



# ENVIRONMENTAL AND SOCIAL ASSESSMENT SUMMARY PROJECT REPORT

# FOR

# THE PROPOSED TETRAPACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LIMITED IN CENTRAL WARD MUKURWEINI SUB COUNTY, NYERI COUNTY

GPS Coordinates Latitude -0.56050, Longitude 37.04600 (0°33'37.8''S 37°02'45.6''E)



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## PROJECT SPONSOR

## KENYA CLIMATE SMART AGRICULTURE PROJECT (KCSAP)

## <u>Client</u>

## ESIA Lead Expert

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## DECLARATION

This Environmental and Social Impact Assessment Project Report (ESIA) Summary Project Report (SPR) for the proposed Tetra Pack Fino Extension for milk value addition at Mukurweini Wakulima Dairy Limited, L.R No. 5979/ /Mukurweini-Othaya Road, Mukurweini Central ward, Mukurweini Sub- County, Nyeri County 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 2015, the Legal Notice No. 32 and the Environmental (Impact Assessment and Audit) (Amendment) Regulations, 2019; world bank KCSAP triggered policies OP 4.01. I hereby certify that the details herein are correct and true to the best of my knowledge.

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# **ABBREVIATIONS & ACRONYMS**

AEZ	Agro Ecological Zone
AIDS	Acquired Immune Deficiency Syndrome
ASDSP	Agriculture Sector development and Support Program
CEO	Chief Executive Officer
CGN	County Government of Nyeri
CIGS	CIGS Common Interest Groups
COC	Code of Conducts
CRS	Corporate Social responsibility
EDL	Effluent Discharge Licence
EHS	Environment Health and Safety
EMCA	Environmental Management and Coordination Act
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMonP	Environmental and Social Monitoring Plans
ESMP	Environmental and Social Management Plan
FIFO	First In First Out
GPS	Geographical Positioning System
GBV	Gender Based violence
GRM	Grievances Resolution Mechanism
НН	House Hold
HIV	Human Immuno-deficiency Virus
KCSAP	Kenya Climate Smart Agricultural Project
KDB	Kenya Dairy Board
KEBS	Kenya Bureau of Standards
KPLC	Kenya Power & Lightening Company
MoALF	Ministry of Agriculture, Livestock & Fisheries
OMUWASCO	Othaya Mukurweini Water Services Company
NEMA	National Environmental Management Authority
NGO	Non-Government Organizations
NLC	National Land Commission
OP	Operational Policy

SOPs	Standard Operations Procedures
TDS	Total Dissolved Solutes
U.H.T	Ultra-Heated Tetrapacks
VMGS	Vulnerable and Marginalized Groups
WB	World Bank
WIBA	Work Injury Benefit Act
WRMA	Water Resources Management Authority

#### **EXECUTIVE SUMMARY**

The proposed Tetrapack Fino extension at Mukurweini Wakulima dairy limited in Muhito village, Muhito Sub-location, Gaturia Location, Mukurweini Central Ward Area, in Mukurweini Sub-County, Mukurweini Constituency in Nyeri County at GPS coordinates *Latitude -0.56050, Longitude 37.04600 (0°33'37.8"S 37°02'45.6"E)*. The objective of the project is to address the challenge of challenge of glut and price fluctuations in milk marketing through value addition. The project entails construction of a milk processing unit, and equipping with milk value addition machines. The project contributes to the Kenya Climate Smart Project (KCSAP) objective of increasing productivity by providing a reliable market for the milk hence encouraging the farmers to increase production using improved technologies.

The environmental and social impact assessment (ESIA) summery project report (SPR) is based on the recommendation of the County Director of Environment, Nyeri County based on the environmental and social screening report. The ESIA (SPR) has been prepared in accordance to Environmental Management and Co-ordination (Amendment) Act (No. 5 of 2015& 2019) and Part II of the Environmental (Impact Assessment and Audit) Regulations 2003 the NEMA public notice 31 on processing of EIA reports of 12<sup>th</sup> March 2020. The objective of this ESIA (SPR) was to assess the environmental and social impacts of the proposed project, propose appropriate mitigation measures and make recommendations on the approval by the National Environmental Management Authority.

The approach used in this ESIA (SPR) included environmental and social screening, environmental and social scoping, desk review, field visit, public participation and stakeholder consultation and report writing. The methods used in public participation and stakeholder consultation included two (2) public meetings, one (1) focused group discussion, key informant interviews and data collection using structured questionnaires from stakeholders. The meetings were held on the 9<sup>th</sup> January 2021, 15<sup>th</sup> January 2021 and 27<sup>th</sup> February 2021 where a total of 74 people (57 male, 17 female) participated.

The major issues raised during the public participation and stakeholder consultation included. The issues raised by the community members touched on requirement for extra space for vehicle parks, monopoly and milk scarcity especially in certain seasons of the year, gender related issues such as lack of youth pro-activeness in dairy farming, and waste

disporsal. The responses to this concerns included factoring the cost of parking expansion in the design, including the youth at all the stages of the project cycle especially in marketing, giving first priority to the locals in employment during construction and operations, sensitizing farmers on the use of climate smart technologies in dairy farming to ensure continuous supply throughout t the year.

The major positive impacts includes reduced post-harvest losses, creation of employment, job opportunities for youths, women, men and marginalized groups in the locality, generation of income, reduction of poverty, wealth, health and asset creation, socioeconomic empowerment, improved food and nutritional security; and improved health and sanitation of community members.

The major negative impacts include release of effluent from washing water, solid waste, noise pollution, air pollution, occupational health and safety hazards and soil erosion during constructions, personnel misunderstanding, use of land viable for other alternatives like other development, requirement for parking bays, risk of spread of COVID-19, risk of spread of HIV/AIDs and gender based violence at community level. A comprehensive environmental and social management and monitoring plan (ESMMP) is presented in chapter six of this report to mitigate any negative impacts.

Based on the findings of the assessment the proposed project is not likely to result into significant negative impacts. It is therefore the view of the experts that the project be allowed to proceed and recommends approval by National Environmental Management Authority (NEMA) subject to an annual audit. The experts further recommends that the reports be shared with the selected contractors for the implementation of the contractors specific ESMMP. The County Project Coordination Unit (CPCU) through the CESSCO in consultation with relevant stakeholders shall monitor the implementation of the ESMMP and report on compliance.

# CHAPTER ONE INTRODUCTION

#### **1.1 Background Information**

Dairy production is one of the major economic activities in Mukurweini constituency in Nyeri County. Nyeri County has eight sub-counties and Mukurweini is the largest producer of fresh milk with over 19,000 pure Friesian breeds producing over 60,000 litres of milk per day. The constituency is also favored by very conducive climate for dairy farming and wide sources of market for cow milk. Mukurweini Wakulima dairy Cooperative Society is one of the oldest and biggest dairy cooperative with close to over 20,400 active dairy farmers comprising of individual producers, common interest groups, youths, women, men and VMGs. Since its inception in the 1990s, the cooperative has grown in leaps and bounds from the few initial members to the current membership and therefore culminating into transformation from a mere few members self-help group to being a multi-sectoral regional giant public limited corporate entity.

The project is supported by Kenya Climate Smart Agriculture through the funding from the World Bank, Government of Kenya, the County Government of Nyeri and community own contribution by Wakulima Dairy Limited. The proposed project involves construction 2 floor moderate permanent structure to house the milk processing unit, as well as procurement of milk value addition machines in terms of tetra fino packaging equipment). The main aim of the project is to address the challenge of challenge of glut and price fluctuations in milk marketing through value addition by increase on milk shelf life and returns to farmers in Makuruini Sub County. The project is estimated to cost Kshs 64 million.

## 1.2 The Justification of Project

The proposed project supports the marketing challenges in the milk value chain which is the major barrier to increasing production. It therefore supports the Kenya Climate Smart Agricultural Project (KCSAP) key objective of increasing agricultural productivity, and enhancing of resilience to climate change through the adoption of Climate Smart dairy technologies. The proposed project is expected to benefit both common interest groups and vulnerable and marginalized groups. The project will result in increased returns to farmers, job opportunities and improved food and nutrition security.

#### **1.3 The Summery Project Report Justification**

This ESIA (SPR) was based on the recommendation of the County Director of Environment (CDE) following the environmental and social safeguards screening report. The report has been undertaken to fulfill the legal requirements as outlined in Sections 58-69 of the Environmental Management and Co-ordination (Amendment) Act (No. 5 of 2015& 2019) and Part II of the Environmental (Impact Assessment and Audit) Regulations 2003 and the NEMA public notice on processing of EIA reports of 12<sup>th</sup> March 2020.

#### 1.4 Objectives of Environmental and Social Impact Assessment (ESIA)

The specific objectives of the SPR are to:

- Collect and analyze baseline information for physical, biological and socioeconomic environments in the project area
- Discuss the legal and regulatory issues associated with the proposed project;
- Predict and assess the potential impacts of the project
- Propose appropriate mitigation measures for any negative impacts and enhancement measures for the positive impacts resulting from implementing the project
- Conduct public participation so as to incorporate their views during project implementation
- Prepare an environmental and Social Impacts management plan
- Prepare a Summary Project Report (SPR) for submission to NEMA for approval.

### 1.5 Approach and Methodology of Summery Project Report

The ESIA Summery Project Report included Environmental and Social screening, scoping, desk review, field visit, public participation and stakeholder consultation and preparation of draft report.

#### **1.5.1 Environmental and Social Screening**

This was done using the Standard World Bank and KCSAP scheduled screening list. (See the filled screening list on annex 1 in the report). The Screening procedure was applied to determine whether the project had an Environmental and social Impacts, of scale and magnitude liable to be subjected to any of the appropriate environmental and social safeguards instruments and frameworks as required under EMCA (Cap. 2000), World Bank Operation procedures, KCSAP, Local, regional and International Practices, policy, legal and institutional

framework. The exercise was done by the lead team in company of NEMA officials, collaboration with KCSAP team, Proponent and the local leaders and the proposed project was considered of significant magnitude besides reflecting some alteration of the landscape and hence finally qualified for ESIA.

### 1.5.2 Scoping

This was undertaken to determine the extent of the study. In this regard, terms of reference were drawn to define the scope of the study.

### 1.5.3 Desk Review

The assessment team used both primary and secondary data. Primary data was collected through site visits and public consultations. While at the site, the consultant used key informant interviews, semi- structured interviews, observations and focus group discussions. Secondary data was obtained through literature review. Information obtained through literature review enabled us to know:

### **1.5.4 Information desk Survey**

This involved visiting of the company offices where policy, permits, licenses, records, operation manuals and production documents were perused. Various sections were visited and their respective managers were also consulted and also briefed and given their specific terms of reference on the various type of assistance needed for ESIA (SPR).

### 1.5.5 Site Visits and Field data Collection

We visited the project site in order to:

- Develop a better understanding of the project area;
- Consult the local people about the proposed project and document their views;
- Carry out site cognizance and baseline survey;
- Assess project impacts

#### **1.5.6** Consultative Community and Public Participation (CPP)

Consultation was also undertaken as part of the ESIA (SPR) in order to obtain the views of members of the immediate community and interested and affected groups within the site's immediate area of influence. The consultation was done with randomly selected people in the neighbourhood of the proposed site and involved use of a semi-structured interviews.

Some of the key considerations were opinions of local leaders, local administration, members of the larger public, immediate neighbours, direct beneficiaries, service providers and the neighbouring public institutions such as such as churches and schools. The approaches used during the public participation and stakeholder consultation included one (1) public meetings , three (3) focused group discussion targeting the directors, the management committee and employees of the company, key informant interviews and data collection using structured questionnaires from stakeholders. The meetings were held on the 9<sup>th</sup> January 2021, 15<sup>th</sup> January 2021 and 27<sup>th</sup> February 2021 where a total of 74 people (57 male, 17 female) participated. A detailed report on the outcome is presented in chapter four of this report.

### 1.6 Organization of the Summary Project Report

This Summary Project Report is organized into nine substantive chapters. Chapter one present the introductory chapter, Chapter 2 gives nature of the project, Chapter 3 gives the location of the project, chapter 4 presents the outcome of the public consultation and participation process, Chapter 5 identifies and discusses the anticipated impacts and mitigation measures of the project , Chapter 6 presents the environmental and social management and monitoring plan (ESMMP), while Chapter 7 wraps with the conclusions and recommendation followed by references and annexes.

# CHAPTER TWO NATURE OF THE PROJECT

## **2.1 Introduction**

This chapter gives details of the, design, proposed works, planned activities, equipment/materials and project cost of the proposed establishment of proposed Tetra Pack Fino Extension for milk value addition at Mukurweini Wakulima Dairy Limited.

## 2.2 Project Design

The proposed facility will comprise of milk reception area, quality control/sampling room, processing unit installed with tetra Fino packaging machine, warehouse (milk storage room with a cold facility), milk reception room and an office space (see designs in annex 13)

## **2.3 Project Activities**

## 2.3.1 Activities during Construction Phase

## a) Pre-construction Investigations

The implementation of the project's design and construction phase will start with thorough investigation of the site soil physical, chemical and geological properties and water moisture determination.

