



**COUNTY GOVERNMENT  
OF KAJIADO**



**WORLD BANK**



**REPUBLIC OF KENYA**

**County Government of Kajiado - (KCSAP Project)**

**Ministry of Agriculture, Livestock, Fisheries and Cooperatives**

**Department of Agriculture, Livestock Veterinary Services & Fisheries**

**P.O BOX 11-01100**

**KAJIADO**



**ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED KIMANA LIVESTOCK  
SALE YARD IN KIMANA WARD, KAJIADO SOUTH SUB-COUNTY, KAJIADO COUNTY.**

**ESIA PROJECT REPORT**

**DECEMBER 2020.**

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## **CERTIFICATION**

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

I, the undersigned, confirm that the contents of this report are a true representation of the ESIA Study process for the proposed construction of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

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14<sup>th</sup> December, 2020

**PROPONENT**

**The Kimana Livestock Market Management Committee.**

**Ward: Kimana**

**Sub County: Kajiado South / Loitoktok**

**In Liaison with the County Project Coordination Unit (CPCU)**

**KAJIADO COUNTY.**

**Raphael Khaleiya**



14/12/2020

**Signature : \_\_\_\_\_ Date: \_\_\_\_\_**

**Chairman - Kimana Livestock Market Management Committee.**

## **ACKNOWLEDGEMENT**

We, the ESIA study team Mr. Josphat Omari (Lead) (see appendix 9 for NEMA practicing license) and Mr. Erick Orwa (Associate), wish to acknowledge and express our profound gratitude to the Kajiado County Project Coordinating Unit (especially Mr. Athanus Chesire) of Kenya Climate Smart Agriculture Project (KCSAP) for commissioning this ESIA study.

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

We would also like to affirm our appreciation to the National Project Coordinating Unit and World Bank ESIA Experts especially Dr. Gilbert Muthee for reviewing and their contributions towards the study.

Finally, we wish to appreciate the contributions made by the entire community for providing us with useful information by filling out questionnaires during the field visits and Participation Public Baraza to the project area.

## **DISCLAIMER**

This Environmental Impact Assessment report is being submitted in accordance with the terms and conditions of Contract in respect of provision of consultancy services for Environmental Impact Assessment Report on the Proposed Construction of Livestock Selling Yard at Kimana Ward. It has been carried out in full observance of the EIA regulations (Kenya Gazette Notice No. 56 of 13 June 2003 Revised 2015) in compliance with the Environmental Management and Coordination Act, 1999 and subject to terms and conditions of the National Environment Management Authority (NEMA).

## **EXECUTIVE SUMMARY**

### **Introduction**

The County Government of Kajiado, through the Kenya Climate Smart Agricultural project (KCSAP), a World Bank project, intends to increase agricultural productivity and build resilience to climate change risks for smallholder farmers and pastoral communities. Kajiado South Sub County has an existing Livestock Sale Yard and is currently the biggest in the county with an average sale of 600 cattle and 1,200 sheep and goats selling per market activity.

The Kenya Climate Smart Agriculture Programme has developed a Strategy to guide investments and implementation of activities in the context of the current agriculture sector governance structure. As part of the programme's main objectives, the County Government of Kajiado intends to rehabilitate the existing Kimana Livestock Sale Yard in **Kimana Ward, Kajiado South Subcounty, Kajiado County**.

The rehabilitation will result in modern facility made from steel structures and having a capacity to accommodate the increasing livestock population. The outcome of an initial screening process identified the need to undertake an Environmental and Social Impact Assessment as required by the National Environment Management Authority (NEMA). Based on literature review, the proposed project falls under category B that has minimal effects on the environment as provided for by the second schedule of the Environmental Management and Coordination Act of 2015. The project also falls under category B of the World Bank Environmental and Social Safeguards Policies as defined in the Bank's Operational Procedures (OPs). The project does not also lead to permanent displacement of Project Affected Persons (PAPs).

This ESIA report provides relevant baseline information of the project area, anticipated impacts on the environment and social aspects, appropriate mitigation measures for negative impacts, as well as a comprehensive environmental management and monitoring plan.

Approval will, therefore, be sought on the grounds that environmental performance will be assured throughout the project phases. The environmental management actions and monitoring programs to be implemented have been recommended in this report and subsequent environmental audits.

The review of this ESIA is undertaken during the era of the Coronavirus disease 2019 (COVID-19) pandemic outbreak. However, the preparation of the ESIA including the relevant consultations were undertaken before the first case of COVID-19 was reported in Kenya. As such, specific mitigation measures have been introduced to prevent the spread of the pandemic during the construction period. Moreover, consultations required as part of the mitigation measures, such as during training on E&S issues, also pose a risk of

infection to communities. For this reason, the risk of contracting the virus during consultations will be avoided, minimized and mitigated with specific measures to ensure national requirements on social distancing and recommendations on how to minimize contact are adhered to.

### **Project Justification**

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According to the County Government of Kajiado programme, there is need for rehabilitation of the existing Kimana livestock sale yard located at Kimana centre. There is good road network linking Kimana to the other centres in the Ward including Tanzania and to other terminal markets. The market operations at sale yard will be strengthened to enhance close interaction between communities and promote peaceful coexistence and cohesion, as well as minimization of insecurity.

### **ESIA Methodology**

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The ESIA process involved both in-depth desk study and field studies. The process included: collection of baseline data on the status of the project site before project implementation commences; data analysis, evaluation, and public participation of persons that are likely to be affected by the proposed project. A total of 50 persons participated in the public participation exercise in two separate barazas at Kimana Social Hall and Kimana Chief's office. During the two barazas, a total of 20 questionnaires were administered and completed. Nine stakeholders were interviewed comprising of Kimana Chief, Kimana Ward Administrator, Officer in charge Kimana Health Centre, Principal Kimana High School, Sub county livestock production and veterinary officer (See *appendix 2 and appendix 3*). Finally, there was the preparation of an ESIA study report encompassing the details specified in the Environmental Impact Assessment/Audit Regulations (2003) revised in 2015.

### **Policy, Legal and Regulatory Framework**

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The Environmental Management and Co-ordination Act 1999 revised in 2015, is the legislation that governs ESIA studies in Kenya. This project falls under the Second Schedule of EMCA 1999 category of projects that are required to undergo ESIA studies. Other key national laws that govern the management of environmental and social resources in the country, Multilateral Environmental Agreements and World Bank policies on environmental and social safeguards have been reviewed and discussed in this report.

### **Project Cost**

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Based on the technical design's bills of quantity (BOQ) for both the holding yard and the crush, the project implementation is estimated to cost **Kenya Shillings Nineteen Million, Seven Thousand, Four Hundred and Seventy Only (KSh. 19,007,470.00)**. (See *appendix 8*).

## **Public Consultation and Participation**

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During public consultation and participation, the participants raised various concerns including preservation of unskilled labour to the local community; fencing of entire sale yard and separate the sale yard from Kimana Secondary School; Paddocks to separate large stock from small stock and provision of sanitation facilities to workers during construction and market users during operation phase. These concerns are addressed by giving preference to provide unskilled labour, fencing done all round the sale yard, provision of paddocks and construction of toilet facilities. Concerns and its mitigation measures have been incorporated in the design report and ESMP which forms part of this report (*See Table 8-1*).

The community and stakeholders expressed their full support for the proposed project.

## **Major Concerns and their mitigation**

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Construction of sale yard can potentially increase livestock vector diseases due to concentration of livestock. This will be mitigated by adequate monitoring and presence of veterinary officers during market days. Spread of COVID19 is one of the concerns of the community. To address this, Public Health Officers in collaboration with local administration officers will be available to enforce public health protocols. Another concern raised by the community is increase of solid waste during construction. The contractor will employ best construction practices and adhere to ESMP which will form part of the contract.

Other concerns include Noise and vibrations during offloading of metal bars; Gender based violence and HIV/AIDS; outbreak of diseases e.g. cholera. These will be addressed by offloading during daytime and wearing of ear muffs by welders; awareness creation on GBV and HIV/AIDs and maintaining cleanliness in the market including sanitation facilities respectively.

Although there are a number of justifications supporting implementation of the project, there are also some negative impacts on both the environment and social wellbeing that require mitigation measures to be undertaken by the contractor and proponent at various phases of the project.

Implementation of the Construction Phase of the ESMP will cost KSh. 1,220,000.00 and should be included as part of construction cost and loaded into the contract. During the first year of operations a cost estimate of KSh. 600,000.00 should be set aside for monitoring and trainings, this should be spearheaded by KSCAP County Project Coordinating Unit and an estimated cost of KSh. 1,250,000.00 for decommissioning phase is projected.

## **Conclusion and Recommendation**

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The livestock sale yard project in Kimana will impact on both the environment and socio-economic wellbeing required an in-depth assessment to identify both its negative and positive impacts. The mitigation measures to be undertaken during various phases of the project have been proposed and recommendations made as highlighted below.

- i. A complete audit be undertaken and submitted to NEMA a year after the project is commissioned to ensure that all the proposed mitigation measures have been complied with;
- ii. Construction works in the proposed Project is carried out in accordance with approved designs, regulations, policies and laws;
- iii. The project coordinator to ensure that proper and timely communication on project activities is effected to guarantee project ownership.
- iv. The proponent and county government to put security measures during transportation of the animals and employing of market auctioneer.
- v. The Ministry of Public Works and KCSAP and the contractor should work together to ensure full implementation of the ESMP for proper enhancement and mitigation of impacts emanating from the project

The proposed project is highly welcomed by the community as it will result to a well-designed livestock selling yard.

This ESIA project report concludes that the positive impacts outweighs the negative impacts raised whose mitigation measures have been identified and recommends that project be allowed to proceed.



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

**LIST OF ACRONYMS AND ABBREVIATIONS**

ASALS	Arid and Semi-Arid Lands
BOQS	Bill of Quantities
CIDP	County Integrated Development Plan
COVID 19	Corona Virus disease
CPP	Consultation and Public Participation
CSR	Corporate Social responsibility
EA	Environmental Audit
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
ESMMP	Environmental and Social Management and Monitoring Plan
ESMP	Environmental and Social Management Plan
GBV	Gender Based Violence
GDP	Gross Domestic Product
GI	Galvanised Iron
GOK	Government of Kenya
HDPE	High Density Polyethylene
Km	Kilometers
Km <sup>2</sup>	Square Kilometers
m	Meters
m <sup>3</sup>	Cubic Meter
Mm	Millimeter
m.a.s.l	Meters Above Sea Level
NDMA	National Drought Management Authority
NEAP	National Environmental Action Plan
NECC	National Environmental Complaints Committee
NEMA	National Environmental Management Authority
OHS	Occupational Health and Safety
PPE	Personal Protective Equipment
SEA	Sexual Exploitation and Abuse
SESA	Strategic Environmental and Social Assessment

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

SH	SH – Sexual Harrassment
SOP	SOP – standard operating procedure
WHO	WHO – World Health Organization

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

## **TABLE OF CONTENTS**

CERTIFICATION.....	i
ACKNOWLEDGEMENT .....	ii
DISCLAIMER .....	iii
EXECUTIVE SUMMARY .....	iv
LIST OF ACRONYMS AND ABBREVIATIONS .....	viii
TABLE OF CONTENTS .....	x
LIST OF FIGURES.....	xvii
LIST OF TABLES .....	xvii
CHAPTER ONE: INTRODUCTION.....	1
1.1    Purpose .....	1
1.2    Background .....	2
1.3    Project Justification.....	3
1.3.1    Relevance .....	3
1.3.2    Project Identification .....	3
1.3.3    Compliance status to various statutory requirements.....	3
1.4    Objective.....	4
1.4.1    Specific objective /expected results .....	4
1.5    Scope of Activities .....	4
1.6    Study Approach and Methodology.....	4
1.6.1    Approach.....	4
1.6.2    Methodology.....	4
CHAPTER TWO: PROJECT DESCRIPTION .....	6
2.1    Introduction.....	6

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

2.2	Land Ownership .....	6
2.3	The Project Proponent and Key Stakeholders.....	9
2.4	Project Design and Material.....	9
2.5	Proposed Budget and Materials .....	11
2.6	Project Activities .....	14
2.6.1	Preconstruction and Project Design .....	14
2.6.2	Design Work.....	14
2.6.3	Construction Phase .....	14
2.6.4	Commissioning.....	15
2.6.5	Operation Phase .....	15
2.6.6	Decommissioning Phase.....	15
2.7	Project Cost and Implementation Schedule.....	15
CHAPTER THREE: ENVIRONMENTAL AND SOCIAL BASELINE.....		16
3.1	Project Background .....	16
3.2	Demographic profile .....	16
3.3	Project Beneficiaries .....	18
3.4	Biophysical Environment .....	18
3.5	Physical and Topographic features .....	18
3.6	Soils and Geology .....	19
3.6.1	Drainage Pattern .....	19
3.6.2	Land Use.....	19
3.6.3	Vegetation .....	20
3.6.4	Climate and Rainfall .....	20
3.6.5	Ranches .....	21
3.6.6	Main Wildlife.....	21

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

3.6.7	Main Tourist Attractions.....	21
3.6.8	Soils and Geology .....	21
3.7	Socio-Economic Survey .....	22
3.7.1	Biodata .....	22
3.7.2	Education Levels.....	24
3.7.3	Distance to the nearest school .....	24
3.7.4	Housing Structures.....	25
3.7.5	Accessibility to Health Care Services .....	26
3.7.6	Sources of Water .....	27
3.7.7	Household Hygiene.....	27
3.7.8	Land Tenure System.....	27
3.7.9	Economic Activities .....	28
3.7.10	Proposed project Awareness .....	28
CHAPTER FOUR: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK.....		29
4.1	National Policy Framework.....	29
4.1.1	Constitution of Kenya, 2010 .....	29
4.1.2	Kenya Vision 2030 .....	31
4.1.3	National Environment Policy, 2013 .....	31
4.1.4	National Environment Action Plan (NEAP) 1994 (revised 2007).....	32
4.1.5	The National Land Policy, 2009 .....	32
4.1.6	Gender Policy, 2011.....	33
4.2	Legislative Framework.....	33
4.2.1	Environmental Management and Coordination Act, 1999 (Revised 2015).....	33
4.2.2	The Animal Diseases Act, CAP 364, 1989 (Revised 2012).....	36
4.2.3	Public Health Act, 1986 (Revised 2012).....	36

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

4.2.4	Work Injury Benefits Act, 2007 .....	37
4.2.5	Kenya Stock Traders Licensing Act of 1962 (Amended 2006).....	37
4.2.6	Land Act, 2012 (Revised 2015).....	38
4.2.7	The National Drought Management Authority (NDMA), Act 2016 .....	38
4.2.8	Physical Planning Act (Cap 286).....	39
4.2.9	Employment Act, 2007 .....	40
4.2.10	Building Code 2000.....	40
4.2.11	The Engineers Act, 2012 No. 43 of 2011 .....	41
4.2.12	HIV and AIDS Prevention and Control Act, 2006.....	41
4.2.13	Branding of Stock Act, Chapter 357.....	42
4.2.14	Prevention of Cruelty to Animals Act, Chapter 360.....	42
4.2.15	Stock and Produce Theft Act, Chapter 355 .....	42
4.2.16	County Government Act, 2012 (No. 17 of 2012).....	42
4.2.17	Kenya National Youth Policy 2006.....	43
4.2.18	The National Museums and Heritage Act 2006 .....	43
4.2.19	National Gender and Development Policy, 2000 .....	43
4.2.20	Children Act, 2012 .....	43
4.2.21	The Sexual Offences Act of 2006 (The Sexual Offences (Amendment) Bill, 2016) .....	44
4.2.22	HIV and AIDS Prevention and Control Act No. 14 of 2006 .....	44
4.2.23	County Bills Under Development .....	45
4.3	World Bank's Safeguard Policies.....	45
4.3.1	World Bank Safeguard Policy 4.01 – Environmental Assessment .....	45
4.3.2	World Bank Safeguard Policy 4.04 – Natural Habitats .....	46
4.3.3	World Bank Safeguard Policy 4.11 – Physical Cultural Resources .....	46
4.3.4	World Bank Safeguard Policy 4.12 – Involuntary Resettlement .....	47

