]
 Date 21/09/2021
 Stamp



Subject to the terms and conditions

1. This license shall be only for pulping own coffee.
2. The pulping license holder shall comply with the Coffee Industry Code of Practice and Standards.
3. The pulping license holder shall allow free access to the premises by the inspectors authorized by the respective licensing authority.
4. The pulping stations shall submit their pulping returns to the respective county government on an annual basis.
5. The county government may vary, suspend or revoke the license issued to any person if such person fails to comply with terms and conditions of the license.
6. The pulping station license shall not be transferable.

No.B 2266

See Conditions Overleaf

Annex 5: Land Ownership Docs(Certificate of Official Land Search)

Form LRA-85

(r.84(3))

REPUBLIC OF KENYA

THE LAND REGISTRATION ACT

THE LAND REGISTRATION (GENERAL) REGULATIONS, 2017

CERTIFICATE OF OFFICIAL SEARCH

TITLE NO. KIRIMUKUTU/KIRIA/834

SEARCH NO. 1232/7/2022

On the 27th day of JULY 2022 the following were the subsisting entries on the register of the above-mentioned title:

Part A — Property Section (easements, etc.) RESERVED FOR KARII COFFEE FACTORY

Nature of title ABSOLUTE

Approximate area 9.2 ACRES (NINE DECIMAL TWO ACRES)

Part B — Proprietorship Section

Name and address of proprietor (9) 19-7-2022 RUTUMA AMALGAMATED FARMERS CO-OPERATIVE SOCIETY LIMITED

Inhibitions, cautions and restrictions

Part C — Encumbrances Section (leases, charges, etc.)

The following applications are pending:

- (a) _____
- (b) _____
- (c) _____
- (d) _____

The following certified copies are attached as requested:

- (a) _____
- (b) _____
- (c) _____
- (d) _____

Date 27th day JULY 2022

Signed by the Registrar

Seal

Name:

M.A. Gacharya *885

Signature:

Annex 6: Effluent Analysis Results



WATER RESOURCES AUTHORITY

Basin Area Coordinator,
Water Resources Authority,
Ewaso Ng'iro North Basin Area,
P.O. BOX 1331 – 10400,
NANYUKI

Tel: 062-32510
Cell: 0722682794

EFFLUENT ANALYSIS RESULTS CERTIFICATE

Report issue date: 14 th March 2022	Sample no: 4571	Year: 2022
Name of customer: Rutuma Amalgated Farmers Cooperative Society	Date Received: 20/12/2021	Type of sample: Effluent analysis
Address: P. O. Box 1935 - 10101, Karatina	Date Sampled: 20/12/2021	Source of sample: Karie Coffee Factory last pond
Sample submitted by: Jacob Wahome	Received by: James Icika	
Purpose of sampling: Monitoring		
County: NYERI		

PARAMETERS	UNIT	RESULTS	EFFLUENT STANDARDS	
			DISCHARGE INTO ENVIRONMENT	DISCHARGE INTO PUBLIC SEWER
Temperature	°C	20.9	+3 ambient temp.	20-30
pH	pH Scale	6.8	6.5-8.5	6.5-9
Conductivity	µ S/cm	1287.00	-	-
BOD ₅ days at 20°C	mgO ₂ /l	182.0	30	500
COD	mgO ₂ /l	227.5	50	1000
Colour	mgPt/l	2.5	15	-
Turbidity	NTU	189.00	-	-
Total Alkalinity	mgCaCO ₃ /l	410.0	-	-
Total Suspended Solids	mg/l	826.0	30	250
Total Dissolved Solids	mg/l	836.6	1200	2000
Total Phosphorous	mg/l	9.9	-	-
Total Phosphate	mg/l	30.4	-	30
Phosphorous Pentoxide	mg/l	22.7	-	-
Nitrate	mg/l	4960.00	-	20
Nitrite	mg/l	0.28	-	-
Ammonia	mg/l	0.57	-	-
Total Nitrogen	mg/l	-	Two guideline value	-
Sulphate	mg/l	93.00	-	-
Potassium	mg/l	9.0	-	-
Oil & Grease	mg/l	-	Nil 5 or 10	-
Arsenic, As	µg/l	-	0.02	0.02
Dissolved Oxygen	mgO ₂ /l	-	Two guideline value	30

Comments: High values of biological oxygen demand of 5days at 20°C and chemical oxygen demand making it unsuitable for disposal into the environment. Further treatment is recommended.