## b) 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/Lorries. The building materials to be used in construction of the project will be sourced from Mukurweini areas and locally. Greater emphasis will be laid on procurement of building materials from within the local area, which will make both economic and environmental sense as it will reduce distance of travel by the materials transport vehicles.

## c) Excavation and Foundation Works

Excavation will be carried out to prepare the site for construction and laying of foundation and drainage systems.

#### d) Masonry, Concrete Work and Related Activities

The construction of floors and drainage among other components of the project will involve a significant masonry work and related activities. General masonry and related activities will include concrete mixing, plastering, slab construction, construction of foundations and curing of fresh concrete surfaces. Concrete and mortar will mainly be done in the main ware house and the platforms upon which the shipped containers and the tanks will be placed on. Although masonry activities are generally known to be labour intensive, for the project; due to the scale of the development, most of the proposed construction works will be done manually.

#### e) Roofing and Sheet Metal Works

Roofing activities will include sheet metal cutting, raising the roof materials such as iron sheets and structural timber to the roof and fastening the roofing materials to the roof. The grading and storage areas will also be installed with translucent sheets on the roofs.

#### f) Electrical Works

Electrical works during construction will include installation of electrical gadgets and appliances including electrical cables, lighting apparatus etc.

The facility will require installation with a 3-phase connection from the network that is already connected within the proposed site.

#### 2.3.2 Description of the Project's Operational Activities

- a) Bulking: The bulking process will involve aggregation of delivered fresh raw milk, sampling, testing and then storage for processing, or delivery or collection by other bulk buyers/retailers in the major markets of Nyeri, Karatina; Nairobi, Thika, Murang'a, Mombasa, Nakuru, Embu and other areas. Nairobi will receive the largest proportion being a niche market as already established by the current available marketing records. A total of 60,000 liters of fresh milk is expected to be delivered to the niche markets and hence processed, packed and collected for market every day.
- b) Processing: The processing will be done by subjecting received quality raw milk into the newly installed pasteurization line (a complete royal fresh and yoghurt production line with a capacity of 3000 litres per hour). The line was acquired in 2015, and is a complete line with its auxiliary equipment namely:- high pressure homogenizers, HS pasteurizer, Fermentation tanks, sterile storage tanks, double filters, plate heaters, buffer tanks, water treatment system, positive pumps, yoghurt cup filler machine, spare parts, and stainless

control panels, automatic cup filling, sealing machine and an ink jet printer.

c) Packaging and Marketing; the processed milk will be package in tetra pack using tetra pack Fino equipment. The low temperature pasteurized short shelf-life royal fresh milk packaged will be packaged in polythene for direct consumption. The milk will also be packaged in different shapes and sizes, as demanded by the market.

## 2.5 Project Cost

The proposed project is estimated to cost Kshs 64 Million including the cost of implementation of the ESMMP

# CHAPTER THREE THE LOCATION OF THE PROJECT

## **3.1 Introduction**

This chapter presents a detailed description of the project location of the proposed project, proof of land ownership, supportive environmental infrastructure and conformity to land use plan.

## **3.2 Description of the Location of the Project**

## **3.2.1 Location of the Project**

The project is located in Muhito village, Muhito Sub-location, Gaturia Location, Mukurweini Central Ward Area, in Mukurweini Sub-County, Mukurweini Constituency in Nyeri County at GPS Coordinates *Latitude -0.56050, Longitude 37.04600 (0°33'37.8"S 37°02'45.6"E)*. The site is situated within the heart of Mukurweini Town. The site is located about 27kilometres Eastwest of Nyeri town, in Mukurweini (Municipality) off the Mukurweini-Karatina road



Figure 1 GPS Coordinates for Mukuruini Wakulima Dairy Limited (google map)

## 3.2.2 Proof of Land Ownership

The proposed project site is owned by Mukurweini Wakulima Dairy Limited Company with land registration L.R No. 5279 (see annex 4)

## 3.3 Supportive environmental and social management infrastructure

The town is well served, with a good sewerage system managed by the County Government of Nyeri. The company has a well-established sewerage system with a septic tank and septic tank for management of both solid and liquid waste. The company also has a well-established drainage system for discharge of storm water.

## 3.4 Conformity to Land Use Plan and Zonal Plan

The proposed project involves expansion of an existing infrastructure on the land registration L.R **No. 5279.** Requisite approvals have been sought and therefore conforms to the land use plan.

# CHAPTER FOUR PUBLIC CONSULTATION AND PARTICIPATION

## 4.1 Introduction

This chapter outlines the key issues raised by the public on the proposed project. The findings indicate that all the community members support the project as long as they are involved and fully sensitized on the same.

#### **4.2 Objectives of Public Consultation**

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 which may bring conflicts in case project implementation proceeded as planned. The need for public consultations as required by EMCA (1999) was to:

- 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 concerns of the stakeholders were known to the decision-makers early enough
- Incorporate the information collected into the EIA study

## 4.3 Methodology of Public Participation and Consultation

The methods used included one (1) public baraza, key informant interview and data collection using structured questionnaire. The process helped to disclose the project components to the community for them to understand the proposed project as well as give their views on the project. The view of were recorded (Minutes in annex 16) and summarized below. The public meetings were held on 9<sup>th</sup> January 2021, 15<sup>th</sup> January 2021 and 27<sup>th</sup> February 2021 where a total of 74people where 57 were males and 17 females participated (attendance in annex 17). Additionally, key informants were interviewed to get in-depth issues concerning the proposed project. Similarly additionally, a stakeholders were consulted to gauge their views on the proposed project. The responses were analyzed and presented below (see a sample of filled questionnaire in annex 18)



Figure 2 Stakeholder Consultation meeting

**Figure 3 Public Participation Meeting** 

#### 4.4 Interested and affected stakeholders consulted

The stakeholders consulted in this study were: dairy farmers, input suppliers, location chief, immediate neighbours and other community members. Also consulted were the representatives of the key relevant departments, government agencies and non-government organization. T hese included; ASDSP, Mukurweini, Progressive Women Group (as a CBO), OMUWASCO, and Muhito PCEA as faith based organization, Key informants were: 4(1 Chief Officer Agriculture livestock and fisheries officers, 2 officers from Agriculture livestock and fisheries, I sub County Administrator) cooperative department, focused group discussion was held with 10 persons categorized as follows: Youth Representatives, women, management committee and Representatives of the Dairy cooperative Questionnaires were administered to 20 persons and 16 were filled and returned and analyzed

#### 4.5 Summary of Issues Raised by the Community and Stakeholders and Response

The following issues were raised by mebers of the community and stakeholders

- a) Exploitation by Milk Brokers: Community members reported that exploitation by milk brokers and spoilage of fresh milk was a serious challenge in the area. They were optimistic that construction of the proposed milk value addition plant would come in handy to address the problem.
- **b) Employment opportunities:** It was recommended by community members present that the local community should be given priority when hiring workers during construction and operations phase of the project.

- c) Waste Disposal(Grey Water): It was recommended by community members present and stakeholder that waste from the plant should be treated before discharge as affluent
- d) **Parking space:** There concerns that due to the expansion the available parking was not enough. It was proposed that the parking space should be expanded and that the cost should be included in the project design.
- e) **Leadership Issues:** Participant raised concern over issues in management of the proposed project. It was suggested that a project management committee should be instituted to oversee the management of the project in consultation with the overall management of the company.

## 1.6 Analysis of responses from the community members interviewed

The results of the responses form the administered questionnaires are presented below

No.	Question	Responses
1	Are you aware of the proposed construction of	Yes (100%)
	Tetra pack Fino Extension facility at Wakulima	
	dairy, Mukurweini Central area, for milk value	
	addition?	
2	Do you support the proposed project in the	Yes (100%)Area
	area?	
3	Do you think this project is suitable and	Yes (100%)
	compatible with the surrounding developments	
4	What are some of the positive impacts you can	Increased Production of bulking of
	attach to this project	Milk, employment and Income
		generation, area development 67.5%,
		and other benefits 32.5%
5	What are some of the negative impacts you can	None- 58.2%, Waste generation
	attach to this project	(11.5%), Others (insecurity,
		misunderstandings, water pollution,
		traffic issues-30.3%)
6	Are there any sensitive ecosystems within the	No (100%)
	area (e.g. Wildlife Sanctuaries, swamps, water	
	body, forest, etc.)?	
7	Do you think the proposed project will have	Yes (91%), No (9%) and Not

	any Socio- economic impacts on (i) if	Applicable (88%) Others (water
	implemented (ii) if Not Implemented?	
8	What are some of the challenges that you	Traffic/Transport, Insecurity, Low
	experience in shortage,	prices of milk.
	this area (please tick)	
9	Which are some of the infrastructural facilities	Factories- 13%, Milk plant -81.1% and
	that you would like to see developed in the area	Others -5.9%
10	Any other comments/Suggestions you would	Project should include solar power to
	like to make in relation to this proposed project	sustain the project. 74%

# CHAPTER FIVE ANTICIPATED IMPACTS AND MITIGATION MEASURES

### **5.1 Introduction**

This Chapter identifies and discusses both positive and negative impacts associated with the proposed project. The anticipated environmental and Social Impacts could be scalable positive or negative, direct or indirect, reversible or irreversible. The extent of the impacts was determined by their significance, adversity, temporary or permanent, long-term or short-term, localized or widespread. The anticipated impacts are discussed in three phases namely: construction, operational and decommissioning phases.

## 5.1 Environmental and Social Impacts during Construction Phase

## **5.1.1 Positive Impacts**

## a) Temporary Employment Opportunities

One of the main positive impacts during the construction phase will be the availability of employment opportunities especially to casual workers and several other specialized workers. Employment opportunities have both economic and social benefit.

## 5.1.2 Negative Environmental and Social Impacts and Mitigation Measures

## a) Shifting of adjacent utilities

Before laying of the foundations, clearing of part of the existing semi-permanent structures such as old stores, utility distribution lines, waste bins, etc, within the compound will be done. Direct impact from such disturbance may cause changes in visual quality, increasing costs of mitigation as well bringing internal disturbance especially to the working population in the company.

## **Mitigation Measure**

- Ensure proper delineation and scaffolding of the project area to be affected by construction works be done during the constructions.
- Strict adherence to required (designed) excavation depths and boundaries.
- Project implementation plans will be developed such that section excavated are worked on and completed before moving to other areas.
- Reshaping, landscaping or rehabilitation of affected sections.

#### b) Solid and Liquid Waste Generation

The construction works involves activities which may lead to generation of both solid and liquid wastes. These will include rejected, debris and broken construction materials, excavated materials and bulky soils among others. There will also be some solid containers such as cement bags, bentonite residuals and cement bags and other packets with materials and equipment to be used during implementation of the project. The workers at the site will also generate faecal wastes during their day to day operations. The generated waste needs proper handling to prevent diseases, such as cholera, typhoid and diarrhea outbreak on the site. Unless this is addressed, it can prove to be an environmental/health hazard.

#### **Mitigation Measures**

- Use an integrated solid and liquid waste management system which includes reduction at source, recycling, re-use, incineration, and sanitary landfills;
- Any remaining waste (paper or polythene containers, cement bags, bentonite, construction debris, etc. shall be safely disposed in designated waste disposal areas before the project is commissioned
- The contractor should use excavated materials for back filling of appropriate areas.
- o Construction workers should to dump solid wastes in designated covered dustbins

### c) Noise Pollution

The proposed activities is likely to result in noise pollution excavation, human chattering, movement of transport vehicles, concrete mixers, hammering of nails .The site workers and community members are likely to be affected since noise beyond some level is itself a nuisance and thus should be controlled within acceptable limits.

## **Mitigation Measures**

- Any noisy source including equipment, machinery or device shall be mitigated by use of appropriate noise suppression equipment such as mufflers
- Proper maintenance of the construction equipment
- The workers will be supplied with on ear mask where applicable to control excessive noise
- Place noisy equipment in sound proof rooms or in enclosures to minimize ambient noise levels
- No works during the night to prevent disruption of the neighbouring community; and
- Sensitize vehicle drivers and machine operators to switch-off engines of vehicles or generators when not in use and to avoid hooting.

#### d) Dust Emissions

Particulate matter pollution is likely to occur during site clearance, excavation works and laying of foundations. Ideally, no visible dust should be created nor should exhaust from any equipment be visible for more than 10 seconds. However, the potential impact on air quality will be minimal.

## **Mitigation Measures**

- Ensure that the workers have proper PPEs like dust masks
- o Ensure strict enforcement of on-site speed limits
- o Ensure Noise survey is regularly done on the site, and
- The equipment used to construct must be fitted with dust suppressors equipment (e.g. water sprays), and pre-start inspection of dust control equipment will be undertaken.