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

4.3.5	World Bank Operational Policy OP/BP 4.09 (Pests Control Management) .....	47
4.3.6	World Bank Safeguard Policy BP 17.50 – Public Disclosure .....	47
4.3.7	Activities Triggering World Bank Safeguards .....	48
4.4	International Laws and Guidelines/ Multilateral Environmental Agreements .....	48
4.4.1	Ramsar Convention on Wetlands.....	48
4.4.2	Paris Agreement on Climate Change .....	49
4.5	Institutional Framework for Environment Management .....	50
4.5.1	Ministry of Environment and Natural Resources (MENR) .....	50
4.5.2	National Environmental Tribunal (NET).....	51
4.5.3	National Environment Management Authority (NEMA) .....	51
4.5.4	National Environmental Complaints Committee .....	52
4.5.5	National Environmental Council (NEC) .....	52
4.5.6	National Environmental Action Plan Committee.....	52
4.5.7	Standards and Enforcement Review Committee (SERC) .....	52
4.5.8	County Environment Committees.....	53
4.6	NEMA Compliance .....	53
4.7	Sectoral Integration .....	53
CHAPTER FIVE: ANALYSIS OF THE PROJECT ALTERNATIVES.....		54
5.1	Livestock Sale Yard Alternatives .....	54
5.2	Project Design Alternative .....	54
5.2.1	Analysis of Alternative Construction Materials and Technology .....	54
5.2.2	Project Resettlement Issues.....	55
5.2.3	Project Option Alternative.....	55
5.2.4	No Project Alternative.....	55
CHAPTER SIX: PUBLIC PARTICIPATION AND STAKEHOLDER CONSULTATION .....		56

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

6.1	Preamble .....	56
6.2	Objectives of Consultations and Public Participation.....	56
6.3	Stakeholders Consulted .....	56
6.4	Suggestions and Recommendation.....	58
6.5	Anticipated impacts as suggested by the community during Baraza .....	59
6.5.1	Positive Impacts .....	59
6.5.2	Anticipated Negative Impacts and Mitigation Measures as Raised by the Community During the Baraza	59
CHAPTER SEVEN: ANTICIPATED ENVIRONMENTAL & SOCIAL IMPACTS AND MITIGATION MEASURES’ .....		61
7.1	Preamble .....	61
7.2	Positive Impacts .....	61
7.3	Negative Impacts.....	63
7.3.1	Negative Impacts and Mitigation during Construction Phase .....	64
7.3.2	Negative Impacts and Mitigation during the Operation Phase .....	71
7.3.3	Negative Impacts and Mitigation Measures during the Decommissioning Phase .....	73
CHAPTER EIGHT: ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN.....		80
8.1	Preamble .....	80
8.2	Environmental and Social Management Plan.....	81
8.3	Monitoring and Evaluation .....	93
8.3.1	Internal Monitoring .....	93
8.3.2	External Monitoring .....	93
8.4	Self-Audit Monitoring Plan .....	94
8.5	Capacity Building .....	94
8.6	Emergency Preparedness and Response .....	95



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

8.7	Administration of the ESMP.....	96
8.8	Review of the ESMP .....	96
8.9	ESMP Reporting Structure .....	97
CHAPTER NINE: CONCLUSIONS AND RECOMMENDATION.....		98
9.1	Conclusion.....	98
9.2	Recommendations.....	98
REFERENCES.....		99
APPENDICES .....		100

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

## **LIST OF FIGURES**

Figure 1-1: Picture of the existing Kimana Sale Yard.....	2
Figure 2-1: Google earth caption of the proposed livestock sale yard .....	6
<b>Figure 2-2: A map showing Kajiado county where the proposed livestock sale yard locateda .....</b>	<b>7</b>
Figure 2-3: A map showing the neighbouring wards within the project location .....	8
Figure 2-4: Proposed Design Layout of the Kimana Sale Yard.....	10
Figure 3-1: Respondents Gender Distribution.....	22
Figure 3-2: Respondents Age Distribution (years) .....	23
Figure 3-3: Respondents Marital Status.....	23
Figure 3-4: Children under 18 years .....	24
Figure 3-5: Highest level of education attained by respondents .....	24
Figure 3-6: Distance to the nearest school.....	25
Figure 3-7: Housing Structures .....	25
Figure 3-8: Accessibility to health care services .....	25
Figure 3-9: Land Tenure & Ownership Pattern in the Project location .....	25
Figure 3-10: Main type of livestock reared in the proposed project area.....	28
Figure 6-1: Public Baraza at Kimana Social Hall.....	57
Figure 6-2: Public Baraza at the Chief's Camp Kimana .....	57

## **LIST OF TABLES**

Table 1-1: Compliance status to various statutory requirements .....	3
Table 3-1: Distribution of Population by Sex, Land Area, Population Density and Sub Locations in Kimana Ward.....	17
<b>Table 4-1: EMCA Legislations relevant to the project .....</b>	<b>34</b>
Table 4-2: World Bank Safeguards Triggering Matrix .....	48

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

<b>Table 4-3: Sustainable Development Goal 5 Targets</b> .....	50
<b>Table 6-1: Stakeholders Consulted</b> .....	56
Table 6-2: Negative Impacts and their mitigation measures .....	59
<b>Table 7-1: Activities to be undertaken under the Project</b> .....	63
<b>Table 8-1: Environmental and Social Management Plan</b> .....	81
<b>Table 8-2: Roles and Responsibilities of key stakeholders</b> .....	96
Table 8-3: The Proposed ESMP Reporting Structure .....	97

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Purpose**

The County Government of Kajiado, through funding from Kenya Climate Smart Agricultural Project, intends to increase agricultural productivity and build resilience to climate change risks for smallholder farmers and pastoral communities. The overall objective of KCSAP is to avail to farmers agricultural technologies, innovations and management practices to enable them cope with the changing climate. The specific objectives are:

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

These objectives form part of Kenya's obligation as a signatory to the United Nations Framework Convention on Climate Change (UNFCCC). Climate smart agriculture is the pathway that leads to attainment of the national interests of food security, productivity and incomes, while at the same time reducing or sequestering greenhouse gas emissions.

The Kenya Climate Smart Agriculture Programme has developed a strategy to guide investments and implementation of activities in the context of the current agriculture sector governance structure. To contribute towards the project's main objectives, the Kimana community through sale yard committee proposes to rehabilitate the existing Kimana Livestock Sale Yard Kimana Ward, Kajiado South Subcounty. The proposed project screening process was undertaken to identify whether the sale yard needed to be subjected to an ESIA study. Based on literature review, the proposed project falls under category B due to its minimal effects on the environment (second schedule of the Environmental Management and Coordination Act of 2015) and Category **B** under the World Bank Environmental and Social Safeguards Policies. The project also does not lead to permanent displacement of people within the area.

This ESIA project report provides relevant baseline information of the project area, anticipated impacts to the environment and social aspects, appropriate mitigation measures necessary for incorporation into the project implementation, as well as a comprehensive environmental and social management and monitoring plan.

Approval is being sought on the basis that environmental performance will be assured throughout the project phases by implementation of the environmental management actions, monitoring programs and subsequent environmental audits.

## **1.2 Background**

The proposed project lies in Kimana ward of Kajiado County, Kajiado South Subcounty (Loitokitok Sub County) in Kimana ward. Kajiado County is situated in the Rift Valley and borders Narok and Kiambu Counties to the west, Nairobi and Machakos counties to the north, Makueni and Taita/Taveta counties to the east and Tanzania to the south. It lies between latitude 2.0981S and longitude 36.7820E and has a population of 1,117,840 (2019 population census). The County occupies an area of 21,902 km<sup>2</sup>. The County has five sub-counties namely Kajiado Central, Kajiado North, Kajiado East, Kajiado West and Kajiado South which is sometimes commonly referred to as Loitokitok Sub County.

The county has four main livelihood zones namely; Pastoral, Agro-Pastoral, and Mixed Farming with population proportions of 52, 12 and 5 percent respectively. Formal employment, casual waged labour and business livelihood zones comprise 31 percent of the population. The County Government of Kajiado, through the Kenya Climate Smart Agricultural project (KCSAP) intends to increase agricultural productivity and build resilience to climate change risks for smallholder farmers and pastoral communities by rehabilitating the Kimana Sale Yard. Currently this sale yard handles an average of 600 cattle and 1,200 shoats per market day. Figure 1.1. shows the current condition of the market.



**Figure 0-1: Picture of the existing Kimana Sale Yard**

## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Due to the current cases of increasing livestock population and inadequate security, the county through the KCSAP project proposes to rehabilitate Kimana Livestock Sale Yard to a new modern facility made from steel structures. An Environmental and Social Impact Assessment is necessary before embarking on the project as required by NEMA and World Bank.

### 1.3 Project Justification

#### 1.3.1 Relevance

The proposed project is responding to community request that was expressed through a proposal written and vetted by the County Project Steering Committee (CPSC) and at the national level by KCSAP National Project Coordination Unit (NPCU), the National Technical Advisory Committee (NTAC) and the National Project Steering Committee (NPSC).

The construction of the sale yard is aligned to the Kajiado County Integrated Development Plan (CIDP) 2018-2022.

#### 1.3.2 Project Identification

The current situation of Kimana sale yard is dilapidated and lacking necessary infrastructure. The following informed the conceptualization of the proposed project; Market survey operations during market days; Beef value chain actors' inputs during trainings; Livestock movements monitoring and control activities.

#### 1.3.3 Compliance status to various statutory requirements

**Table 0-1: Compliance status to various statutory requirements**

No	Requirement	Remarks
1	ESIA:	An ESIA has been conducted and is the subject of this report
2	Water permits	N/A
3	Land ownership, legal agreements and related procedures:	Project and construction activities will be undertaken on existing Kimana livestock market land County where the current market is located within Kimana township. The available size of land is approx. 1.89 Ha as indicated in allotment letter and PDP (See appendix 5). No land acquisition or resettlement will be necessary for the proposed project.
4	Other statutory requirements -	Safe use and disposal of chemicals and other equipment (Waste management Regulations) to be addressed during project designs, construction and operational phase

## **1.4 Objective**

### **1.4.1 Specific objective /expected results**

The main purpose of the sub-project is to promote livestock marketing of the pastoral community in Kimana and adjacent wards. This will lead to increased livestock productivity resulting to increased household incomes, job creation, increased county government revenue and wealth creation. At the community level, the project will aim to address the existing challenges including:

- Inadequate and poor livestock marketing infrastructure for pastoralists and livestock traders.
- Low volumes of livestock traded and poor returns
- Reduced county revenue due to evasion of cess payments by producers and traders.
- Lack of adequate measures to ensure animal health
- Poor disease management due to inadequate disease surveillance mechanisms.

## **1.5 Scope of Activities**

The scope of activities for this assessment entailed;

- i. Description of the proposed project
- ii. Description of the physical, biological and social environment
- iii. Description of pertinent Legislative and Regulatory Considerations:
- iv. Determination of the Potential Environmental and Social Impacts of the Proposed Project:
- v. Analysis of the occupational health and safety concerns
- vi. Development of environmental and social management plan to mitigate negative impacts
- vii. Development of the ESIA monitoring plan

## **1.6 Study Approach and Methodology**

### **1.6.1 Approach**

The Assessment process adopted a participatory and collaborative approach in the course of the assignment. These approaches encouraged active involvement of the stakeholders, who were well conversant with the areas' environmental and social status provided reliable data within a short timescale.

The assignment was conducted in line with the NEMA guidelines for an ESIA outlined in Environmental Management and Coordination Act (EMCA) 1999 revised 2015, and World Bank policies on environmental and social risk management.

### **1.6.2 Methodology**

The assessment was guided by the methodology described by the EMCA 1999 and the Environmental (Impact assessment/ Audit Regulations (2003) revised 2015 and World Bank's safeguard policies. The

## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

various amendments to the Act, notably, the EMCA (amendments) 2015 and Legislative supplement No. 63 of 19 August 2016 were also referred during the assessment.

The ESIA study was carried out through a mix of methods namely; review of CIDP, field assessments and public consultations with the communities of possible project beneficiaries, the project affected persons, relevant County government department and National Government institutions and agencies. A total of 50 persons participated in the public participation exercise in two separate barazas at Kimana Social Hall and Kimana Chief's office. Nine stakeholders were interviewed comprising of Kimana Chief, Kimana Ward Administrator, Officer in charge Kimana Health Centre, Principal Kimana High School, Sub county livestock production and veterinary officer (*minutes, signed attendance list and key informants presented in appendix 1, 2 & 3 respectively*). During the two barazas, a total of 20 questionnaires were administered and completed. A sample questionnaire is provided in *appendix 7*.



## CHAPTER TWO: PROJECT DESCRIPTION

### 2.1 Introduction

The project is located in Kajiado County, Kajiado South Sub County in some cases referred to as Loitokitok Sub County in Kimana Ward. Kimana is a settlement in Kajiado South Constituency. Kimana is located in the Kajiado County with Tanzania to the West, Kibwezi Sub County to the East and Taveta Sub County to the South. The project site is located along the UTM 37M 336620.00 m E and 9688690.00 m S at an altitude of 1336 m.a.s.l. in Kimana Sublocation along the Emali- Loitokitok road (C102). The proposed project location also borders Chief's Office; Kimana Location, Kimana Health Center and Kimana Mixed Day Secondary School. The land area is approximately 1.89 Ha and currently fenced by timber off cuts and used as livestock market with no basic amenities e.g. toilets. There is no water connected to the market and basic infrastructure like loading and unloading ramps missing. Figure 2.1 shows the project location.



Figure 0-1: Google earth caption of the proposed livestock sale yard

Source: Google earth

### 2.2 Land Ownership

The proposed site for construction of the sale yard has been allocated to Kimana Livestock Sale Yard by the County Government of Kajiado and it is the site currently used as livestock market with no basic amenities

## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

and proper infrastructure. The land area is approximately 1.89 Ha with allotment letter and PDP. The land borders Kimana mixed secondary school, Kimana health center, Chief's office and Emali- Loitokitok road (C102). Appendix 5 provides land allocation and ownership details.

Figures 2.2 and 2.3 gives a detailed description of the project location with reference to the globe highlighting the key features within the project location.