Signature of Laboratory Analyst: *JC*

Name of Laboratory Analyst: James Icika

Title of Laboratory Analyst: Senior L. Technologist

nd* - not detected

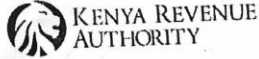
Signature of Head of Laboratory: *JN*

Name of Head of the laboratory: Judy N. Kigamba

Title of Head of Laboratory: Principal WQ&PCO

The results contained herein apply to the particular sample(s) tested, whose sample number and tests carried out as detailed in this results. The information contained here reflects the laboratory's findings at the time of analyses and within the client's instructions.

Annex 7: Cooperative Society KRA Pin



www.kra.go.ke

PIN Certificate

For General Tax Questions
 Contact KRA Call Centre
 Tel: +254 (020) 4999 999
 Cell: +254(0711)099 999
 Email: callcentre@kra.go.ke

Certificate Date : 20/05/2022
 Personal Identification Number
 P051170883Z

This is to certify that taxpayer shown herein has been registered with Kenya Revenue Authority

Taxpayer Information

Taxpayer Name	RUTUMA AMALGAMATED FARMERS CO-OPERATIVE SOCIETY LIMITED
Email Address	KIANJOGU2021@YAHOO.COM

Registered Address

L.R. Number :	Building : N/A
Street/Road : KARATINA-NYERI	City/Town : KARATINA
County : Nyeri	District : Mathira West District
Tax Area : Kaiyaba	Station : Nyeri
P. O. Box : 1935	Postal Code : 10101

Tax Obligation(s) Registration Details

Sr. No.	Tax Obligation(s)	Effective From Date	Effective Till Date	Status
1	Income Tax - Company	21/04/2005	N.A.	Active
2	Income Tax - PAYE	01/07/2006	N.A.	Active

The above PIN must appear on all your tax invoices and correspondences with Kenya Revenue Authority. Your accounting end month is December unless a change has been approved by the Commissioner-Domestic Taxes Department. The status of Tax Obligation(s) with 'Dormant' status will automatically change to 'Active' on date mentioned in "Effective Till Date" or any transaction done during the period. This certificate shall remain in force till further updated.

Disclaimer : This is a system generated certificate and does not require signature.

Annex 8: Minutes during Cooperative Society Meeting

RUTUMA AMALGAMATED FARMERS CO-OPERATIVE SOCIETY LTD
P.O. BOX 1935,
KARATINA.

MINUTES OF MANAGEMENT COMMITTEE MEETING HELD ON 17TH DECEMBER 2021 AT KIANJOGU SOCIETY HEADQUARTER.

PRESENT:

Mr. Isaya Wambugu Kahihu	- Chairman
Mr. Solomon Nduiki Kimondo	- Vice Chairman
Mr. Moses Maina Muriithi	- Hon. Secretary
Mr. Joel Kariuki Ndebu	- Treasurer
Mr. Samuel Maregwa Gichini	- Committee Member

IN-ATTENDANCE:

Beatrice Mumbi Kabugara	- Secretary Manager
Joseph Imboba	- Engineer
Murimi	- Building
Mary	- Kespa
Mary Wanjugu	- Cooperative Directorate
Patrick Mwangi	- Director Agribusiness
Mr. Mwangi	- Agriculture Director

The meeting was opened with a word of prayer by Mr. Samuel Maregwa at 10.00 a.m.

AGENDA

1. Coffee Revitalization

MIN.73/2021: COFFEE REVITALIZATION PROJECT.

OBJECTIVES

1. Pilot of 2 years.
2. Coffee productivity increase.
3. Efficiency quality of coffee.
4. Management Skills efficiency.
5. Training to farmers in all factories.
6. Research on Nursery.