## e) Risk of Accidents and Health and Safety Concerns

During construction activities construction workers may encounter occupational health hazards as a result of coming into contact and handling hazardous waste e.g. engine oil and grease. Workers are also exposed to injuries which may result from loading and unloading truck mounted with construction materials, transportation of the ladders, hand tools and cuts from sharp objects, slips and fall from heights, tripping hazards among others.

## **Mitigation Measures**

- The contractor should ensure that workers are provided with personal protective equipment and first aid kit
- The contractor should ensure that all equipment are inspected before use for appropriate safeguards and that the machine operators are trained on machine safety
- Ensure the working hours are controlled and that employees are not allowed to extend the working hours beyond an acceptable limit for purposes of gaining extra pay
- Ensure appropriate road safety signs are strategically placed and drivers adhere to the requirements of such signage
- All construction sites shall be isolated from the public, customers and internal workers through temporary scaffolding and fixing appropriate safety signage and information

## f) Risk of Oil Spillage

The transport and concrete mixers contains movable parts which will require oiling and greasing to minimize wear and tear. Likewise the truck for transport of construction materials to the site may require oil and other lubricants change. Possibilities of oil spillage contaminating the soil and water within the project areas can therefore be real though on very minimal quantities.

#### **Mitigation Measures**

- Safety procedures will be enforced to minimize cases of oil spillage. Such procedures may include maintaining the machinery in specific designated areas designed for such purposes
- Ensure that oil/grease spills and other oils and associated materials (filters, rags and cans) are immediately removed along with all contaminated material and disposed of at an waste disposal site; and
- Ensure that contaminated materials including used/spilled oils/grease as well as other contaminated materials are stored in a banded area before disposal.

#### g) Risk of spread of HIV/AIDS and sexually transmitted diseases (STDs)

The project will attract new people such as skilled and un-skilled workers, input suppliers, transporters, etc. to the project area and this can lead to several repercussions leading to the spread of the virus. Influx of new people to the project area especially construction workers can affect the number of new cases of HIV/AIDs

#### **Mitigation Measure**

- Programs will be developed and integrated into the project implementation for sensitizing the local community and project workers on HIV/AIDS, and sexually transmitted diseases (STDs);
- Review the construction activities to integrate with the HIV/AIDS and STDs sensitization campaigns
- Develop appropriate training and awareness materials for information, Education and Communication (IEC) on HIV/AIDS and STDs
- Identify other players (local CBOs, NGOs and government organizations) on HIV/AIDS and STDs for enhanced collaboration.

## h) Health Impact – Spread of CO VID-19 amongst construction workers

During project execution (civil works), many workers will be required to assemble together in consultation engagements, 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 county which may be COVID-19 hot spots 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.

## **Mitigation Measures**

- The Contractors 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.
- Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel including workers and visitors;
- Avoid concentrating of more than 15 persons or workers at one location. Where more than one person are gathered, maintain social distancing of at least 2 meters. All workers and visitors accessing worksites every day or attending meetings shall be subjected to rapid Covid-19 screening which may include temperature check and other vital signs;
- The project shall put in place means to support rapid testing of suspected workers for Covid- 19;
- Install handwashing facilities with adequate5a4te running water and soap, or sanitizing facilities at entrance to work sites including consultation sections and meetings and ensure they are used
- Ensure routine sanitization of shared social facilities and other communal places routinely including wiping of work stations, surfaces, door knobs, hand rails etc;

## i) Gender Based Violence/Sexual Harassment

The GBV and more so sexual harassment can potentially occur with women being more vulnerable especially when seeking employment during this phase of the project. The Contractor should ensure that this does not happen and should implement the following.

## **Mitigation Measure**

- o Sensitizing workers against GBV and sexual harassment
- Have deterrent/punitive measures for any offenders reported.

## 5.3. Environmental and Social Impacts during Operation Phase

## **5.3.1 Positive Impacts**

## a) Increased market access and income to farmers

It is expected that the construction of the plant, will greatly improve the situation by providing a warehouse for storage and value addition and diversification of the packaged milk in terms of resilient U.H.T in packaged tetra packs hence; improving on quality, income and by large the required market access.

### b) Employment Opportunities

It is expected that a lot of the local community members will be employed as drivers, plant attendants, technicians, receptionists, accountants, managers, cooks, cleaners, supervisors, security, cater and cateresses, extension agent, etc. as well as those who will be involved indirectly in agricultural and transport activities.

#### c) Increased Participation of Youth in Socio-economic Development

By constructing of the plant closer to the communities, the youth will be able to spend their time in other productive activities thereby increasing their participation in socio- economic development. It is also expected that same will improve the economic and social status of even other gender in the locality including men, women and children since there will benefit trickledown.

### 5.3.2 Negative Environmental and Social Impacts during Operations

#### a) Risk of Water pollution

There are possibilities of water pollution resulting from leakage of spoilt or rejected milk and milk residues as well as waste discharged from the facility.

#### **Mitigation Measures**

- Apply water contamination/pollution control measures such as levelling the project site to reduce run- off;
- o Ensure recycling and reused of waste
- o Ensure proper treatment and discharge of waste

#### b) Generation of Solid Waste

The operations of project and related activities and processes will result in moderate quantities of solid waste. The waste will include materials such as waste papers from offices, waste cartons, and milk packaging materials.

#### **Mitigation Measures**

• Ensure reduction at source, recycling, re-use of generated solid wastes as much as possible

- Employees should dump their personal wastes in designated covered dustbins
- Regular maintenance of the sewerage system(septic tank/soak pit) to ensure their effectiveness

## c) Generation of liquid Waste

This is likely to result from water used in cleaning the working area, rejected milk and oil spills from motor cycles and motor vehicles.

## **Mitigation Measures**

- All liquid waste shall be channeled to a soak pit
- Due care shall be taken by operators to minimize oil spill from motor vehicles and when it occurs the affected soil shall be scooped and disposed in designated sites
- The project management should ensure recycling and reuse whenever possible

## d) Noise Pollution

The operations including transportation and factory related activities such as loading and offloading works will lead to significant deterioration of the acoustic environment within the project site and the surrounding areas. This will be as a result of the noise and vibration that will be experienced as a result of operations of the proposed project.

## **Mitigation Measures**

- Any noisy source including equipment, machinery or device shall be mitigated by use of appropriate noise suppression equipment such as mufflers
- The employees shall be provided with on ear mask where applicable to control excessive noise
- Place noisy equipment in sound proof rooms or in enclosures to minimize ambient noise levels
- Sensitize vehicle drivers and machine operators to switch-off engines of vehicles or generators when not in use and to avoid hooting.

## e) Occupational Health Hazards

During operation occupation health hazards may include fire outbreaks, falls from slippery flow and injurie from equipment / machine handling.

## **Mitigation Measures**

- o Ensure workers are provided with personal protective equipment and first aid kit
- Ensure all equipment are inspected before use for appropriate safeguards and that the machine operators are trained on machine safety

- Ensure the working hours are controlled and that employees are not allowed to extend the working hours beyond an acceptable limit for purposes of gaining extra pay
- Ensure firefighting equipment are in place and in proper working condition at all times
- Ensure appropriate floor surface in the working areas of the premise
- Ensure proper sanitation and hygiene in the premise

## j) Risk of Spread of COVID-19 at the premise

During operation phase there will be a lot of interaction between the employees and the farmers delivering milk as well as the transporters and buyers of processed milk. This poses risk to the persons involved hence appropriate measure need to be put in place to mitigate the risk.

## **Mitigation Measures**

- The project managers shall develop SOPs for managing the spread of Covid-19 during project operations
- Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel including employees and visitors;
- Avoid concentrating of more than 15 persons or workers at one location. Where more than one person are gathered, maintain social distancing of at least 2 meters. All workers and visitors accessing worksites every day or attending meetings shall be subjected to rapid Covid-19 screening which may include temperature check and other vital signs
- Install handwashing facilities with adequate5a4te running water and soap, or sanitizing facilities at entrance to work sites including consultation sections and meetings and ensure they are used
- Ensure routine sanitization of shared social facilities and other communal places routinely including wiping of work stations, surfaces, door knobs, hand rails.

## k) Gender Based Violence at Community level

There is likely to be increased cases of GBV arising from sharing of the proceeds from the increased returns from milk sales at household level

Mitigation Measures

- Sensitizing the community against GBV
- Have deterrent/punitive measures for any offenders reported.

## **I)** Leadership Conflicts

During the implementation, conflicts may arise in the management of the project especially the benefits accruing from the project, payment of employees and the day to day operations.

## **Mitigation Measure**

- Establishment of Project management team to oversee the implementation of the project
- Developing clear by laws to guide the implementation process
- Instituting a grievance redress mechanism at community level comprising of members of project management team, local administration and Church leaders
- o Capacity building of the management team on leadership and governance

## 5.4 Environmental and Social Impacts during decommissioning Phase

Decommissioning refers to the final disposal of the project and associated materials at the expiry of the project life span or when the center is closed down, or when the community gets another alternative business. During this project, the proponent will be expected to demolish the physical structures, change use, remove elevated water tank etc., and remediate the site.

## 5.4.1 Negative Environmental and Social Impacts during decommissioning

## a) Generation of solid wastes

Although demolition waste is generally considered as less harmful to the environment since they are composed of inert materials, there is growing evidence that large quantities of such waste may lead to release of certain hazardous chemicals into the environment. We recommend that proper waste disposal mechanisms be observed during the decommissioning phase.

## **Mitigation Measures**

 Waste should be disposed at designated sites approved by the County Government of Nyeri and NEMA

## b) Noise Pollution

The decommissioning related activities such as demolition works will lead to significant deterioration of the acoustic environment within the project site and the surrounding areas. This will be as a result of the noise and vibration that will be experienced as a result of demolishing the proposed project structures.

## **Mitigation Measures**

o Any noisy source including equipment, machinery or device shall be mitigated by use of

appropriate noise suppression equipment such as mufflers

- The workers will be supplied with on ear mask where applicable to control excessive noise
- No works during the night to prevent disruption of the neighbouring community

## c) Occupational Health Hazards

Demolition works will inevitably expose workers and the public to occupational health and public safety risks: in particular, working with heavy equipment, handling and use of tools engender certain risks. The construction workers are also likely to be exposed to risk of accidents and injuries resulting from accidental falls, falling objects, injuries from hand tools and other equipment.

## **Mitigation Measures**

- Ensure workers are provided with personal protective equipment and first aid kit
- Ensure appropriate road safety signs are strategically placed and drivers adhere to the requirements of such signage
- All construction sites shall be isolated from the public, customers and internal workers. through temporary scaffolding and fixing appropriate safety signage and information

#### **CHAPTER SIX**

#### ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN

### **6.0 Introduction**

This chapter presents the Environmental and Social Management Plan (ESMP) that will be implemented by the proponent to prevent, or reduce significant negative impacts to acceptable levels. This plan is not static but will be updated throughout the project life cycle.

The purpose of the Environmental and Social Management Plan (ESMP) for the proposed Project is to provide mitigation measures for the significant negative environmental impacts. The objectives of the ESMMP are

- To clearly show how the project will manage the negative impacts while enhancing the positive ones to ensure a project that is economically, socially and environmentally sustainable
- To provide evidence of practical and achievable plans for the management of the proposed project
- To provide the Proponent and the relevant Lead Agencies with a framework to confirm compliance with relevant laws and regulations; and
- To provide community with evidence of the management of the project in an environmentally and socially acceptable manner.

