



**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT SUMMARY PROJECT  
REPORT**

**PROPONENT**



**KORONDILE SORGHUM PRODUCTION,**  
VALUE ADDITION & MARKETING ORGANIZATION  
Tel:0721 527 530

**PROJECT**

**PROPOSED KORONDILE SORGHUM STORAGE AND AGGREGATION CENTRE  
TO BE LOCATED AT GPS COORDINATES 1° 44' 55.8204" N AND 40° 3' 31.0788" E IN  
KORONDILE WARD OF WAJIR NORTH SUB COUNTY, WAJIR COUNTY**

**NOVEMBER 2021**

## CERTIFICATION

**TITLE:** Environmental and Social Impact Assessment - Summary Project Report for the Proposed Korondile Sorghum Storage and Aggregation Centre to be located in Korondile Ward of Wajir North Sub County, Wajir County.

This Summary Project Report has been prepared in accordance with the provisions and requirements of the Environmental Management and Coordination Act (EMCA) 1999 and subsidiary regulation - the Environmental Management and Co-ordination Act (No. 8 of 1999) Amendment of the Second Schedule, Legal Notice 31 and 32 of 2019.

### REPORT PREPARED BY

NAME	NEMA REG. NO	SIGN	DATE
Calavance Ochieng	Lead Expert 2666		27/12/21
Mr. Dickson Kimathi Muthaura	Associate Expert 8298		27/12/21

**For and on behalf of:**

Korondile Sorghum Production Value Addition and Marketing Organization,  
P.O Box 33-70200 Wajir

**Name of Representative:** Mohamed

**Title of Representative** – Chairman

**Telephone No.** 0721527530.



**Signed:** \_\_\_\_\_

**Date:** 27/12/21 \_\_\_\_\_

## **ACKNOWLEDGEMENT**

We, the team of EIA/EA experts, would like to acknowledge the immense contribution made by the following people towards the successful undertaking of the EIA that culminated in the preparation of this Environmental Impact Assessment Summary Project Report for the proposed Korondile Sorghum Storage and Aggregation Centre.

The area Chief of Korondile location and local elders who did the confirmatory site for this proposed project. Special thanks also go to the Korondile Sorghum Production Value Addition and Marketing Organization for their commitment towards mobilizing the community during stakeholder consultations. Appreciation also goes to the Korondile community for their participation all through the preparation of this document and supporting the public consultative process by accepting to respond to our questionnaires. The County Coordinator of KCSAP Wajir Office for efficient facilitation of the ESIA activities. The ESS officers at the county level, national level and the World Bank Group.

Our appreciation also goes to all those who had an input in this document since it is not possible to list all of them here.

## TABLE OF CONTENTS

<b>CERTIFICATION</b> .....	<b>2</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>3</b>
<b>TABLE OF CONTENTS</b> .....	<b>4</b>
<b>ABBREVIATIONS &amp; ACRONYMS</b> .....	<b>7</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>8</b>
<b>CHAPTER 1: INTRODUCTION</b> .....	<b>11</b>
1.1 Background Information .....	11
1.2 Justification for the Project .....	11
1.3 Objectives of the Summary Project Report.....	11
1.4 Objectives of the Project .....	12
1.5 Fieldwork Approach and Methodology .....	12
1.5.1 <i>Reconnaissance survey</i> .....	12
1.5.2 <i>Field survey</i> .....	13
1.5.3 <i>Field survey techniques</i> .....	13
1.5.4 <i>Checklists</i> .....	13
1.5.5 <i>Environmental Screening</i> .....	13
1.6 Presentation of the Report.....	13
<b>CHAPTER 2: NATURE OF THE PROJECT</b> .....	<b>15</b>
2.3.1 <i>Excavation and foundation works</i> .....	15
2.3.2 <i>Construction Inputs</i> .....	16
2.5 Project Beneficiaries .....	17
2.6 Waste and by-products.....	17
2.6.1 <i>Construction Phase</i> .....	17
2.7 Project Cost .....	17
2.8 Land Ownership .....	17
2.9 Decommissioning stage.....	17
<b>CHAPTER 3: THE LOCATION AND BASELINE INFORMATION OF THE PROJECT</b> ..	<b>18</b>
3.2.1 <i>Climate and Rainfall</i> .....	18
3.2.2 <i>Soils and Sorghum Farming</i> .....	18
3.2.3 <i>Sorghum Harvesting</i> .....	19
3.2.4 <i>Sorghum and Pests in the Subject Area</i> .....	19
3.3 Socio Economic Environment.....	20
3.3.1 <i>Main Crops Produced</i> .....	20
3.3.2 <i>Acreage under food and cash crops</i> .....	20
3.3.3 <i>Main storage facilities</i> .....	20
3.3.4 <i>The Target Market</i> .....	20
<b>CHAPTER 4: PUBLIC PARTICIPATION &amp; STAKEHOLDER CONSULTATIONS</b> .....	<b>21</b>
4.2.1 <i>Consultative Forums</i> .....	21
4.2.2 <i>Key Informant Interviews:</i> .....	22
4.2.3 <i>Free Prior Informed Consultation and Gender Involvement</i> .....	22
4.3.1 <i>Positive Issues Highlighted</i> .....	22
4.3.2 <i>Negative Issues</i> .....	22
4.5 Analysis of the Questionnaires.....	23
Conclusion.....	25
<b>CHAPTER 5: IDENTIFICATION, EVALUATION, ANALYSIS OF POTENTIAL IMPACTS AND MITIGATION MEASURES</b> .....	<b>26</b>
5.2.1 <i>Positive Impacts</i> .....	26
5.3.1 <i>Disposal of excavation materials</i> .....	26

5.3.2	<i>Hydrology and water quality degradation</i> .....	26
5.3.3	<i>Loss of Vegetative Cover</i> .....	27
5.3.4	<i>Air Quality</i> .....	27
5.3.5	<i>Controlling oil spillages</i> .....	28
5.3.6	<i>Trips and Fall Hazards</i> .....	28
5.3.7	<i>Noise and Vibration</i> .....	28
5.3.8	<i>Increased incidences of HIV/AIDS and STI's</i> .....	29
5.3.9	<i>Collapse of structures due poor workmanship and environmental factors</i> .....	29
5.3.10	<i>Crime Management and Contractor's Security</i> .....	30
5.3.11	<i>Child Labour and Protection</i> .....	30
5.3.12	<i>Effects of Migrant workers</i> .....	30
5.3.13	<i>Positive Impacts and Enhancement Measures During Operation</i> .....	31
5.4.1	<i>Insect and Pests on Sorghum</i> .....	31
5.4.2	<i>Effects of pick-up lag</i> .....	31
5.4.3	<i>Exploitation of the farmers by brokers (middlemen)</i> .....	32
5.4.4	<i>Energy Consumption</i> .....	32
5.4.5	<i>Slips, Trips and fall</i> .....	32
	<i>Work places present several risks of trip and fall that can be injurious to both the workers and those visiting the storage facility. The pallets used for storing the sorghum sometimes can result to the risk of trip and fall.</i> .....	32
5.4.6	<i>Sharp Edges and Machinery</i> .....	32
5.4.7	<i>Manual Handling and Repetitive Work</i> .....	33
5.4.8	<i>Dust from Milling Operations</i> .....	33
5.4.9	<i>Liquid Waste</i> .....	33
5.5.1	<i>Health and Safety of Workers and COVID – 19 on Local Community</i> .....	34
5.5.2	<i>Child Labour and Protection</i> .....	34
5.5.3	<i>Gender Equity, Sexual Harassment and exploitation, and Gender Based Violence (GBV)</i> 34	
5.5.4	<i>Spread of HIV/AIDS and STI's</i> .....	35
	<b>CHAPTER 6: ENVIRONMENTAL AND SOCIAL MANAGEMENT &amp; MONITORING PLAN (ESMMP)</b> .....	<b>36</b>
	<b>CHAPTER 7: CONCLUSION AND RECOMMENDATION</b> .....	<b>47</b>
	<b>REFERENCES</b> .....	<b>48</b>
	<b>ANNEXES</b> .....	<b>49</b>

## LIST OF TABLES

Table 1: Outline of the SPR Report .....	13
Table 2: Environmental & Social Management and Monitoring Plan .....	37

## LIST OF FIGURES

Figure 1: View of the project layout .....	16
Figure 2: Location of the Project Area (Wajir Base Map, OCHA 2012) .....	18
Figure 3: Soil Test Interpretation and Management Practices .....	19
Figure 4: Environment Health & Safety Issues .....	23
Figure 5: Socio Economic Issues .....	24
Figure 6: General Concerns .....	24

## LIST OF PLATES

Plate 1: View of the stakeholders during the reconnaissance survey .....	12
--	----

Plate 2: View of a Sorghum ear damaged by birds at full white .....	19
Plate 3: View of the stakeholder engagement forum at Korondile shopping centre .....	21

**LIST OF ANNEXES**

Annex 1: Schematic Drawings.....	50
Annex 2: Screening Checklist.....	51
Annex 3: List of Participants and Minutes .....	59
Annex 4: Public Questionnaires.....	67
Annex 5: Community Land Resolution and Agreement Form .....	76
Annex 6: Expert’s Practicing License.....	80

## **ABBREVIATIONS & ACRONYMS**

ASTGS	Agriculture Sector Transformation and Growth Strategy
CDE	County Director of Environment
CIG	Common Interest Groups
CIDP	County Integrated Development Plan
COVID 19	Corona Virus Disease
EIA	Environmental Impact Assessment
EMCA	Environmental Management and coordination Act
ESIA	Environmental and Social Impact Assessment
ESMMP	Environmental and Social Monitoring and Management Plan
FGD	Focused Group Discussion
GIS	Geographic Information system
HH	House Hold
IBCP	Integrated Business Continuity Plan
KALRO	Kenya Agricultural and Livestock research organization
KCSAP	Kenya Climate Smart Agriculture Project
NCCRS	National Climate Change Response Strategy
NEMA	National Environmental Management Authority
OSH	Occupation Health Safety
PO	Producer Organization
PSC	Public Stakeholder Consultations
PPE	Personal Protective Equipment
SPR	Summary Project Report
VMG	Vulnerable and Marginalized Groups
WFP	World Food Program
WHO	World Health Organization
WRA	Water Resources Authority
WUA	Water Users Association

## EXECUTIVE SUMMARY

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. KCSAP is being implemented over a five-year period (2017-2022) under the framework of the Agricultural Sector Transformation and Growth Strategy (2019-2029) and National Climate Change Response Strategy (NCCRS, 2010). The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation centre that aims to mobilize sorghum producers to a cooperative, for aggregation, value addition and marketing for enhanced economic gains. The main objective is to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain in Wajir north Sub County from subsistence to commercial enterprise by 2025. The Summary Project Report (SPR) was as a result of the recommendation of the County Director Environment (CDE) based on the screening report”, and was prepared in accordance with the provisions and requirements of the Environmental Management and Coordination Act (EMCA), 1999 and subsidiary regulation - Environmental (Impact Assessment and Audit) Regulations, 2003 and the Environmental Management and Co-ordination Act (no. 8 of 1999) Amendment of the Second Schedule, Legal Notice 31 and 32 of 2019.

A consultative forum bringing together the Safeguards Specialist, Consultant, Assistant Chief and the communities of Korondile Wards was arranged at the proposed project site where a total of 56 community members (23 females and 33 males) were mobilized. The community felt that the project was beneficial because Korondile land is suitable for sorghum production and the availability of extension workers could go a long way in increasing production hence the need for safe storage of produce. However, the community was concerned about reduced production due to migration of some of the farmers during the dry seasons, poor harvest management, lack of market for the produce and low consumption of sorghum by the local communities as a threat to the project.

Once established, the project will benefit the organization that has a membership of 130 Males and 178 Females of which 27 and 24 percent are male and female youth respectively. Within the same locality there are 4 more CIGs groups which are still operating independently. The membership is drawn from eleven common interest groups (CIGs) operating in the two wards. Six of the CIGs are in Korondille while the remaining five are in Bute. In the past, the PO has benefited majorly from other partners such as (World Food Programme (WFP) and County government of Wajir with capacity building and two sorghum milling machines installed at Korondile and Bute. In the next one year, the Organization intends to upscale its aggregation, value addition and marketing activities as a way of making deeper penetration in the local, regional and other sorghum utilizing industries. This will make it competitive and be able to deliver for the sorghum producers of Wajir North Sub County and with time, the entire county.



The major works that will be undertaken include the fencing with perimeter wall of the sorghum storage and aggregation centre that measures 30m by 50m. It will be equipped with one container that measures 12m by 2.4m by 2.5m that will be partitioned to have a 2 No. stores and an office. It will have 4 No. weighing machines and 1 No. digital weighing machine at packaging, 1 No. tractor, 1 No. moisture analyzer, and 2 No. milling and fortification plant. There will be provision for parking for both staff and visitors in addition to a loading and offloading bay.

This assessment has identified both positive and negative impacts that may potentially be generated by the proposed sorghum storage and aggregation facility. Positive impacts during the design and construction phase include: creation of job opportunities, thus improved livelihood, availability of premium markets such as WFP in the area, availability of sorghum storage facility thus reduced wastages, the area has land suitable for sorghum production that will see an increase of sorghum production from the current 500 acres in the area to over 1500 acres. The anticipated negative impacts during construction phase include: Impact to soil especially when laying the foundation, increased noise and vibration; pressure to the existing infrastructure i.e., water, power, drains, roads; air pollution as a result of dust particles emanating from earthworks and construction activities; the health and safety of workers and immediate project and neighbours may be compromised due to accidents, pollution and disturbance; increased waste materials (both solid and liquid); Spread of COVID – 19 Pandemic, rejection of outsiders working with contractors and also influx, Sexual harassment by male to female workers at site, pollution of air; water quality degradation; risk of leaks and spills; occupational safety, health and environment; HIV/AIDs and STIs;

Some of the anticipated negative impacts during the project operational phase include: fugitive dust emissions sorghum processing, collapse of structures due poor workmanship; solid waste generation; drainage issues at the aggregation centre; inadequate or lack of structure maintenance; depreciated harvest as a result of birds that feed on sorghum; conflicts with other CIGs in the area, business slump due to effects of environmental factors such as drought, heavy floods, sexual harassment among organization that can result to spread of HIV/AIDs, effect of migrant workers, child labour within the organization, spread of COVID-19, noise pollution; impacts on air quality etc.

Some of the recommendations for the prevention and mitigation of potentially adverse environmental and socio-economic impacts include: provide waste receptacles, maintain a fully equipped first aid kit and trained staff; employ appropriate or adequate safety measures (engineering, administrative and PPEs), adequate spaces should be reserved from the highest flooding level during rains to protect soil stability, provide waste receptacles, diligence and capacity of the contractor should be monitored, regulars inspection of the stability of safety structures should be conducted at the store, avoid parking of oil leaking vehicles that impact on soil and ground water, provide security at the entrance gate, engage the local administration in the fight against gender-based violence and ensure women are well represented at the management in order to fight gender based violence, observe COVID-19 protocols, discourage child labour at the farms and store, monitor brokerage by middlemen at the store, conduct regular trainings on market performance and value addition opportunities..