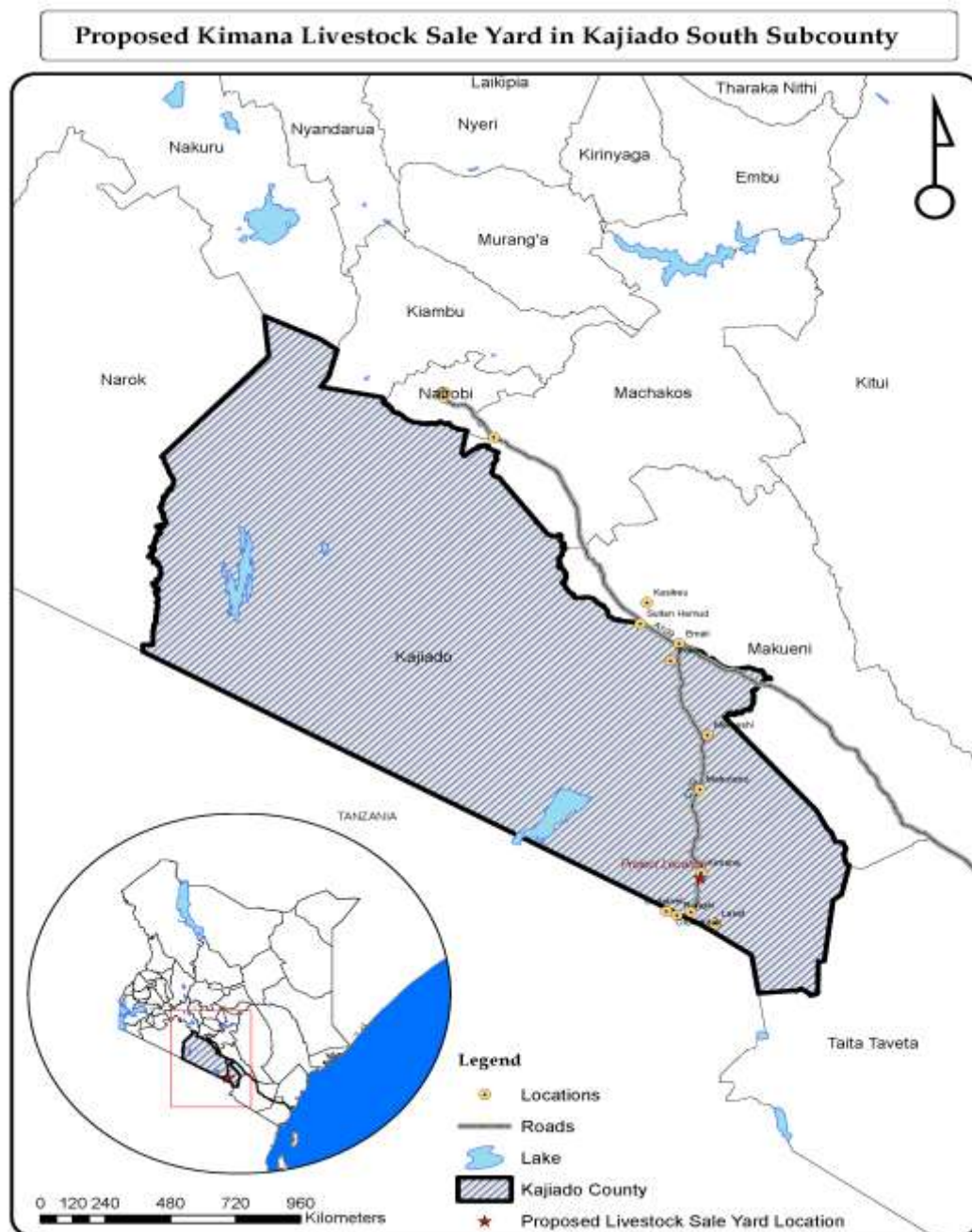


Figure 0-2: A map showing Kajiado county where the proposed livestock sale yard locateda

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.

Source: ArcGIS Software (ESRI)

**Proposed Kimana Livestock Sale Yard in Kajiado South Subcounty**

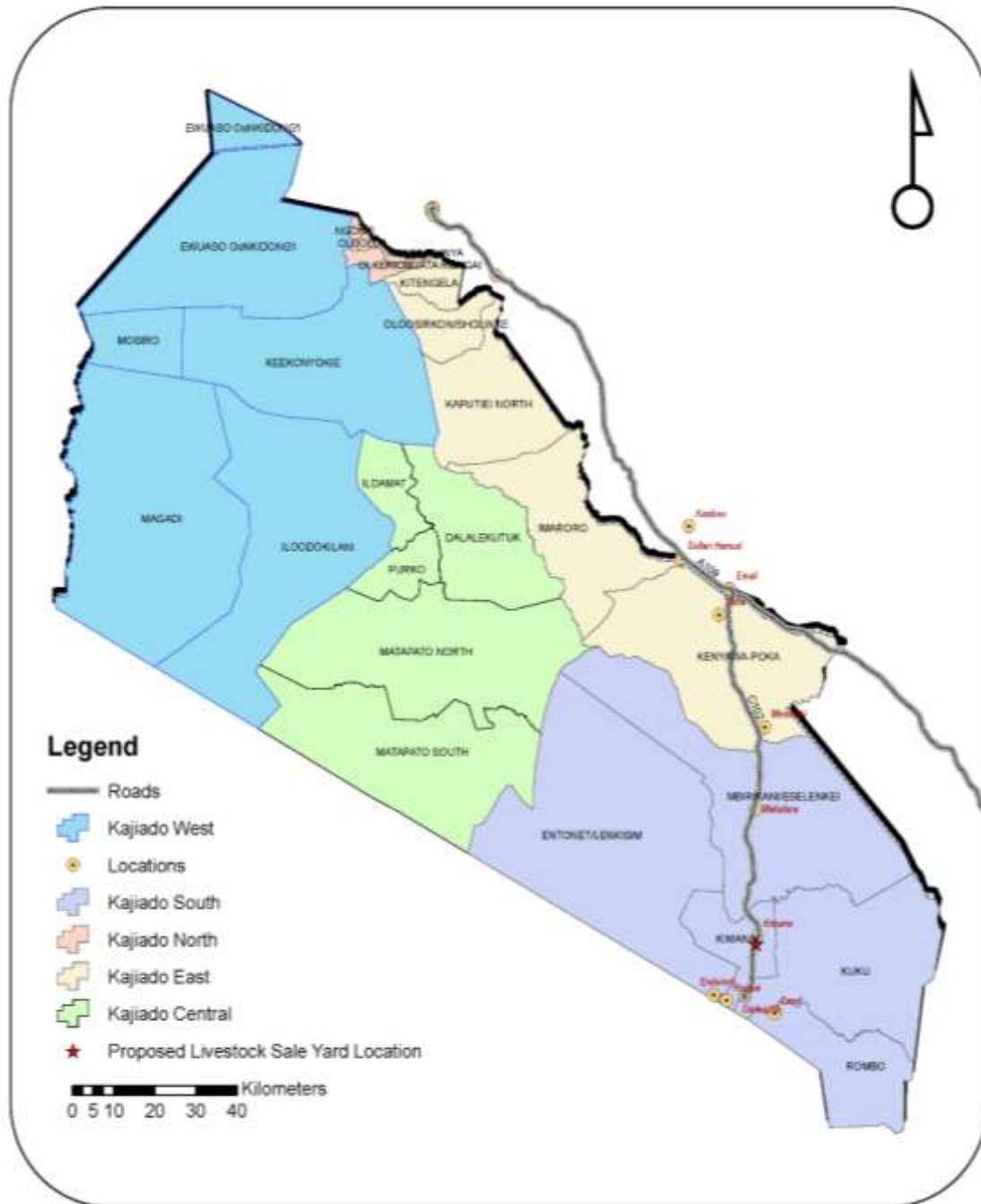


Figure 0-3: A map showing the neighbouring wards within the project location

Source: ArcGIS Software (ESRI)

### **2.3 The Project Proponent and Key Stakeholders**

The proposed livestock selling yard project will be constructed by the County Government of Kajiado through the Kenya Climate Smart Agricultural project (KCSAP). Other stakeholders that will play a key role during the construction and operation phases of the project include the following

- i. Ministry of Agriculture, Livestock, Fisheries & Cooperatives
- ii. County Government of Kajiado
- iii. Communities around the project area including social institutions
  - Kimana Health Center
  - Kimana Mixed Day Secondary School
  - The local administration from the National Government
  - Kimana community through Kimana sale yard committee

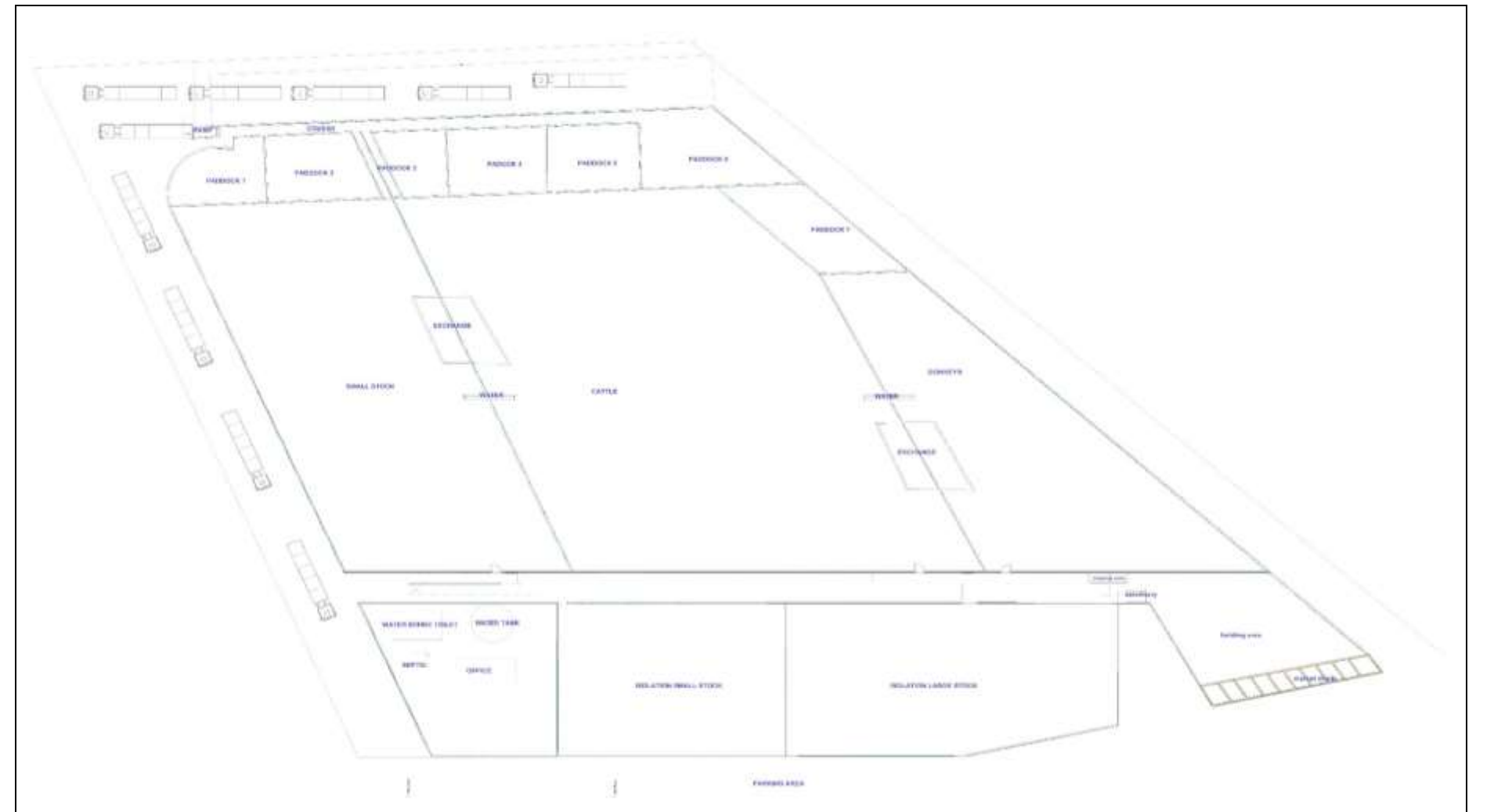
### **2.4 Project Design and Material**

#### **Design**

The proposed livestock-selling yard shall be of permanent construction that is expected to last more than ten years. The envisaged works include construction of a livestock sale/holding yard, crush, exchange sheds, livestock loading site and pit latrine. The materials from the existing wooden structures will be used in the rehabilitation of other parts of the sale yard.

#### **Materials**

The materials shall be sourced both locally and internationally ensuring that they meet the threshold of public health, occupational safety and health as well as environmental standards. These include; Reinforced Concrete, Mild Steel, Base Bolts, Reinforcement steel, Concrete Molds, Sand, Cement, Gravel, Hardcore, among others. Both skilled and unskilled labour will be sourced locally. Figure 2.4 shows the proposed design of the livestock sale yard layout.



**Figure 0-4: Proposed Design Layout of the Kimana Sale Yard**  
See more details on design at appendix 4.



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

## 2.5 Proposed Budget and Materials

DESCRIPTION	QTY	UNIT
<b><u>SALE YARD WITH HOLDING PADDOCKS</u></b>		
<b><u>EXCAVATION</u></b>		
Clear site of grass, existing fences and shrubs while preserving indigenous trees	15698	SM
Excavate a pit (300mm diameter 750mm deep and foundations trenches) and dispose all the waste to a nearby authorized disposal site	610	CM
<b><u>MASS CONCRETE</u></b>		
1:2:4 mass concrete to foundation trenches and pits	229	CM
8mm reinforcement to foundation	2184	Kg
<b><u>FOUNDATIONS WALLING</u></b>		
200mm thick natural stone foundation walling	610	SM
Render to plinth with cement sand mortar (1:3) mix	282	SM
<b><u>CIRCULAR HOLLOW post</u></b>		
75mm x 4mm diameter Circular hollow sections pipes to approved height 2500mm long complete with top covering and wall parts	852	NO
<b><u>RUNNING STRANDS</u></b>		
38x4mm Circular hollow sections well welded to circular steel post (m.s) at 150mm spacing (9 row) as directed	14032	LM
<b><u>GATE</u></b>		
Supply and fix mild steel gate overall size 4000 x 1800mm high with 50 x 50mm x 4mm thick RHS frame comprising of mullion, transom braces of 25mm diameter ripe with welded wire mesh and 2No. 75mm diameter mild surround column in masonry in money and three coats of gloss oil paint	10	NO
Ditto size 2000 x 1800mm high	23	NO
ditto but turnstile to ease human movement	15	NO
<b><u>2NO. WATER TROUGH</u></b>		
Supply all materials and construct a standard cattle trough c/w all the plumbing required therein. Rate include all plumbing, piping and civil works and water supply connection	2	NO
Toilet block with 2 latrines	2	NO

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

DESCRIPTION	QTY	UNIT
<b>LOADING RAMP Size 6 x 2 x 1.5m-2NO</b>		
Excavate to remove top vegetable soil average 200mm deep	16	SM
Excavate trenches n.e 1500mm deep	10	CM
1:2:4 concrete in trenches	2	Cm
<b>WALLING</b>		
200mm Thick natural stone walling with hoop iron at alternate courses	28	SM
1500mm Thick hardcore compacted in layers of 75mm thick	16	CM
BRC Mesh A142	16	SM
150mm Thick concrete mix 1:1.5:3 with a rough finish	16	SM
formwork to sides of slab and foundation	30	Lm
rendering to sides of the ramp	18	
<b>RAILS</b>		
75mm Diameter hollow round steel rails at 1500mm center and 1500mm high	12	NO
38mm Diameter running steel rails with 2No Support stands	80	LM
100mm diameter pipe bend to shape and well augered to act as protection to ramp	1	No
<b>2 NO EXCHANGE SHED</b>		
<b>SUBSTRUCTURE (PROVISIONAL)</b>		
Excavate 200mm average to remove vegetable soil	24	SM
Excavate to remove cotton soil average 1m deep and cart away	24	CM
Excavate for excation trench not exceeding 1.5m deep	9	Cm
<b>Concrete work</b>		
1:4:8 concrete blinding 50mm thick in foundation trench	11	Sm
Reinforced concrete 1:2:4 in foundation trenches	3	Cm
<b>Reinforcement</b>		
10mm diameter bars	38	KG
8mm diameters bars	31	Kg
200mm thick foundation walling with loop iron in alternate courses	15	Sm

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

DESCRIPTION	QTY	UNIT
<b><u>FILLINGS</u></b>		
Approved Murram filling to make up level	15	CM
300mm thick hardcore fillings well compacted	16	SM
50mm murram blinding to hardcore	16	SM
Anti-termite solution sprayed on murram blinding with 10years guarantee	16	SM
BRC A 98 to floor slab	16	SM
100mm thick mass concrete 1:2:4 in floor bed	16	SM
<b><u>FINISHES</u></b>		
38 mm thick cement sand screed trowelled smooth	16	SM
RHS mild steel column size 75 x 75 x 4mm thick 3200mm long augered into concrete	6	NO.
150 x 150 x 4mm thick mild steel plate welded to column (m.s) with 4No. holes each	6	NO.
20mm diameter mild steel bolt 200mm long with nut and washers	24	NO.
<i><u>Prepare and prime with red oxide perimeter and apply three coats of gloss oil paint to:-</u></i>		
<b><u>PAINTING</u></b>		
<i><u>Prepare and prime with red oxide primer and apply three coats of gloss oil paint to R.H.S mild steel members</u></i>		
Ditto (0-100mm girth)	40	LM
<b><u>RAIN WATER GOODS`</u></b>		
<b><u>RAINWATER GOODS (MILD STEEL) GAUGE 14</u></b>		
<b><u>WALLING AND CONCRETE BENCHES</u></b>		
Concrete benches leaning to the walls size 600mm wide by 600mm high finished with smooth plaster	18	Sm
150mm thick masonry walling reinforced in alternate courses with loop iron tapered where required to dwarf walls (900mm high)	10	SM
12mm thick plaster to walls troweled smooth	18	SM
<b><u>PAINTING</u></b>		
Prepare and apply three coats oil paint to plastered walls and steel doors	18	SM



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

DESCRIPTION	QTY	UNIT
<b>TOTAL COST</b>	<b>KSh. 19,007,470.00</b>	

## **2.6 Project Activities**

### **2.6.1 Preconstruction and Project Design**

The ESIA is part of this process and it establishes areas of environmental and social issues and proposes the appropriate mitigation measures to be undertaken at the construction, commissioning, operation and decommissioning phases

### **2.6.2 Design Work**

The design of the project entailed significant ground activities including reconnaissance survey of the existing market during the busy Tuesday market days, topographical survey, and design in accordance with livestock number and holding per market day, development of design layout and associated BoQs and tender documents. Moreover, interaction with the local communities to gather first-hand information with respect to physical features and desired design considerations was also undertaken at this stage, implementation schedules are also prepared at this stage

The environmental and social impact assessment study utilized the design outputs to determine the quantifiable impacts and recommends the appropriate management plan to eliminate or reduce them

### **2.6.3 Construction Phase**

#### **Site Clearing and Trenching**

Site clearing will involve the removal of the existing structures, grass, small trees through grabbing their roots and removal from the site. This will be done to pave way for digging of the poles, material placement and managing the required size for the project construction.