#### 6.2 Monitoring

Environmental monitoring is an applied research and analysis activity to support cost effective and timely assessment of the status and trends in environmental and social conditions in response to different project activities. Also, it is necessary to assess the project performance against the desired mitigation measures, and compliance with the regulations and standards in order to protect people's health and safety, and the environment health and performance. Monitoring activities will be applied to direct monitoring indicators whenever applicable. Indirect indicators can be monitored instead of direct ones whenever it would provide acceptable indication of the occurrence of specific impacts and/or compliance with provisions of the ESMP

# 6.3 Environment & Social Impacts Management and Monitoring Plan

## 6.3.1 Environment & Social Impacts Management and Monitoring Plan during construction Phase

Environmental	N	Aitigation measures	Monitoring Indicators	Responsibility	Means of	Time frame	Est. Cost
and Social					Verification		(KES)
Impact							
Shifting of	0	Ensure proper delineation and scaffolding of	No. plans developed	Contractor	Design Reports	6 Months	n/a
adjacent utilities		the project area to be affected by construction	Level of adherence to	Supervising	Project		
		works be done during the constructions.	design	Engineer	implementation		
	0	Strict adherence to required (designed)	Delineation/scaffolding		plans		
		excavation depths and boundaries.	done		Photos		
	0	Project implementation plans will be					
		developed such that section excavated are					
		worked on and completed before moving to					
		other areas.					
	0	Reshaping, landscaping or rehabilitation of					
		affected sections.					
Solid and liquid	0	Use an integrated solid and liquid waste	Integrated solid and	Contractor	Report on waste	6 Months	50,000
waste generation		management system which includes	liquid management in	Supervising	management		
		reduction at source, recycling, re-use,	place	Engineer			
		incineration, and sanitary landfills;	No of designated waste				
	0	Any remaining waste (paper or polythene	disposal sites				
		containers, cement bags, bentonite,	No. of dust bins				
		construction debris, etc. shall be safely	installed within the site				

		disposed in designated waste disposal areas					
		before the project is commissioned					
	0	The contractor should use excavated materials					
		for back filling of appropriate areas.					
	0	Construction workers should to dump solid					
		wastes in designated covered dustbins					
Noise pollution	0	Any noisy source including equipment,	No. of noise suspension	Contractor	Site Report	6 Months	20,000
		machinery or device shall be mitigated by use	equipment integrated in	Supervising	Incidence Report		
		of appropriate noise suppression equipment	machinery				
		such as mufflers	No of workers provided				
	0	Proper maintenance of the construction	with ear masks				
		equipment	No of operating hours				
	0	The workers will be supplied with on ear mask	in a day				
		where applicable to control excessive noise	No of drivers/machine				
	0	No works during the night to prevent	operators sensitized on				
		disruption of the neighbouring community	ways of reducing noise				
	0	Sensitize vehicle drivers and machine	No of incidences of				
		operators to switch-off engines of vehicles or	noise disturbance				
		generators when not in use and to avoid	reported				
		hooting.					
Dust Emissions	0	Ensure that the workers have proper PPEs like	No. of workers having	Contractor	Noise survey	6 Months	10,000
		dust masks	appropriate PPEs	Supervising	report		
	0	Ensure strict enforcement of on-site speed	No of noise surveys	Engineer	Daily monitoring		
		limits	done on site		report		
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	0	Ensure Noise survey is regularly done on the	No of equipment fitted				
		site, and	with dust suppressors				
	0	The equipment used to construct must be					
		fitted with dust suppressors equipment (e.g.					
		water sprays), and pre-start inspection of dust					
		control equipment will be undertaken.					
Risk of accidents	0	The contractor should ensure that workers are	No. of workers	Contractor	Photos of road	6 Months	30,000
and health and		provided with personal protective equipment	provided with PPEs	Supervising	safety signs		
safety concerns		and first aid kit	No. of equipment	Engineer	Inspection report		
	0	The contractor should ensure that all	inspected		Receipts of		
		equipment are inspected before use for	No of road safety signs		purchase of PPEs		
		appropriate safeguards and that the machine	in place		Incidence report		
		operators are trained on machine safety	Temporary scaffolding				
	0	Ensure appropriate road safety signs are	in place				
		strategically placed and drivers adhere to the	No of incidences				
		requirements of such signage	reported				
	0	All construction sites shall be isolated from					
		the public, customers and internal workers					
		through temporary scaffolding and fixing					
		appropriate safety signage and information					
Risk of oil spillage	0	Safety procedures will be enforced to	Safety procedures in	Contractor	Daily monitoring	6 Months	20,000
		minimize cases of oil spillage. Such	place	Supervising	report		

		procedures may include maintaining the	No. o	f disp	osal sites in	Engineer			
		machinery in specific designated areas	place						
		designed for such purposes							
	0	Ensure that oil/grease spills and other oils and							
		associated materials (filters, rags and cans) are							
		immediately removed along with all							
		contaminated material and disposed of at an							
		waste disposal site; and							
	0	Ensure that contaminated materials including							
		used/spilled oils/grease as well as other							
		contaminated materials are stored in a banded							
		area before disposal.							
Risk of spread of	0	Programs will be developed and integrated	No.	of	programs	Contractor	Daily monitoring	6 Months	10,000
HIV/AIDS and		into the project implementation for	devel	oped		Supervising	Incidence Report		
sexually		sensitizing the local community and project	No	of	workers	Engineer			
transmitted		workers on HIV/AIDS, and sexually	sensit	tized	on	МОН			
diseases (STDs)		transmitted diseases (STDs);	HIV/	AIDs					
	0	Review the construction activities to integrate	No.	of	training				
		with the HIV/AIDS and STDs sensitization	mater	rials					
		campaigns	No.	of	incidences				
	0	Develop appropriate training and awareness	repor	ted					
		materials for information, Education and							
		Communication (IEC) on HIV/AIDS and							

		STDs					
	0	Identify other players (local CBOs, NGOs and					
		government organizations) on HIV/AIDS and					
		STDs for enhanced collaboration.					
Health Impact –	0	The project managers shall develop SOPs for	No of SoPs in place	Contractor	Incidence Report	6 Months	50,000
Spread of CO VID-		managing the spread of Covid-19 during	No of hand washing	Supervising	Attendance list		
19 amongst		project execution and submit them for the	facilities installed	Engineer	Photos		
construction		approval of the Supervision Engineer and the	No of incidences	МОН			
workers		Client before mobilization.	reported				
	0	Mandatory provision and use of appropriate	Level of adherence to				
		Personal Protective Equipment (PPE) shall be	Covid-19 protocols				
		required for all project personnel including	No of workers				
		employees and visitors;	sensitized on Covid-19				
	0	Avoid concentrating of more than 15 persons					
		or workers at one location. Where more than					
		one person are gathered, maintain social					
		distancing of at least 2 meters.					
	0	All workers and visitors accessing worksites					
		every day or attending meetings shall be					
		subjected to rapid Covid-19 screening which					
		may include temperature check and other vital					
		signs					
	0	Install handwashing facilities with adequate					

		running water and soap, or sanitizing facilities					
		at entrance to work sites including					
		consultation sections and meetings and ensure					
		they are used					
	0	Ensure routine sanitization of shared social					
		facilities and other communal places routinely					
		including wiping of work stations, surfaces,					
		door knobs, hand rails.					
Gender Based	0	Sensitizing construction workers against	No of workers	Contractor	Attendance list	6 Months	10,000
Violence/Sexual		GBV/SH	sensitized on GBV/SH	Supervising	Photos		
Harassment	0	Have deterrent/punitive measures for any	No of incidences	Engineer	Incidence Report		
		offenders reported.	reported				

# 6.3.2 Environment & Social Impacts Management and Monitoring Plan during Operations and Maintenance Phase

Environmental	Mitigation measures	Monitoring Indicators	Responsibility	Means of	Time frame	Est. Cost
and Social				Verification		(KES)
Impact						
Risk of Water	• Apply water contamination/pollution	No of water pollution	Proponent	Monthly Reports	O&M	n/a
pollution	control measures such as levelling the	control measures in place	Management	Effluent test		
	project site to reduce run- off;	Level of recycling and	committee	Report		
	• Ensure recycling and reused of waste	reuse of waster	OMUWASCO			
	• Ensure proper treatment and discharge of	No of test done on the	TWSB WRA			
	waste	effluent				

Generation	of	Ensure reduction at source, recycling, re-	Amount of solid waste	Proponent	Monthly Reports	O&M	50,000
Solid Waste		use of generated solid wastes as much as	generated	Management			
		possible	No of covered bins	committee			
	C	Employees should dump their personal	installed				
		wastes in designated covered dustbins	No of maintenance done				
	C	Regular maintenance of the sewerage	on the sewerage system				
		system(septic tank/soak pit) to ensure					
		their effectiveness					
Generation	of	All liquid waste shall be channeled to a	Amount of liquid waste	Proponent	Monthly reports	O&M	n/a
Liquid Waste		soak pit	generated	Management			
	C	Due care shall be taken by operators to	Level of recycling of	committee			
		minimize oil spill from motor vehicles	liquid waste				
		and when it occurs the affected soil shall					
		be scooped and disposed in designated					
		sites					
	C	The project management should ensure					
		recycling and reuse whenever possible					
Noise pollution	C	Any noisy source including equipment,	No of employees provided	Proponent	Daily Monitoring	O&M	50,000
		machinery or device shall be mitigated by	with ear masks	Management	report		
		use of appropriate noise suppression	No of equipment fitted	committee			
		equipment such as mufflers	with mufflers				
	C	The employees shall be provided with on	No of drivers sensitized				
		ear mask where applicable to control	on noise suppression				

						[]	
		excessive noise	techniques				
	0	Place noisy equipment in sound proof					
		rooms or in enclosures to minimize					
		ambient noise levels					
	0	Sensitize vehicle drivers and machine					
		operators to switch-off engines of					
		vehicles or generators when not in use					
		and to avoid hooting					
Occupation Health	0	Ensure workers are provided with	No of workers provided	Proponent	Attendance list	O&M	40,000
Safety Hazards		personal protective equipment and first	with PPEs	Management	Photos		
		aid kit	No of firefighting	committee	Monthly Report		
	0	Ensure firefighting equipment are in	equipment installed	OSH	Incidence report		
		place and in proper working condition at	No. of workers sensitized				
		all times	on OHS				
	0	Ensure appropriate floor surface in the	No of incidences reported				
		working areas of the premise					
	0	Ensure proper sanitation and hygiene in					
		the premise					
	0	Sensitizing all workers on OHS					
Risk of Spread of	0	The project managers shall develop SOPs	No of SoPs in place	Proponent	Daily monitoring	O&M	50,000
COVID-19 at the		for managing the spread of Covid-19	No of hand washing	Management	Report		
premise		during project operation	facilities installed	committee	Incidence Report		
	0	Mandatory provision and use of	No of incidences reported	МОН			
			1				

	appropriate Personal Protective	Level of adherence to		
	Equipment (PPE) shall be required for all	Covid-19 protocols		
	project personnel including employees	No of workers sensitized		
	and visitors;	on Covid-19		
c	Avoid concentrating of more than 15			
	persons or workers at one location. Where			
	more than one person are gathered,			
	maintain social distancing of at least 2			
	meters. All workers and visitors			
	accessing worksites every day or			
	attending meetings shall be subjected to			
	rapid Covid-19 screening which may			
	include temperature check and other vital			
	signs			
c	Install handwashing facilities with			
	adequate5a4te running water and soap, or			
	sanitizing facilities at entrance to work			
	sites including consultation sections and			
	meetings and ensure they are used			
c	Ensure routine sanitization of shared			
	social facilities and other communal			
	places routinely including wiping of work			
	stations, surfaces, door knobs, hand rails.			

Gender Based	0	Sensitizing community members against	No of community	Proponent	Attendance list	O&M	n/a
Violence at		GBV	members sensitized on	Management	Photo		
community level	0	Have deterrent/punitive measures for any	GBV	committee			
		offenders reported.	No of deterrent/punitive	Dept. of Genders			
			measures in place	and Social Services			
Leadership	0	Establishment of Project management	Project Management team	Proponent	Monthly report	O&M	n/a
Conflicts		team to oversee the implementation of the	in place	Management			
		project	GRM in place	committee			
	0	Instituting a grievance redress	No of trainings conducted	Local			
		mechanism at community level		administration			
		comprising of members of project					
		management team, local administration					
		and Church leaders					
	0	Capacity building of the management					
		team on leadership and governance					

# 6.3.3 Environment & Social Impacts Management and Monitoring Plan during Decommissioning Phase

Environmental	Mitigation measures	Monitoring	Responsibility	Means of Verification	Time frame	Est. Cost
and Social		Indicators				(KES)
Impact						
Generation of	• Waste should be disposed at designated sites	Amount of solid	New user	Site Report	Decommissioning	n./a
Solid Waste	approved by the County Government of	waste generated	Contractor			
	Nyeri and NEMA	No of designated				

			sites				
Noise Pollution	0	Any noisy source including equipment,	No. of workers	New user	Site report	Decommissioning	n/a
		machinery or device shall be mitigated by use	provided with	Contractor			
		of appropriate noise suppression equipment	noise suppression				
		such as mufflers	mufflers				
	0	The workers will be supplied with on ear					
		mask where applicable to control excessive					
		noise					
	0	No works during the night to prevent					
		disruption of the neighbouring community					
Occupation health	0	Ensure workers are provided with personal	No of workers	New user	Site report	Decommissioning	n/a
safety Issues		protective equipment and first aid kit	provided with	Contractor	Attendance List		
	0	Ensure appropriate road safety signs are	PPEs		Photos		
		strategically placed and drivers adhere to the	No of workers		Incidence report		
		requirements of such signage	sensitized on				
	0	All construction sites shall be isolated from	OHS				
		the public, customers and internal workers.	No of incidences				
		through temporary scaffolding and fixing	Reported				
		appropriate safety signage and information					

# CHAPTER SEVEN CONCLUSION AND RECOMMENDATION

#### 7.2 Conclusion

Based on the findings the implementation of the proposed project will result into more positive impacts when compared to the negative impacts that will adequately mitigated as outlined in the ESMMP of this report. The negative impacts identified are of low magnitude and site specific and will therefore be easily be mitigated in all phases of the project.