The negative impacts identified in this ESIA during all the phases of the project will be limited to the specific project location and can be mitigated through the measures proposed in the ESMMP as well

as the preparation and implementation of safeguard policies. It is our recommendation that the project be granted approval. The project will not trigger resettlement as the organization has a land resolution agreement. The total project cost is estimated at KES. 10,000,000 (Kenya Shillings Ten Million Only) with the PO contributing KES. 1,000,000 while the remainder KES. 9,000,000 being requested from KCSAP. The cost of implementing ESMMP is KES **325,000**, Part of this ESMMP will be implemented by the contractor.

# **CHAPTER 1: INTRODUCTION**

## **1.1 Background Information**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. KCSAP is being implemented over a five-year period (2017-2022) under the framework of the Agriculture Sector Growth Transformation Strategy (2019-2029) and National Climate Change Response Strategy (NCCRS, 2010). The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation centre that aims to mobilize sorghum producers to a cooperative, for aggregation, value addition and marketing for enhanced economic gains. The main objective is to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain in Wajir north Sub County from subsistence to commercial enterprise by 2025. Once established, the project will benefit the organization that has a membership of 130 Males and 178 Females of which 27 and 24 percent are male and female youth respectively. Within the same locality there are 4 more CIGs groups which are still operating independently. The membership is drawn from eleven common interest groups (CIGs) operating in the two wards. Six of the CIGs are in Korondille while the remaining five are in Bute.

## **1.2 Justification for the Project**

Korondile community and by extension Bute, both in Wajir North have remained poor despite the area receiving fairly reliable rains able to support a crop to maturity and more so sorghum which does well in the region. However, making use of this sorghum as a pathway out of poverty have not been possible. Storage facilities have remained poor with sorghum grains mainly being stored in underground granaries. Access to outer markets has remained a major challenge as individual producers tend to market on their own. The producers have not been able to enjoy premium prices for their produce from specialized markets and industries which utilize sorghum as a raw material in their production lines. Thus, despite sorghum doing well in this area since times immemorial, it has not significantly contributed to either food security or economic wellbeing of the communities. With structured marketing systems the fore mentioned challenge can be a thing of the past. This can only be achieved by aggregation, value addition and employing a structured marketing system in order to penetrate markets with premium prices. The PO intends to invest in this area to tap the inherent potential of sorghum to generate sustainable income for the producers and wealth generation in the entire Wajir North Sub County.

## **1.3 Objectives of the Summary Project Report**

The main objective of this ESIA - SPR was to provide information on the nature and extent of potential environmental and social impacts arising from the proposed sorghum storage and aggregation facility. The objectives of the environmental and social impact assessment – Summary Project Report are to-

- a) To present an outline and the background of the proposed sorghum storage and aggregation project;

- b) To identify key areas for environmental and social concerns as well as the anticipated impacts associated with the proposed project implementation and commissioning;
- c) To highlight environmental and social issues with a view to guide policy makers, planners, stakeholders and the government agencies to help them understand the implications of the ESIA Summary Project Report and make the necessary decisions concerning the proposed project and future planning;
- d) Hold public consultation within the population affected population in the project area;
- e) Review legislation and institutional framework and show compliance
- f) To do the mapping of the area in order to understand the baseline information
- g) To establish a comprehensive Environmental and Social Monitoring and Management Plan (ESMMP) covering the construction phase, operation and decommissioning phases of the proposed project;
- h) To prepare an ESIA Summary Project Report in accordance with the environmental legislation and submission to NEMA for further instruction and /or approval.

#### **1.4 Objectives of the Project**

The main objective is to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain in Wajir north Sub County from subsistence to commercial enterprise by 2025. Other specific objectives include:

- To attain efficiency in marketing of sorghum and sorghum products by 2025.
- To increase the incomes of sorghum value chain actors by 50% by the year 2025
- To create employment opportunities for the youth and vulnerable groups.
- To build the capacity of sorghum producer organization.

#### **1.5 Fieldwork Approach and Methodology**

##### ***1.5.1 Reconnaissance survey***

A reconnaissance survey was conducted on 3<sup>rd</sup> October 2021 to get an appreciation of the project area.



**Plate 1: View of the stakeholders during the reconnaissance survey**

### ***1.5.2 Field survey***

A detailed fieldwork was carried out between 4<sup>th</sup> and 5<sup>th</sup> November 2021. This was conducted to gather data of the existing environmental and social conditions in the project area, key environmental aspects that were identified through the scoping process and consultations. The survey was conducted for the entire project area.

### ***1.5.3 Field survey techniques***

The field survey adopted various techniques of baseline data collection on the existing environmental conditions, namely:

- Direct observations and recordings, including photography, along the proposed site and its vicinity;
- Use of checklists for determining potential environmental and social impacts of the proposed sorghum storage and aggregation project;
- Discussions with key informants within the neighbourhood of the proposed site;

### ***1.5.4 Checklists***

Checklists are study instruments that aid in assessing possible environmental and social impacts during both construction and operational phases of a project. In this study, checklists were utilized to:

- Facilitate identification of potential environmental and social impacts;
- Provide a means of comparing the predicted environmental and social impacts;
- Indicate the magnitude of both positive and negative environmental and social impacts;
- Indicate possible adverse environmental and social impacts that are potentially significant but about which sufficient information cannot be obtained to make a reliable prediction;
- Indicate negative potential environmental impacts in the project area, which merit mitigation measures and monitoring.

### ***1.5.5 Environmental Screening***

Filling of the screening checklist form revealed that the proposed sorghum storage and aggregation facility falls in the amended second schedule 2 under low-risk projects no 1 (i) on business premises including stores. The investment triggers OP.4.01 on environmental assessment and Legal Notice No. 31 and 32 of the amended Second Schedule of Environmental Management and Coordination Act No 8 of 1999. Issues considered include the physical location, sensitive issues, and nature of anticipated impacts. The project was found to qualify for a Summary Project Report. The SPR was also as a result of the recommendation of the County Director Environment (CDE) based on the screening report which identified the proposed project as medium risk, thus requiring only SPR.

## **1.6 Presentation of the Report**

The report is presented as outlined below:

**Table 1: Outline of the SPR Report**

No	Chapter	Description
1	Chapter 1	Introduction of the project which include project Background, Scope of the ESIA Study, Study Methodology and Presentation of the report.

<b>2</b>	<b>Chapter 2</b>	<b>Nature of the Project - Project Design; Design of the Pan; Design Criteria; project layout; Project Activities</b>
<b>3</b>	<b>Chapter 3</b>	<b>Project Location - Conformity to land use plan or zonation plan</b>
<b>4</b>	<b>Chapter 4</b>	<b>Outcome of the Public Participation and Consultation process</b>
<b>5</b>	<b>Chapter 5</b>	<b>Identification of Potential Impacts and mitigation measures of the project</b>
<b>6</b>	<b>Chapter 6</b>	<b>Environmental and Social Management and Monitoring Plan (ESMMP)</b>
<b>7</b>	<b>Chapter 7</b>	<b>Concludes the Project and recoups the core recommendations.</b>

## **CHAPTER 2: NATURE OF THE PROJECT**

### **2.1 Introduction**

The design concept and criteria for the proposed establishment of the sorghum storage and aggregation facility for Korondile Sorghum Production Value Addition and Marketing Organization, was developed in accordance with the general guidelines and standards used in the design of stores. The activities that are expected are construction of sorghum aggregation stores in Korondille, aggregation of grain sorghum in appropriate stores for storage before marketing, conducting market research for sorghum and create market-linkages, procure and install sorghum milling and packaging equipment to be used in value addition of sorghum, KEBS standardization and branding of the value-added products, capacity building of the sorghum producer organization in post-harvest handling and management, processing, value addition and utilization.

### **2.2 Description of the Project's Planning and Design Phase**

Planning and design phase of the project is very critical to the success of any project. Planning involves strategic mobilization of resources required to execute the proposed project. The resources may be financial, personnel, offices etc. The design phase involves preparation of the drawing and other reports on the proposed projects. The architectural and engineering designs, the bill of quantities (BoQs), the ESIA reports and land survey (profiles, size, and layout). The planning and design phase also comprises of activities such as community need assessment. This is achieved through project site visits, meetings with local opinion and political leaders, county government officials, Producer Organizations (POs), locally active NGOs officials and the community members

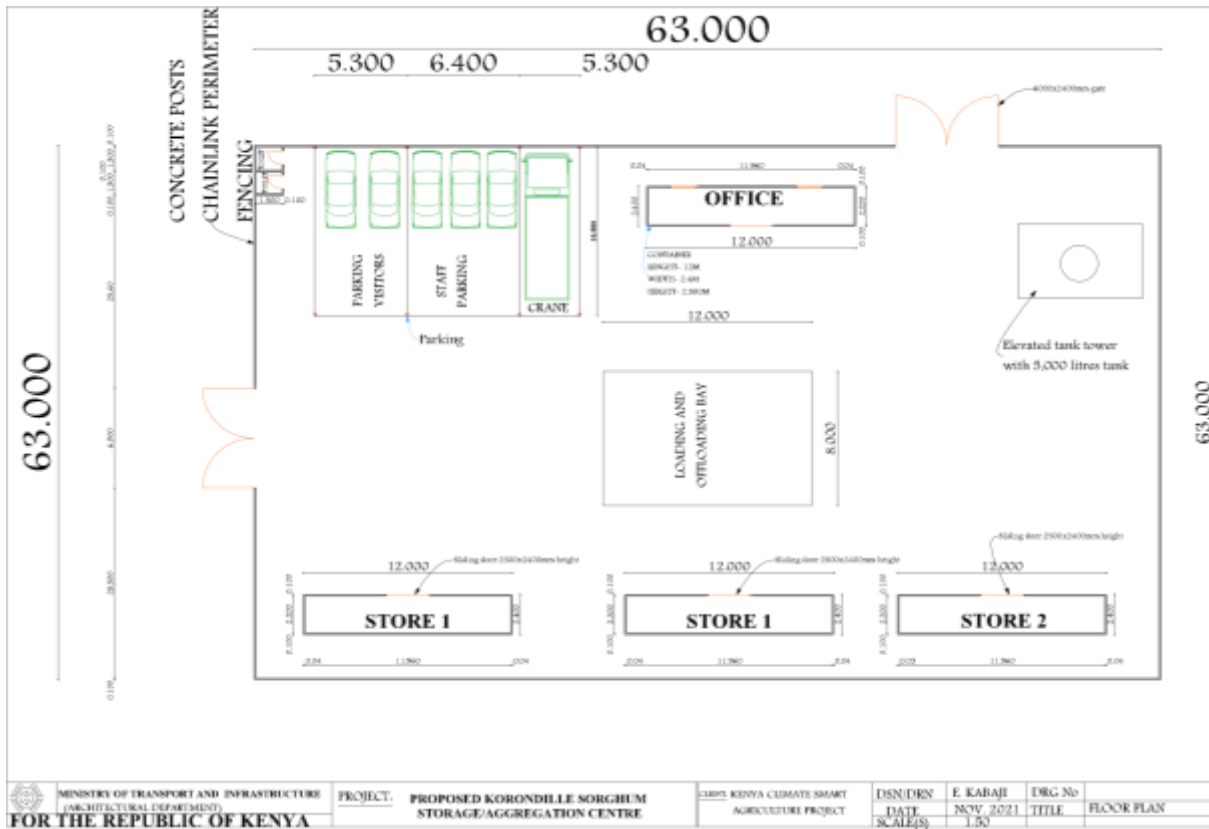
### **2.3 Description of the Project Construction Activities**

This phase will involve mobilization of the contractor, procurement of construction materials and undertaking of actual works. The major works that will be undertaken include the fencing with perimeter wall of the sorghum storage and aggregation centre that measures 30m by 50m. It will be equipped with one container that measures 12m by 2.4m by 2.5m that will be partitioned to have a 2No. stores and an office. There will be provision for parking for both staff and visitors in addition to a loading and offloading bay.

#### ***2.3.1 Excavation and foundation works***

Excavations will be carried out to prepare the site for construction of foundations, pavements and drainage systems. This will involve the use of light earthmoving equipment such as mattocks and hoes. Waste likely to be generated during the project construction includes the following:

- Spoiled and used construction materials;
- Earthworks;
- Solid waste (paper, plastics, metal cans, wood, metal and stone chippings);
- Liquid waste (wet paint, wastewater, glue, solvents and other chemicals);
- Used oil waste products (e.g., lubricants and filters) from construction machinery;
- Waste mortar and concrete; and
- Sanitary waste.



**Figure 1: View of the project layout**

Other auxiliary facilities shall be offices, washrooms, storage, perimeter fence and waste water treatment facility. (See attached architectural designs lay out presentation on the appendix 1)

### 2.3.2 Construction Inputs

Some of the major activities in this phase are as tabulated below. The construction works will require the following inputs:

- Construction materials (e.g., cement, stone, crushed rock and gravel aggregates from approved quarries, sand, timber, GI and uPVC pipes and fittings, and jointing materials);
- Water for construction purposes; The proponent plans to get water for construction from Korondile borehole;
- Construction labour force.

### 2.4 Description of Operational Activities

It will have 4 No of weighing machines and 1 No of digital weighing machine at packaging, 1 No of tractor, 1 No of moisture analyzer, and 2No of milling and fortification plant. After the construction and equipping is over, the project will be handed over to the Producer Organization. The key activity at the market will be aggregation of grain sorghum in appropriate stores for storage before marketing, conducting market research for sorghum and create market-linkages, procure and install sorghum milling and packaging equipment to be used in value addition of sorghum, KEBS standardization and branding of the value-added products, capacity building of the sorghum producer organization in post-harvest handling and management, processing, value addition and utilization. In general, the design of the project will tend to essentially optimize the use of best available technology to prevent or minimize



potentially significant environmental impacts associated with the project and to incorporate efficient operational controls together with trained staff, to ensure high level business and environmental performances.

## **2.5 Project Beneficiaries**

Once established, the project will benefit the organization that has a membership of 130 Males and 178 Females of which 27 and 24 percent are male and female youth respectively. Within the same locality there are 4 more CIGs groups which are still operating independently. The membership is drawn from eleven common interest groups (CIGs) operating in the two wards. Six of the CIGs are in Korondille while the remaining five are in Bute.

## **2.6 Waste and by-products**

### ***2.6.1 Construction Phase***

The waste and by - products arising from this project include:

- Construction debris (from concrete and broken stones)
- Excavated soil
- Wooden pieces, timber cut-offs and left-over timber
- Waste water and manure (at operation stage)

### ***2.6.2 Operation Phase***

The organization's activities will lead to expansion of area under sorghum which is likely to cause land degradation which will be mitigated by employing suitable soil and water conservation measures.

## **2.7 Project Cost**

The total project cost is estimated at **KES. 10,000,000** (Kenya Shillings Ten Million Only) with the Korondile Sorghum Production Value Addition and Marketing Organization contributing KES. 1,000,000 while the remainder **KES. 9,000,000** being requested from KCSAP.

## **2.8 Land Ownership**

The land on which the sorghum storage and aggregation centre will be done is community land already demarcated and set for the proposed activities. The land is currently bear and does not have any habitations. As such, there will be no relocation of the indigenous Korondile community. The community and county government leadership signed a consent (Annex 5) for the land being communal and donated the land for the value chain addition infrastructure project. No one will have claim on the land after the investment. A community land resolution form has been provided as evidence to this agreement.

## **2.9 Decommissioning stage**

Once all the waste resulting from demolition and dismantling works is removed from the site, the site will be restored through replenishment of the top soil and re-vegetation using indigenous plant species. In case the proponent wishes to change use or remove the structure notification of the affected parties shall be done.