Project Impact:



1. Direct beneficiary to farmer.
2. Number of farmers targeted.
3. Modernization of pulping station.
4. Digitization.

Activities within the project:

1. Training of farmers.
2. Employment of Youth Agronomist who have coffee interest and a diploma.
3. Farm organization access to inputs.
4. Form farmers training group.
5. Training of management committee through Cooperative.
6. Enterprise Development Plan.

After the presentation on how to prepare for the project and the requirements needed it was agreed that the society will contribute as follows:

- Modernization of factories the Society to contribute = 30%
- Kcsapto contribute for the project facilitation a grant =70 %

It was also agreed that the management committee will establish within themselves:

- Finance Committee
- Procurement Committee
- Social Accountability Committee
- Monitoring and Evaluation Committee

The management committee agreed for the idea and it was agreed that we should continue with the project.



Having no other business the meeting was closed with a word of prayer by Beatrice Mumbi Kabugara at 1.30 p.m.

Minutes recorded by: Beatrice Mumbi Kabugara - Secretary Manager

Minutes confirmed by : Isaya Wambugu Kahihu - Society Chairman

MINUTES OF ANNUAL GENERAL MEETING HELD ON 18TH FEBRUARY 2022 AT KIANJOGU SOCIETY HEADQUARTERS.

PRESENT MINUTE EXTRACT

Mr. Isaya Wambugu Kahihu - Chairman
Mr. Solomon Nduiki Kimondo - Vice Chairman
Mr. Moses Maina Muriithi - Hon. Secretary
Mr. Joel Kariuki Ndebu - Treasurer
Mr. Samuel Maregwa Gichini - Comm. Member

IN – ATTENDANCE:

Beatrice Mumbi Kabugara - Secretary Manager
Johnam Murimi Gathuthi - Bookkeeper
Francis - D.C.O.
Mr. Muriuki - Mariara Kigotho & Associates
Gerald Njaramba - Senior Ass. Chief Kianjogu
Gachanja - Enea Sacco
Murathimi - Baraka Sacco
Rachel - New K.P.C.U.

Members present were 230.

The meeting was opened with a word of prayer by member number 3813 Dickson Miugo.


MIN.6/2022: A.O.B

a) Factory Modernization Project.

The Chairman informed members that the County & National Government through KCSAP have decided to modernize factories of one society per ward. Rutuma had been selected and the project requires 30% contribution by the society. The members agreed on the project and this was proposed by member number 943 Humphrey Gachari and seconded by member number 1148 Perpetua Wanjiru.

Having no other business the meeting was closed at 3.00 p.m. with a word of prayer by member number 141 Elibabeth Njugu.

Minutes recorded by: Beatrice Mumbi Kabugara - Secretary Manager 

Minutes confirmed by: Isaya Wambugu Kahihu - Society Chairman 



Annex 9: Minutes of PP & SC

PUBLIC PARTICIPATION MEETING FOR RUTUMA FCS HELD ON 10th FEBRUARY 2022.

KARIE FACTORY

Present

Mary Ann Maina – CFP

Ephantus Ndirangu – CESSCO

Attendance: 15(10m,5F)

MEETING OBJECTIVES.

- To inform farmers of the coffee revitalization project and the structures to be upgraded in their factory.
- To get the beneficiaries view on the project to be implemented in the factory
- To identify any environmental and social impacts that the project may bring about.

The meeting started at 2 pm with a word of prayer Winnie Wanja.

This was followed by self-introductions by all members.

Min 1: Sensitization of members on the Coffee Revitalization Project(CRP).

The members present were informed of the CRP and how it's being implemented in the county. They were also taken through the criteria that nominated their society to participate in the project activities.

They were also informed of the projects objectives which are:

- To increase production and productivity of coffee per tree.
- To increase efficiency of the farmer cooperatives.

The objectives will be achieved through farmer trainings, increased access to inputs and coffee factory modernization.

The members were informed of the activities to be carried out in their factory which include:

- Green house solar drier
- Metallic drying tables
- Flood light installation

The total cost for this investment is budgeted for is ksh. 3,320,000 of which the factory will contribute 30% and world bank 70%.

Min 2: Beneficiaries view on the project activities.

The members were given an opportunity to give their views on the project. They unanimously approved the project activities and were so grateful to the county government for the opportunity to benefit from the funding by world bank.