#### 7.3 Recommendations

It is the view of the experts that the proposed project be allowed to proceed on approval by NEMA subject to strict implementation of the ESMMP and annual audit. Furthermore the ESMMP should be shared with the selected contractor for implementation of the contractors specific ESMMP. The CPCU thorough the CESSCO in collaboration with relevant stakeholders shall monitor the implementation and report on compliance.

#### REFERENCES

Kenya gazette supplement Acts 2000, Environmental Management and Coordination Act Number 8 of 1999. Government printer, Nairobi

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GoK (2009) The National population census statistics, Government Printer, Nairobi, Kenya. GoK (No.13, 2013)). Agriculture & Fisheries Authority Act, Cap 2013. Government Printer, Nairobi. Kenya.

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Labour and Employment Relations Act, Cap 2007; Government Printer, Nairobi, Kenya.

#### ANNEXES

# Annex 1: Duly filled and Signed ESS Screening Checklist

	Land Social generating Chevel and	-	A REAL PROPERTY AND
FSM Sub-projects S	Sergening Chacklist (Prototyna)		
Sub-projects scree	ning process by benefitting communities/Agencies)		
	and process by benefitting communities Agencies)		
Section A: Backgro	und information		
Name of County N	MIBRI		
Name of CPCU /Researc	her		
MU	UKU RINGINI	10	
Sub-project location.	Part BUNTY Name of		
CBO/Institution	TRUE AND A AND A AND AND AND AND AND AND AND		
Postal Address: 232	-10 103 Watalener Childer		1
Contact residence 2020	tesde		1. A.
Sub-project name	WEURWEINI WHENLIMA DAYRY (	lo-orefea	ATLUE
Estimated cost (KShs.)	40,000,000.P		
hause pro	oduces:		
Activities/enterprises und	chosen? Pp members identified the	need,	and a gra
Activities/enterprises und How was the sub-project Expected sub project dura One year. Section B: Environn	entaken Processing Milk chosen? Po members identified the and approval doned by pr coordinating unit approves nental issues Minuter	need, p, vetty get the	and a gra ng recomm the twen h through
Activities/enterprises und How was the sub-project Expected sub project dura One yeav. Section B: Environn Will the sub-proje	enaken Processing Milk chosen? Po nembers identified the ation proposal scelemitted to UCSA and approval dones by pr coordinating unit approves nental Issues Minutes	need, p, vettu gat ti Paul V	and a gra og recomm intertien N ittisough
Activities/enterprises and How was the sub-project Expected sub project dura Owe yeav. Section B: Environm Will the sub-proje Create a risk of in	ertaken Processing Milk chosen? Po nembers identified the ation proposal scebmitted to ucsA and approval doned by pr coordinating unit approves nental Issues Minutes set: creased soil erosion?	need, p, vettu part the Part Yos	and a gra
Activities/enterprises und How was the sub-project Expected sub project dura One yeav. Section B: Environn Will the sub-proje Create a risk of in Create a risk of in	ertaken Processing Milk chosen? Pp members identified the ation proposal submitted to UCSA and approval doned by pr coordinating unit approves nental Issues Minutes ret: creased soil erosion? creased deforestation?	need, P, vetty epect the Ves	and a gra
Activities/enterprises und How was the sub-project Expected sub project dura Owe Jeav. Section B: Environn Will the sub-proje Create a risk of in Create a risk of in	entaken Processing Milk chosen? Po nembers identified the ation. Proposal submitted to UCSA and approval doned by pr coordinating unit approves nental Issues Minutes set: creased soil erosion? creased deforestation? creasing any other soil degradation soil degradation?	need, p, vettu epoct ti variet	and a gra
Activities/enterprises and How was the sub-project Expected sub project dura Owe year. Section B: Environn Will the sub-proje Create a risk of in Create a risk of in Affect soil salinity	ertaken Processing Milk chosen? Po nembers identified the ation: Proposal scelemitted to UCSA and approval doned by pr coordinating unit approves nental Issues Minutes ret: creased soil erosion? creased deforestation? creasing any other soil degradation soil degradation? y and alkalinity?	need, p, vettu gat the Yas	and a gra
Activities/enterprises und How was the sub-project Expected sub project dura Owe yeav. Section B: Environn Will the sub-proje Create a risk of in Create a risk of in Create a risk of in Create a risk of in Divert the water p Cause pollution o spillage, effluents	ertaken Processing Mills chosen? Po members identified the ation proposal submitted to UCSA and approval donest by proves nental Issues Minutes ret: creased soil erosion? creasing any other soil degradation soil degradation? y and alkalinity? esource from its natural course/location? Faquatic ecosystems by sedimentation and agro-chemicals, oil etc.?	need, P, vettig	and a gra
Activities/enterprises und How was the sub-project Expected sub project dura One year. Section B: Environn Will the sub-proje Create a risk of in Create a risk of in	ertaken. Processing Milk chosen? Po members identified the ation. Proposal submitted to UCSA and approval doned by pr condinating unit approves nental Issues Minutes ret: creased soil erosion? creased deforestation? creasing any other soil degradation soil degradation? y and alkalinity? esource from its natural course/location? I aquatic ecosystems by sedimentation and agro-chemicals, oil . etc.? plants or animals?	reed, p, vetting	and a gra
Activities/enterprises und How was the sub-project Expected sub project dura One year. Section B: Environn Will the sub-proje Create a risk of in Create a risk of Create a risk of Create a risk of Create a	ertaken Processing Milk chosen? Po members identified the ation. Proposal submitted to UCSA and approval doned by pr condinating unit approves nental Issues Minutes set: creased soil erosion? creased deforestation? creasing any other soil degradation soil degradation? y and alkalinity? esource from its natural course/location? raquatic ecosystems by sedimentation and agro-chemicals, oil .etc.? lints or animals? of wetlands or other permanently flooded areas?	reed, p, vettus epoct the Yes	and a gra

Cause noor water drainage and increase the risk of water-related diseases such as	
malaria?	~
Reduce the quantity of water for the downstream users?	0
Result in the lowering of groundwater level or depletion of groundwater?	
Create waste that could adversely affect local soils, vegetation, rivers and streams or groundwater?	1
Reduce various types of livestock production?	1
Affect any watershed?	~
Focus on Biomass/Bio-fuel energy generation?	3

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

#### Section C: Socio-economic Issues Yes Will the sub-project: Displace people from their current settlement? Interfere with the normal health and safety of the worker/employee? Reduce the employment opportunities for the surrounding communities? Reduce settlement (no further area allocated to settlements)? Reduce income for the local communities? Increase insecurity due to introduction of the project? Increase exposure of the community to HIV/AIDS? Induce conflict? Have machinery and/or equipment installed for value addition? Introduce new practices and habits? Lead to child delinquency (school drop-outs, child abuse, child labour, etc.? Lead to gender dispatity? Lead to poor diets? Lead to social evils (drug abuse, excessive alcohol consumption, crime, etc.)? Section D: Natural Habitats NO YES Will the sub-project: Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species? Adversely affect environmentally sensitive areas or critical habitats - wetlands, woodlots, natural forests, rivers, etc.)? Affect the indigenous biodiversity (Flora and fauna)?

	>
Cause any loss or degradation of any natural habitats, either directly (through project works) or indirectly?	5
Affect the aesthetic quality of the landscape?	
Reduce people's access to the pasture, water, public services or other resources that they iepend on?	1
ncrease human-wildlife conflicts?	
Agrochemical use	
Will the sub-project:	
involve the use of pesticides or other agricultural chemicals, or increase existing use?	V
Cause contamination of watercourses by chemicals and pesticides?	
Cause contamination of soil by agrochemicals and pesticides?	
Experience effluent and/or emissions discharge?	
Export produce? Involve annual inspections of the producers and unannounced inspections?	
Require scheduled chemical applications?	- Y
Require chemical application even to areas distant away from the focus?	

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

#### Section E: Pesticides and Agricultural Chemicals

This questionnaire will be used with the farmers groups for purpose of implementing the IPMF 1) *Pest Control practices* 

a) Do you use any pesticides to control pests (Insects, diseases, weeds) of crops each season?

Yes No If yes, Name them:	Name of pesticide	Name of pest, disease, weed controlled	Number of times applied/ season	When did you apply (growth stage or month) Quantity purchased	0.
				1	

If No, WHY?

b)If you use any of the above pesticide types, do you keep records of the:

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

.10	Yes	NO
Are there:		
People who meet requirements for OP 4.10 tiving whom see a project?		
Members of these VMGs in the area who could benefit from the project?		
VMGs livelihoods to be affected by the sub project?		1

Ň

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

(that of	Yes	No
Nill the sub-project:		1
Require that land (public or private) be acquired (temporarily or permanently) to ts development?		-
Use land that is currently occupied or regularly used for productive purposes (e.g.		1
Displace individuals, families or businesses?		J
Result in temporary or permanent loss of crops, fruit trees and pasture land	-	1
Adversely affect small communal cultural property such as functial and current sites, or sacred groves?	-	
Result in involuntary restriction of access by people to legally designated parks	_	
and protected areas.		

Be on monoculture cropping?

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

#### Section H: Proposed action

(i) Summarize the above:	(ii) Guidance
All the above answers are	<ul> <li>If all the above answers are _No*, there is no need for further action;</li> </ul>
No' There is at least one _Yes'	<ul> <li>If there is at least one _Yes', please describe your recommended course of action (see below).</li> </ul>

# (iii) Recommended Course of Action

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

CPCUs and County Director of Environment (CDE) will provide detailed guidance on mitigation measures as outlined in the ESMF; and Specific advice is required from CDE and CPCUs regarding sub-project specific EIA(s) and also in the following area(s)

All sub-project applications/proposals MUST include a completed ESMF checklist. The KCSAP-CPCU and CDE will review the sub-project applications/proposals and the CDEs will sign off; The proposals will then be submitted to NPCU for clearance for implementation by communities in the proposed subprojects.

#### Expert Advice

The National Government through the Department of Monuments and Sites of the National Museums of Kenya can assist in identifying and, mapping of monuments and archaeological sites; and Sub-project specific ESIAs, if recommended, must be carried out by experts registered with NEMA and be followed by monitoring and review. During the process of conducting an EIA the proponent shall seek views of persons who may be affected by the sub-project. The WB policy set out in OP 4.01 requires consultation of sub-project affected groups and disclosure of EIA's conclusions. In seeking views of the public after the approval of the sub-project, the proponent shall avail the draft ESIA report at a public place accessible to project-affected groups and local NGOs/CSOs.

Completed by: [type here] Name: Ephantus Note	Berteri COUNT
[type here]	930 . 10100, NYERI *
Position / Community: [type here]	
Date: [type here] 5[02/202	
Field Appraisal Officer (CDE): [type here]	
Signature: / A NATIONAL/ENVIRONMENT MANAGEMENT AUTHORITY	
COUNTY DIRECTOR OF ENVIRONMENT	
Date: [type here] Res tax tax	
	. *
	<i>,</i>

# Annex 2: Single (Trade) Permit

	P.O Box: 1112-10100 Nyeri Kenya Email: Info@nyeri.co.ke Phone: +254 714 952 473	
Business No: L06/4260	00 Permit Number 2020/L06, Grants This	/4260001 Year 2020
S and a second se	SINGLE BUSINESS	PERMIT
	То	
siness No. 106/42600	Business Name MUKURW	E-INI WAKULIMA DAIRY LTD
C 35/2006	PIN Number P051239577T	VAT Number
Business Activity Code & Descrip Deraided Activity Descrip	otion: III: Travelling Wholesaler	elling Wholesaler]
	Having Pald Business License Fees	Ot
KES ( Business unde	(In words) *** TWENTY FOUR THO	USAND ONLY*** the address indicated below:
KES ( Business unde sr No. MOBILE	KES 24,000.00 (In words) *** TWENTY FOUR THO r this license shall be exclusively conducted at 1 Physical Location: NYERI TOWN	ble address indicated below:
KES ( Business unde r No. MOBILE stal Address 232 - 10103 MUKURWE-INI	KES 24,000.00 (In words) *** TWENTY FOUR THO r this license shall be exclusively conducted at 1 Physical Location: NYERI TOWN Telephone 0722814900	Tax & Email
KES ( Business unde r No. MOBILE stal Address 232 - 10103 MUKURWE-INI	KES 24,000.00 (In words) *** TWENTY FOUR THO This license shall be exclusively conducted at 1 Physical Location: NYER! TOWN Telephone 0722814900 ed.Byte Insued: 21 Feb 2020	The address indicated below: Fax & Email COUNTY GOVERNMENT OF THE NYEAL DOWN SUB COUNTY Exproy Date: CGMED 31 Dec 2020 UNITY TREA SUBY
KES ( Business unde r No. MOBILE stal Address 232 - 10103 MUKURWE-INI Validity Petificial Isa	KES 24,000.00	A SS PUSAND ONLY*** the address indicated below: Fax & Email: COUNTY GOVERNMENT OF TH Fax & Email: NYERI FOWN SUB COUNTY Exproy Date: CGMED 31 Dec 2020 UNITY TREASURY

#### **Annex 3: Company Registration Certificate**

Ref. C. 118292



Department of the Registrar General P.O. Box 30031, Nairobi

Date 2014 DECEMB

Dear Sir/Madam

Re: The Companies Act (CAP 486)

MUKURWEINI WAKULIMA DARY

Limited

I wish to advice that the above company has been changed from (Private to Public).