## CHAPTER 3: THE LOCATION AND BASELINE INFORMATION OF THE PROJECT

### 3.1 Project Location

Korondille Sorghum Production, Value Addition and Marketing Organization is a Producer Organization (PO) based in Wajir North Sub County with its physical office at Korondille shopping center. It was formed back in 2016 but officially formalized in the month of November 2020. The producer organization which is registered as a CBO by the Ministry of Culture and Social Services vide **Certificate No. 98506** is purely owned by the community of Wajir North with majority of members coming from Korondille and Bute Wards. It is located on GPS Coordinates 1° 44' 55.8204" N and 40° 3' 31.0788" E. Figure 2 below shows the location of Korondille Ward on Wajir County Map.

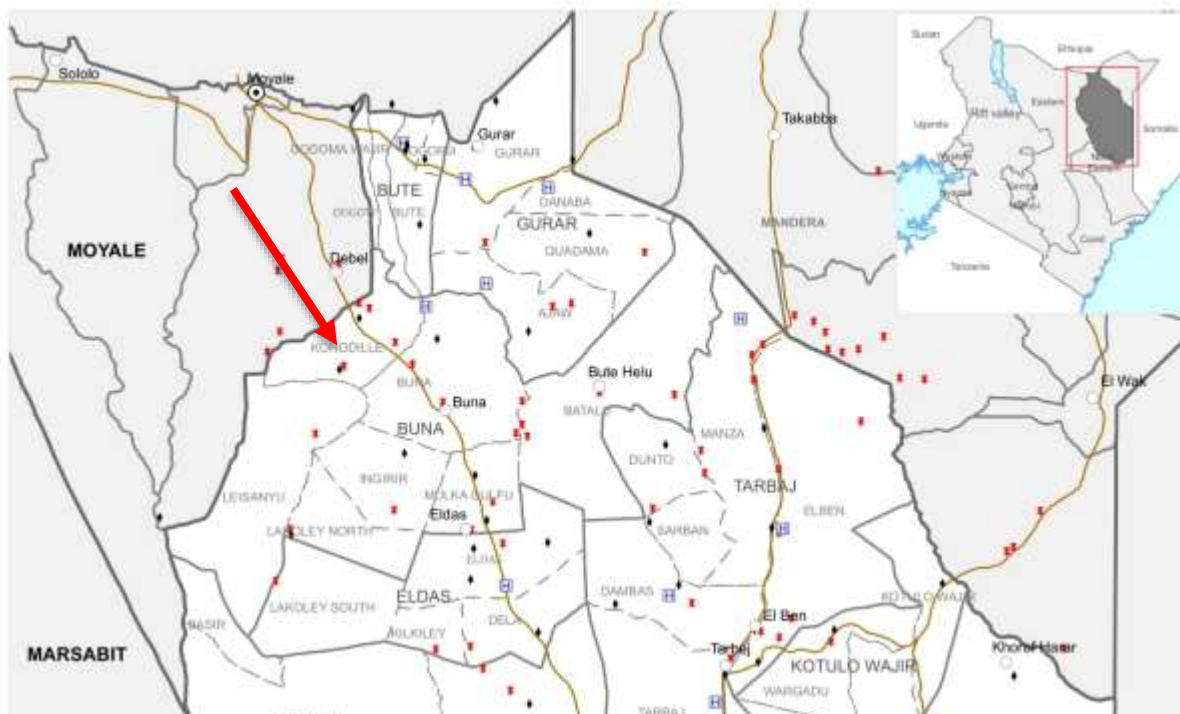


Figure 2: Location of the Project Area (Wajir Base Map, OCHA 2012)

### 3.2 Physical Environment

#### 3.2.1 Climate and Rainfall

The region has a hot and dry climate within ecological zones ranging from III (in the very high grounds) to VII (in the plains or lowlands). Average annual temperatures are about 30°C with the highest being 41°C around January-March and the lowest being 20.6°C around June-July. Rainfall is low, bimodal, erratic and conventional in nature. The total annual rainfall ranges between 280 mm and 900 mm with long rains occurring in April and May, short rains in October and November with November being the wettest month. The dry climate in the hinterland is able to support sorghum farming and as such, the proposed sorghum storage and aggregation centre is envisioned that sorghum will become a game changer in Wajir North Sub County and by extension in the entire Wajir County.

#### 3.2.2 Soils and Sorghum Farming

Although the soils in Korondile can be able to support sorghum production, soil fertility can be managed through several strategies including, organic fertilizers/manures, and inorganic or chemical fertilizers. Most soils in sorghum and millet production areas are deficient in both essential macronutrients such as nitrogen (N) and phosphorus (P), and micronutrient zinc which are essential for adequate crop growth. To correct these nutrient deficiencies, a wide range of organic and inorganic fertilizers will be used which can lead to soil degradation. It is therefore proposed that through support organizations such as Kenya Agricultural and Livestock Research Organization (KALRO) can advise on correct application of such fertilizers to avoid soil degradation. Figure 3 below shows some of the soil test and management practices.

Soil test pH	Rating	remarks
<4.5	Strongly acidic	Very acidic
4.6-5.0	Medium acidity	Medium acidic
5.1-5.5	acidic	acidic
5.6-6.5	Slightly acidic	Slightly acidic
6.6-7.0	Slightly alkaline-to alkaline	Slightly alkaline
>7.0	alkaline	May be saline

Soil with pH less than 5.5 are subject to liming to remove exchangeable acidity that might limit crop production including sorghum.

**Figure 3: Soil Test Interpretation and Management Practices**

(Source: KALRO Training Manual on Enhancing Sorghum Production in ASALs)

Soil testing is recommended before planting; however, liming is recommended if soils are acidic. Soil testing will give some soil reaction pH which is a measure of soil acidity or alkalinity depending on the soil pH range.

### 3.2.3 Sorghum Harvesting

Birds start visiting the sorghum crop at early soft dough stage. As the grain starts attaining cream white colour bird damage increases exponentially as the grain ripen to hard dough. This presents the most laborious period of sorghum production as the farmer move from one point to another to chase birds away. Harvest of sorghum at soft dough offers opportunity to salvage yield at over 90%.



**Plate 2: View of a Sorghum ear damaged by birds at full white**

### 3.2.4 Sorghum and Pests in the Subject Area

The major insect pests of sorghum include shoot fly, stem borer and birds. As soon as the sorghum seedling have emerged, established or one week after germination look out for shoot fly. The yellowish or white maggots bore into the hearts of the shoots and cause characteristic dead heart. To manage the stalk borer, shoot fly and other insect pests, it's important to undertake routine surveillance.

### **3.3 Socio Economic Environment**

#### ***3.3.1 Main Crops Produced***

Main crops produced include sorghum, drought tolerant maize, beans, melons, cowpeas, green grams and horticultural crops like mangoes, citrus, kales, spinach, tomatoes, sweet and hot peppers. These activities are undertaken in small scale. There is need to explore the adaptability of these crops to the changing climate. However, there are indications of huge potential in this sector as witnessed by the water melons flooding the markets across the county during rainy season.

#### ***3.3.2 Acreage under food and cash crops***

The acreage under food and cash crop is negligible with most of the farmers adapting the nomadic pastoralism due to the climatic conditions which are not favourable for crop farming. The acreage under food crops is approximately 3,120 Ha with the total arable land being 42,425.2 sq. There are efforts to increase the acreage under farming through irrigation whereby the County Government of Wajir has excavated several mega water pans for irrigation. The proposed project by Korondile Sorghum Production and Value Addition Marketing Organization will be in line with the County Government Vision.

#### ***3.3.3 Main storage facilities***

The main storage facilities in the county include Silos, grain banks and granaries. Silos are mainly used for storing relief food supplies. National Cereals and Produce Board in Wajir town stores all relief food before distribution. Storage facilities have remained poor with sorghum grains mainly being stored in underground granaries. The proposed sorghum storage facility will add to the number of storage facilities that are limited in the remote areas.

#### ***3.3.4 The Target Market***

Korondile Sorghum Production, Value Addition and Marketing Organization as a Producer Organization intends to market both grain sorghum as raw material for other industries and domestic consumption, as well as in processed form for both local and external markets.

## CHAPTER 4: PUBLIC PARTICIPATION & STAKEHOLDER CONSULTATIONS

### 4.1 Introduction

Public participation is an essential and legislative requirement for environmental authorization. The Lead Expert undertook the public/ stakeholder consultation (PSC) with regard to the proposed sorghum storage and aggregation facility in Korondile Ward. The public consultation was undertaken to obtain information from interested and affected parties (stakeholders), solicit their views and consult on sensitive issues by completing a set of questionnaires. A sample size of 24 respondents was drawn for the survey. The output is incorporated in the development of mitigation measures. Different stakeholders were of different opinion regarding the proposed sorghum storage and aggregation facility.

### 4.2 Approach used in carrying out the Public/ Stakeholder Consultations (PSC)

The consultants conducted free, prior informed consultation with all groups within the community. These included the adult males and females as well as male and female youth from all the communities in Korondile and Bute Wards. The broad-based stakeholder participation was aimed at building and strengthening beneficial relationships among all project stakeholders, improved understanding and decision making and identifying and managing project impacts. The area is mainly inhabited by the Somali community and the area is classified as a marginalized area. Diverse approaches were applied in stakeholder engagement as follows: -

#### 4.2.1 Consultative Forums

A Consultative forum bringing together the Consultant, Area Chief, Ward Administrator and the community of Korondile was arranged at Korondile Shopping Centre on the 5<sup>th</sup> of November 2021 with the aim of identifying social and environmental impacts and proposing possible management measures. Community members totaling 56 participants (23 females and 33 males) were mobilized and included men, women, youth, people living with disabilities, pregnant mothers among others. On their part, the project proponent identified and nominated staff who liaised with the community.



**Plate 3: View of the stakeholder engagement forum at Korondile shopping centre**

#### **4.2.2 Key Informant Interviews:**

Key informants to the Study especially stakeholders in the project area and County Government were approached and met in respective offices where they were engaged on issues of interest to respective sectors. The aim of the consultation was to inform (disclose) the public or the community about the proposed project, consolidate their views, opinion, worries, values and aspirations in respect to the project. In-depth interviews and discussions with national and county governments officials especially in the Ministry of Agriculture, Livestock and Fisheries. A meeting consisting of the community, PO officials, area MCA and the Chief was held at the site on 5<sup>th</sup> November 2021.

#### **4.2.3 Free Prior Informed Consultation and Gender Involvement**

KCSAP conducted free, prior informed consultation with all groups within the Korondile and Bute communities. The assessment began with a brief from the resource persons on the various forms of livelihoods in the area and their support structures. The Safeguards Officer briefed the community on project structure, objectives, activities and mandate before initiating consultation with the communities on the risks and the benefits of the project intervention they had identified in its siting. Every group within the community was encouraged to participate and feedback recorded in the consultation minutes in the community mobilization and screening report. Participants registered their involvement by entering their names in a designated schedule and appending their respective signatures or thumb-prints.

### **4.3 Feedback from the Stakeholder Involvements**

#### **4.3.1 Positive Issues Highlighted**

- It was generally agreed that the Korondile land is suitable for sorghum production;
- The society is linked to the departmental agriculture mechanization services and is expected to benefit from the extension services;
- There were other partners who are willing to venture in to sorghum marketing;
- Establishment of cottage livestock feeds industries which will provide market for the raw sorghum
- Availability of extension services to aid farmers in their farming activities
- There is availability of suitable certified sorghum seeds;
- There were partners who were willing to support aggregation, sorghum utilization and marketing;
- There was presence of sorghum CIGs who are willing to join the Producer Organization (PO)
- Continuous opportunities for capacity building supported by KCSAP and other partners;
- Presence of literate sorghum producers who can play a major role in the management of the PO.

#### **4.3.2 Negative Issues**

The following are negative issues raised by the neighbors/affected parties (AP) that need to be addressed;

- Migration of sorghum producers during dry seasons hence reducing the level of production;

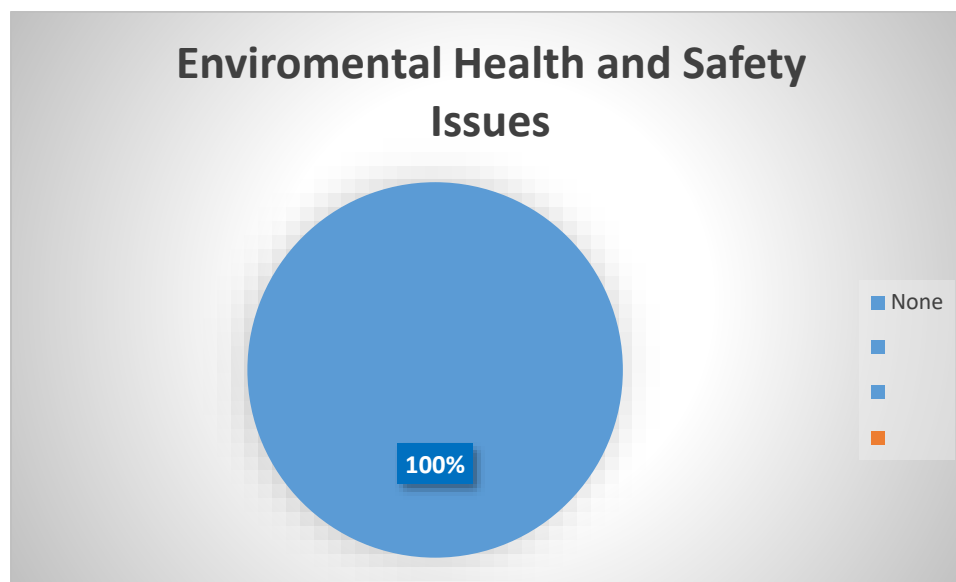


- Possible mismanagement of the Producer Organization resources by the officials;
- Possible collapse of industries using sorghum as a major raw material in their production lines;
- Inability to deliver to the contracted markets especially during the wet seasons due to poor roads leading to loss of contracts.
- Inadequate producer organization marketing and market linkages
- Poor -harvest management practices
- Low utilization of sorghum and sorghum products by the local community
- Unpredictable climatic conditions
- Lack of proper aggregation plans
- Lack of proper storage facilities for sorghum
- Low access to suitable and acceptable financial services.

#### 4.5 Analysis of the Questionnaires

##### *a) Environment Health and Safety Concerns*

The chart below indicates the percentage of the stakeholders who commented on the environmental, socio economic and general issues related to the proposed hay barn project. No environmental concerns were reported during the stakeholder consultations.