Moreover, site clearance and trenching will disturb topsoil material rich in organic and humid content. The process will involve minimal soil disruption for poles with holes not exceeding 1.5m but deep excavation will be realised in pit latrine construction, with the soil from the pit levelled on site.

#### **Pole Laying**

Pole laying will involve placement of the cut poles in the dug trenches, backfilling with the concrete and allowed to cure. This shall be undertaken by the contractor with the involvement of casual workers preferably from the surrounding community members

#### **Fence Joining**

The metallic poles will be joined with metallic tubes round. The tubes will be joined with the poles by welding and bolted together on site all round to a height that livestock will not be able to escape.

#### **2.6.4 Commissioning**

This shall be the formal hand-over and operationalization of the livestock selling yard upon completion by the contractor. To achieve a successful hand-over process, the proponent shall ensure that there are no unresolved social concerns and that the facility has been completed as per the design details, affected sites have been well rehabilitated and that all components of the project are working.

#### **2.6.5 Operation Phase**

The livestock-selling yard will be monitored to ensure that the capacity of livestock held is not exceeded to prevent livestock stampede. The process shall be continuous with regular checks during the market days to enable the structure to serve the required and the intended purpose

#### **2.6.6 Decommissioning Phase**

There is no clear information on decommissioning of the project in the near future but should there be need, then a well-decommissioning procedure should be put in place for smooth transition. The decommissioning process should be in adequate time and proper communication done to the relevant authorities and stakeholders and be approved by NEMA. The decommissioning audit report will include a comprehensive decommissioning plan to guide the process

### **2.7 Project Cost and Implementation Schedule**

Based on the technical design's bills of quantity (BOQ) for both the holding yard and the crush, the project implementation is estimated to cost KSh. 19,007,470.00 (Kenya Shillings Nineteen Million, Seven Thousand Four Hundred and Seventy Only).

## **CHAPTER THREE: ENVIRONMENTAL AND SOCIAL BASELINE**

### **3.1 Project Background**

Livestock production is a key economic resource in Kajiado County and it forms the economic base of the pastoral community. The sub-sector makes an important contribution to poverty reduction, household food/nutritional security and generally plays an important role in the economy of Kajiado County. The sub-sector is the source of draught power, act as a source of social and cultural assets, and source of income.

Livestock production enhances the economic viability and sustainability of farming systems since they diversify income, provide all-year round employment and serve as the household insurance in times of need. However, this sub-sector remains under-developed and negatively affected by frequent outbreaks of diseases and livestock and its products are often marketed in a disorganized manner and often slaughtered under unhygienic conditions which pose health risks to consumers. Strengthening the capacity of the pastoral community to access and utilize the livestock resource sustainably is essential.

At present majority of the major livestock sale yards in Kajiado County are in dilapidated conditions due to frequent breakdown attributed to poor animal handling, termite destruction, and effects of weather over a period of time. The destruction of sale yards has meant that livestock is sold in disorganized markets with no proper control of the flow of animals into and out of the sale yard. Such dilapidation can be avoided by use of permanent metallic materials during construction in order to reduce maintenance costs. Use of metallic pipes for the construction of these structures has proved successful in many sale yards in other counties.

Kimana livestock sale yard is among five major livestock markets in Kajiado County handling a large of number of livestock on weekly basis. About 600 cattle and 1,200 sheep and goats are handled in the market each week. The other livestock yards include Ibissil, Shompole, Emali and Kiserian. However, the livestock sale yard is currently in very poor state due to breakdown of the perimeter fences and other animal handling infrastructure. The project will provide better marketing facilities and management.

The sub-project will promote livestock marketing that is expected to enhance livestock production and household incomes. The sub-project objective is to improve livestock marketing infrastructure through sale yard to include: off-loading and loading bays, holding area, ablution (waste room/garbage yard), office block, drainage system, pit latrines parking area and fence.

### **3.2 Demographic profile**

The population of Kajiado County as per The Kenya Population and Housing Census of the year 2019 by the Kenya National Bureau of Statistics (KNBS) stood at 1,117,840 (557,098 male, 560,704 female and 38 transgender, Table 3-1). The county is highly cosmopolitan with presence of almost every ethnic community

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

in Kenya within the urban areas. The county continues to experience rapid urbanization and urban growth as a result of high immigration from other parts of the country and within the borders. The county boasts of a rich *Maasai* culture that is recognized worldwide.

**Table 0-1: Distribution of Population by Sex, Land Area, Population Density and Sub Locations in Kimana Ward**

Sub Locations	Total	Sex		Land Area Sq. Km	Density Persons per Sq. Km
		Male	Female		
Enkariak/ Ronkena	5,529	2,766	2,763	121.7	45
Enkariak/ Ronkena	4,175	2,076	2,099	35.1	119
Lemong'o	1,354	690	664	86.6	16
Isinet	6,044	3,001	3,043	126.4	48
Isinet	4,104	2,102	2,002	43.8	94
Orngosua	1,940	899	1,041	82.7	23
Kimana	28,401	13,975	14,424	174.1	163
Kimana	17,370	8,540	8,830	73.9	235
Namelok	11,031	5,435	5,594	100.2	110
Mbrikani	10,964	5,401	5,562	298.2	37
Mbirikani	3,631	1,889	1,742	246.5	15
Nkoroshoni	7,333	3,512	3,820	51.7	142
Oltiasika	7,925	3,968	3,957	1,292.5	6
Ilchalai	3,263	1,455	1,808	214.5	15
Oldonyo-Wuas	2,275	1,321	954	479.3	5
Oltiasika	2,387	1,192	1,195	598.7	4
<b>Total</b>	<b>58,863</b>	<b>29,111</b>	<b>29,749</b>	<b>2,012.9</b>	<b>29</b>

### Economic Activities

Wildlife is a predominant feature in the county with Amboseli National park being one of the major tourist attraction site among other sites like Olorgesailie pre-historic site and the Ngong Hills that provides a beautiful scenery for picnics and hiking. The hills are also useful as a site for wind power generation and provision of bearing for aircrafts landing at the Jomo Kenyatta International Airport.

The major economic activity in the county is pastoralism with key livestock being cattle, sheep and goats. The livestock products include milk, beef and chevron, hides and skins. The vastness of the county and proximity to Nairobi City provides a competitive advantage by enhancing access to markets and other business opportunities. This has boosted establishment of manufacturing industries, large scale farming especially floriculture and horticulture. Other sectors that have developed include real estate development in major towns (Kitengela, Ngong, Ongata Rongai, Kiserian, Isinya) and the extraction industry.

The County is also mineral-rich with soda ash found in Lake Magadi, marble stones in Loodokilani; Limestone and sand extracted from the many seasonal rivers which traverse the county.

The geographical location of the Livestock Sale Yard is in Kimana Ward; Kajiado South Sub county longitude 336620.00 m E and 9688690.00 m S and on elevation of 1336 m.a.s.l. The site is located along the Emali-Loitokitok road (C102) in Kimana town. The KNBS 2019 census livestock total population as 7,099 Exotic cattle -Dairy, 4,171 Exotic cattle -Beef, 46,503 Indigenous cattle, 54,683 Sheep, 55,397 Goats, 141 Camels and 21,213 Donkeys. Kajiado South Sub County otherwise referred to as Loitokitok Sub County has the highest number of livestock with 2,831 Exotic cattle -Dairy, 909 Exotic cattle -Beef, 10,591 Indigenous cattle, 12,517 Sheep, 15,050 Goats, 35 Camels and 2,221 Donkeys.

In addition, there is good road network linking Kimana to the other centres in the Ward, and to other terminal markets far up to Arusha in Tanzania. The Livestock market will form a strategic outlet for livestock from the Maasai community in Kajiado County. Strengthening market operations at Kimana Livestock sale yard will enhance close interaction between the Maasai and other communities hence promoting peaceful coexistence and cohesion, minimizing insecurity.

### **3.3 Project Beneficiaries**

The proposed project will benefit a high population both directly and indirectly considering that the livestock for sale and livestock traders come from as far as the neighboring country of Tanzania, neighboring counties including Nakuru, Taita Taveta, Narok, Nairobi, Makueni and Machakos.

The fact that livestock keeping is the main agricultural activity in the area, vulnerable groups such as women and youth will be able to benefit both directly and indirectly by engaging in bead works, operating food kiosks and shops among other small businesses.

### **3.4 Biophysical Environment**

The project area exhibits diverse biophysical characteristics that are of importance in the project design and implementation. The main physical features of the project area are plains, valleys and occasional volcanic hills ranging from an altitude of 1220 metres above sea level to 2073 metres above sea level. Topographically, the area lies on the Central Broken Ground. They consist of scarps and structural plains.

### **3.5 Physical and Topographic features**

According to the County Integrated Development Plan (CIDP) 2018-2022, Kajiado County is characterised by plains, valleys and occasional volcanic hills. The lowest altitude is about 500 metres above sea level at Lake Magadi while the highest is 2500 metres above sea level in Ngong Hills. The landscape within the county is divided into Rift Valley, Athi Kapiti plains and Central broken ground.

The Rift Valley is an elongated depression on the western side of the county running from North to South. It is characterised by steep walls forming plateaus, scarps and structural plains which forms features such as Mount Suswa and Lake Magadi. The lake is formed of deposits of soda ash and is approximately 100 square kilometers in size laying in an endorheic basin formed by a graben. The lake water forms a dense sodium carbonate brine, precipitates vast quantities of trona (sodium sesquicarbonate). Commercial exploitation of trona is a major activity in the lake. The altitude ranges between 600 and 1740metres above sea level. Mount Suswa is a shield volcano which has a unique double crater with a moat-like inner crater surrounding a tilted block of rock with a high potential of tourism activities.

The Athi Kapiti plains are a critical dispersal area for Nairobi National Park (NNP), and act as a wet season concentration area for wildlife dispersing out from Amboseli National Park to the south. It's also a preferred calving ground for the wildebeest migrating from the southern plains of Tsavo West, Chulu and Amboseli. Species consist of plains game such as wildebeest, Kongoni and zebra with attendant Thomson's gazelle and Grant's gazelle. Cheetah and hyena are also common. The Nairobi and Amboseli National Parks are both Important Bird Areas and hold to more than 500 bird species with over 40 birds of prey. The altitude ranges from 1580 to 2460 metres above sea level. The Ngong hills are the catchment areas for Athi River, which is fed by Mbagathi and Kiserian rivers tributaries.

### **3.6 Soils and Geology**

The County has three geological regions namely Quaternary volcanic, Pleistocene and basement rock soils. Quaternary Volcanic soil is found in the Rift Valley. Basement System Rocks which comprise various gneisses, cists, quartzite and crystalline limestone, are found mainly along the river valleys and some parts of the plains. Pleistocene soils are found in the inland drainage lake system around Lake Amboseli where the location of the proposed site is located. Quarrying of building materials is also done within the county.

#### **3.6.1 Drainage Pattern**

Most rivers in the eastern part of the Rift Valley drain toward the east while those within the floor of the valley are restricted to the small depressions and lakes that have no major outlets. It is within this region that Lake Magadi is found. The amount of surface water varies from area to area.

#### **3.6.2 Land Use**

Most parts of Kajiado County are Arid and Semi-Arid (ASAL) with pastoralism being the predominant economic activity. Like many other counties in Kenya, Kajiado county is mainly water stressed where

community members sometimes find themselves covering an average of 10km in search of water. The main economic activities practiced in the proposed project area include;

- **Livestock Farming;** Livestock production, dairy, beef production, hides and skins, poultry farming and bee keeping.
- **Tourism;** Amboseli National park and the unique Maasai culture form the basis of tourist attraction.
- **Crop Farming;** Is mainly done under irrigation to produce horticulture crops including onions and tomatoes among others

### **3.6.3 Vegetation**

Vegetation type in the county is determined by altitude, soil type and rainfall. In many instances it has been modified by animal and human activity. Grazing, browsing, charcoal burning, extraction of fuel wood and cultivation are the major causes of vegetation reduction. In the lower parts of Mt. Kilimanjaro, indigenous trees have been cleared to create room for agriculture. Vegetation is scarce in low altitude areas and increases with altitude. Ground cover throughout the county varies seasonally with rainfall and grazing intensity. Canopy cover ranges from less than 1 percent on heavily settled areas to about 30 percent on steep hills.

### **3.6.4 Climate and Rainfall**

The county has a bi-modal rainfall pattern. The short rains fall between October and December while the long rains fall between March and May. There is a general rainfall gradient that increases with altitude. The bimodal rainfall pattern is not uniform across the County. The long rains (March to May) are more pronounced in the western part of the county while the short (October to December) rains are heavier in the eastern part. The rainfall amount ranges from as low as 300mm in the Amboseli basin to as high as 1250mm in the Ngong hills and the slopes of Mt. Kilimanjaro.

Temperatures vary both with altitude and season. The annual rainfall trend for Kajiado East, North, Central and West vary from the years 1970 to 2013 and indicates high level of inter-annual variation. Rainfall is becoming highly variable and unpredictable especially in recent decades and the year 2000 was recorded as the driest year. The highest temperatures of about 34°C are recorded around Lake Magadi while the lowest of 10°C is experienced at Loitokitok on the eastern slopes of Mt. Kilimanjaro. The coolest period is between July and August, while the hottest months are from November to April.

### **3.6.5 Ranches**

There are 10 communal grazing ranches mostly in South and West Kajiado for grazing livestock mostly for beef production. The land tenure system in the county has greatly changed, from 56 group ranches across the county to only 10 currently. The other ranches were subdivided amongst group ranch members and converted to private ownership.

### **3.6.6 Main Wildlife**

Tourism in Kajiado is mainly an economic and social occurrence. Amboseli National Park is one of the 9 No. major tourist attraction sites sitting on 39,206 Ha; and home to a range of African wildlife and over 400 species of birds. Other attraction sites include: Lake Magadi; Lake Kwenia; Ngong Hills, Chyulu Hills; Olorgesailie pre historic site; Mt Suswa, a remarkable double crater volcano with a complex braided system of lava tubes and caves; Ol Doinyo Orok Mountain and; Nguruman Escarpment; rich Maasai culture among others.

The County hosts a variety of wildlife including leopard, cheetah, wild dog, buffalo, elephant, giraffe, zebra, lion, hippos, hyenas, blue wildebeest, crocodile, mongoose, hyrax, gerenuk, lesser kudu, porcupine and a prolific birdlife that features over 600 species among others.