(Public to Private) company. Its new registration number is C...35/2006

Please quote this number on all company documents, forms / correspondence etc that are filed at or addressed to the registry henceforth.

Yours faithfully,

ASSISTANT REGISTRAR OF COMPANIES

# Annex 4: List of the Company' Board of Directors

	THE APPL	P. O. NAIR 30'TH	30X 30031 OBI I OCTOBER 2020	-
O MUKURWEINI WAKULIMA DAIRY LIMIT	TED			
0103 - MUKURWEINI				
	THE COMPA	NIES ACT, 2015		e la la
coording to the records reading to the below com	pany held by the Companie	es Registry as at 30 MARCH 2020		-
COMPANY	THE REAL PROPERTY OF	MUKURWEINI WAKULIM	A DAIRY LIMITEI	,
COMPANY NUMBER		C.35/2006		A STREET
NOMINAL SHARE CAPITAL		100,000,000.00	To the second	ST AMORE
NUMBER AND TYPE OF SHARES (V	ALUE PER SHARE)	ORDINÁRY: 1000000 (KES	100.00 EACH)	E INTER
DATE OF REGISTRATION		2008-08-02	- And - And - And - A	The spectrum
REGISTERED OFFICE		P.O BOX 232, MUKURWEINI TELEPHONE: +2540722814900, EMAIL: INFO@WAKULIMADAIRY.CO.KE COUNTY:, DISTRICT:, LOCALITY: STREET: MUKURWEINI OTHAYA ROAD, BUILDING: LR.NO 5979		
POSTAL ADDRESS		P.O BOX 232 MUKURWEINI		
ENCUMBRANCES	distant and the			
and at Dissignment Chambelders of the shown	commune with their particul	ar are as follows	a cilia	A PARTY AND
and of concerning and concernences of the averte			Lauren marrie	Inner
NAME	DESCRIPTION	ADDRESS	COUNTRY	SHARES
GEOFFREY WAHOME KARIUKI	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	
GICHOHI KARIUKI	DIRECTOR	P.O BOX 232 MUKURWEIN	a KENYA	
WILLIAM KARIUKI KARUGU	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	
DAVID MUHIKA MUTAHI	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	
PETER MWANGI GATHOGO	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	- transf
ERASTUS P MATHERI GITUKU	DIRECTOR	P.O BOX 232 MUKURWEIN	II KENYA	
ESTHER WANGUI MUTAHI	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	「おいい」書
JOYCE MURINGO MAJNA	DIRECTOR	P.O BOX 232 MUKURWEIN	II KENYA	
DICKSON GATHERU MACHARIA	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	Market Mark
DAVID KARIUKI HUNGURA	DIRECTOR	P.O BOX 232 MUKURWEIN	II KENYA	1 State
SOLOMON WARIBU MUTAHI	DIRECTOR	P.O BOX 232 MUKURWEIN	II KENYA	
Barrier and the state of the second state of t	DIRECTOR	P.O BOX 232 MUKURWEIN	I KENYA	
ROBERT GITHUA KAGONDU	DIRECTOR	and a second		



#### **Annex 5: Land Registration certificate (Tittle Deed)**



#### **Annex 6: Kenya Dairy Board Permit**

#### Annex 7: Effluent Quality Analysis Report



#### WATER RESOURCES AUTHORI Y $\mathbf{T}$

EWASO NYIRO NORTH REGIONAL OFFICE P.O. BOX 1331 - 10400 NANYUKI

Telephone: Nanyuki 062 - 32510 Fax: Nanyuki 062 - 32511 E-mail: wra.ewasongiro@gmail.com

# Water Sample Analytical Certificate - Effluent Results

Name of customer: Wakulima Dairy Ltd Purpose of sampling: Monitoring Date Sampled: 12 <sup>th</sup> /05/2020 Source: Final Effluent.		<ul> <li>Address: P.O. Box Mukurwe-Ini County: NYERI</li> <li>Date received: 12<sup>th</sup>/05/2020</li> <li>Date compiled: 18<sup>th</sup>/05/2020</li> </ul>		
DADAMETEDS	UNIT	RESULTS	EFFLUENT S	STANDARDS
PARAMETERS	01112		DISCHARGE INTO ENVIRONMENT	DISCHARGE INTO PUBLIC SEWER
Turneration	°C	23.5	±3 ambient temp.	20-30
Temperature	oH Scale	8.0	6.5-8.5	6-9
pH	u Slem	2630	-	-
Conductivity	mgOs/l	1250	30	500
BOD, days at 20 C	mach	1560	50	1000
COD	mgCaCO_/	620	-	*
Total Alkaunity	mgcacom.	486	30	250
Total Suspended Solids	mg/l	1709.5	1200	2000
Total Dissolved Solids	mg/l	5		
Colour	mail	533		
Turbidity	mg/l	118		
Phosphorous	mg/i	360	Two guideline value	30
Total Phosphate	ing/i	270		
Phosphorous Pentoxide	mg/i	Nil		
Dissolved Oxygen	mg/i	116		
Sulphate	mg/i	0.924	-	-
Nitrite	mg/1	4360	Max 50	Max 50
Nitrate	mg/l	+300		
Nitrogen	mg/l	1000		
Ammonia	mg/l	1.9		
Potassium	mg/l	10	0.02	0.02
Arsenic	μg/1	0	0.02	5 or 10
Oil& Grease		10	Nil	2.01.10
Residual Chlorine	mg/L	Nil		

Name of analyst: Vivianne Bosire

Signature: . Dita

Comments by head of laboratory: The BOD & COD values are higher than the recommended values of 30 and 50 respectively in order to discharge directly into the environment

Name: James M. Icika

REGIONAL MANAGER WASO NGIRO NOLIDI INTEDIDIT AREA P. O. Son 1331 MARTINE

Signature: ....

...... Date: 18<sup>th</sup>/05/2020 WRA is ISO 9001: 2008 Certified

PUKM D 73219 No. COUNTY GOVERNMENT OF NYERI P.O. BOX 1112-10100 NVERI A ERI COUNTY CERTIFICATE OF MEDICAL EXAMINATION THE FOOD, DRUGS AND CHEMICAL SUBSTANCE ACT (Cap. 254) ' hereby certify that I have this day examined 60 0 Mr./Mrs./Miss and that in my opinion he/she is fit under the food, Drug and Chemical Substances (Food Hygiene) Regulations to work at (Name of Food plant), Blet No. Town/Market 2 0 This certificate is valid for six months with effect from 10 SUB-COUNTY PUBLIC HEALTH OFFICER P.O. BOX 83 MUKURWE-INI Ksh (Signature and Name of Medical Officer) Receipt " ate (Official stamp of Medical Institution)

**Annex 8: Evidence of Medical Certification for Staff** 

	1	Crowing You. For Good	SERIAL No.036073
	RECEIP	PAYMENT RECEIPT	
	Receipt No: 40101 / 2020 / 11816	Print	Date: 16/11/2020 09:30-49
	Accessit Number: 002(5493		
	RACEVEL FROM MURURAE-INI WARLILIMAT	MATRY COMPANY LIMITED Reco	Int Date: 18-NOV-20
	Payment mode: BANK CHEQUE Document Number: 004715 Date: 11/11/20	120	
	Payment Type	Period	Amount
	Pension Fund - Tier 1	10/2020	158,800.00
	Provisiont Fund	10/2020	455.50
	A A	Paid amount Kest	159,200,00
	The net waid with the stress offices	Stamp	5#/#XN/1NC/DP/002
			SF/FIN/INC/DF/002
		MATHONIA	
		P.O. SOL SECURITY	
		000-1011 FUND	
-		14 MON AND	
-		The state of the s	

# Annex 9: Evidence of NSSF & NHIF Certification for Staff

### Annex 10: KEBS Permit for Standardization Mark

ERMIT IS GRANT	ID TO				
AME OF FIRM	MUKURWE-INI W	AKULIMA DAIRY	STANDARDIZATION	MARK NO 1 24637	
OSTAL ADDRESS	P.O BOX 232. M	UKURWE-INI	EFFECTIVE FROM	2020-02-28	
	10103		EXPIRES ON:	2021-02-28	
HYSICAL ADORE	MUKURWE-INI O	THAYA ROAD	DATE OF ISSUE:	2020-08-19	
LEPHONE NO.	020-2046895				
OCINICI.	020-2046895				
MALL ADDRESS	-				
DESCRIPTION OF TH UTON WHICH THE AGAIN IN TO BE USE	HI COMMODINTY TRASIDABLE ZATION B	YOGHURT			
enendi naves		ROYAL			
TRANDARD SPECTIC (Number and Title)	STON	KS EAS 33 :2019 FOR	EAST AFRICAN STANDARD YOGHURT.	SPECIFICATION	5
OTE 1 EVERY FLE OF LACITY	MIT HOLDER SHALLS ISAMT SEAMTLE OR IN THIS ISSUED SURJECT	AC AN ANNUAL FEE IN RESPECT ENEWED TO THE CONDITIONS OF OUT	MANAGING DIRECT	OR / AUTHORIZED OF	7 Z.
BS KE					

#### THE STANDARDS ACT (CAP. 496 OF THE LAWS OF KENYA)

PERMIT IS GRAI	NTED TO :			
NAME OF FIRM;	-MUKURWE-INI WAKULIMA DAIRY		STANDARDIZATION	MARK NO. : 22404
POSTAL ADDRESS:	P.O BOX 232, MUKURWE-INI		EFFECTIVE FROM:	2015-07-22
	10103		EXPIRES ON -	2016-07-21
PHYSICAL ADDRESS	MUKURWE-INI OTHAYA ROAD	-	DATE OF ISSUE	2015-07-22
TELEPHONE NO. :	020-2046895			
FAX NO. :	020-2046895	-		
E-MAIL ADDRESS :		1.0		

to use the standardization mark specified in the first row hereunder upon and in respect of the commodity an brand specified in the second and third rows there of, which commodity, conform to the standard specification in the fourth row

.

1	STANDARDIZATION MARK		
2	DESCRIPTION OF THE COMMODITY UPON WHICH THE STANDARDIZATION MARK IS TO BE USED	DAIRY MEAL	
3	BRAND NAME	BORA	
4	STANDARD SPECIFICATION (Number and Title)	KS 01-62 Keny feed	a Standard Specification for dairy cattle supplements (Second Edition).
	5 (4135 KE 35 KE35 KE	es nees i BS kees i	Amo
N C C C	OTE: 1. EVERY PERMIT HOLDER SHALL OF EACH PERMIT GRANTED C 2. THIS PERMIT IS ISSUED SUBJECT OVER LEAF	PAY AN ANNUAL FEE IN RESPECT IR RENEWED TO THE CONDITIONS SET OUT	MANAGING DIRECTOR / AUTHORIZED OFFICER KENYA BUREAU OF STANDARDS
	(1)		KEBS Kenya Bureau of Standards





The Audit process and report comply with Legal Notice No. 59/2007 The Occupational Safety & Health Act (2007)

> The Audit was carried out by: Mumbi Kariuki - Authorised Fire Safety Auditor OSH/FSA 113

> > Date: 12<sup>TH</sup> August 2020

Annex 12: Noise Survey Report









**Annex 14: Equipment Inspection Report** 

MUKURWE-INI WAKULIMA DAIRY LTD P.O. BOX 232-10103 MUKURWE-INI **INSPECTION REPORT** FOR HORIZONTAL WOODFIRED BOILER, AIR RECEIVERS AND MANUAL LIFTING MACHINES DATED 23<sup>RD</sup>/ 08 / 2020 **INSPECTED BY:** INDUSTRIAL VESSELS INSPECTORS LIMITED P.O BOX 80072-00400 NAIROBI. TEL: 0729733543 Email:chimbaboiler@gmail.com