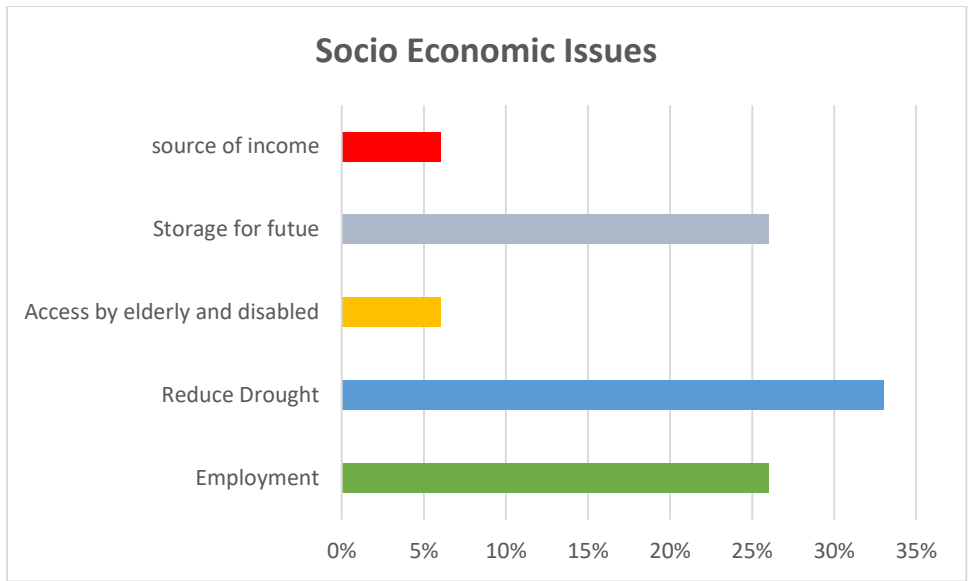


**Figure 4: Environment Health & Safety Issues**

##### *b) Socio Economic Issues*

26% of those interviewed cited employment as the major socio-economic benefit during construction of the sorghum storage and aggregation facility. This also had far reaching impact as hardware's in Korondile would supply some of the raw materials needed for the construction of the facility. 33% acknowledged that the constructed sorghum storage and aggregation facility would reduce migration as farmers opt for livestock keeping as opposed to sorghum farming due to lack adequate infrastructure such as the storage facilities and leads to losses. 6% reported that the project would benefit the elderly and disabled who are often faced with difficulties in seeking pastures for their livestock and as such, it would be a boost to alternative source of livelihood. The major objective of the project is to enhance

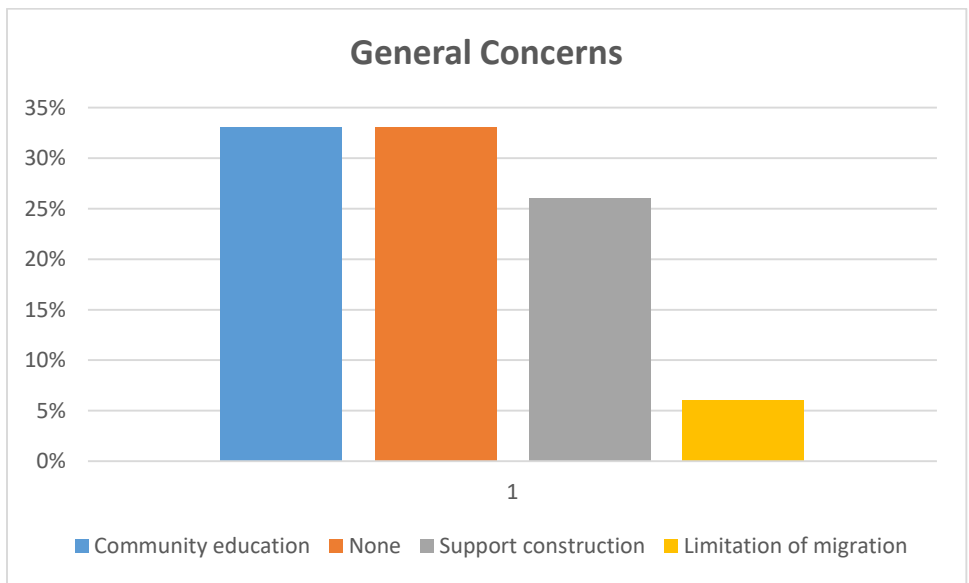
food and nutrition security and economic empowerment in Korondile through transformation of sorghum value chain as reported by 26% with another 6% siting source of income as the sorghum would be sold as an income generating activity.



**Figure 5: Socio Economic Issues**

*c) General Views*

A majority of the respondents supported construction activities and wanted the process to be fast tracked. Currently, storage facilities are a challenge in the area and with the construction of the sorghum storage and aggregation facility, more space would be available and eventually reduce losses incurred by farmers. No Environmental concerns were reported but the general concerns included requests for more trainings of the community on how to plant, manage and apply fertilizer at 33%. Another 26% asked for expedition of the project as its implementation had taken long. To address the unforeseen environmental impacts, mitigation measures have been provided in this report.



**Figure 6: General Concerns**



**Conclusion**

The mitigation of these impacts is outlined in the ESMP Report and the contractor is urged to continue adhering to the Construction Environment Management Plan that outlines how construction activities can be carried out with minimal interference. *Copies of the completed public stakeholder participation forms are attached at the end of this report. (See Annex 4)*

## **CHAPTER 5: IDENTIFICATION, EVALUATION, ANALYSIS OF POTENTIAL IMPACTS AND MITIGATION MEASURES**

### **5.1 Introduction**

This chapter focuses on the anticipated impacts from the development of the proposed sorghum storage and aggregation project. The extent of the environmental and social impact is determined by its significance and adversity, as well as its temporary or permanent state, long or short-term effect, localized or widespread nature.

### **5.2 Impacts During Construction**

#### **5.2.1 Positive Impacts**

The following potential impacts have been identified during the construction phase:

- (i) Several workers including casual labourers, masons, carpenters, joiners, electricians and plumbers are expected to work on the site from start to the end and will improve the standard of living.
- (ii) The project will contribute towards growth of the economy by contributing to the gross domestic product, hence increasing government revenue while the cost of these raw materials will be payable directly to the producers;
- (iii) There are usually several informal businesses which come up during the construction periods of such projects. These include activities such as food vending who benefit directly from the construction staff members who buy food and other commodities from them;
- (iv) There will be skills by the locals that can acquire them better jobs, thus improved livelihood;

### **5.3 Negative Impact**

#### **5.3.1 Disposal of excavation materials**

Some of the excavation material will be rendered unusable and thus will be disposed off. This also apply to some of the soil/rocks which are not reusable after excavation processes is complete. All these materials need to be collected, transported and disposed off appropriately in approved designated areas. It is encouraged those other alternative uses of these materials should be found.

#### ***Mitigation Measures for Solid Waste***

- Use of durable, long- lasting materials that will not need to be replaced as often, thereby reducing the amount of construction waste generated over time.
- Provision of facilities for proper handling and storage of construction materials to reduce the amount of waste caused by damage or exposure to the elements.
- Use of building materials that have minimal packaging to avoid the generation of excessive packaging waste
- Use of construction materials containing recycled content when possible and in accordance with accepted standards.

#### **5.3.2 Hydrology and water quality degradation**

Project related excavation could lead to ground water quality degradation. Contaminated soil or ground water in the path of the project could be disturbed by excavation resulting in a potential transfer

of the contamination. The excavated area, if linear could act as a conduit to extend groundwater contamination to new areas. Spills of hazardous materials in excavated areas during construction could introduce contaminants to ground water.

***Mitigation Measures:***

- Prepare a hazardous substance control systems and emergency response plans that will include preparations for quick and safe clean-up of accidental spills.
- Prescribe hazardous-materials handling procedures to reduce the potential for a spill during construction, and will include an emergency response programme to ensure quick and safe clean-up of accidental spills.
- The plan should identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, will be permitted.

**5.3.3 *Loss of Vegetative Cover***

During the construction phase of the project, bush clearing will be undertaken in the areas to be inundated to minimize the impacts of water pollution from decaying vegetative matter that would die after inundation. Actual construction activities will lead to further loss of vegetative cover at the site of the construction camp for the workers who are likely to be engaged in the actual construction activities. This impact is however not expected to be significant. While no endangered or threatened species were identified in the area, clearing and subsequent inundation constitutes a loss of biodiversity on flora. The vegetation is also home to many invertebrates and avifauna, who will be rendered dispossessed of their habitats.

***Mitigation Measures***

- Rehabilitate through reinstatement and tree planting all sites that are being used for construction activities such as camps, materials site (borrow pits and quarries) sites for storage materials and any paths, tracks that may be established during the construction phase and the Society management should take charge of ensuring sustainability.

**5.3.4 *Air Quality***

The following emissions will be expected to result from construction activities. This would in turn lead to poor quality of life as well as upper to lower respiratory infections and silicosis condition:

- (i) Dust from excavations and earth moving vehicles as well as materials delivery;
- (ii) Emissions such as smoke, hydrocarbons and nitrogenous gases among others from machinery exhausts;

***Mitigation Measures***

- Personal protective equipment (PPE) such as dust masks must be worn in the immediate vicinity of the operations during excavation;
- The stockpiles of earth generated during construction works should be suppressed by spraying water or water-based mixtures. Spraying should also be carried out on unpaved road accesses regularly;

- All machinery and equipment should be maintained in good working order to ensure minimum emissions including carbon monoxide, oxides of Nitrogen and Sulphur, as well as suspended particulate matter;
- Drivers of construction vehicles and delivery trucks should be cautioned to drive slowly near the site to avoid creating dusty conditions.

### ***5.3.5 Controlling oil spillages***

Petroleum hydrocarbons present pose environmental and fire risk. The storage of petroleum hydrocarbons on site presents a hazard source and the release of hydrocarbons into the environment could result in significant impacts on a variety of receptors. The pathway for pollution is soil or water, and the primary receptors include the sub-soil and groundwater. Other receptors include air (from fuel vapors) and people (through dermal contact, inhalation or ingestion). It is however worth noting that the risks of a major oil spillages occurring are minimal.

#### ***Mitigation Measures:***

- Regular maintenance of site equipment and machinery should be carried out to ensure any leakages are detected and controlled. The motor vehicles and heavy equipment should be serviced according to manufacturer's requirements to limit the exhaust emissions, and servicing and re-filling should be undertaken in designated yards.
- Investigate the possibility of fitting catalytic converters especially for the heavy equipment to convert harmful substance in the exhaust fumes to less harmful substances;
- Safety procedures for fuel storage and re-fueling should be well understood and implemented by site staff; and
- Oil residuals including waste oil, lubricants, used filters, should be carefully collected and stored for safe disposal, in order to prevent migration of contaminant hydrocarbons into storm water or groundwater resources.

### ***5.3.6 Trips and Fall Hazards***

Potential impacts during construction include: exposure to physical hazards from the use of equipment; trips and fall hazards; and exposure to dust and noise. Other injuries or fatalities may result from workers operating equipment without adequate training or with a lack of personal protective equipment or extended exposure to outdoor weather resulting in heat-related lethargy.

#### ***Mitigation Measures:***

- Ensure all equipment is inspected before use for appropriate safe guards and that the machine operators are trained on machine safety; Ensure provision of PPEs, training of site workers and users on OHS.

### ***5.3.7 Noise and Vibration***

There will be noise and vibrations generated during the construction phase but it will be no different from that on any other typical construction site. The noise impact during construction is expected to be negative and short-term. Major sources of noises and vibration will come from: drilling during construction equipment to place charges and earthmoving machinery, as well as noise from the work

force itself. The major receptors are expected to be the construction workers as well as any immediate neighboring premises.

***Mitigations Measures:***

- Conduct noise measuring to determine levels and extent of harmful noise and provide PPE (hearing protection) to persons who must operate within or visit the identified high noise areas;
- Investigate the possibility of investing in silencers on machines to reduce the quantity of noise produced;
- Inform local residents of any abnormal noise generating construction activities to minimize disruption to local resident;

***5.3.8 Increased incidences of HIV/AIDS and STI's***

Due to the influx of migrant workers and the resulting changes in sexual behaviors, there is a chance of escalation of STI's including the deadly HIV/AIDS. There could also be cases of unwanted pregnancies as the migrant workers interact and get into relationships with the local communities. The objective of the HIV/AIDS initiatives would be to reduce the risks of exposure to and spread of the HIV virus in the project area. Major targets would be construction workers, institutional communities and the general members of the community, particularly the youth. Recommended measures are as follows:

***Mitigations Measures:***

- Review the activities of the sorghum storage and aggregation facility construction to integrate with the HIV/AIDS campaigns;
- Develop appropriate training and awareness materials for information, education and communication (IEC) on HIV/AIDS;
- Identify other players (local CBOs, NGOs, and government organizations) on HIV/AIDS for enhanced collaboration; and
- Integrate monitoring of HIV/AIDS preventive activities as part of the project construction supervision. Basic knowledge, attitude and practices are among the parameters to be monitored, and particularly on provision of condoms, status testing and use of ARVs.

***5.3.9 Collapse of structures due poor workmanship and environmental factors***

In many a times, poor workmanship and the effects of environmental vagaries have caused huge property losses, injuries or even death. Collapse of structures has partly been occasioned by poor workmanship or environmental factors such strong winds, heavy downpour among others.

***Mitigations Measures:***

- Due diligence and capacity of the contractor should be monitored
- The structures and facilities should be designed in agreement to the requirement of the National Planning and Building regulations, 2014
- The contractor should investigate the strength of the ground onto which the structures are erected. Loose soils should be avoided

### ***5.3.10 Crime Management and Contractor's Security***

Construction sites tend to be a target for thieves and vandals because valuable items are left on site for long periods of time. This can directly impact the success of a project and diminish the potential profitability of the project under construction. Security is the protection of people and things such as buildings and sites from harm, terror activities, theft, or sabotage and encompasses several components such as physical, personnel, investigations and awareness and information security. Crime prevention on construction sites has become a major concern for building contractors and losses from theft as vandalism and loss of material and equipment can make the difference between a successful project and a failure.

#### **Mitigation Measures**

- Install a security fence around the construction site. The gate allowing access to the site should always be manned by a security guard.
- Ensure that all workers on the sites are educated on the policy for crime management and that they are aware of all security procedures.
- Make individual members of the staff personally responsible for the equipment they use.
- Clearly mark all tools and lock them up when not in use.
- The contractor and Supervision Consultant should register in a log all events of a criminal nature that occur at the worksite or are associated with the civil works activities.
- Rely on the security apparatus to provide security to the construction crew and also provide updates about any terrorism activities that may happen in the area so as to avoid adverse impacts.

### ***5.3.11 Child Labour and Protection***

The Children Act of Kenya prohibits contractors from “employing children in a manner that is economically exploitative, hazardous, and detrimental to the child’s education, harmful to the child’s health or physical, mental, spiritual, moral, or social development. It is also important to be vigilant towards potential sexual exploitation of children, especially young girls. The contractor should adopt a ‘Child Protection Code of Conduct’; that all staff of the contractor must sign, committing themselves towards protecting children, which clearly defines what is and is not acceptable behavior.

#### **Mitigation Measures**

- Ensure no children are employed on site in accordance with national labour laws;
- Ensure that appropriate disciplinary actions are taken against contractor staff who goes against the code of conduct and engages in any sexual crimes against children.

### ***5.3.12 Effects of Migrant workers***

Construction projects often attract labour from communities outside the recipients of the projects. This may be due to a lack of skilled people within the project areas, or due to speculative followers who follow the project seeking employment, seeking to execute business opportunities or seeking to exploit opportunities for criminal or illicit behavior. This inflow of workers is often only temporary, lasting the length of the project, or when excess labour is required. Incoming workers are typically associated with negative impacts. These include:

## **Mitigation Measures**

- Contractor should use the local workforce as much as possible. Depending on the size and the skill level of the local workforce, a share of the workers required for the project may be recruited locally.
- Effective community engagement and strong grievance mechanisms on matters related to labour
- All workers to sign an employment contract including a Code of Conduct governing appropriate behavior in the accommodation facilities.
- The workforce should be sensitized to local social and cultural practices and be educated on the expected behavior and conduct.
- Ensure that the contractor adheres to the mitigation of risks against labour influx. Depending on the risk factor, appropriate mitigation measures may be deployed.