### **3.6.7 Main Tourist Attractions**

Tourism is one of the major economic pillars for Kajiado County. The major tourist attraction features in the area County include; the Amboseli National Park, Maasai Culture and the beautiful Scenery and landscapes. Amboseli National park consists of huge herds of elephants located adjacent to Africa's highest mountain (Mt. Kilimanjaro). Beautiful sceneries and game reserves are easily accessible as you traverse the park. Amboseli National Park is considered one of Kenya's smaller game parks whose ecosystem is primarily savannah with low-lying vegetation that offer excellent view as wildlife is easy to spot. Maasai villages and cattle ranches surround the park, offering an opportunity for tourists to visit the Maasai communities and get an insight into their local culture. Although Mount Kilimanjaro is in the neighboring Tanzania, Amboseli national park (Kenya) offers some of the best and most dramatic views of Africa's highest mountain, and birds view which are best seen around the months of October to January. Amboseli National park lies adjacent to Tsavo West National Park which gives a wide variety of landscapes to spot wildlife.

### **3.6.8 Soils and Geology**

The county consists of three geological regions: quaternary volcanic, Pleistocene and basement rock soils. Alluvia soils are also found in some areas. Quaternary Volcanic soil is found in the Rift Valley. Basement System Rocks which comprise various gneisses, cists, quartzite and crystalline limestone, are found mainly along the river valleys and some parts of the plains. Pleistocene soils are found in the inland drainage lake



system around Lake Amboseli. Quarrying of building materials is also done within the county. For this reason, there is a cement factory located along the Emali- Loitokitok road (C102); National Cement Company located in Merrueshi.

### 3.7 Socio-Economic Survey

This subsection reports on the social and economic baseline data on the project area that was collected through interviews of the potential beneficiaries. 20 persons were interviewed with the majority (87%) being from Kimana location and 13% from the neighbouring locations. The data collected focused on biodata, infrastructure, land ownership data, land use, population income levels religion and access to sanitation facilities.

The findings of this survey are summarized below;

#### 3.7.1 Biodata

Majority of the respondents were males 79% and females 21%. The age brackets were; between 36-45yrs (36%), 18-25 years (31%), 26-35 (16%), 46-60 (12%) and above 60 years (5%). Majority (72%) were married, single (11%) and divorced (17%). Figure 3.1, 3.2 and 3.3 below shows gender, age distribution and marital status respectively. Majority (75%) had children below 18 years while 25% had no children within this bracket (Figure 3.4.)

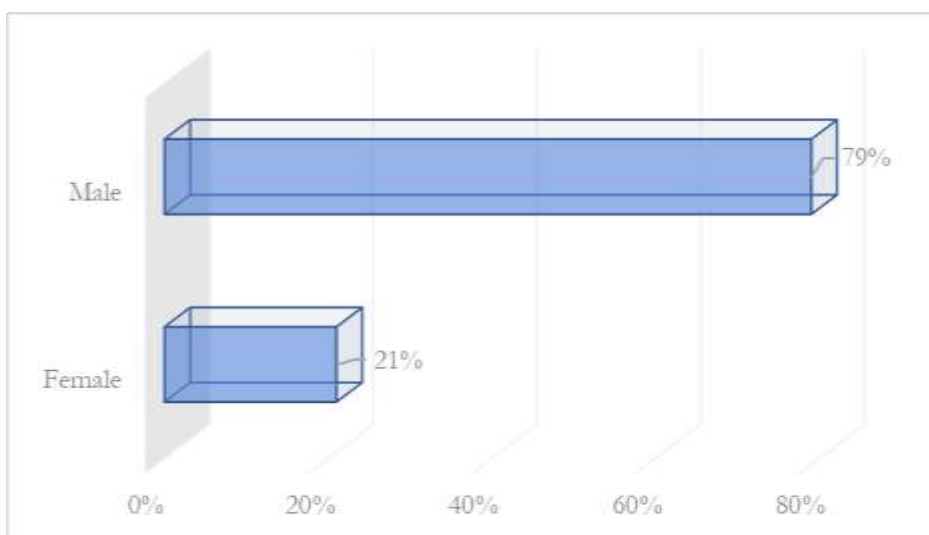


Figure 0-1: Respondents Gender Distribution

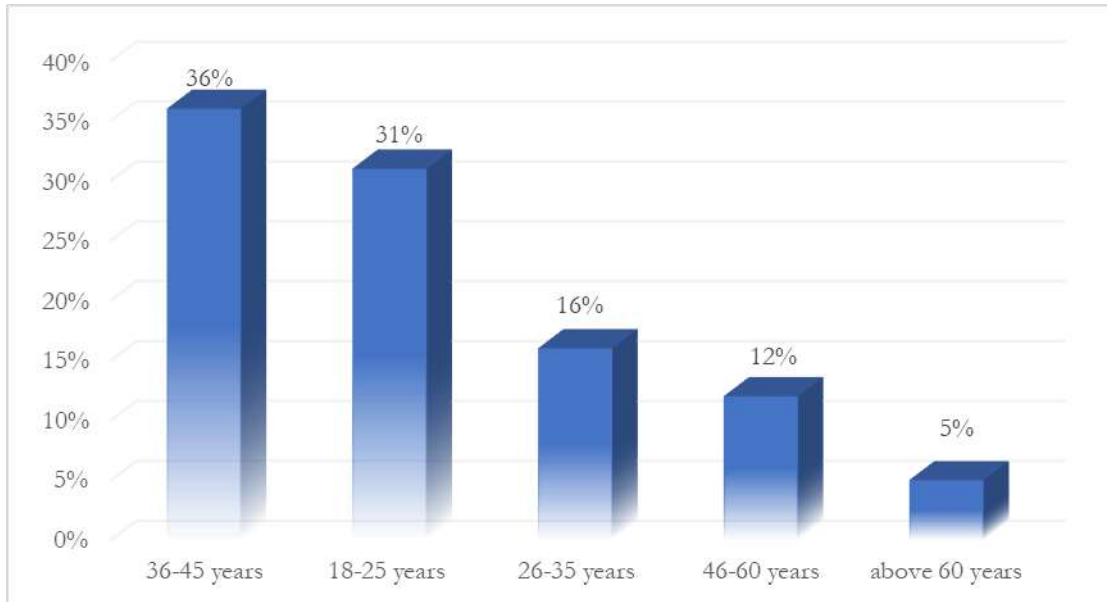


Figure 0-2: Respondents Age Distribution (years)

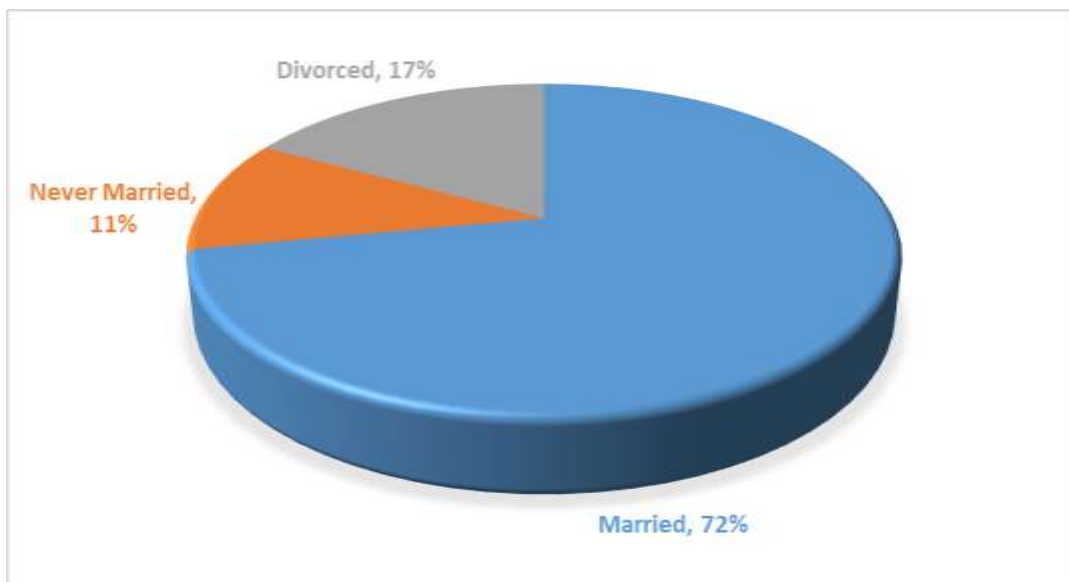


Figure 0-3: Respondents Marital Status

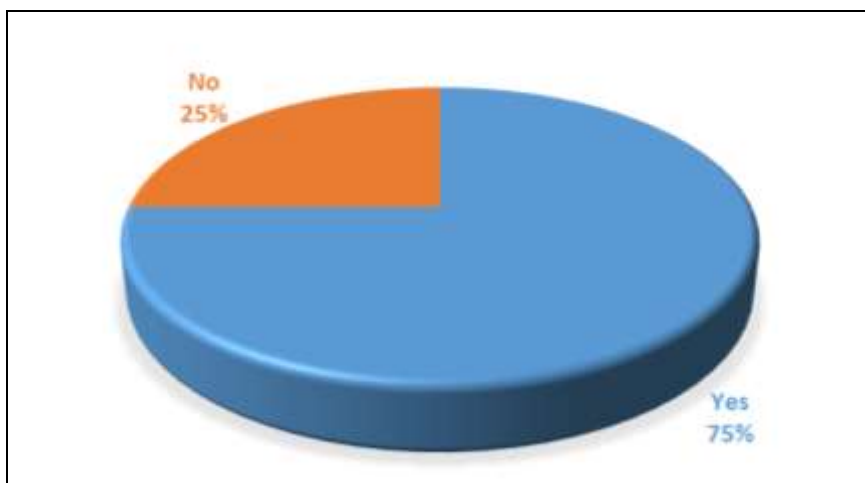


Figure 0-4: Children under 18 years

### 3.7.2 Education Levels

Access to education was assured within the area as the schools were relatively near for majority of households that the school for (32%) of the respondents was 21-40 minutes' walk and 40-60 minutes' walk for 15%. 37% of respondents had only attained up to the basic primary school education, 22% had attained up to pre-primary education while a significant 18% had never been to school. It was also observed that only 11% had attended secondary school education whereas 8% had attended college. It was noted that rest 4% had only received adult education. Figure 3-5 indicates highest level of education of respondents.

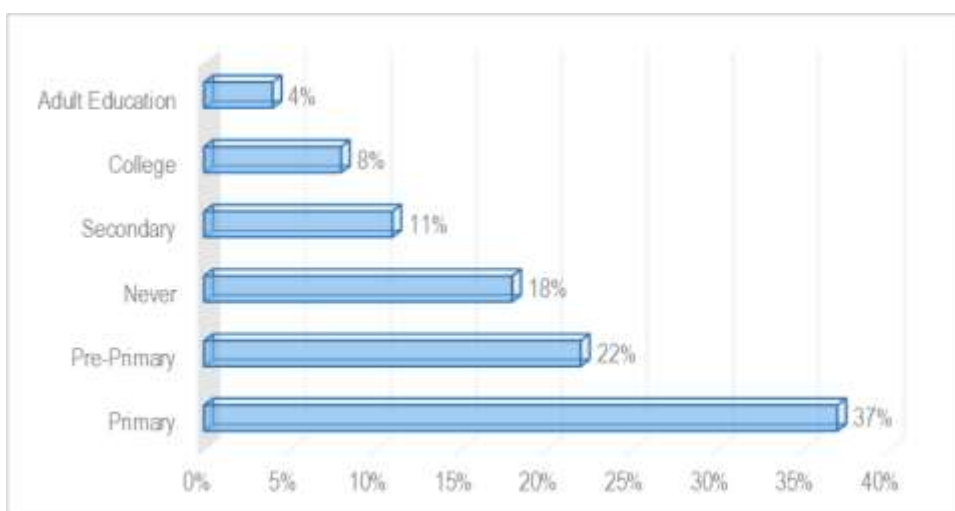


Figure 0-5: Highest level of education attained by respondents

### 3.7.3 Distance to the nearest school

When the respondents were asked to state how much time they take to access the nearest school from their homesteads, 46% indicated that it takes them less than 20 minutes indicating that the schools were relatively near to their homesteads. It was however observed that 32% of the respondents took 21-40 minutes while 15% took between 41-60 minutes and the remaining 7% took more than 1 hour to get to the nearest school. This is presented in Figure 3.6.

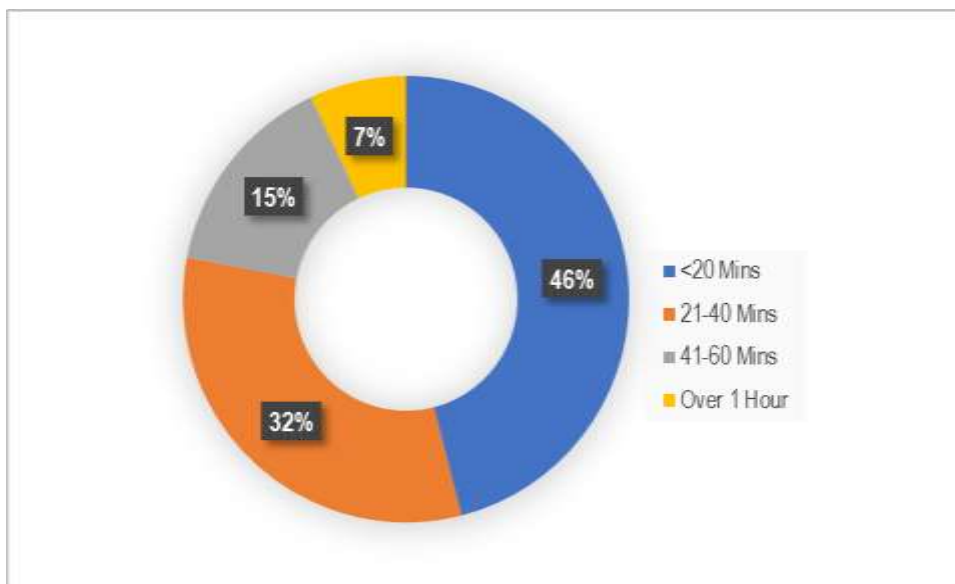


Figure 0-6: Distance to the nearest school

#### 3.7.4 Housing Structures

The standard and quality of dwelling places are manifestations of economic growth and development. The houses for (42%) of the respondents are semi-permanent and those of 38% were temporary. Only 20% of the respondents lived in permanent houses made of stone walls and iron sheet roofs. The semi-permanent houses were built of timber and mud walls. Figure 3.7 indicates types of housing structure in the area.

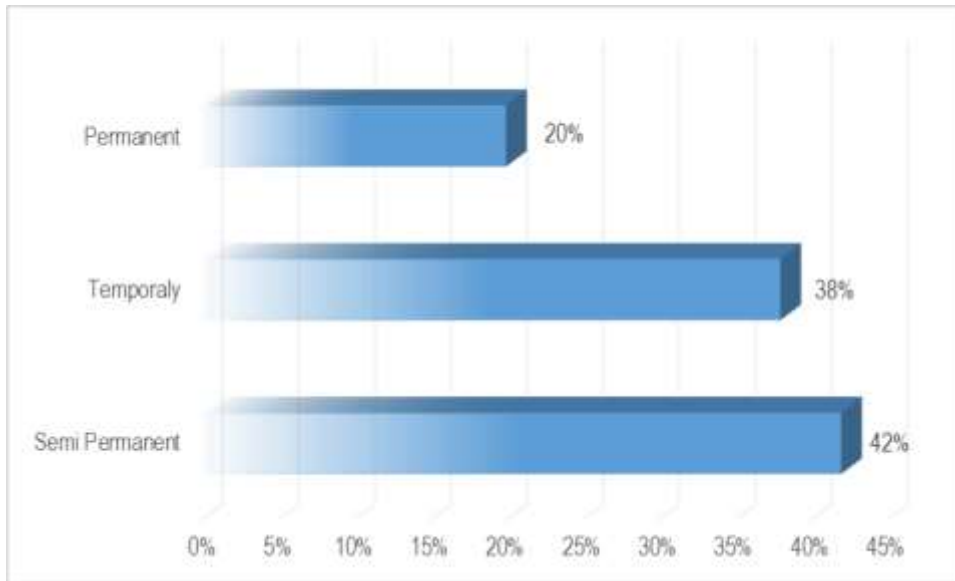


Figure 3-7: Housing structures

### 3.7.5 Accessibility to Health Care Services

According to the socio-economic survey conducted within the proposed project area, a health care facility is available within reach for the majority with the longest time taken by 46% being between 21-40 minutes, 15% between 40-60 minutes, less than 20 minutes for 35% and more than one hour for only 4%. The common diseases were reported as malaria, flu/cough, headaches and stomach disorders. Figure 3.8 presents the time taken by respondents to health care services.