# Annex 15: Certificate of Inspection for Equipment

	THE FACTORIES ACT,	
	(CAP. 514, SECTION 37)	
	Form prescribed by the minister for	or labour for
	REPORT OF EXAMINATION OF STEAM POL	
	REPORT OF EXAMINATION OF STEAM BUT	LER UNDER NORMAL STEAM PRESSURE.
This	form may also be used to a fire semilarities for a sector set	
1 4 1.45	s with may also be used to fair applicable) for supplementa	ity reports of economizer and superneated
L. :	Name of occupier	MUKURWE-INI WAKULIMA DAIRY LIMITED.
2.	Address of factory or other premises where boiler is	P.0 BOX 232-10103 MUKURWE-INI
	Situated. In case of factory, state also Registration No	MUKURWE-INI TOWN
h.:.	Type, description and distinctive number of boiler	HORIZONTAL WOODFIRED BOILER.
		SN: FVPL-1787
-		CAPACITY 600KG/HR
-	Condition (External)	GOOD AND WORKING
	rittings and altachments-	
	a) (i) is the sately valve so adjusted as to prevent to The ballet being worked at a prevent to the ballet.	the
	The maximum permissible working processor	TES TWO SPRING TYPES SET TO BLOW
	Specified in the last report() () 211 on the	10.5 BARS
	Examination when cold?	
	(II) If a lever safety valve, is the weight secured or	the TWIN SPRING LOADED
	Lever in the correct position?	The second courses.
	b) Is the pressure gauge working correctly?	YES
	and the second se	
_	c) Is the water gauge in proper working order?	YES AS PER THE ACT
	Repairs ( if any) required, and period within which they	
	Should be executed, and any other conditions which th	e -
	the authorized boiler inspector thinks if necessary to s	pecify
	for securing safe working,	
	Other observations ALL CONTROLS OK CERTIFIED UPTO	AUGUST 2021
	I, (Full name in BLOCK LETTERS PETER CHIMBA NDIRITU	hereby declares that I am a boiler inspector authorized b
	the Chief Inspector of factories for the purpose of section i	37 of the Factories Act, Cap. 514, by
	certificate APV/077/dated on 22 ** / JULY / 2020	and that on 23 <sup>80</sup> /08/2020. I examined the steam boiler
	above described under normal steam pressure.	
	I certified that the above is a true report of the result.	
	Date: + 23 <sup>80</sup> / 08 / 2020	0
	Address : P.O BOX 61722-00200	the.
	TEL : 0723 646 571	Hold'
		Signature of Authorized Talles Income
		SECOLUCE OF AUTOFILED BOHEF INSPECTAL

#### **Annex 16: Minutes of Public Participation**

# MINUTES FOR MUKURWEINI WAKULIMA DAIRY COOPERATIVE SOCIETY MEETING HELD ON 09/01/2021 AT MUHITO PCEA CHURCH HALL

Present -M.W.D.C.S LTD

Hon. Muhika Mutahi – Chairman
Mr. Erastus Matheri - Committee member
Mrs. Esther Mutahi- Committee member
Mr. Solomon Mutahi – Committee Member
Mr. William kariuki – Committee Member
Mr. Geoffrey Wahome- Committee Member
Mr. Robert Githua – Committee Member
Mr. David Hungura - Committee Member
Mr. Julius Gichohi – Committee Member
Mrs. Julius Gichohi – Committee Member
Mr. Peter Gathogo – Committee Member
Mr. Peter Kamau – C.E.O (DAIRY)
Mr. John Mwaura – C.E.O (SACCO)
Mr. George Muita – Operations Manager
Mr. Charles Mithamo – Milk Procurement, Production

The chairman called the meeting into order and requested a volunteer to lead with a word of prayer where Mrs Mary Wanjiru led the prayers at 10.55 am.

The chairman welcomed the members for availing themselves for the meeting and thanked them their endless support to their society even during this trying times of corona virus era and later called the secretary to read the day's agendas .

- 1. Reading the previous minutes
- 2. Adapting the minutes and adopting.
- 3. Matters arising from the previous meeting.
- 4 .Progress of KCSAP -inclusion grant funds utilization.
- 5. Fino terra packing plant.
- 5. A.O.B

#### MIN1/09/01/2021 READING THE MINUTES FROM THE PREVOIUS MEETING

The secretary read through the minutes from the previous meeting and the members unanimously agreed that they were true as read .Proposed by Mr. Peter Nderitu and seconded by Mr.Francis Kariuki.

#### MIN 2/01/09/2021-MATTERS ARISING FROM THE PREVIOUS MEETING

Cancellation of member trainings on FODDER CONSERVATION, BREED SELECTION and AI service after having been given much publicity at the zonal levels .- The chairman informed the members that the cancellation was as a result of the Ministry of health directive to strictly observe covid -19 guidelines at the time ,but assured the members that once the government eases the directives the trainings will be rescheduled .

#### MIN3/09/01/2021-PROGRESS ON KCSAP INCLUSION GRANT FUND.

The chairman informed the members that Kenya Climate Smart Agriculture Project is a world bank funded project and aims to increase agriculture productivity to farmers in the county project area have already disbursed Ksh 1 million to the society for capacity building the management committee on various management aspects ranging from governance, fiduciary, recruitment of more members among others .Training of various sub committees will also be carried out to for better running of the society up to the zonal member representatives .He also informed the members that the funds are grants to the beneficiaries (society) and is a prerequisite to a bigger grant that the society intend to receive from KCSAP to install a fino tetra pack machine(UHT) for long Shelf life packaging.

#### MIN 4/09/01/2021-FINO TETRA PACK PLANT

The chairman informed the members that the Fino tetra pack plant is budgeted to cost Ksh 40 Million where KCSAP will provide Ksh 20 million as grant and the society provide a similar amount of Ksh 20 million. The chairman informed the members that housing structure where the processing plant will be installed is almost complete and he hopes that the processing will start soon since they are continuously with KCSAP for directions and guidance.

#### MIN 5/09/01/2021-A.O.B

One member wanted to know whether the individual member saving account banking section can be operated through mobile banking since covid 19 preference rate is rising in the county (for personal safety). Another member wanted to know why the was change of milk collection time in his zone as they are wasting so much time waiting for the vehicle to arrive .

The chairman requested members to adhere covid -19 guidelines as issues by the ministry of health –keeping distance about 1.5 m, washing hands with the recommended sanitizer and always wearing of mask when at public place .He emphasized that it was a personal /individual responsibility to protect themselves in order to avoid being counted as a statistics.

Having no other business the meeting ended at 3.35 pm with a word of prayers from Mr John Maina .

#### Minutes proposed by

Name	I/D No	Date	_Signature
Minutes seconded by			
Name	I/D No	Date	_Signature
# MINUTES FOR MUKURWEINI WAKULIMA DAIRY COOPERATIVE SOCIETY MEETING HELD ON 27/02/2021 AT GIATHUGU POLYTECHNIC

## <u>PRESENT</u>

Mr. Erastus Matheri - Committee member Mrs. Esther Mutahi- Committee member Mr. Solomon Mutahi – Committee Member Mr. William kariuki – Committee Member Mr. Geoffrey Wahome- Committee Member Mr. Robert Githua – Committee Member Mr. David Hungura - Committee Member Mr. Julius Gichohi – Committee Member Mrs. Julius Gichohi – Committee Member Mr. Peter Gathogo – Committee Member Mr. George Muita – Operations Manager Mr. Charles Mithamo – Milk Procurement, Production

The chairman (George Muita- Acting Chairman) called the meeting into order and requested a volunteer to lead with a word of prayer where Mrs Jechinta Waigumo led the prayers at 11.15 am.

The chairman welcomed the members for availing themselves for the meeting and thanked them for having time to come support to their dairy cooperative society and later called the secretary to read the day's agendas.

- 1. Reading the previous minutes
- 2. Matters arising from the previous meeting.
- 3 .Training of Data enumerators by KCSAP Team.
- 4 Update on Fino terra packing plant.
- 5. A.O.B

## MIN1/27/02/2021 READING THE MINUTES FROM THE PREVOUS MEETING

The secretary read through the minutes from the previous meeting and the members unanimously agreed that they were true as read .Proposed by Mr. Charles Kinyuua and seconded by Mrs Elizabeth Wangui

## MIN 2/02/27/2021-MATTERS ARISING FROM THE PREVIOUS MEETING

Delays in milk collection in the morning sessions –The members were informed that the said milk collection delays were due to strict government curfew hours that must be adhered to ,but the society looking on how the problem can be addressed eg engaging more collecting vehicles or complete rescheduling of milk the collection time table ,The chairman apologized for any inconvenience caused by the new time table .

## MIN3/27/02/2021-PROGRESS ON KCSAP INCLUSION GRANT FUND.

The chairman informed the members that Kenya Climate Smart Agriculture Project is a world bank funded project and aims to increase agriculture productivity to farmers in the county project area have already disbursed Ksh 1 million to the society for capacity building the management committee on various management aspects ranging from governance, fiduciary, recruitment of more members among others .Training of various sub committees will also be carried out to for better running of the society up to the zonal member representatives .He also informed the members that the funds are grants to the beneficiaries (society) and is a prerequisite to a bigger grant that the society intend to receive from KCSAP to install a fino tetra pack machine(UHT) for long Shelf life packaging. Also the chairman informed the members that KCSAP is about to recruit data enumerators in all the society jurisdiction and their role will be to collect baseline data for all society beneficiaries either from funded and none CIGs all affiliated to Mukurweini Wakulima Cooperative Society .The data enumerators must have a smart phone as the exercise will be digital. The data collection exercise will commence soon.

## MIN 4/27/02/2021-FINO TETRA PACK PLANT

The chairman informed the members that the Fino tetra pack plant is budgeted to cost Ksh 40 Million where KCSAP will provide Ksh 20 million as grant and the society provide a similar amount of Ksh 20 million. The chairman informed the members that housing structure where the processing plant will be installed is almost complete and he hopes that the processing will start soon since they are continuously with KCSAP for directions and guidance. The chairman hailed KCSAP project for the grant and said that the end result of the activity will result to higher pay for each liter of milk delivered to the society due to increase market of the processed milk thus increased income for the dairy farmer.

## MIN 5/27/02/2021-A.O.B

One member wanted to know whether anybody with a smart phone will be recruited to collect the said data and when the recruitment exercise will comence and the mode of payment. The chairman requested members to adhere covid -19 guidelines as issues by the ministry of health –keeping distance about 1.5 m, washing hands with the recommended sanitizer and

always wearing of mask when at public place .He emphasized that it was a personal /individual responsibility to protect themselves in order to avoid being counted as a statistics.

Having no other business the meeting ended at 4.25 pm with a word of prayers from Mr Joram Kirubi

## Minutes proposed by

Name	_I/D No	_Date	Signature
Minutes seconded by			
Name	_I/D No	Date	Signature

	ATTENDANCE LIST FOR	MUKURWE-INI WAKULIM
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Annex 17: List of Attendance during public participation meetings

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2	JORAM KIRUBI	2-933970	0723932510	251AA
3	JOHN GATER	13539229	0710290108	+Para i
4	DONGLAS MAINA	0086168	0723574746	rester
5	ELIZABETH NUOR	10316920	07031745	Neler:
6	JOSEPH GATHIOM	1123986	2517825170	the
7	JULIA WANJIRY W.	16042914	0719409645	ANOLOGY
8	CHARLES KINYUA	2432345	0724176702	an in whether
9	DAMARIS WAMUYU	2433485	6726 77138	Vararis out
10	SAMUEL GACHAGE	31012520	0796504148	State .
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15	GILHUKI MURIGU	0722916147	6722916147	Applogy
16	ELIZARETH WANDAL	955-3616	0712468763	<u>ena</u>
17	PETER KANYORA	2432.075	0718203826	1 Alema
18	DomiNIC KAGIRI	18(5623	0795107034	PC-
19	TO SEPHATNYAGA RO	9856658	0721888536	-fahinttes
2	GACHANTA IRUNGU	21774083	0781303814	ABSENT
21	FRANCIS NEAR	13100503	0724759461	APPOLOGY
22	PETER GATERI Mr	26924446	0706 143713	peris
22	PLIER MUTURI Nr	269 269	0702395258	Bosumoni
25	GRACE WANTER	2002/432	671290870	<u> </u>
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25	JOSHNA WAWEGU	\$\$112.150	0720228649	Amai
26	DOSEPH MULLINE A	OV72 ON	0702615091	la m
21	KOBERI WHIMENA G	242220	1	Dime
28	SIEPHEN GICHUKIM	12122/20	0729 40/6955	Norm
20	PATRIC MBURN MINS	16100075	0725656599	ATPROS
9	DAVID WANJOH LINNE	3413735	0727719425	Aroning V

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### Annex 1. Community Participation Blank Questionnaires

#### PROPOSED TETRA PACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LTD

Pursuant to the provisions of the Environmental Management and Coordination Act Cap 387, Environmental Impacts Assessment (EIA) and Audit (EA) Regulations 2003, Public Health Act and Legal Supplement 2003, a social site assessment for ESIA is being conducted on the Proposed Site.