### ***5.3.13 Positive Impacts and Enhancement Measures During Operation***

It is anticipated that the operations phase of this project will result in:

- It was generally agreed that the Korondile land is suitable for sorghum production;
- Availability of departmental agriculture mechanization services
- Presence of other partners who are willing to venture in to sorghum marketing
- Establishment of cottage livestock feeds industries which will provide market for the raw sorghum
- Availability of extension services to aid farmers in their farming activities
- Availability of suitable certified sorghum seeds
- Partners who are willing to support aggregation, sorghum utilization and marketing
- Presence of sorghum CIGs who are willing to join the Producer Organization (PO)
- Continuous opportunities for capacity building supported by KCSAP and other partners
- Presence of literate sorghum producers who can play a major role in the management of the PO.

## **5.4 Negative Environmental Impacts**

### ***5.4.1 Insect and Pests on Sorghum***

The major insect pests of sorghum include shoot fly, stem borer and birds. As soon as the sorghum seedling have emerged, established or one week after germination look out for shoot fly. The yellowish or white maggots bore into the hearts of the shoots and cause characteristic dead heart.

### ***Mitigation Measures***

- Destruction or proper storage of crop residues
- Plant early and improve soil fertility and plant vigor
- Scout for borer infestation and apply suitable chemical such as bull dock star at 1-2 kg/acre, spray with Marshal at 80mLs per acre or dress with pepper and ash mixtures in the funnels 6 weeks after germination.
- Undertake routine surveillance to manage stalk borer;

### ***5.4.2 Effects of pick-up lag***

Normally, new development ventures are faced with start-up challenges. The proposed sorghum storage and aggregation project is no exception. There exist inherent risks such as drought that suppress yields and lack of information on the new market. Other potential risks include clan conflicts as usually witnessed, insecurity among others. This may delay stabilization and fruition of the project goals and may cause apathy on the part of the market actors.

#### ***Mitigation Measure***

- Aggressive marketing/awareness creation of the project should be given priority.
- The market actors should be sensitized on planting sorghum.

#### ***5.4.3 Exploitation of the farmers by brokers (middlemen)***

Although a critical market player, middlemen are known of their unscrupulous tendencies. Couple with lack of information and sheer ignorance on the part of the farmers, they loss huge amount of income.

#### ***Mitigation Measures***

- Brokerage at the storage facility should be monitored and any exploitation to the farmers should be discouraged. The farmers should reap the maximum possible.
- The farmers should be trained or be informed of the market dynamics to equip them with the requisite competitive bargaining power.

#### ***5.4.4 Energy Consumption***

Energy will be consumed by the milling and fortification machines that will be installed at the facility. Other equipment that utilizes energy are the weighing scales while diesel energy will be used by the tractor.

#### ***Mitigation Measures***

- The facility must endeavor to employ technologies that will prevent pressure on natural resources such as use of solar energy.
- Endeavor to conserve energy by such actions as switching off lights and machinery when not in use;
- Consider using solar energy to provide electricity for machinery operation, lighting and milling of the sorghum.

#### ***5.4.5 Slips, Trips and fall***

Work places present several risks of trip and fall that can be injurious to both the workers and those visiting the storage facility. The pallets used for storing the sorghum sometimes can result to the risk of trip and fall.

#### ***Mitigation Measures***

- Good housekeeping and machinery layout should be maintained at all times at the sorghum storage and aggregation centre;

#### ***5.4.6 Sharp Edges and Machinery***



Sharp tools that are used at the facility for sealing the hematic bags can result to injuries if improperly used. All equipment should have safety guarding and workers should be issued with appropriate Personal Protective Equipment (PPE) to protect against unavoidable sharp items and edges.

#### ***Mitigation Measure***

- Provision of personal protective equipment (PPE) that is fit for the task to prevent injury and maintain hygiene standards.
- Staff should be trained in the correct selection, use and maintenance of PPE;
- The training should include the reasons for its use and the dangers of not using it. PPE should be inspected regularly and maintained or replaced as necessary;

#### ***5.4.7 Manual Handling and Repetitive Work***

Lifting, repetitive work and posture injuries occur because of lifting and carrying heavy or awkward shaped items such as the sorghum packed in bags. Repetitive tasks, such as milling and staking of the bags can lead to musculoskeletal injuries.

#### ***Mitigation Measures***

- The client must rotate the workers at different sections to prevent prolonged exposure;
- Train the staff at the facility on lifting techniques;

#### ***5.4.8 Dust from Milling Operations***

Roller milling is the most common size reduction process for cereal grains. It consists of several consecutive breaking steps to open the kernel and reduce the particle size of the grain into grits and flour. As such, dust is expected to be generated from the milling operations that can impact on the workers and the communities neighboring the proposed site. Airborne dust that is regularly inhaled by mill workers. This causes serious respiratory ailments like irritated rhinitis, wheezing, coughing, lung fibrosis and even asthma. Suffocation is also a major issue that many workers experience; it is a major cause of death in storage bins

#### ***Mitigation Measures***

- Explore wet milling method by increasing the moisture content of grains through the addition of water before dry milling.
- Ensure workers are provided with personal protective equipment and enforce their usage during milling operations;
- Ensure the miller is enclosed in a room to avoid fugitive dust;

#### ***5.4.9 Liquid Waste***

The proponent will ensure that the waste water lines are well connected to the septic tank soak pit and making sure that they are not blocked or damaged since such vices can lead to release of the effluent, resulting in land and water contamination. Such blockages or damages will be fixed expeditiously;

### **5.5 Negative Social Economic and Environmental Impacts**

### ***5.5.1 Health and Safety of Workers and COVID – 19 on Local Community***

During operation and subsequent rehabilitation, the community is exposed to a number of health, safety and welfare concerns. These include slipping and accidental falls, working under height, dust, injury from equipment, tools and unavailability of portable water. Accidents from slippery, sharp edges of the fabricated containers and unstable ground could compromise worker's safety. The workers will also need toilet facilities. The COVID – 19 is a highly contagious infectious disease and since consultations are required and training on E&S issues, these also pose a potentially high risk of infection to and among communities. Further, observation of COVID-19 regulation as stipulated in the public health act Legal Notice 54 of April 2020 are of paramount importance.

#### ***Mitigation Measures***

- Provide clean water and soap
- Provide certified hand sanitizers
- Ensure anybody entering the site has a face mask and washes hands/sanitize
- Use of thermo-guns to check body temperature and those with above normal referred for further medical attention;
- Avoid concentrating of more than 15 community members at one location. Where more than one person is gathered, maintain social distancing of at least 2 meters;

### ***5.5.2 Child Labour and Protection***

The Children Act of Kenya prohibits contractors from “employing children in a manner that is economically exploitative, hazardous, and detrimental to the child’s education, harmful to the child’s health or physical, mental, spiritual, moral, or social development. It is also important to be vigilant towards potential sexual exploitation of children, especially young girls. Korondile Sorghum Production Value Addition and Marketing Organization should adopt a ‘Child Protection Code of Conduct’; that all staff of the Society must sign, committing themselves towards protecting children, which clearly defines what is and is not acceptable behavior.

#### ***Mitigation Measures***

- Ensure no children are employed at the sorghum storage and aggregation facility in accordance with national labour laws.
- Ensure that appropriate disciplinary actions are taken against the organization staff who goes against the code of conduct and engages in any sexual crimes against children.

### ***5.5.3 Gender Equity, Sexual Harassment and exploitation, and Gender Based Violence (GBV)***

Gender based violence and harassment of women can occur at the workplace place, making the work environment a hostile place for the women. This can take forms such as; Physical abuse including assault; Sexual violence including rape and sexual assault; Sexual harassment; Sexual exploitation and abuse; Verbal and sexist abuse; Psychological abuse, intimidation and threats of violence; Economic and financial abuse. As such, the management of Korondile Sorghum Production Value Addition and Marketing Organization will make efforts to prevent all forms of GBV at the workplace during operation.

## **Mitigation Measures**

- Where possible, with the assistance of the Ministry of Gender, Sports, Culture and Social Services facilitate the promotion of cultural preservation;
- Employ and train committed female staff to positions of authority. These will help promote the employment of female staff
- Strive for an equitable distribution of employment opportunities between men and women. Mainstream Gender Inclusivity in hiring of workers as required by Gender Policy 2011 and 2/3 gender rule;
- Provide separate toilets and bathrooms for both male and female workers on site
- The Society should employ and train committed female staff to positions of authority. These will help promote the employment of female staff.

### ***5.5.4 Spread of HIV/AIDS and STI's***

During its operation phase, the sorghum storage and aggregation facility is likely to attract more people with a resultant change in sexual behaviors. With a thriving market, there is a chance of escalation of STI's including the deadly HIV/AIDS. There could also be cases of unwanted pregnancies as the workers interact and get into relationships with the local communities. The objective of the HIV/AIDS initiatives would be to reduce the risks of exposure to and spread of the HIV virus in the project area.

#### ***Mitigations Measures:***

- Operations of the sorghum storage and aggregation facility plant should be integrated with the HIV/AIDS campaigns;
- Develop appropriate training and awareness materials for information, education and communication (IEC) on HIV/AIDS;
- Identify other players (local CBOs, NGOs, and government organizations) on HIV/AIDS for enhanced collaboration; and
- Integrate monitoring of HIV/AIDS preventive activities as part of the sorghum storage and aggregation facility operations supervision.

## **CHAPTER 6: ENVIRONMENTAL AND SOCIAL MANAGEMENT & MONITORING PLAN (ESMMP)**

### **6.1 General**

Along with the potential impacts presented in this chapter, proposed mitigation measures have also been highlighted for appropriate action. Some impact mitigation has already been proactively addressed in the design, and legal and regulatory framework, while others would be undertaken through considered incorporation in the implementation of the project and guided by the environmental and social management and monitoring plan (ESMMP) developed under this report. The ESMMP provides a general outlay of the activities, associated impacts, mitigation action plans and appropriate monitor able indicators. Implementation timeframes and responsibilities are also defined. The responsibility for the integration of the mitigation measures for the proposed development lies with the Contractor during the construction stage while the Proponent takes over the duty upon commissioning of the project. At every stage, the objective would be to ensure that the specified mitigation measures are implemented.

### **6.2 Environmental and Social Management and Monitoring Plan**

The scope of this environmental management plan (ESMMP) document is to give guidelines to all parties involved in construction, maintenance and utilization of the beef aggregation and marketing in fulfillment of environmental and social requirements. The management plan has a long-term objective to ensure that:

- (i) Environmental and Social management conditions and requirements are implemented from the start of the project and post construction period, and
- (ii) Precautions against damage to environment and property and claims arising from damages are compensated expeditiously.

The table below therefore summarize the Environmental Social Management and Monitoring Plan for this proposed project. It describes the parameters that can be monitored, and suggests how monitoring should be done, how frequently, and who should be responsible for monitoring and action. A total of Ksh **250,000** will be used in the ESMMP. The ESMMP should be shared be shared with the selected contractor for implementation.

**Table 2: Environmental & Social Management and Monitoring Plan**

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
<b>Project Phase – Planning and Design</b>						
Plans and Designs	Insufficient plans and designs that do not capture key elements such as space economics (disabled people, machinery, vehicles and others),	<ul style="list-style-type: none"> <li>The plans and designs should factor-in all requisite design elements as provided the planning and building regulations/code</li> <li>The design should incorporate the needs, values and desires of the host community</li> </ul>	Less congested, adequate ventilation, easy to access and efficient sorghum storage and aggregation facility.	Korondile Sorghum Production Value Addition and Marketing Organization, the ultimate managers, Wajir County,	Plan and design review and visual inspection of the plant upon completion	50,000
Project ownership, stewardship	Conflicts arising from speculation, divergent views and conflict of interests amongst members of Korondile Sorghum Production Value Addition and Marketing Organization	<ul style="list-style-type: none"> <li>An agreeable, practicable management/stewardship formulae should be drawn by the stakeholders on the appropriate method/s</li> <li>A conflict resolution strategy should be formulated for conflict management during the project life</li> </ul>	Conflict management after the exit of KCSAP assistance	Korondile Sorghum Production Value Addition and Marketing Organization, the ultimate managers and KCSAP, Wajir County	Records on conflicts and meeting records Frequency: Continuous	10,000
<b>Construction Phase</b>						
Noise and dust pollution	Noise and dust pollution is likely to be generated by construction plants such as trucks,	<ul style="list-style-type: none"> <li>Switch off engines when not being used.</li> <li>Operators or workers in noise producing work pieces should be provided with earmuffs or ear plugs</li> </ul>	Less dust, noise and protected workers	KCSAP, the contractor and the sub- county public health office,	Noise and air quality survey reports, visual inspection of the site.	15,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
	dumpers, concrete mixers, compressors and pavers among others.	<ul style="list-style-type: none"> <li>Generators to be well insulated or placed in enclosures to minimize noise levels.</li> <li>There should be a fully equipped first aid kit on site.</li> </ul>		County DOSHS office	<b>Frequency:</b> Annually, quarterly	
Physical injuries to workers	Characteristic of any conventional construction works; the workers are normally exposed to hazardous and risky situations and conditions that cause bodily harm and/or even death. Injury can be inflicted due to lack of proper personal protective clothing or equipment or unsafe working conditions	<ul style="list-style-type: none"> <li>The workers at the site should always be provided with appropriate PPEs and should be replenished once they worn out.</li> <li>The site safety supervisor should put in place stringent measures to promote adherence to use of safety gear (PPEs);</li> <li>Workers should be insured as per the WIBA, 2007 requirements</li> <li>The contractor should provide a well-stocked industrial first-aid kit at the site at all times and it should be replenished adequately after use;</li> <li>The contractor should adhere to the provisions of the OSHA, 2007 and its subsidiary legislations;</li> <li>Compliance to the provisions of the EHS management plan to safeguard workers;</li> <li>A person or two among the workers should have training in first-aid administration</li> </ul>	Injury-free workstations and work pieces	The contractor, KCSAP, the workers, DOSHS, County government	Records of injuries, PPEs requisition and delivery notes, PPE distribution register.  <b>Frequency:</b> Continuous	18,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
COVID-19 Pandemic	Spread of COVID-19 amongst workers.	<ul style="list-style-type: none"> <li>The Contractors will develop a SOPs for managing the spread of Covid-19 during project execution and submit them for the approval of the Supervision Engineer and the Client before mobilization. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions;</li> <li>Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel</li> <li>Avoid concentrating of more than 15 persons or workers at one location.</li> <li>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;</li> <li>Install handwashing facilities with adequate running water and soap, or sanitizing facilities;</li> </ul>	COVID-19 case free environment	The contractor, KCSAP Engineers, Public Health Officers, Korondile Sorghum Production Value Addition and Marketing Organization, NEMA	Toolbox meetings and awareness trainings shall be included in the safety trainings.	10,000
Land scarification and destruction of vegetation	During construction there will be earthworks to level the ground and pave way for construction of the substructure.	<ul style="list-style-type: none"> <li>Earthworks should be minimized and where possible avoided.</li> <li>The project should compensate lost vegetation by planting trees and other types of plants in other parts in the project area.</li> </ul>	Maintenance of environmental quality of the project area	The Contractor, KCSAP, County government	Continuous throughout the project,  Frequency: During rains	22,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
	This will lead to removal of vegetation and exposure of soil to agents of erosion (wind and rain).	<ul style="list-style-type: none"> <li>All cuts, dredges, trenches should be appropriately backfilled.</li> </ul>				
Solid waste materials	The project is expected to generate solid waste such as debris, soils, iron and steel, timber, sand, paper etc. Accordingly, solid waste must be sorted and residual waste disposed-off in accordance to the EMC (Waste Management) regulations, 2006	<ul style="list-style-type: none"> <li>Soils should be used for backfilling</li> <li>Metal waste should be sorted and stored in secure areas for sale to scrap-metal dealers</li> <li>The contractor should abide by the provisions of the Environmental Management and Coordination (Waste Management) regulations, 2006</li> <li>All residual waste should be disposed-off in designated sites</li> </ul>	Well managed waste or waste free site	KCSAP, County government (public health office), NEMA, the contractor	Site observation and analysis, presence or absence of waste receptacles  Frequency: Weekly	12,000
Traffic Impacts and accidents from construction trucks	Un-roadworthy or careless driving can cause accidents by the trucks during construction especially during transportation of containers	<ul style="list-style-type: none"> <li>Put signs at the front and the rear of the trucks e.g., WIDE LOAD-KEEP DISTANCE</li> <li>Notices at the sites warning people prone to accidents.</li> <li>Erect a construction notification boards on all roads and lanes leading to the site.</li> </ul>	Few or no accidents	The Contractor, KCSAP, County Government	Accident or incident records  Frequency: Daily	12,000
HIV & AIDS together with STIs Impacts	During project implementation there will be contractors bringing	<ul style="list-style-type: none"> <li>In conjunction with County Health Officers, sensitize workers and the surrounding communities on</li> </ul>	Reduced HIV/AIDs prevalence in the area	KCSAP, Contractor, Korondile Sorghum	Number of awareness program including VCT services and	12,000



Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
	in people from outside the local communities and this poses the danger of spreading HIV/AIDS.	<p>awareness, prevention and management of HIV/AIDS.</p> <ul style="list-style-type: none"> <li>• The contractor should provide quality condoms to personnel on site.</li> <li>• Access to the contractor's camps by outsiders should be strictly controlled</li> </ul>		Production Value Addition and Marketing Organization, Public Health Officers and Workers.	<p>provision for Condoms, ARVs throughout the project period</p> <p>Frequency: Daily</p>	
Child Labour and Protection	Employing children in a manner that is economically exploitative, hazardous, and detrimental to the child's education,	<ul style="list-style-type: none"> <li>• Ensure no children are employed on site in accordance with national labour laws.</li> <li>• Ensure that any child sexual relations offenses among contractors' workers are promptly reported to the police.</li> </ul>	Site free of child labour	KCSAP, Children's Department, the contractor, Korondile Sorghum Production Value Addition and Marketing Organization Officials	<p>Children employed at site</p> <p>Frequency: Routinely</p>	No cost
Effects of Migrant Workers	Construction projects often attract labour from communities outside the recipients of the projects	<ul style="list-style-type: none"> <li>• Contractor should use the local workforce as much as possible.</li> <li>• Effective community engagement and strong grievance mechanisms on matters related to labour</li> <li>• The workforce should be sensitized to local social and cultural practices and be educated on the expected behavior and conduct</li> <li>• Ensure that the grievance redress mechanisms are adhered to.</li> </ul>		KCSAP, Social Services Department, the contractor, Korondile Sorghum Production Value Addition and Marketing Organization Officials	<p>GBV free site, Number of complaints raised,</p> <p><b>Frequency: Daily</b></p>	No cost

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
		<ul style="list-style-type: none"> <li>Clearly define the GBV requirements and expectations in the bid documents</li> <li>Display signs around the project that signal to workers and the community that the project site is an area where GBV is prohibited.</li> </ul>				
<b>Operation Phase</b>						
Insect and Pests on Sorghum	The major insect pests of sorghum include shoot fly, stem borer and birds. As soon as the sorghum seedling have emerged, established or one week after germination look out for shoot fly.	<ul style="list-style-type: none"> <li>Destruction or proper storage of crop residues</li> <li>Plant early and improve soil fertility and plant vigor</li> <li>Scout for borer infestation and apply suitable chemical such as bull dock star at 1-2 kg/acre, spray with Marshal at 80mLs per acre or dress with pepper and ash mixtures in the funnels 6 weeks after germination.</li> <li>Undertake routine surveillance to manage stalk borer;</li> </ul>	Reduced spread of diseases and pests on PO farms	Korondile Sorghum Production Value Addition and Marketing Organization, and Ministry of Agriculture	Number of reported cases	20,000
Energy Consumption	Energy will be consumed by the milling and fortification machines. Other equipment that utilizes energy are the weighing scales while diesel energy	<ul style="list-style-type: none"> <li>The facility must endeavor to employ technologies that will prevent pressure on natural resources such as use of solar energy.</li> <li>Endeavor to conserve energy by such actions as switching off lights and machinery when not in use;</li> <li>Consider using solar energy to provide electricity for machinery</li> </ul>	Low usage of energy resources at the facility	Korondile Sorghum Production Value Addition and Marketing Organization	Records of energy consumption patterns;	15,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
	will be used by the tractor	operation, lighting and milling of the sorghum;				
Slips, Trips and Fall,	Risks of trip and fall that can be injurious. The pallets used for storing the sorghum sometimes can result to the risk of trip and fall	<ul style="list-style-type: none"> <li>• Good housekeeping and machinery layout should be maintained at all times at the sorghum storage and aggregation centre;</li> </ul>	Accident-free workplace	Korondile Sorghum Production Value Addition and Marketing Organization		12,000
Manual handling and Repetitive Work	Lifting, repetitive work and posture injuries occur because of lifting and carrying heavy or awkward shaped items such as the sorghum packed in bags. Repetitive tasks, such as milling and staking of the bags can lead to musculoskeletal injuries.	<ul style="list-style-type: none"> <li>• The client must rotate the workers at different sections to prevent prolonged exposure;</li> <li>• Train the staff at the facility on lifting techniques;</li> </ul>	Safety of workers and injury free workplace	Korondile Sorghum Production Value Addition and Marketing Organization	Number of reported cases or illnesses as a result of the operations at the facility	20,000
Effects of Pick-up lag	There exist inherent risks such as drought that suppress yields and lack of information on the new market or inadequate buyers due to lack	<ul style="list-style-type: none"> <li>• Aggressive marketing/awareness creation of the project should be given priority.</li> <li>• The market actors should be sensitized on planting sorghum;</li> </ul>	Thriving market place	Korondile Sorghum Production Value Addition and Marketing Organization and Ministry of	Sales records and number of people visiting the workplace	15,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
	of information on the new market;			Agriculture and Livestock		
Child Labour and Protection	Employing children in a manner that is economically exploitative, hazardous, and detrimental to the child's education,	<ul style="list-style-type: none"> <li>• Ensure no children are employed on site in accordance with national labour laws.</li> <li>• Ensure that any child sexual relations offenses among contractors' workers are promptly reported to the police.</li> </ul>	Site free of child labour	Children's Department, Korondile Sorghum Production Value Addition and Marketing Organization Officials, Kenya Veterinary Board.	Children employed at the facility  Frequency: Routinely	No cost
COVID-19 Pandemic	Spread of COVID-19 amongst workers.	<ul style="list-style-type: none"> <li>• The Organization should develop a SOPs for managing the spread of Covid-19 during project implementation. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions;</li> <li>• Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel</li> <li>• Avoid concentrating of more than 15 persons or workers at one location.</li> <li>• 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;</li> </ul>	COVID-19 case free environment	The contractor, KCSAP Engineers, Public Health Officers, Korondile Sorghum Production Value Addition and Marketing Organization, NEMA	Toolbox meetings and awareness trainings shall be included in the safety trainings.	10,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
		<ul style="list-style-type: none"> <li>Install handwashing facilities with adequate running water and soap, or sanitizing facilities;</li> </ul>				
Gender Equity and Sexual Harassment	The construction industry is famously male-centric. Women are under-represented in all construction occupations and professions. This is because of stereotypes promote the idea that women are not tough but rather delicate and can therefore not handle a tough job	<ul style="list-style-type: none"> <li>Prepare and enforce a No Sexual Harassment and Non-Discrimination Policy, in accordance with national law where applicable.</li> <li>Strive for an equitable distribution of employment opportunities between men and women.</li> <li>Provision of gender disaggregated bathing, changing, sanitation facilities</li> <li>Ensure the contractor follows the Grievance Redress Mechanism</li> </ul>	GBV free work site	Social Services Department, Korondile Sorghum Production Value Addition and Marketing Organization Officials and Local Administration, Kenya Veterinary Board.	GBV free site, Number of complaints raised,	50,000
Exploitation of the farmers by middlemen	Middlemen are known of their unscrupulous tendencies. Couple with lack of information and sheer ignorance on the part of the farmers, they loss huge amount of income	<ul style="list-style-type: none"> <li>Brokerage at the storage facility should be monitored and any exploitation to the farmers should be discouraged. The herders should reap the maximum possible.</li> <li>The farmers should be trained or be informed of the market dynamics to equip them with the requisite competitive bargaining power.</li> </ul>	Lack of complaints from farmers	Sub County agriculture office, Korondile Sorghum Production Value Addition and Marketing Organization and the County government	Presence or absence of the brokers.  Frequency: Continuous	No cost
HIV & AIDS together with STIs Impacts	During project implementation there will be people	<ul style="list-style-type: none"> <li>In conjunction with County Health Officers, sensitize workers and the surrounding communities on</li> </ul>	Reduced HIV/AIDs	Korondile Sorghum Production Value	Number of awareness program including VCT	12,000

Environmental and Social Impacts		Mitigation Measures				
Impact Domain	Impact Description	Mitigation Description	Mitigation Target	Implementation Agencies	Monitoring Indicators	Estimated Cost
	from outside the local communities and this poses the danger of spreading HIV/AIDS.	<p>awareness, prevention and management of HIV/AIDS.</p> <ul style="list-style-type: none"> <li>The organization should continuously discourage unwarranted sexual advances and educate on safe sexual behaviors.</li> </ul>	prevalence in the area	Addition and Marketing Organization, Public Health Officers and Workers.	<p>services and provision for Condoms, ARVs throughout the project period</p> <p>Frequency: Daily</p>	
<b>Decommissioning Phase</b>						
Loss and damage to property	During removal of structures some of property may be destroyed. This may lead to economic loss	<ul style="list-style-type: none"> <li>Early information to the affected parties</li> <li>Sell the recyclables to secondhand dealers</li> </ul>	Less or no lost property		<p>Lost or damaged property</p> <p><b>Frequency: N/A</b></p>	N/A
Waste management	Rock debris, destroyed materials are often left without being attended to.	<ul style="list-style-type: none"> <li>Landscape all the affected areas</li> <li>Collect all the rock debris and other unusable materials to designated sites</li> </ul>	Maintained environmental integrity		<p>Degraded or maintained environmental aesthetics</p> <p><b>Frequency: -N/A</b></p>	
Intrusion of nonconforming activities e.g., industries	Some activities may spring which are not in conformity with the zoning standards of the city	<ul style="list-style-type: none"> <li>Should acquire 'change of user' as required by the law</li> <li>The proponent should lease the land /structures to conforming undertakings</li> </ul>	Well planned activities		<p>Absence or presence of conforming activities.</p> <p><b>Frequency: N/A</b></p>	
<b>Total Cost</b>	<b>Ksh 325,000</b>					

## CHAPTER 7: CONCLUSION AND RECOMMENDATION

### 7.1 Conclusions and Recommendations

Upon implementation of the proposed sorghum storage and aggregation project, Korondile Sorghum Production Value Addition and Marketing Organization will benefit from diverse positive impacts. These impacts include:

- (i) Several workers including casual labourers, masons, carpenters, joiners, electricians and plumbers are expected to work on the site from start to the end and will improve the standard of living.
- (ii) The project will contribute towards growth of the economy by contributing to the gross domestic product, hence increasing government revenue while the cost of these raw materials will be payable directly to the producers;
- (iii) There will be skills by the locals that can acquire them better jobs, thus improved livelihood;
- (iv) It was generally agreed that the Korondile land is suitable for sorghum production;
- (v) Availability of departmental agriculture mechanization services
- (vi) Presence of other partners who are willing to venture in to sorghum marketing
- (vii) Establishment of cottage livestock feeds industries which will provide market for the raw sorghum
- (viii) Availability of extension services to aid farmers in their farming activities
- (ix) Availability of suitable certified sorghum seeds

The project is also expected to generate negative environmental and social impacts. Some of the key impacts include:

- Conflicts due to divergent views and interests
- Workplace safety and health issues
- Project management and governance issues and
- Environmental integrity issues such as waste management, soil erosion, sanitation and drainage among others

In conclusion, the actual and potential negative impacts can be mitigated during project construction and operation by strict adherence to the Environmental and Social Management Monitoring Plan (ESMMP). The responsibility for the integration of the mitigation measures for the proposed development lies with the Contractor during the construction stage- ESMMP will form part of the contractor's agreement while the Proponent takes over the duty upon commissioning of the project. The proposed project may therefore be implemented since it will increase resilience, stimulate economic growth and improve the livelihood of the vulnerable communities in the project area.

## **REFERENCES**

1. Environmental Management and Coordination Act No 8 of 1999
2. Kenya Gazette Supplement No. 62 30th April, 2019 (Legislative Supplement No. 16) Legal Notice No. 31 The Environmental Management and Co-Ordination Act (No. 8 Of 1999) Amendment of The Second Schedule
3. Environmental (Impact Assessment and Audit) Regulations 2003: Legal Notice No.101.
4. The Water Act No 43 of 2016
5. Public Health Act Cap 242
6. Kenya Climate Smart Agriculture Project (KCSAP), 2017
7. Environmental Management and Co-ordination (Waste Management) Regulations, 2006  
Legal Notice No.121
8. KALRO Training Manual, Enhancing Sorghum Production and Marketing in Semi-Arid Kenya

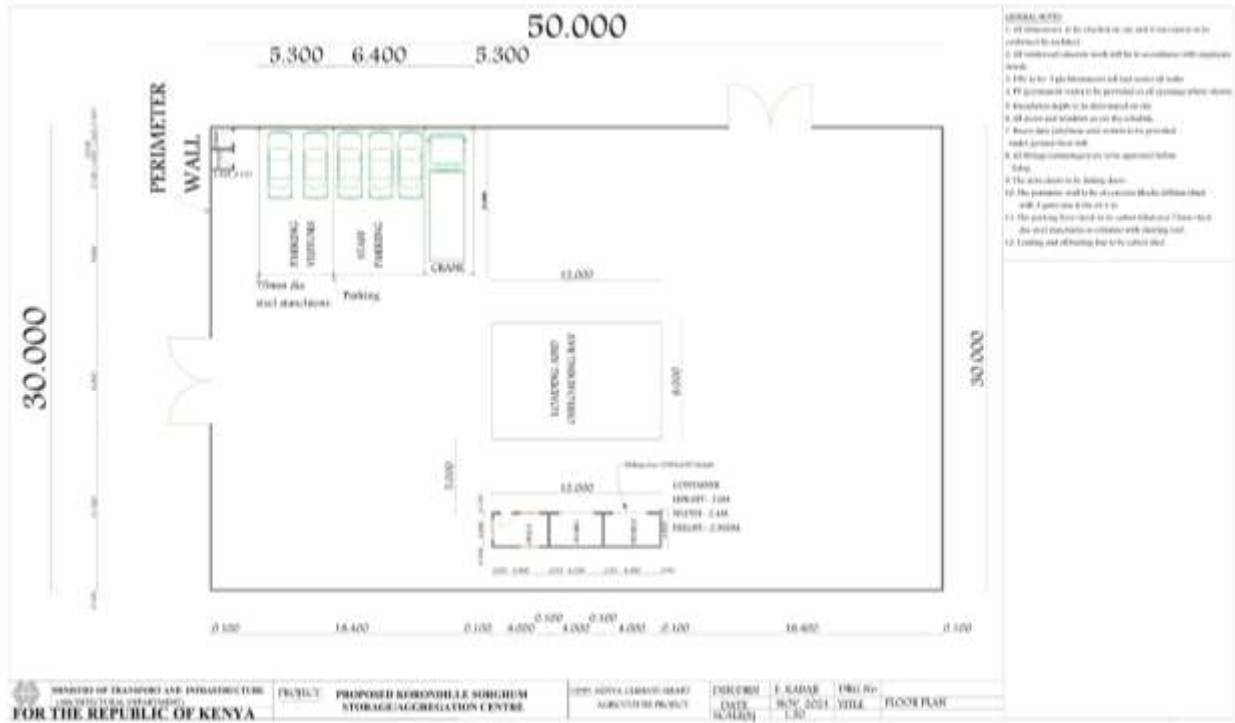


## **ANNEXES**

The following attachments provide supplementary information used in the preparation of this Summary Project Report.