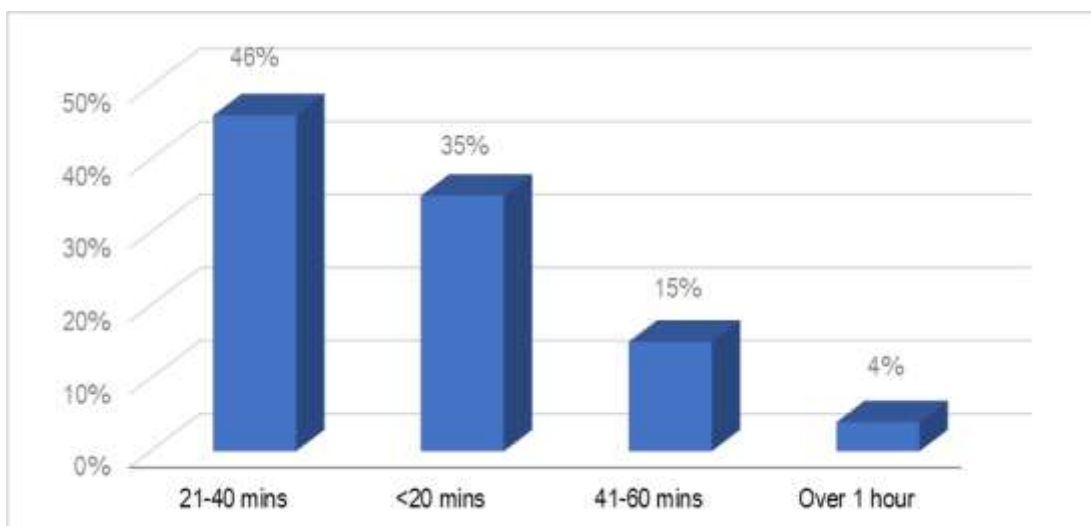


Figure 3-8: Accessibility to health care services

### 3.7.6 Sources of Water

Majority (41%) of respondents reported river/stream as the main source of water. Other sources mentioned included; water pans, boreholes, shallow wells and piped water in that order. The time taken to access water for the majority (82%) was more than one hour indicating that access to water is a major problem in this area including the sale yard.

### 3.7.7 Household Hygiene

Majority (72%) reported that they drink directly without boiling as they believed the water is safe for drinking. Only 56% of the respondents had toilet facilities within their compound (Figure 4.19). Of those with toilets, 90% of the respondents had simple latrines.

### 3.7.8 Land Tenure System

The land in Kajiado County falls under three categories namely; Public / County Government land, Private land and Community land. Most of the land in the county is held communally or in registered group ranches. 88 per cent of the respondents interviewed reported that their land was community owned as illustrated in figure 3.9.

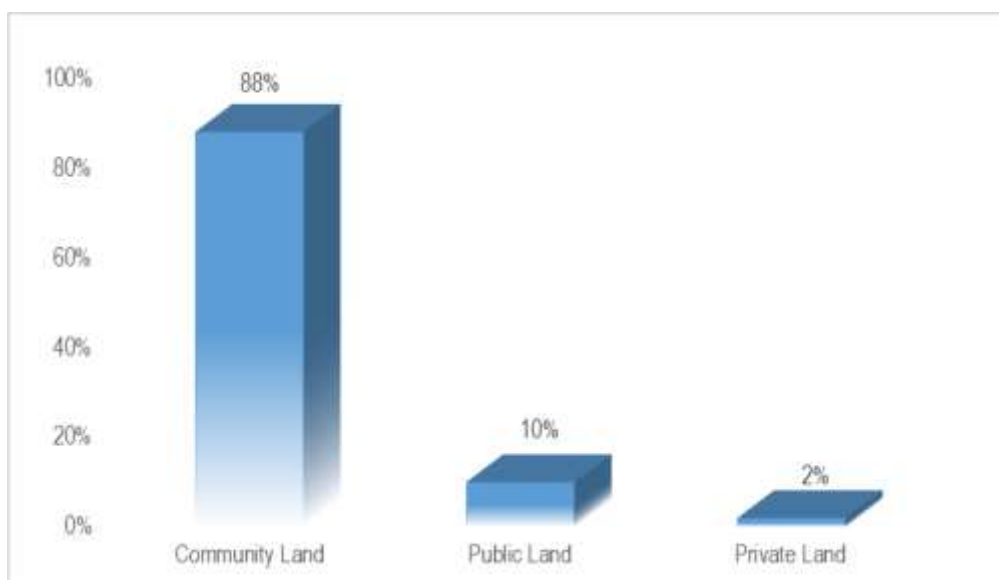


Figure 0-9: Land Tenure & Ownership Pattern in the Project Location

### 3.7.9 Economic Activities

The main economic activity for the majority (84%) is livestock farming while 46% practised crop farming. Majority (32%) of the respondents interviewed reared cattle, 26% reared goats and 22% reared sheep. 10% did poultry farming, 8% kept donkeys and the rest kept camels as illustrated in figure 3.10.

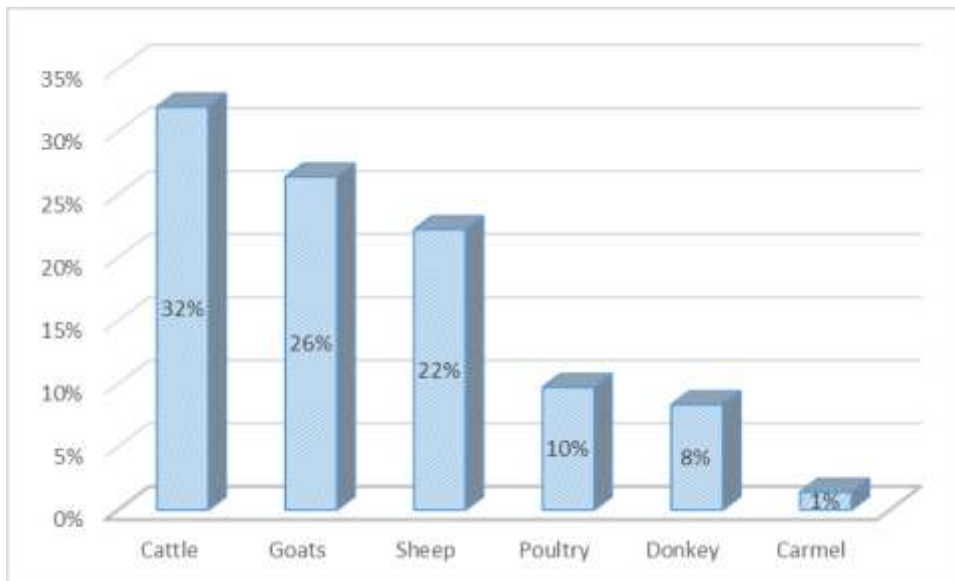


Figure 0-107: Main type of livestock reared in the proposed project area

### 3.7.10 Proposed project Awareness

One of the ultimate achievements for undertaking the ESIA was to create awareness of the project within the area. Majority of the respondents were now aware of the proposed project with 100% of those interviewed stating that they really need the project.

## **CHAPTER FOUR: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK**

The relevant policy, legal and institutional framework governing the preceding component is outlined in this chapter. The ESIA was carried out within the Kenyan legislative and regulatory framework and in line with World Bank's safeguard policies.

This chapter details the policy, legal and institutional framework pertinent to the proposed project

### **4.1 National Policy Framework**

The Kenya Environmental Policy seeks to achieve sound environmental management through sustainable development that ensures that the needs of the future generations are not compromised as a result of current use. This subsection details the various policy provisions pertinent to environmental management.

#### **4.1.1 Constitution of Kenya, 2010**

The constitution of Kenya spells out the fundamental rights of every Kenyan citizen. Article 42 of the bill of rights of the Constitution provides that 'every Kenyan has the right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations through legislative and other measures' The Constitution goes further ahead and stipulates under article 69 of part II, chapter 5 (environmental and Natural Resources) that the State shall;

- i. Ensure sustainable exploitation, utilization, management and conservation of the environment and natural resources, and ensure the equitable sharing of the accruing benefits;
- ii. Work to achieve and maintain a tree cover of at least ten percent of the land area of Kenya;
- iii. Protect and enhance the intellectual property in, and indigenous knowledge of, biodiversity and the genetic resources of the communities;
- iv. Encourage public participation in the management, protection and conservation of the environment; Protect genetic resources and biological diversity;
- v. Establish systems of environmental impact assessment, environmental audit and monitoring of the environment;
- vi. Eliminate processes and activities that are likely to endanger the environment; and Moreover, every person has been mandated to cooperate with the State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources

In addition to the environmental and natural resources provision, part 1 of the same chapter emphasizes the following;



1. Land use and management shall by law benefit local communities
2. Community land is protected from encroachment by State.
3. Law shall protect Rivers, forests and water bodies.
4. Equitable access to land.
5. All lawful land rights are secured; only someone who has stolen land needs to worry.
6. County governments will manage land in trust of the people in accordance with the constitution.

In addition to these provisions, article 70 provides that if a person alleges that their right to a clean and healthy environment recognized and protected under article 42, is being or is likely to be, denied, violated, infringed or threatened, the person may apply to a court for redress.

Chapter four of the constitution on the bill of rights obligates All State organs and all public officers to have the duty to address the needs of vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalised communities, and members of particular ethnic, religious or cultural communities

The importance of public participation is captured in Article 118 of the Constitution which mandates Parliament to facilitate public participation. The citizen involvement in policy-making and implementation strengthens and deepens good governance, promotes transparency and fosters accountability. Public participation is further under scored in Article 10 (2) of the Constitution provides the national values and principles of governance.

### **Relevance to Project**

*The Constitution of Kenya stipulates for sustainable and sound management of the environment in relation to development projects. Article 69, the project proponent is mandated to cooperate with State organs and other persons to protect and conserve the environment. The Kenya Climate Smart Agriculture Project (KCSAP) under the ministry of agriculture should therefore ensure compliance with the constitution in ensuring sustainable development. Moreover, the project should aim at ensuring sustainability of the livelihoods and biological resources within Kimana location while taking cognizance to the powers given under the constitution to communities and individuals to enforce their rights through legal redress.*

*The KCSAP project ensured that the public was consulted in regards to the proposed project with more emphasis put on the vulnerable groups including the youth. The youth and women were well presented during public barazas in project consultations and furthermore it was also noted that this would be realised during the implementation phase, with preference employment given to the unskilled youths. The sub project will ensure that VMG are will represented in the management committees through elections/ special seats. The environmental and social mitigation measures provided in this ESIA will enable the project to minimise adverse impacts of the project on the environment.*

#### **4.1.2 Kenya Vision 2030**

The Kenya Vision 2030 provides the national development blueprint for the period 2008 to 2030 emanating from the Economic Recovery Strategy for Wealth, Employment Creation and transforming the country to a middle-income economy. Following the post-election violence in 2007/2008, the GDP growth rate that had rose to 7% in 2007 dipped to 1.7% in 2008. The Vision's main objective is to transform the country into a middle-income economy with consistent annual growth of 10% through a short term of five-year strategic plan by the year 2030.

The Vision outlines the 2030 goal for urban areas as to achieve a “well-housed population living in an environmentally-secure urban development” The vision envisages to achieve this by bringing basic infrastructure and services including roads, street lights, water and sanitation facilities, stormwater drains, footpaths and others to the people. In achieving these, the vision emphasizes the need for promoting environmental conservation to better support the economic pillar.

*The proposed project of livestock sell yard intends to provide livestock market hence spur economic growth within Kimana Township and its neighbourhood. This initiative is part of the process in achieving the goals of Vision 2030 for residents within these locations. The proponent endeavours to protect the environment in supporting the economic pillar of the vision. Implementation of the sub project by the proponent will contribute towards the goal of vision 2030 on protection and conservation of the environment.*

#### **4.1.3 National Environment Policy, 2013**

The Policy sets out important provisions relating to the management of ecosystems and the sustainable use of natural resources. The policy further acknowledges that natural resources are under immense pressure from human activities particularly for critical ecosystems including forest, grasslands and arid and semi-arid lands.

The policy seeks to develop an integrated approach to environmental management, strengthening the legal and institutional framework for effective coordination, promoting environmental management tools

*This ESIA study has developed an environmental and social management and monitoring plan to mitigate the impacts that may result during the construction and operation phases of the project. This tool is aimed at promoting coordination of environmental management of the project such that sensitive ecosystems are not destabilized by the subsequent project activities. The project has complied with the National Environment Policy by preparation of this ESIA report*

#### **4.1.4 National Environment Action Plan (NEAP) 1994 (revised 2007)**

This plan indicates that the Government recognized the negative impacts on ecosystems that come about as a result of economic and social development programmes that disregard environmental sustainability. In addressing this, establishment of appropriate policies and legal guidelines as well as harmonization of the existing ones have been accomplished or are in the process of development.

The ESIA process came about as part of the NEAP process and among the important participants identified were the then-District Development Committees. This implies that a multi-sectoral approach is desired in identifying and solving environmental problems.

*Relevant stakeholders were invited and consulted during the preparation of this report and close engagement is encouraged during the project implementation period.*

#### **4.1.5 The National Land Policy, 2009**

In chapter 4 of the land policy under Environmental Management Principles, the policy provides actions for addressing environmental problems such as the degradation of natural resources, soil erosion, and pollution. The policy also recommends for appropriate waste management systems and procedures, including waste and waste water treatment, reuse and recycling.

The policy goes further to advocate for environmental assessment and audit as a land management tool to ensure environmental impact assessments and audits are carried out on all land developments that may degrade the environment and take appropriate actions to correct the situation. Public participation has been indicated as key in the monitoring and protection of the environment.

Chapter 4 further advocates for the implementation of the polluter pays principle, which ensures that polluters meet the cost of cleaning up the pollution they cause and encourage industries to use cleaner production technologies.

During the project implementation, the proponent is required to ensure environmental protection of the subject land. *Moreover, this study is what is advocated for in the policy on top of the public consultations conducted.*

#### **4.1.6 Gender Policy, 2011**

This Policy Framework aims at mainstreaming gender concerns in the national development process in order to improve the social, legal/civic, economic and cultural conditions of women, men, girls and boys in Kenya.

The policy provides direction for setting priorities to ensure that all ministerial strategies and their performance frameworks integrate gender equality objectives and indicators and identify actions for tackling inequality. In addition, each program will develop integrated gender equality strategies at the initiative level in priority areas. Within selected interventions, the policy will also scale-up specific initiatives to advance gender equality

This policy will be referred to during project implementation especially during the hiring of staff to be involved in the construction and implementation of the project to ensure that both men and women are accorded equal opportunities.

### **4.2 Legislative Framework**

There exist national statutes and regulations on environmental management that KSCAP and county government will have a legal duty and social responsibility in ensuring the proposed livestock-selling yard is implemented in a manner that does not compromise the status of natural resources, environmental resources, socio-cultural setting as well as the economic potential of the project to the local community.

The following subsection details the various relevant national laws governing environmental management on the proposed project. The supreme environmental resources management legislation is the Environmental Management and Coordination Act (EMCA 1999) revised 2015, which supersedes any contradicting regulation at all times.