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ame DANGEL GICHANGA	
ounty NHERI	
W-County MUKURWE-INI CENTRA	r
Vard ISHAMARA	

(Please note that these details are required for the purposes of authenticity in relation to the proposed project)

- 1. Are you a resident of this area? Yes Or NO
- Are you aware of the proposed Milk value addition extension project by Mukurweini Wakulima Dairy cooperative in Mukurweini town, in Mukurweini Central Ward.
- 3. Do you support the proposed project in the area? Yes NO
- 4. Do you think this project is suitable and compatible with the surrounding developments

  - 5. Within this area, are there similar projects

6. What are some of the positive impacts you can attach to this project These will be more Job creation rincrease in Milk production to Serticity the

 MILK CONS	umption	 	 

7. What are some of the negative impacts you can attach to this project -

VH will	COUSE DONN	tion inter	me of waste
disposal	noise to The	e neighbor	ussair polution
	1	0	1

6. Are there any sensitive ecosystems within the area (e.g. swamps, water body, forest, etc.)?

s pl	rase specify
Do	you think the proposed project will have any impacts on the following if implemented?
	Water/Energy Supply
	10
	10-
	400040400000000000000000000000000000000
•	Roads/Traffic/Transport
	Security/conflicts/grievances
	wo
٠	Vegetation/crops
	Nel
	accesses.
	People/animals/livestock
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	Tassembled whing dreate entry
	44.0
•	Market/Housing/Physical infrastructures
	10
	Others (please Spacify)

÷

	Garbage collection					
	Insecurity					
· •	Noise					
	Traffic					
	Any other					
9. Which a	re some of the infrastr	uctural facilities tha	t you would like t	o see developed in	the area	
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10.Any oth	er comments/Suggest	ions you would like	to make in relation	in to this proposed	project	3 11
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### ANNEXLS

#### Annex 1. Community Participation Blank Questionnaires

#### PROPOSED TETRA PACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LTD

Pursuant to the provisions of the Environmental Management and Coordination Act Cap 387, Environmental Impacts Assessment (EIA) and Audit (EA) Regulations 2003, Public Health Act and Legal Supplement 2003, a social site assessment for ESIA is being conducted on the Proposed Site.

#### RESPONDENT

Name_	klanjan Ephantus	
County	Myen	
Sub-Co	ounty MAX	
Ward	Centrel	
Mobile	Number OFIZULUDUS	

(Please note that these details are required for the purposes of authenticity in relation to the proposed project)

- 1. Are you a resident of this area? Yes Or NO
- Are you aware of the proposed Milk value addition extension project by Mukurweini Wakulima Dairy cooperative in Mukurweini town, in Mukurweini Central Ward.
- 3. Do you support the proposed project in the area? Yes NO

4. Do you think this project is suitable and compatible with the surrounding developments

5. Within this area, are there similar projects



6. What are some of the positive impacts you can attach to this project

- Development of investment to your

#### 7. What are some of the negative impacts you can attach to this project

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; 6. Are there any sensitive ecosystems within the area (e.g. swamps, water body, forest, etc.)?

YAY	NO

St.

If yes ple	ease specify
7. Do :	you think the proposed project will have any impacts on the following if implemented?
	Water/Energy Supply
	No
•	Roads/Traffic/Transport
	No
	Security/conflicts/grievances
	No
۲	Vegetation/crops
	and and a second s
	People/animals/livestock
	7es -6
•	Market/Housing/Physical infrastructures
	N 6
	Others (please Specify)

4

•	Garbage collection	1		
•	Insecurity			
•	Noise			
•	Traffic	H		
	Any other		6	

9. Which are some of the infrastructural facilities that you would like to see developed in the area

" More related	processing industrier.
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10. Any other comments/Suggestions you would like to make in relation to this proposed project

the project should benefit the surrounding.
Community officities (

Date 15/1/2021 Leato Signature ....

### Annex 1. Community Participation Blank Questionnaires

### PROPOSED TETRA PACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LTD

Pursuant to the provisions of the Environmental Management and Coordination Act Cap 387, Environmental Impacts Assessment (EIA) and Audit (EA) Regulations 2003, Public Health Act and Legal Supplement 2003, a social site assessment for ESIA is being conducted on the Proposed Site.

RESP	ONDENT		
Name	Leah	Marenye	
County	Nyen	2	
Sub-Co	ounty	lukurweini	
Ward_	Cent	ral.	
Mobile	Number D	106 574 786	

(Please note that these details are required for the purposes of authenticity in relation to the proposed project)

- 1. Are you a resident of this area? Yes Or NO
- Are you aware of the proposed Milk value addition extension project by Mukurweini Wakulima Dairy cooperative in Mukurweini town, in Mukurweini Central Ward.
- 3. Do you support the proposed project in the area? Yes NO

4. Do you think this project is suitable and compatible with the surrounding developments

- 5. Within this area, are there similar projects
  - Yes NO

6. What are some of the positive impacts you can attach to this project

The project timpacts employment opportunities to the

7. What are some of the negative impacts you can attach to this project

Sewaraa	mauntenance



6. Are there any sensitive ecosystems within the area (e.g. swamps, water body, forest, etc.)?

Yes NO

If yes please specify .....

7. Do you think the proposed project will have any impacts on the following if implemented?

Water/Energy Supply Les - Water - Nogenve - Rungy Water from Corector . traffic on local road. er - more lore

- · Security/conflicts/grievances Johnneed Johnny from 247 perstors purifive
- Vegetation/crops
- People/animals/livestock
- · Market Housing physical infrastructures howing ownmentities with local form
- Others (please Specify)

•	Garbage collection	
•	Insecurity	
٠	Noise	
•	Traffic	
		State & Second

Any other

9. Which are some of the infrastructural facilities that you would like to see developed in the area

Load shad of catro parcel roed cimich cut or to norte clig-

10. Any other comments/Suggestions you would like to make in relation to this proposed project proper as of he ... hill. lo a Compraity. ... anucas Date 4 Signature THANKYOU FOR YOUR RESPONSE

## ANNEXES

### Annex 1. Community Participation Blank Questionnaires

## PROPOSED TETRA PACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LTD

Pursuant to the provisions of the Environmental Management and Coordination Act Cap 387, Environmental Impacts Assessment (EIA) and Audit (EA) Regulations 2003, Public Health Act and Legal Supplement 2003, a social site assessment for ESIA is being conducted on the Proposed Site.

RESPONDENT	
Name Chorles Clife	-
County Alyen 1	
Sub-County JA herewie in	
Ward Contral.	
Mobile Number 0715386878-	
(Please note that these details are required for the purposes of authenticity in relation to the proposed project)	
1. Are you a resident of this area?	
<ol> <li>Are you aware of the proposed Milk value addition extension project by Mukurweini Wakulima Dairy cooperative in Mukurweini town, in Mukurweini Central Ward.</li> </ol>	
3. Do you support the proposed project in the area? NO	
<ol><li>Do you think this project is suitable and compatible with the surrounding</li></ol>	
developments NO	
5. Within this area, are there similar projects	
6. What are some of the positive impacts you can attach to this project	
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Depit a land	
7. What are some of the negative impacts you can attach to this project	
- Dor take management C tors.	

6. Are there any sensitive ecosystems within the area (e.g. swamps, water body, forest, etc.)?

Yes	NO
rea	140-

7. Do you think the proposed project will have any impacts on the following if implemented?

- · Water/Energy Supply increase bin and unities
- · Roads/Traffic/Transport marfic because vectiles and
- Security/conflicts/grievances
- Vegetation/crops
- · People/animals/livestock
- Market/Housing/Physical infrastructures increase assorts because
- Others (please Specify)

•	Garbage collection					
•	Insecurity					
•	Noise					
•	Traffic					
•	Any other du-	price an	ies of	MILK 1	L-pecs	and

9. Which are some of the infrastructural facilities that you would like to see developed in the area

Venue of Rivers Milk Dig has pounder ON MHIL

10 Any other comments/Suggestions you would like to make in relation to this proposed project . Heed FV Sur CHTELISLENER Factories 

Signature Marin Date 15/1/2021

## ANNEXES

### Annex 1. Community Participation Blank Questionnaires

## PROPOSED TETRA PACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LTD

Pursuant to the provisions of the Environmental Management and Coordination Act Cap 387, Environmental Impacts Assessment (EIA) and Audit (EA) Regulations 2003, Public Health Act and Legal Supplement 2003, a social site assessment for ESIA is being conducted on the Proposed Site.

Name MO	way Muthows	
County [	typi	
Sub-County	Mukurweini	_
Ward F	Nukunsemi	_
debile Number		

(Please note that these details are required for the parposes of authenticity in relation to the proposed project)

NO

- 1. Are you a resident of this area? Yes Or
- Are you aware of the proposed Milk value addition extension project by Mukurweini Wakulima Dairy cooperative in Mukurweini town, in Mukurweini Central Ward.
- 3. Do you support the proposed project in the area?

4. Do you think this project is suitable and compatible with the surrounding developments

Xes NO

5. Within this area, are there similar projects

6. What are some of the positive impacts you can attach to this project

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increased	dema	d For	hours	, and	unlines

NO

### 7. What are some of the negative impacts you can attach to this project

Yes

-	Recchinical conserving building through training &
4	- Improve Food Inscinn

6. Are th	ere any sensitive	e ecosystems	within the	area (e.e.	swamps.	water body.	forest, etc.)?
-----------	-------------------	--------------	------------	------------	---------	-------------	----------------

6. Are t	Yes Yes
lf yes ple	ase specify
7. Do y	you think the proposed project will have any impacts on the following if implemented?
	Water/Energy Supply
	N/s
•	Roads/Traffic/Transport
	NIA
•	Security/conflicts/grievances
•	Vegetation/crops
	AH/
	People/animals/livestock
	NIN.
•	Market/Housing/Physical infrastructures
	DevelopmentOFthetowns

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3

Garbage collection
Insecurity
Noise
• Traffic
Any other
. Which are some of the infrastructural facilities that you would like to see developed in the area
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0. Any other comments/Suggestions you would like to make in relation to this proposed project
Here The project is imposed for the development of the area,
ignature Two Date 15/01/2021

### Annex 1. Community Participation Blank Questionnaires

#### PROPOSED TETRA PACK FINO EXTENSION AT MUKURWEINI WAKULIMA DAIRY LTD

Pursuant to the provisions of the Environmental Management and Coordination Act Cap 387, Environmental Impacts Assessment (EIA) and Audit (EA) Regulations 2003, Public Health Act and Legal Supplement 2003, a social site assessment for ESIA is being conducted on the Proposed Site.

### RESPONDENT

Name TERESA MARTBUI	
County NYER	
Sub-County NUKURME-INI	
Ward CENTRAL	
Mobile Number 0706603 538	

(Please note that these details are required for the purposes of authenticity in relation to the proposed project)

Or NO

- 1. Are you a resident of this area? Yes
- Are you aware of the proposed Milk value addition extension project by Mukurweini Wakulima Dairy cooperative in Mukurweini town, in Mukurweini Central Ward. Tes
- 3. Do you support the proposed project in the area? Yes NO

4. Do you think this project is suitable and compatible with the surrounding developments

yes	NO
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5. Within this area, are there similar projects

6. What are some of the positive impacts you can attach to this project

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Creation	of enadouncent groups cessidents:
Development	for which creation.
municipality	

NO

### 7. What are some of the negative impacts you can attach to this project

Yes

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*************	**************	**********	**********	**********		*****************************

6. Are there any sensitive ecosystems within the area (e.g. swamps, water body, forest, etc.)?

pier	ise specify
o y	ou think the proposed project will have any impacts on the following if implemented?
•	Water/Energy Supply
	It will positively and negatively affect the water
•	Roads/Traffic/Transport
	of the project succeds these will be more better stad as the constany will orquise to fix the inner stads so as to fetter
•	Security/conflicts/grievances The Security will be improved as the processing plant will beef up securicity sp as to protect the pland and The Susspending
•	Vegetation/crops
	They will affect the vegetation in that they will cut down tocas as to clear up space to exect processing plant
•	people and animals will be affected by the noise produced by the processing gland. As people will also benefit in terms of Jobs and Money (Income From selling milk)
•	Market/Housing/Physical infrastructures

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•	Garbage collection	
٠	Insecurity	
•	Noise	$\checkmark$
•	Traffic	
		-

Any other

9. Which are some of the infrastructural facilities that you would like to see developed in the area 0 area to 1 + 2 and 1 + 2 area to 1 + 2.

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10. Any other comments/Suggestions you would like to make in relation to this proposed project

at 5 Signature......

Date 15/112021

## Annex 19: NEMA Practicing License

FORM 7



(r.15(2))

### 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/12999 Application Reference No: NEMA/EIA/EL/17181

M/S CHARLES KIRIMI MUTHINJA (individual or firm) of address

P.O. Box 1552-10100, NYERI

is licensed to practice in the

capacity of a (Lead Expert/Associate Expert/Firm of Experts) Lead Expert registration number 1622

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

Issued Date: 7/16/2020	Expiry Date: 12/31/2020	
(	Signature	
	(Seal) Director General The National Environment Management	
	Authority	



Annex 20: Photo of some of the infrastructures around the proposed site



During inspection of the waste management system at Wakulima by the Lead team



The proposed Tetra Pack Fino Extension Unit already under construction at Wakulima dairy



Raw Milk being delivered to the factory for processing



Incinerator at Wakulima dairy



**Reception Area at Wakulima Dairy** 



Annex 21: Photos during Public participation