1. Schematic design of the Sorghum Storage and Aggregation facility
2. Screening Checklist
3. List of Participants and Minutes
4. Signed Sampled questionnaires
5. Community Land Resolution Agreement
6. NEMA Registration Certificates

Annex 1: Schematic Drawings



Annex 2: Screening Checklist

**ENVIRONMENTAL AND SOCIAL SCREENING CHECK LIST**

ESM Producer Organization Screening Checklist

(Producer Organization screening process by benefitting communities/Agencies)

Section A: Background information

Name of County..... Klayir .....

Name of CPCU /Researcher..... Klayir .....

Producer Organization location..... Korondulle .....

Producer Organization name: Korondulle Sorghum Production, Value Addition and Marketing Organization

Estimated cost (Kshs.)..... 1.0M .....

Approximate size of land area available for the producer organization:  
..... 1.5 acres .....

Objectives of the producer organization:

1. Attain efficiency in Marketing of Sorghum
2. Increase incomes of Sorghum value chain actors by 50%
3. Create employment opportunities for the youth & VMAs

Activities/enterprises <sup>to be</sup> undertaken:

1. Construction of Sorghum aggregation stores in both of Korondulle
2. Aggregation of grain Sorghum in appropriate stores for storage before marketing

Financial Year..... 2021/2022 .....

Section B: Environmental Issues

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

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

Section C: Socio-economic Issues

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

Lead to social evils (drug abuse, excessive alcohol consumption, crime, etc.)?		✓
--	--	---

**Section D: Natural Habitats**

Will the project:	Yes	No
Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species		✓
Adversely affect environmentally sensitive areas or critical habitats – wetlands, woodlots, natural forests, rivers, etc.)?		✓
Affect the indigenous biodiversity (Flora and fauna)?		✓
Cause any loss or degradation of any natural habitats, either directly (through project works) or indirectly		✓
Affect the aesthetic quality of the landscape?		✓
Reduce people's access to the pasture, water, public services or other resources that they depend on?		✓
Increase human-wildlife conflicts?		✓
Agrochemical use	✓	
Will the project:		
Involve the use of pesticides or other agricultural chemicals, or increase existing use?	✓	
Cause contamination of watercourses by chemicals and pesticides?		✓
Cause contamination of soil by agrochemicals and pesticides?		✓
Experience effluent and/or emissions discharge?		✓
Export produce? Involve annual inspections of the producers and unannounced inspections?	✓	
Require scheduled chemical applications?	✓	
Require chemical application even to areas distant away from the focus?		✓
Require chemical application to be done by vulnerable group (pregnant mothers, chemically allergic persons, elderly, etc.)?		✓
Use irrigation system in its implementation?		✓

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

**Section E: Pesticides and Agricultural Chemicals.**

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
Yes T.L.	Escort	Thrips	2	Growth stage



--	--	--	--	--

If No, WHY?

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

Application location: Yes.....  No.....

Date of application: Yes.....  No.....

Pesticide product trade name: Yes.....  No.....

Operator name: Yes.....  No.....

If No, WHY?

..... because of illiteracy .....

c) How do you decide when to use the pesticides (tick all that apply)?

(i) We use pesticides at regular intervals throughout the season (calendar)

(ii) We use pesticides when we see pests in the field (control)

(iii) We use pesticides after field sampling and finding a certain number of pests and certain level of damage (scouting)

(iv) Told by someone to apply (specify who)

(v) Other(specify)

d) Do you use a knapsack sprayer? Yes.....  No.....

If yes?

(i) Do you own it? Yes.....  No.....

(ii) Do you rent it? Yes.....  No.....

(iii) Do you borrow it? Yes.....  No.....

e) From your experience, are there any negative/harmful effects of using pesticides?  
Yes.....  No.....

f) If yes, list the negative effects:

- (i)..... Contaminated
- (ii)..... headache
- (iii)..... Poisoning
- (iv).....
- (v).....

(g) Do you use any kind of protective clothing while applying or handling pesticides? Yes  No  
 Why?..... I don't own one.

h) If YES, what kind?

2. Knowledge of pesticide handling and storage (tick one in each row)

a) Do you read labels on the pesticide container before using?

Sometimes                  Always                   Never

b) How often do you wear protective clothing and other accessories like nasal mask, eye goggles, and boots when applying the pesticides?

Sometimes      Always       Never

c) Do you mix pesticides with your hands?

Sometimes      Always      Never

d) Do you observe the pre-harvest waiting periods after applying the pesticides?

Sometimes                  Always                   Never

e) After spraying, do you wait 12 hours before entering the field?

Sometimes                  Always                   Never

f) Do you store pesticides in a secure, sound and well-ventilated location?

Sometimes      Always       Never

g) Do you make a cocktail before applying the pesticides? (i.e., mix more than one chemical and apply them at once?)

Sometimes                  Always                   Never

h) Where do you store your pesticides? in my farm (under shade)

Why do you store them there? *lack of storage facility*

- i) What do you do with your pesticide containers after they are empty? *throw them*
- j) Do you know of any beneficial insects (insects that eat harmful insects)? Yes..... *No*.....

k) If yes, name them:

- i) ..... *N/A* .....
- ii) .....
- iii) .....

### 3. Pesticides and Health

Do you find that pesticide application is affecting the health of?

a) Persons regularly applying pesticides?

Sometimes  Always  Never

b) Persons working in fields sprayed with pesticides

Sometimes  Always  Never

c) Persons harvesting the produce

Sometimes  Always  Never

### 4. Options to Pesticides

a) From your experience, are you aware of other methods for controlling insects diseases and/or weeds besides pesticides? Yes..... *No*.....

b) If yes, describe the practices:

- i) ..... *N/A* .....
- ii) .....
- iii) .....
- iv) .....

### 5. Information

a) What information do you think you need for improving your crop production and marketing?



1. how to do Value Addition  
 2. Marketing techniques:

6. Training

a) Have you ever received any training on any of the following topics related to crop production?

Integrated Pest Management Yes.....~~No~~.....

No. of times/past yr. ....

b).Pesticide Usage Yes.....~~No~~.....

No. of times/past yr. ....

c).Pesticide Safety Yes.....~~No~~.....

No. of times/past yr. ....

d).Insect Identification Yes.....~~No~~.....

No. of times/past yr. ....

e).Disease Identification Yes.....~~No~~.....

No. of times/past yr. ....

f).Quality aspects of production Yes.....~~No~~.....

No. of times/past yr.....

7) Is there anything else that you want us to know about your crop production? no

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

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

Are there:	Yes	No.
People who meet requirements for OP 4.10 living within the boundaries of, or near the project?	✓	
Members of these VMGs in the area who could benefit from the project?	✓	

VMGs livelihoods to be affected by the sub project?		✓
---	--	---

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

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

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

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

**Section H: Proposed action**

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

(iii) Recommended Course of Action

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

.....

.....

.....

.....

CPCU 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 ESIA's, 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:

Name: IBRAHIM ABDI MOHAMED

Position / Community: CHAIRMAN - P.O

Date: 17/10/2021

Field Appraisal Officer (CDE): Hinga Gedho

Signature: [Signature]

Date: 21/10/2021

SPR recommended





Konadilla

PARTICIPANT LIST

Activity: Public Participation and Stakeholder Consultation Date: 21/11/2021

S/NO	NAME	P/NO/ID/NO	GENDER	ORGANIZATION	PHONE NO.	SIGN
1	Aditi Shankar Malanand	3452376	M	Konadilla Fish Farm (Karnataka)	0721527530	
2	Abhinav Kumar Muttar	0176473	M	"	0715164206	
3	Sadish Malanand Aji	29193429	F	"	087235997	
4	Marikaba Aadi	27030556	F	"	0205195874	
5	Malanand oshnu Aji	3453773	M	"	0713084835	
6	Ajan Numan Hassan	6246720	M	"	0716075065	
7	Malanand Shrinayagan	26611779	M	"	0721678008	
8	Hara Malanand Regou	22306872	F	"	0748735409	
9	Hassan Hussain	4224040	M	"	0713469647	
10	Chadim Ahmed	39331507	M	"	0725708486	
11	Aedwalameen A Agedu	31235048	M	"	072119146	
12	Bekka Aji Malanand	33376865	F	"	0724728075	
13	Adan Malanand Kudu	31554560	M	"	0747290088	
14	Adigitala Ibrahim	34502019	M	"	0723751832	



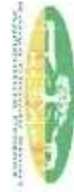
Korondilla



PARTICIPANT LIST

Activity: Public Participation and Stakeholder Consultation Date: 2/11/2021

S/NO	NAME	P/NO/ID/NO	GENGER	ORGANIZATION	PHONE NO.	SIGN
15	Zehra Sifat Atonef	39441941	F	Wing of the Sangha Education	0729464447	
16	Geetha Osman Kethi	11761610	F	"	0729206958	
17	Saldan Kadi Mohamed	38794332	F	"	0729329664	
18	Slamsa Ibrahim Hussain	3943702	F	"	0729202131	
19	Nasmin Sugan Hussain	3492402	F	"	0728901057	
20	Bahira Gadi Aci	24821656	F	"	0746299238	
21	Beena Mohamed	33305595	F	"	074722558	
22	Katra Hussain Medley	43353191	F	"	0745335596	
23	Yusra Hussain Ibrahim	32135546	F	"	0727288500	
24	Karthar Hussain	34966827	F	"	0726654640	
25	Maymuna Aida	39663292	F	"	0742395920	
26	Mohamed Adam Nunou	39276228	M	"	0758565266	
27	Ibrahim Maki Selau	3850716	M	"	0744382641	
28	Ibrahim Maki Mohamed	32405856	M	Korondilla Sangha Education, set of Ibrahim q mandala	0725273560	



Korondalli

PARTICIPANT LIST

Activity: Public Participation and Stakeholder Consultation Date: 21/11/2021

S/NO	NAME	P/NO/ID/NO	GENGER	ORGANIZATION	PHONE NO.	SIGN
29	Mohamed Nurra	3779341	M	Corporate Sector Fed/SH Voter Address & number	0728560042	
30	Mohamed Hussien	26620244	M	"	0726647026	
31	Aedrahman Denis	34729425	M	"	0725327017	
32	Morkaba Hussien	26618723	F	"	113497653	
33	Kedallali Adalle	21890744	M	"	072503866	
34	Kadla Mohamed	39207568	M	"	0725763700	
35	Ibrahim Adbi Mohamed	13403865	M	"	0721527530	
36	Sahie Noor Hassan	21108465	F	"	0728625735	
37	Abad Ali Adnan	21548610	M	"	0724053373	
38	Anran Suran	37597192	F	"	6705185874	
39	Saadia Ahan Faeek	36404002	F	"	0723449366	
40	Fariba Famina Adhik	21506120	F	"	0720092219	
41	Sagara Ibrahim Salot	781502	F	"	0711887769	
42	Nime Mohamed	14212340	F	"	0723874594	



Korondilla

PARTICIPANT LIST

Activity..... Public Participation and Stakeholder Consultation ..... Date: 2/11/2021

S/NO	NAME	P/NO/ID/NO	GENDER	ORGANIZATION	PHONE NO.	SIGN
43	Yussef Adnan Ahmed	344165705	M	Korondilla Seva Samithi Korondilla Seva Samithi & Hospital	07151619206	
44	Kadi Shalekh Mustawed	3452376	M	"	0722358735	
45	Mohammed Adnan Ahmed	34802003	M	"	0797314428	
46	Sirat Ahmed Ali	8491010	M	"	0791510012	
47	Medivalid M. Yussef	33619099	M	"	07422449546	
48	Hassan Kadi Mohamed	33684956	M	"	0791565512	
49	Hassan Dawd Ibrahim	27104468	M	"	0729890248	
50	Med/Mohi. Ali. Mohammed	35319000	M	"	0704767809	
51	Fearar Hussein	2435480	M	"	0715487810	
52	Billion Hussain - Med.	24925381	M	"	072925381	
53	Mohammed Jella Rene	26593423	M	"	0710909474	
54	Medivalid Mohamed	31919550	M	"	0720966800	
55	Hassan Kadar Mohamed	39971990	M	"	0705887313	
56	Zainab saikat Shalith	23507570	F	"	0726608728	

**MINUTES OF THE PUBLIC CONSULTATION MEETING HELD AT KORONDILE  
FOR THE PROPOSED SORGHUM STORAGE AND AGGREGATION FACILITY ON  
5<sup>th</sup> NOVEMBER 2021 AT 11:50AM**

**In attendance**

- |  |                    |
|--|--------------------|
| 1. Mohumed Hassan                        | KCSAP ESSO         |
| 2. Huqa Getho                            | NEMA, Wajir County |
| 3. Abdiladif Ahmed                       | ESIA EXPERT        |
| 4. Calvince Ochieng                      | ESIA EXPERT        |
| 5. D.K Muthaura                          | Sociologist        |
| 6. Community consisting of groups below: |                    |

Category	Male	Female
Elderly	0	1
Adult	19	12
Youth	18	5
People With Disability	1	0
<b>Total</b>	<b>38</b>	<b>18</b>

**Agenda:**

1. Introductions
2. Assessment of Environmental Impacts of the Sorghum Storage and Aggregation and Project
3. Question and Answers Session
4. AOB

**Preliminaries: Welcoming Remarks by Committee Chairman**

The meeting commenced at 11.05 am with a prayer led by the Sheikh Mohamed. He then invited the Ward Administrator who went ahead to thank the community for gathering and promised the community that the meeting would not take long. He urged the community to voice their concerns in as far as the implementation of the project was concerned. He then welcomed the Producer Organization Chairman for opening remarks

**Minute 1/5/11/2021: Chairman, Korondile Sorghum Production Value Addition and Marketing Organization**

The Chairman introduced himself and also thanked all his members and the community in general who had gathered at Korondile Shopping Centre for the meeting. The Chairman was happy that the project was at its tail end and upon approval by NEMA, they would proceed to implement the project so that the community could start reaping the benefits. He urged all the farmers present to mobilize other community members and encourage them to plant sorghum as already there was good will from World Food Program, the County Government, and KSCAP. He then introduced leaders who were present and invited the environmental consultant for opening remarks.