#### **4.2.1 Environmental Management and Coordination Act, 1999 (Revised 2015)**

The Environmental Management and Coordination Act, 1999 coupled with the Environmental Management and Coordination (Revised) Act, 2015 provide the legal and institutional framework for environmental management in Kenya. EMCA as such supersedes all environmental regulations that may be contrary to the provisions therein owing to its comprehensive coverage of environment management and judicial enforcement

Part II of the Act confers to every person the right to clean and healthy environment and to its judicial enforcement. Every citizen is also charged with the duty to safeguard and enhance the environment. In achieving this provision, part VI of the Act directs that any new programme, activity or operation should undergo environmental impact assessment and a report prepared for submission to the National Environment Management Authority (NEMA), who in turn may issue a license as appropriate.

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

The Act is divided into thirteen Parts covering main areas of environmental concern including the following: Preliminary (I); General principles (II); Administration (III); Environmental planning (IV); Protection and Conservation of the Environment (V), Environmental impact assessments (EIA), audits and monitoring (VI); Environmental audit and monitoring (VII); Environmental quality standards (VIII); Environmental Restoration orders, Environmental Easements (IX); Inspection, analysis and records (IX); Inspection Analysis and Records (X); International Treaties, Conventions and Agreements (XI) National Environment Tribunal (XII); Environmental Offences (XIII).

The Act has further provided for the development of several subsidiary legislations and guidelines which govern environmental management and are relevant to the project implementation. The following are the relevant regulation that should govern the proposed project. These are tabulated in Table 3.1 below.

**Table 0-1: EMCA Legislations relevant to the project**

<b>The Environmental (Impact Assessment and Audit) Regulations, 2003 (Amended 2015)</b>	These Regulations contain rules relative to the content and procedures of an EIA, to environmental audit and to Monitoring and strategic environmental assessment. These rules regulate other matters such as the appeal for, and registration of, information regarding EIA.  The rules also provide the applicable environmental licensing fees for the different project categories	According to the second schedule of EMCA, the construction of a livestock-selling yard must undergo EIA in order to determine the adverse impacts. The proponent has complied with this requirement by preparing ESIA project report for the same. The project report has been prepared in accordance with the EIA/EA regulations
<b>The EMCA-(Fossil Fuel Emission Control) Regulations (2006)</b>	These Regulations sets emission standards for internal combustion engines, provides for the licensing of persons responsible for treating fuel, provides for the appointment of environmental inspectors required to inspect emissions, and authorizes NEMA to enter into partnerships in order to conduct emission inspections.	During construction, there will be the use of motor vehicles for transportation of the project materials to and from site. The motor vehicles will utilize fossil fuel.  In keeping with this regulation, the proponent will ensure that all machinery is frequently serviced and maintained to keep with the emission standards as per the regulation
<b>The EMCA (Conservation of Biological Diversity and Resources, Access to Genetic</b>	These regulations ensure that activities do not have an adverse impact on any ecosystem.	The project will be implemented at the market site where there is little trees/shrubs hence the regulation is relevant.  The proponent has taken

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

<b>Resources and Benefit Sharing) Regulations (2006)</b>		measures to ensure that the forest ecosystem will be protected by adopting adequate mitigation measures where there will be need to cut trees/ shrubs.
<b>The EMCA (Noise and Excessive Vibration Pollution) Control Regulations (2009)</b>	<p>This regulation establishes environmental standards that should be met for noise. NEMA is a key administering authority. The following schedules in the Noise and Excessive Vibration Pollution Control Regulation set out the relevant standards and monitoring requirements: First Schedule – Maximum Permissible Intrusive Noise Levels.</p> <p>Second Schedule – Maximum Permissible Noise Levels for Construction Sites.</p> <p>Third Schedule – Maximum Permissible Noise Levels for Mines and Quarries.</p> <p>Fourth Schedule– Application for a License to Emit Noise/Vibrations in Excess of Permissible Levels.</p> <p>Fifth Schedule–License to Emit Noise/Vibrations in Excess of Permissible Levels. Sixth Schedule – Application for a Permit to Carry out Activities.</p> <p>Seventh Schedule - Permit to Emit Noise in Excess.</p> <p>Eighth Schedule - Minimum Requirements for Strategic Noise and Excessive Vibrations Mapping.</p> <p>Ninth Schedule – Minimum Requirements for Action Plans.</p> <p>Tenth Schedule - Improvement Notice.</p>	<p>During construction, noise and Vibration impacts will be generated by motor vehicle transporting construction materials.</p> <p>Similarly, there is likelihood of noise pollution from the increased traffic in the area, offloading of metallic materials and cutting which is not only harmful to the surrounding area but the school and hospital near the site.</p> <p>The proponent will have to adhere with this regulation in order to keep with the law and ensure compliance to environmental management</p>
<b>The EMCA (Waste Management) Regulations (2006)</b>	<p>These Regulations provides for general waste management and for the management of solid waste, industrial waste, hazardous waste, biomedical waste, radioactive waste, pesticides and toxic waste.</p> <p>These Regulations prohibit the pollution of public places, provide for the granting of licenses for waste transportation and waste disposal facilities, and require an EIA to be undertaken on any site disposing of or generating biomedical waste</p>	<p>The proponent will have to adhere to these regulations because of the fact that during construction, waste will be generated from the construction material such as cement bags as well as by the construction workers</p>

#### **4.2.2 The Animal Diseases Act, CAP 364, 1989 (Revised 2012)**

This act provides the veterinary director with ‘the power to declare areas infected provisions affecting infected areas (isolation, disinfection and movement of animals), power to prohibit importation of animals (incorporating Rules L.N.106/1965), slaughter and disposal of carcass of infected animals, indemnity and payment of compensation (incorporating Rules L.N. 106/1965), power to search for infected animals, power to prescribe fees for drugs and vaccines, power to prohibit use of vaccine or drugs along with the power to search and detain suspects and the disposal of forfeited animals’. The provisions of this act will be complied with during the operation phase by deploying a veterinary officer in the market to ensure that all animals driven to the market for sale are in good health condition.

#### **4.2.3 Public Health Act, 1986 (Revised 2012)**

The Public Health Act (Cap 242) provides for the protection of human health through prevention and guarding against introduction of harmful substances that can cause disease to human or animals, to promote public health and the prevention, limitation or suppression of infectious, communicable or preventable diseases within Kenya, to advice and direct local authorities in regard to matters affecting the public health to promote or carry out researches and investigations in connection with the prevention or treatment of human diseases. This Act provides the impetus for a healthy environment and gives regulations to waste management, pollution and human health.

The Public Health Act regulates activities detrimental to human health. The owner(s) of the premises and implements/equipment responsible for environmental nuisances such as noise and emissions, at levels that can affect human health, are liable to prosecution under this act. An environmental nuisance is defined in the act as one that causes danger, discomfort or annoyance to the local inhabitants or which is hazardous to human health. This Act controls the activities of the project with regard to human health and ensures that the health of the surrounding community is not jeopardized by the activities of during project rehabilitation such as noise, vibrations, exhaust fumes and many more.

Legal Notice 49 of April 2020 on COVID 19 rules 2020 provides for the prevention, control and suppression of Covid-19. *The proponent through this ESIA and the ESMP has defined the necessary measures to be taken by the Contractor, and other responsible parties to prevent the occurrence of nuisance or condition liable for injurious or dangerous to human health during the construction and the operation phase of the sub project. Also, in keeping with public health requirement as stipulated in the subsidiary legislation, 2020; legal notice No.49 of April 2020 to prevent the spread of the new COVID-19 pandemic disease, the proponent should*



*ensure that hand washing facilities are installed at the sub project site, construction workers to wear face masks in addition to other PPEs and keep social distance.*

#### **4.2.4 Work Injury Benefits Act, 2007**

The Act provides for compensation to employees for work-related injuries and diseases contracted in the course of employment. Section 7 directs all employers to obtain and maintain an insurance policy in respect of any liability that the employer may incur under this Act to any of his employees.

Section 10 gives direction on compensation for work-related injuries. Part (1) of the Section states that an employee who is involved in an accident resulting in the employee's disablement or death is entitled to compensation.

The project proponent will need to observe the provisions of this Act during the course of the project. The contractor employed should also meet this requirement during the project construction. The following will be observed.

- *Contractor to adhere to Occupational Health and Safety rules and regulations as stipulated in the Occupational Safety Act of Kenya of 2007 and revised in 2010*
- *Employer must provide and maintain clothing and appliance that are adequate, effective and suitably protective, including where necessary, suitable gloves, footwear, and head coverings*
- *In case of accidents, injured persons should be given first aid and immediately taken to the hospital*
- *Investigation on the cause of accidents done and adequate conclusion to be arrived at*
- *Supply of protective equipment such as condoms to prevent sexually transmitted diseases.*

#### **4.2.5 Kenya Stock Traders Licensing Act of 1962 (Amended 2006)**

The Stock Traders Licensing Act, CAP 498 implies that 'No persons shall carry on the trade or business of a stock trader without a license, whether as a principal, partner or agent.' The exceptions are farmers who buy, sell or barter stock in the course of their business as farmers and residents in special areas set apart for the use of the tribe to which they belong. The Act county commissioners to issue stock trader's licenses for a year or half a year and the police, administrative, veterinary officers or inspectors to inspect the license on demand. Contraventions of this act may result in a fine of 2,000 shillings or imprisonment for a term not exceeding 6 months or both'. The market will be manned by veterinary officers and county inspectorate department to ensure livestock traders abide by the provisions of this law.



#### **4.2.6 Land Act, 2012 (Revised 2015)**

The lands Act was enacted in May 2012 and revised in 2015 to provide for the review, consolidation and rationalization of land laws and to provide a framework for sustainable management and utilization of all categories of land. The act provides the legal framework for administration and management of public and private land, leases, charges, compulsory acquisition, easements and related rights. Section 61 of Kenyan constitution recognizes three classifications of land namely;

**Community land:** This is all land vested in and held by communities identified on the basis of ethnicity, culture or similar community of interest. Any unregistered community land shall be held in trust by county governments on behalf of the communities.

**Public land:** It includes all un-alienated government land held and occupied by government agencies, territorial sea and sea bed, all public roads whether gazetted or not and any land not classified as private or community land under the Constitution; and any other land declared to be public land by an Act of Parliament.

**Private land:** This is land which is registered and held by any person under freehold tenure; or land held by any person under leasehold tenure; and any other land declared private land under an Act of Parliament.

The proposed project shall be constructed on an existing market land, which is the project area. *There will be no relocation of any PAPs within the project area. See Appendix 5 on Land Allocation Details.*

#### **4.2.7 The National Drought Management Authority (NDMA), Act 2016**

The Act gives the NDMA body all powers to effectively execute stated functions, the functions include the following:

- i. Exercise overall coordination over all matters, relating to drought' management including implementation of policies and programmes relating to drought management;
- ii. Coordinate drought response initiatives being undertaken by other bodies, -institutions and agencies; promote the. Integration of drought response efforts into development policies, plans, programmes and projects in order to ensure the proper management of drought;
- iii. Develop, in consultation with stakeholders, an efficient, drought- early- warning system and operate the system;
- iv. Facilitate national and county level drought contingency processes and the preparation of national and county level drought contingency plans;
- v. Establish and review, in consultation with stakeholders and relevant institutions and agencies, drought preparedness strategies;

- vi. Identify, design and implement projects and programmes that shall strengthen resilience to drought and climate change; publish and disseminate manuals, codes or guidelines relating to drought management and prevention or abatement of the extreme effects of drought on human, plant and animal life;
- vii. Conduct research on drought management and generate, consolidate and disseminate drought management information;
- viii. Render advice and technical support to persons, bodies or institutions engaged in drought management so as to enable them to carry out their responsibilities effectively;
- ix. Coordinate with the national government where a drought situation requires the declaration of a national or international disaster;
- x. Coordinate the design and implementation of the country's regional and international commitments pertaining to drought management; prepare and issue an annual report on the state of drought management in Kenya; and
- xi. Perform such other functions as are incidental or conducive to the exercise, by the Authority, of any or all of the functions provided for under this Act.

In pursuant to function number (VI), NDMA Kajiado has therefore identified this project as one that will help in mitigating drought within Kajiado South Sub County.

#### **4.2.8 Physical Planning Act (Cap 286)**

Under the Physical Planning Act (CAP 286), physical development activities are supposed to be carried out according to the physical plans. Accordingly, the processes of physical planning involve two stages; the plan making stage and the development control stage.

Section 24 of the Physical Planning Act gives provision for the development of local physical development plan for guiding and coordinating the development of infrastructure facilities and services within the area of authority of a county, town council and for specific control of the use and development of land. The plan shows the manner in which the land in the area may be used.

Section 29 of the Physical Planning Act gives the county councils power to prohibit and control the use of land, building, and subdivision of land, in the interest of proper and orderly development of its area. The same section also allows them to approve all development applications and grant development permissions as well as to ensure the proper execution and implications of approved physical development plans. On zoning, the act empowers them to formulate by-laws in respect of use and density of development.

The act also gives the local authority power to compel the developer to restore the land on which such development has taken place to its original conditions within a period of ninety days. If no action is taken, then the council will restore the land and recover the cost incurred thereto from the developer. In addition, the

same section also states that no person shall carry out development within the area of a local authority without development permission granted by the local authority. At the same time, sub-section 5, re-enforce it further that, no licensing authority shall grant under any written law, a license for commercial use for which no development permission had been granted by the respective local authority.

Section 36 states that if in connection with development application a local authority is of the opinion that, the proposed activity will have an injurious impact on the environment, the applicant shall be required to submit together with the application an Environmental Impact Assessment report. The environmental impact assessment report must be approved by the National Environmental Management Authority (NEMA) and followed by annual environmental audits as spelled out by EMCA 1999 revised 2015.

Section 38 states that if the local authority finds out that the development activity is not complying to all laid down regulations, the local authority may serve an enforcement notice specifying the conditions of the development permissions alleged to have been contravened and compel the developer to restore the land to its original conditions.

*The proposed livestock sell yard project will be constructed on the current site of having sale yard in Kimana. The parcel of land has been allocated to Kimana Livestock Sale Yard Committee with an allotment letter and a PDP developed by the County Department of Physical Planning as indicated in appendix 5. The designs and technical drawings for the proposed project have been developed and approved by the County Public Works Department (see appendix 4 & appendix 6).*

#### **4.2.9      Employment Act, 2007**

Section 58 (1) No person shall employ a child of between thirteen and sixteen years of age, other than one serving under a contract of apprenticeship or indentured learnership in accordance with the provisions of the Industrial Training Act, in an industrial undertaking to attend to machinery.(2) No person shall employ a child in any opencast workings or sub-surface workings that are entered by means of a shaft.

Manual labour is expected in trenching for the pipeline and backfilling of the excavated areas. *The proponent shall be required to monitor the employment process for the local community to ensure that no persons of minority age are engaged in the construction work and during project construction phase. The contractor will be required to engage the locals to provide unskilled labour during construction phase.*

#### **4.2.10      Building Code 2000**

This provides the basic rules, guidelines and standards for construction. It is a comprehensive document, which every developer/proponent/ contractor should have. The proponent shall abide by the provisions of the

Code and all approvals will be sought before commencement of the work and regular monitoring will follow to ensure compliance with set standards and conditions

#### **4.2.11 The Engineers Act, 2012 No. 43 of 2011**

This Is An ACT Of Parliament To Provide For The Training, Registration And Licensing Of Engineers, The Regulation And Development Of The Practice Of Engineers And For Connected Purposes.

##### **Practicing Licence.**

32. (1) A person shall not engage in the practice of engineering unless that person has been issued with a license and has complied with the requirements of this Act.