Min 3: Impacts of the project.

The impacts of the project were discussed at length and all of which were positive. The project will reduce the overall costs and improve on the coffee quality. This in the long run will increase the coffee prices and hence the pay to the farmers.

A.O.B

Having no other business, the meeting ended at 1.00pm with a word of prayer by the factory manager.

Annex 10: Attendance List during coffee farmers sensitization at the Coffee Factory



ACTIVITY: *Ruhwa Pasikirakem Forum* SOCIETY: *Rutumana* FACTORY: *Karisoke* DATE: *16/12/2022*

S.NO	NAME	MEMBER NO.	ID.NO	PHONE NO.	SIGN
1.	Chonise N. Nyeru	2405	3184057	0726818062	<i>[Signature]</i>
2.	Sonn Mwangi	2300		0727107438	<i>[Signature]</i>
3.	Cyous Karuki	3119	22074056	072590709	<i>[Signature]</i>
4.	MARY MUTAMWI GITHIRO	2598	3181130	0720009775	<i>[Signature]</i>
5.	SUSAN NYAGUTHII	2543	20829713	0701206985	<i>[Signature]</i>
6.	DANIEL MWANGIMUTHIGA	3113	3201285	0726831959	<i>[Signature]</i>
7.	THAIRU WANKERU	2590			<i>[Signature]</i>
8.	BLASIO KARUKU	2772	5499936	0725723979	<i>[Signature]</i>
9.	WINNIE HUWJA	2141	0717405820		<i>[Signature]</i>
10.	Mwangi Njoroge	5360	442/058 0724575059		<i>[Signature]</i>
11.	Harold Mwijiten Kinyaga	2220			<i>[Signature]</i>
12.	JOHN KILIMBY	8008	12473475 0705486628	0705486638	<i>[Signature]</i>
13.	EMILYCHUS GETHI	6846	3186436	0722441948	<i>[Signature]</i>
14.	Grace Nyeri	2443		0701149233	<i>[Signature]</i>
15.	HELEN MUMB	3186	074313565		<i>[Signature]</i>

Annex 11: Bills of Quantities

	<u>DRYING BEDS</u>				
	<u>Structural steel welded together form a drying bed frame</u>				
C	Fabricate 40mm x 40mm x 3.2mm x 3.61kg/m Square Hollow Section (SHS) to EN 10210-2:2006 to make table frames as	810	LM	550	445,500
	Carried Forward				1,053,760

ITEM	DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT (Kshs)
	Brought Forward				1,053,760
	Welded Wire Mesh				
A	Supply 1.8 m wide weld-mesh size 6 Gauge (4mm dia wire) Welded wire mesh fabric with 50mm x 50mm pitch and fix to the SHS frames in Item A above to Engineer's approval. Allow	300	M ²	1,100	330,000
	Coffee Tray Soldered Wire Mesh				
B	Galvanized steel soldered coffee tray soldered wires mesh fixed on the coffee	300	M ²	100	30,000
	Coffee bed plastic nets				
C	High Density Polyethylene (HDPE) flexible plastic hexagonal netting with 5mm x 5mm aperture	300	M ²	30	9,000
	Painting				
	Prepare and apply three coats chlorinated rubber Paint of green colour as "Crown paints" or other equal				
D	General surfaces of weld-mesh and steel frames structure	750	M ²	125	93,750

	TOTAL FOR ELEMENT NO. 1: BUILDER'S WORKS CARRIED TO				1,516,510

Annex 12: Experts Licenses

FORM 7 (r.15(2))



nema
mazingira yetu | uhai wetu | wajibu wetu

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

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

License No : NEMA/EIA/ERPL/17153
Application Reference No: NEMA/EIA/EL/22182

M/S **Dickson Kimathi Muthaura**
(individual or firm) of address

P.O. Box 2269-60200 MERU

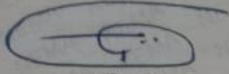
is licensed to practice in the

capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Lead Expert**
registration number **6235**

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

Issued Date: **4/6/2022** Expiry Date: **12/31/2022**

Signature.....



(Seal)
Director General
The National Environment Management Authority