### Minute 2/5/11/2021: Environmental Consultant's Remarks

The consultant started by saying that the objective of the public participation was to identify the environmental and social impacts of the sorghum storage and aggregation project. He added that public participation was a principle of governance in conformity to NEMA Regulations in addition to World Bank Environmental and Social Safeguard Regulations. He outlined the methodology of the exercise which included two sessions. The first session was the completion of the questionnaires at individual level while the second session was a focussed group discussion in form of a Baraza where the consultant posed several questions with regard to the proposed project. The completed questionnaires with specific environmental issues are provided while the table below shows response from some of the questions posed by the consultant and the community.

Question	Name of Respondent	Answer
Does the community know about the project	Yussuf Aden Mohamed	By a show of hands, all the community members affirmed that they were aware of the project and that they were eagerly waiting for its implementation.
Did you discuss the Sorghum Storage and Aggregation Project with the project team	Sirat Ahmed Ali Hassan Daudi Ibrahim Farah Hussein	Yes. They all affirmed that they did a proposal and it was accepted by the KSCAP team. Hassan said that the area is good for sorghum farming and with support of constructing the storage facility from the donors, it could go a long way of meeting the socio-economic aspirations of the organization.
What are the alternatives to the project	Billow Hassan Abdi Mohamed Jelle Bare Hassan Kosar Mohamed	A majority of the residents in the area are pastoralists and frequent drought has made herders lose their livestock. Sorghum farming is therefore seen as an alternative source of livelihood.  We already have market for the sorghum and World Food program has promised to buy if we produce in viable economic quantities.
Where and on whose land will the market be constructed	Abdirashid Mohamed	Land in Korondile is communally owned and consent has been given by the leaders and the community in general. It is not private land.

<p>What are some of the environmental and social impacts that you foresee from the proposed sorghum storage and aggregation facility?</p>	<p>Community and leaders present</p>	<ul style="list-style-type: none"> <li>• Migration of sorghum producers during dry seasons hence reducing the level of production;</li> <li>• Possible mismanagement of the Producer Organization resources by the officials;</li> <li>• Possible collapse of industries using sorghum as a major raw material in their production lines;</li> <li>• Inability to deliver to the contracted markets especially during the wet seasons due to poor roads leading to loss of contracts.</li> <li>• Inadequate producer organization marketing and market linkages</li> <li>• Poor -harvest management practices</li> <li>• Low utilization of sorghum and sorghum products by the local community</li> <li>• Unpredictable climatic conditions</li> <li>• Lack of proper aggregation plans</li> <li>• Lack of proper storage facilities for sorghum</li> <li>• Low access to suitable and acceptable financial services.</li> </ul>
---	--------------------------------------	---

**Minute 3/5/11/2021: Closing Remarks and General Comments from the Community Chairman**

There being no matters arising, the meeting was closed at 2:40 pm with a word of prayer. The Lead Expert thanked the leaders and the community for their participation and requests them to support the project implementation.

**Signed By**



**Calvince Ochieng:** \_\_\_\_\_

Lead Expert

**Date:** \_\_\_\_\_ 5/11/2021 \_\_\_\_\_

## Annex 4: Public Questionnaires

**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**

**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience/copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	Muhammed Atman Ali	ID No:	3453793
Contacts:	0717086835	Date:	5th November
Name of Organization:	Korondile	Signature:	[Signature]

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO. If YES mention.

.....  
None  
.....

**2. Socio- Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes, mention.

.....  
Lack of proper storage facilities for the harvested sorghum.  
.....

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

.....  
.....

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

.....  
.....


**THANK YOU FOR YOUR PARTICIPATION**



**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**

**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	Abdirahman A. Abdi	ID No:	31236045
Contacts:	0707119246	Date:	5/1/21
Name of Organization:	Korondile	Signature:	

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO. If YES mention.

There is none

**2. Socio-Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes mention.

Availability of larger quantities of Sorghum

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

The project has delayed

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

**THANK YOU FOR YOUR PARTICIPATION**

**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**  
**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND**  
**AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND**  
**MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	Deka Ali M.	ID No:	33376869
Contacts:	0724726075	Date:	5 <sup>th</sup> November
Name of Organization:	Korondile Sorghum	Signature:	

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO. If YES mention.

No

**2. Socio-Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes, mention.

Project a success can make it impossible to deliver the required quantities of Sorghum.

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

The organization should invest in early warning signs and customer feedback.

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

Employ local people during construction.

**THANK YOU FOR YOUR PARTICIPATION**



**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**  
**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND**  
**AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND**  
**MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience in coping mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	M Hassan Hussein	ID No:	11224040
Contacts:	0713469647	Date:	5 <sup>th</sup> Nov. 21
Name of Organization:	Korondile Sorghum	Signature:	<i>[Signature]</i>

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO If YES mention.

*No*

**2. Socio-Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g. employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes, mention.

*There can be change of the project due to poor management of the affairs of the organization.*

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

.....

b) Propose ways on how the management in collaboration with the community can enhance a sound social environmental as well as health and safety within the community.

*There should be transparency in running the project.*

**THANK YOU FOR YOUR PARTICIPATION**

**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**  
**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

<b>Name of Stakeholder:</b>	<i>Abdijatal Babican</i>	<b>ID No:</b>	<i>3480019</i>
<b>Contacts:</b>	<i>093731522</i>	<b>Date:</b>	<i>5th November 2021</i>
<b>Name of Organization:</b>	<i>Korondile Sorghum</i>	<b>Signature:</b>	

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO. If YES mention.

*There is no environmental, health and safety concern*

**2. Socio- Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes, mention

*There will be an alternative source of livelihood especially by the elderly and the disabled members of Korondile.*

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

*Continuously train farmers on sorghum farming*

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

*I don't see any.*

**THANK YOU FOR YOUR PARTICIPATION**



**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**  
**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	Hawiah Mohamed	ID No:	92546257
Contacts:	0726878409	Date:	5 <sup>th</sup> Nov. 2021
Name of Organization:	Korondile	Signature:	

**1. Environmental Health and Safety issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO. If YES mention.

None. No genetic Contaminants waste the project.

**2. Socio-Economic issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes, mention.

The community will empower locals economically as there will be no more wastages.

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

I don't see any

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.


Continue

**THANK YOU FOR YOUR PARTICIPATION**



**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**  
**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND**  
**AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND**  
**MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience in coping mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	MARKABA ABDI	ID No:	27030596
Contacts:	0705185874	Date:	5.11.21
Name of Organization:	KORONDILE	Signature:	

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES  NO  IF YES mention.

.....  
 .....

**2. Socio-Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES  NO  If yes, mention.

There will be storage facility for future use and it will reduce the shocks of drought.

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

Conduct more trainings on the benefits of sorghum farming.

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

.....  
 .....

**THANK YOU FOR YOUR PARTICIPATION**

**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**  
**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND**  
**AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND**  
**MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

<b>Name of Stakeholder:</b>	Mohamed abou Muktar	<b>ID No:</b>	0176973
<b>Contacts:</b>	0715 69206	<b>Date:</b>	5 November 202
<b>Name of Organization:</b>	Korondile Sorghum	<b>Signature:</b>	

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES  NO  If YES mention.

.....  
 .....

**2. Socio- Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES  NO  If yes, mention.

Jobs  
 Elderly and disabled will benefit because it will  
 reduce migration by livestock

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

Community education and it should be undertaken in all areas

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

.....  
 .....

**THANK YOU FOR YOUR PARTICIPATION**



**STAKEHOLDER CONSULTATION AND PARTICIPATION FORM**

**ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED SORGHUM STORAGE AND AGGREGATION FACILITY FOR KORONDILE SORGHUM PRODUCTION VALUE ADDITION AND MARKETING ORGANIZATION IN KORONDILE WARD, WAJIR NORTH SUB COUNTY**

The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank. The development objective of KCSAP is to increase agricultural productivity and enhance resilience /copying mechanisms to climate change risks in the targeted smallholder farming and pastoral communities in Kenya, and in the event of an Eligible Crisis or Emergency, to provide immediate and effective response. To achieve this goal, the Producer Organization, Korondile Sorghum Production Value Addition and Marketing Organization has been funded by KCSAP to construct a sorghum storage and aggregation that aims to enhance food and nutrition security and economic empowerment through transformation of sorghum value chain. Environmental and Social Impact Assessment is a statutory requirement under the Environmental (Impact Assessment and Audit) Regulations of 2003. Public participation and consultation are a key input in this process. Consultations are held with members of the immediate community, and the interested/affected parties, in order to obtain their views regarding the Proposed Project. As a valuable stakeholder, we kindly seek your comments regarding the proposed project activities and operations that you consider impacting on the socio-economic aspects and environment.

Name of Stakeholder:	<i>Mr. Shesha Mwangi</i>	ID No:	<i>3452376</i>
Contacts:	<i>071527330</i>	Date:	<i>5/1/21</i>
Name of Organization:	<i>Korondile</i>	Signature:	

**1. Environmental Health and Safety Issues**

Do you think the proposed sorghum storage and aggregation facility poses Social, Environmental, Health or Safety risks to you or to the community? YES NO. If YES mention.

*There is none.*

**2. Socio- Economic Issues**

Will the proposed sorghum storage and aggregation facility generate any socio-economic impacts within the community (e.g., employment, enhanced hygiene/sanitation, source of income, Land Take, Crime Management, Labour Rights, Grievance Redress, HIV/AIDS, CSR, Child Labour, Gender Rights etc. etc.)? YES NO. If yes, mention.

*Employment creation for those who will be working and even the raw material will be gotten from around.*

**3. General Concerns**

a) What other issues of concern or consideration do you have with regard to the proposed sorghum storage and aggregation facility?

*Speed up the process*

b) Propose ways on how the management in collaboration with the community can enhance a sound social, environmental as well as health and safety within the community.

**THANK YOU FOR YOUR PARTICIPATION**

Annex 5: Community Land Resolution and Agreement Form



Kenya Climate Smart Agriculture Project  
Office of the County Project Coordinator – KCSAP Wajir.  
P.O. Box 33-70100 Wajir.

**COMMUNITY LAND RESOLUTION AND AGREEMENT FORM**

ITEM	DESCRIPTION
Project Name:	Kenya climate smart Agriculture project
Name of Investment:	Korondillo Sorghum Production, Value Addition & Marketing Organization
Project Location:	Korondillo
GPS Coordinates:	Latitude: 2°59'6"N Longitude: 39°18'46"E
Estimated cost of the investment:	10M
Source of Funding:	IDA
Financial Year:	2021/2022





### TERMS OF THE AGREEMENT

1. We the residents/users of the investment area (specify) Korondille discussed and agreed that, Korondille shall be site of the proposed Korondille Sorghum Production, Value Addition & Marketing Organisation and that:
2. We all are aware of the Kenya Climate Smart Project and this proposed sub-project at Korondille,
3. We all are aware that the land set aside for the investment is community land and no one is claiming individual ownership because it belongs to all of us and negative impacts on particular individuals using the land will be addressed by the community, and no alternative claims will be made later on the land.
4. We all have no problem with the site of the investment and its conversion to public land.
5. We have all agreed unanimously that the project implementation should continue.
6. We will all allow other neighboring and cross-border communities access to the investment as agreed between elders of both communities.
7. We all shall strive to peacefully resolve any conflicts with other communities concerning the investment and that we would strive to peacefully co-exist and resolve any conflict arising out of the investment facility following due process provided by the laws of Kenya.
8. The land to be donated was identified in consultation with all residents and users of the land?
9. We all understand the likely impacts of proposed activities on donated land.
10. We all understand that the community could have refused this investment.
11. We all agreed to this investment and donation of the land without coercion, manipulation, or any form of pressure on the part of public or traditional authorities.
12. We all agreed that we not require any monetary or non-monetary benefits or incentives as a condition for the donation.
13. The land being donated will not reduce the remaining land area to a level below that required to maintain the livelihoods of occupiers and users of land at current levels and will not require the relocation of any household.
14. If any structure will be moved or any access to land be limited as a result of the subproject, the individual affected will be compensated so their livelihood will be unaffected.
15. The land is free of encumbrances or encroachment and is not claimed by any individual and its ownership is not contested.


We have been designated by the community of ( Korondille )

Confirm the above information to be true and that we have resolved to abide by ALL terms of this agreement. (Please attach minutes of community meeting, where the community agreed to these and conversion of this land for this purpose).

S/NO.	NAME	VILLAGE/LOCATION	ID/NO.	SIGNATURE
1.	IBRAHIM ABDI MOHAMMED	KORONDILLE	13402865	Id
2.	ABDI SHEKHA MOHAMMED	KORONDILLE	3452376	AKHABIB
3.	MUHAMMAD NUR MUHAMMAD	KORONDILLE	0176773	AKHABIB
4.	ABDI NURLOW ABDI	KORONDILLE	0216705	AKHABIB
5.	SIRAT AHMED ALI	KORONDILLE	8491010	Smt

Witnessed on this ..... Day of ..... in the Year..... by:


1. Area Chief

S/NO.	NAME	ID/NO.	SIGNATURE & R/STAMP
1	MUHAMMAD ABDI OMAR	11173169	 KORONDILLE LOCATION


2. Ward Administrator

S/NO.	NAME	ID/NO.	SIGNATURE & R/STAMP
1	HUSSEIN ABDI BARROW	28333914	 WARD ADMINISTRATOR KORONDILLE Date:..... P.O. BOX 9-76100, WARR

3. County Government (Physical Planning Department)

S/NO.	NAME	ID/NO.	SIGNATURE & R /STAMP
1	Abdullahi Hassan	27280625	 COUNTY PHYSICAL PLANNER P. O. BOX 385-70200, WAJIR Date: 21/10/2021

4. Kenya Climate Smart Agriculture Project , Coordinator

S/NO.	NAME	ID/NO.	SIGNATURE & R /STAMP
1	ABDINOR I. MUSA	21921762	 COUNTY PROJECT COORDINATOR KENYA CLIMATE SMART AGRICULTURE PROJECT (KCSAP) P. O. BOX 33-70200, WAJIR DATE 21/10/2021

5. County Department Relevant to the project e.g. Water/Livestock Production etc.

S/NO.	NAME	ID/NO.	SIGNATURE & R /STAMP
1	Dayiba Hassan Abdi	29024097	 COUNTY DIRECTOR CO-OPERATIVES P. O. BOX 33-70200, WAJIR



Annex 6: Expert's 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/13766  
Application Reference No: NEMA/EIA/EL/18244

M/S **Calvince Ochieng Onginjo**  
(individual or firm) of address

P.O. Box 30902 - 00100, Nairobi

is licensed to practice in the

capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Lead Expert**  
registration number **2666**

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

Issued Date: **1/20/2021**      Expiry Date: **12/31/2021**

Signature..... 

(Seal)  
 **Director General**  
**The National Environment Management Authority**