##### **Restriction of the Right to Submit Documents.**

50. (1) The right of a registered or licensed person under this Act to submit plans, engineering surveys, drawings, schemes, proposals, reports, design or studies to any person or authority in Kenya is restricted to the right to submit such documents only in relation to the discipline of engineering in which that person including a professional engineer in an engineering consulting firm, is qualified as shown in the entries made in the Register. (2) A person who is not registered as a professional engineer or firm shall not be entitled to submit engineering plans, surveys, drawings, schemes, proposals, reports, designs or studies to any person or authority in Kenya. (3) A person who contravenes any provision of this section commits an offense. *The approved architectural drawings have been done by registered engineers under the provisions of this Act. See Appendix 4.*

#### **4.2.12 HIV and AIDS Prevention and Control Act, 2006**

This legislation prevents discrimination in all forms and subtleties against persons with or persons perceived or suspected of having HIV and AIDS. Without prejudice to the generality of subsection (1), no person shall compel another to undergo an HIV test as a precondition to, or for continued enjoyment of employment.

All employees, suppliers and contractors in this project shall be treated fairly and in accordance to the provisions of this Act. The proponent will initiate measures to curb spread of HIV/AIDS, through sensitization, ART and counselling services during project cycle.

#### **4.2.13 Branding of Stock Act, Chapter 357**

This is an Act of Parliament which provides rules for the marking of horses, cattle, camels, sheep and goats with ownership brands and provides for the registration of brands. In every case in which there is sale or transfer of any stock branded with a brand registered under this Act, it shall be the duty of every vendor or transferor immediately to brand each head of stock so sold or transferred with the reverse of his registered brand. The sub project will create awareness about the contents of the act among the traders and relevant authority agencies should ensure adherence of the act.

#### **4.2.14 Prevention of Cruelty to Animals Act, Chapter 360**

The Kenyan parliament passed the Prevention of Cruelty to Animals Act (2012) which was a revised version of the earlier law passed in 1983. The new law is broader and aims to control the treatment of animals including their use in experiments. The law states that cruelty towards an animal is prohibited. The subproject will ensure proper awareness of this act among the farmers.

#### **4.2.15 Stock and Produce Theft Act, Chapter 355**

This is an Act of Parliament that provides for the recovery of stolen stock or produce and to make persons liable to account for the possession of stock or produce in certain cases. Any person contravening this act can be sentenced or required to pay a fine on conviction of theft of stock or produce. Any offence under this Act, the court passing sentence may, unless the fine is paid within the time limited by the court for payment, issue a warrant for the levy of the fine by distress and sale of any property of the offender. *Local leadership including the chief with assistance of Nyumba Kumi initiative will create awareness of this act among the public.*

#### **4.2.16 County Government Act, 2012 (No. 17 of 2012)**

An Act of Parliament to give effect to chapter eleven of the Constitution; to provide for county governments' powers, functions, and responsibilities to deliver services. Part VIII of the Act outlines the Principles of citizen participation in counties among others reasonable access to the process of formulating and implementing policies, laws, and regulations, including the approval of development proposals, projects, and budgets, the granting of permits and the establishment of specific performance standards and protection and promotion of the interest and rights of minorities, marginalized groups and communities and their access to relevant information;

*The Proponent has complied with the outlined principle of citizen participation through the planning, screening, designing and ESIA process. The proponent intends to promote citizen participation throughout the*

*project cycle in the management and other functions. The project is implemented by the Kajiado County Government, one of the devolved unit.*

#### **4.2.17 Kenya National Youth Policy 2006**

This Policy advocates that the youth play their role alongside adults in the development of the Country. The National Youth Policy visualizes a society where youth have an equal opportunity as other citizens to realize their fullest potential.

*The contractor will implement affirmative action envisaged in the policy and give youth a chance to provide both skilled and unskilled labour during construction of the sale yard.*

#### **4.2.18 The National Museums and Heritage Act 2006**

This is an act of parliament to provide for the establishment, control, management and development of national museums and the identification, protection, conservation and transmission of the cultural and natural heritage of Kenya.

*This act together with World Bank policy OP 4.11 on Physical Cultural Resources will be quoted if the project will encounter such materials. The Contractor will follow the chance find procedures outlined if previously unknown heritage resource is accidentally encountered during the project construction period. (Refer to Annex 10 for the chance find procedure in Kenya).*

#### **4.2.19 National Gender and Development Policy, 2000**

The policy outlines the national agenda for gender equality and how Kenya intends to realize these ideals. The National Gender and Development Policy, 2000 purposes to promote the constitution national values and principles of governance.

*This Policy will be referred to during Project implementation especially during hiring of staff to be involved in the Project, procuring of suppliers, sub consultants and sub-contractors to the Project in order to achieve equality of opportunity and outcomes with respect to access to and control of sub project resources and services; and equality of treatment that meets the specific and distinct needs of different categories of women and men.*

#### **4.2.20 Children Act, 2012**

An Act of Parliament to make provision for parental responsibility, fostering, adoption, custody, maintenance, guardianship, care and protection of children; to make provision for the administration of children's

institutions; to give effect to the principles of the Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child.

*The implementation of the proposed project at different phases will not engage children to provide labour. The proponent will verify age status of all prospective employees.*

#### **4.2.21 The Sexual Offences Act of 2006 (The Sexual Offences (Amendment) Bill, 2016)**

This is an Act of Parliament to make provision about sexual offences, their definition, prevention and the protection of all persons from harm from unlawful sexual acts, and for connected purposes. Section (6) states that compelled or induced indecent acts by a person is a guilty offence and such a person is liable upon conviction to imprisonment for a term which shall not be less than five years. Section 24 deals with sexual offences relating to position of authority and persons in position of trust. Section 24, Sub section (5) states any person who being in a position of trust takes advantage of his or her position and induces or seduces a person in their care to have sexual intercourse with him or her or commits any other offence under this Act, such sexual intercourse not amounting to the offence of rape or defilement, shall be guilty of an offence of abuse of position of trust and shall be liable upon conviction to imprisonment for a term of not less than ten years.

Section (30) describes non-disclosure of conviction of sexual offences in the past as an offence and is punishable under the law.

Section 40C. sub section (1) of the amended bill states that the national and county governments shall promote public awareness on sexual offences through a comprehensive nation-wide education and information campaign conducted by the Government through the relevant Ministries, departments, authorities and other agencies.

*The sub project will endeavour to create awareness on sexual offences, provisions among the beneficiaries and stakeholders during public participation meetings.*

#### **4.2.22 HIV and AIDS Prevention and Control Act No. 14 of 2006**

This legislation provides measures for the prevention, management and control of HIV and AIDS, to provide for the protection and promotion of public health and for the appropriate treatment, counselling, support and care of persons infected or at risk of HIV and AIDS infection, and for connected purposes.

Among the purposes of this Act as outlined in section 3 (a) is to promote public awareness about the causes, modes of transmission, consequences, means of prevention and control of HIV and AIDS; and (d) to positively address and seek to eradicate conditions that aggravate the spread of HIV infection. Section 7

## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

makes provision for HIV and AIDS education in the workplace in this case even the informal workplace is included.

Section 12 prescribes the penalty for unsafe practices or procedures which might lead to the infection of another person with HIV. Section 31. Prohibits discrimination in the workplace based on the HIV/AIDS status of a person.

The proponent through this ESIA has carried out adequate social assessment of the sub project and through the ESMP provided adequate measures to comply with the provisions of this legislations on; national legal and policy provisions on gender, HIV/AIDS and Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA).

*The proponent through this ESIA has carried out adequate social assessment of the sub project and through the ESMP provided adequate measures to comply with the provisions of this legislations on; national legal and policy provisions on gender, HIV/AIDS and Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA). This will be mainly be through sensitisation campaigns to create awareness.*

### 4.2.23 County Bills Under Development

Kajiado County has however tabled various bills which are still under discussion namely;

No.	Bill	Status
1	Agricultural Training Centre services Bill, 2016	Draft stage
2	Kajiado County Cooperative Bill	Draft stage
3	Kajiado County Sale Yard Bill	Awaiting stakeholder's discussion
4	Kajiado County Animal Welfare Bill	The document submitted to County Assembly Committee on Agriculture in 2017
5	Kajiado County Agricultural Machinery services bill, 2016	Draft Stage
6	Kajiado County Cooperative policy	Draft stage

### 4.3 World Bank's Safeguard Policies

The World Bank has well set safeguard policies aimed at ensuring the organization's financed projects adhere to environmental and social protection. These safeguards include;

#### 4.3.1 World Bank Safeguard Policy 4.01 – Environmental Assessment

This policy is applied to any country undertaking a project that is World Bank funded should ensure that development projects are sustainable and environmentally sound. Although its operational policies and



requirements vary in certain respects, the World Bank follows a relatively standard procedure for the preparation and approval of an environmental assessment study

The World Bank considers environmental impact assessment (EIA) as one among a range of instruments for environmental assessment. Other instruments used by the World Bank include regional or sectoral environmental assessment, strategic environmental and social assessment (SESA), environmental audit, hazard or risk assessment, environmental management plan (EMP) and environmental and social management framework (ESMF). The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of environmental assessment. Proposed projects are classified into one of three categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

The proposed project falls under **Category B** which is likely to have minimal or no adverse environmental impacts. Environmental Assessment is used in the World Bank to identify, avoid, and mitigate the potential negative environmental associated with Bank lending operations. The proposed project was screened for environmental and social risks, on which this ESIA was recommended. Further as required by the policy, the public was consulted.

This report has established all the significant impacts that need to be addressed and proposed appropriate measures to prevent or reduce any risk that may be posed to the environment (physical, biological and social). The adverse impacts and their mitigation measures are well outlined in the ESMP including responsible parties, duration and cost in the whole project cycle.

#### **4.3.2 World Bank Safeguard Policy 4.04 – Natural Habitats**

The natural habitats policy is meant to enhance environmentally sustainable development through protection, conservation, maintenance and rehabilitation of natural habitat and their functions. World Bank supported developments are required to take considers and ensures conservation of biodiversity as well as the diverse environmental services and products that the natural habitats present to the communities

The policy strictly limits the circumstances under which any Bank-supported project can damage natural habitats (land and water area where most of the native plant and animal species are still present). This project has no notable interaction with notable natural habitats apart from limited localized Riverine aquatic systems. The project will not be undertaken in a natural habitat or areas of ecological value.

#### **4.3.3 World Bank Safeguard Policy 4.11 – Physical Cultural Resources**

This policy assists in preserving physical cultural resources and helps reduce chances of their destruction. The policy considers Physical Cultural Resources (PCR) to be resources of archaeological, paleontological, historical, architectural, and religious (including graveyards and burial sites), aesthetic or other cultural

significance. *However, there were no recorded physical cultural resources within the project location but in case during excavations they get into contact with such scenarios, the project should be halted temporarily and the National Museums of Kenya be consulted before further developments. Therefore, the contractor will be provided with the chance finds guidelines. The chance find procedure is provided in appendix 10.*

#### **4.3.4 World Bank Safeguard Policy 4.12 – Involuntary Resettlement**

The objective of this policy to avoid where feasible, or minimize, exploring all viable alternative Project designs, to avoid resettlement. This policy is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts.

The policy prescribes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to Project appraisal of proposed projects. The objective of this policy to avoid where feasible, or minimize, exploring all viable alternative Project designs, to avoid resettlement. This policy is triggered when a Project activity causes the involuntary taking of land and other assets resulting in: Relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected persons must move to another location, and loss of land

*This safeguard is not triggered by the project as the proposed project site does not affect or lead to displacement of people, nor anticipated to cause any livelihood or economic loss for it is in a public land set aside for such a utility. The project will be established on 1.89Ha land belonging to Kimana Sale Yard and that allotment letter has been issued to the management committee and a PDP developed by the County Government.*

#### **4.3.5 World Bank Operational Policy OP/BP 4.09 (Pests Control Management)**

The policy is meant to minimize and manage the environmental and health risks associated with pesticides use and promote and support safe, effective and environmentally sound pest management. *The safeguard is not activated under this Project and in case of any; beneficiaries will be guided by the provisions in the KCSAP IPMF.*

#### **4.3.6 World Bank Safeguard Policy BP 17.50 – Public Disclosure**

This Policy details the Banks requirements for making operational information available to the public. The Bank reaffirms its recognition and endorsement of the fundamental importance of transparency and accountability to the development process. In addition, timely dissemination of information to local groups affected by the projects and programs supported by the Bank, including nongovernmental organizations, is

## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

essential for the effective implementation and sustainability of projects. *Once this ESIA is cleared by NPCU and World Bank, the document will be disclosed in the Kajiado County, KCSAP and World Bank websites.*

### 4.3.7 Activities Triggering World Bank Safeguards

The matrix below presents the extent to which the World Bank safeguards apply to the implementation of the Kimana Sale Yard Project. The safeguards triggering matrix is presented in Table 4.2.

**Table 0-2: World Bank Safeguards Triggering Matrix**

<b>Policy</b>	<b>Triggered</b>	<b>Discussions</b>
<i>Environmental Assessment (OP/BP 4.01)</i>	✓	<i>The project components will trigger EA safeguards and is Category B due to the localized nature of the impacts.</i>
<i>OP/BP 4.04 (Natural Habitats)</i>	✗	<i>There are no notable natural habitats as per the definition of the Bank</i>
<i>Involuntary Resettlement (OP4.12)</i>	✗	<i>The project is to be rehabilitated and therefore no resettlement.</i>
<i>Physical Cultural Resources (OP/BP4.11)</i>	✗	<i>Investigations during the ESIA showed that there are no known cultural resources on the site. However, shall precautionary provide chance finds guidelines.</i>
<i>OP/BP 4.09 (Pests Control Management)</i>	✓	<i>During project operation in the case of crop production, there will be minimal use of chemicals for pest and disease control on animals</i>

## 4.4 International Laws and Guidelines/ Multilateral Environmental Agreements

This section gives additional guidelines /international laws/multilateral environmental agreements to be adhered to in the implementation of the proposed project.

### 4.4.1 Ramsar Convention on Wetlands

This is an inter-governmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Ramsar Convention is the only global environmental treaty that deals with a particular ecosystem. The treaty was adopted in the Iranian city of Ramsar in 1971 and the Convention's member countries cover all geographic regions of the planet.

Unlike the other global environmental conventions, Ramsar is not affiliated with the United Nations system of Multilateral Environmental Agreements (MEA), but it works very closely with the other MEAs and is a full partner among the "biodiversity-related cluster" of treaties and agreements. *The subproject is located in an area which is not considered a wet land moreover the project through internal seepage may contribute toward underground water*

#### 4.4.2 Paris Agreement on Climate Change

The **Paris Agreement** deals with greenhouse-gas-emissions mitigation, adaptation, and finance, signed in 2016. The Paris Agreement's long-term temperature goal is to keep the increase in global average temperature to well below 2 °C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5 °C, recognizing that this would substantially reduce the risks and impacts of climate change. This should be done by reducing emissions as soon as possible, in order to "achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases" in the second half of the 21st century. It also aims to increase the ability of parties to adapt to the adverse impacts of climate change, and make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

Under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. *The contractor will be required to use efficient machineries at the same time solar water pumping system will be used to avoid carbon-based fuels. Tree planting will also be encouraged in the project area for uptake of carbon.*

##### i. Convention on Biological Diversity

In response to the growing threat posed by human activity to biodiversity and inspired by the world community's growing commitment to sustainable development, during the 1992 Earth Summit in Rio de Janeiro world leaders adopted the Convention on Biological Diversity (CBD). It is the most important Convention dealing with biodiversity conservation.

The Convention has three main objectives:

- To conserve biological diversity
- To use biological diversity in a sustainable way
- To share the benefits of biological diversity fairly and equitably.

IUCN has been involved in the CBD since its drafting and through its further development. Its policy work has helped to ensure that decisions taken by the Parties to the Convention are as effective as possible to achieve the CBD objectives.

*The ESMP has put measures to ensure that indigenous trees which are part of biodiversity are not destructed unnecessarily and suggested measures of replenishing cut ones.*

**ii. Sustainable Development Goal 5 Targets**

**Table 0-3: Sustainable Development Goal 5 Targets**

<ul style="list-style-type: none"> <li>GOAL 5: Achieve gender equality and empower all women and girls</li> </ul>	
Target 5.1	End all forms of discrimination against women and girls everywhere
Target 5.2	Eliminate all forms of violence against women and girls in the public and private spheres, including trafficking, sexual and other types of exploitation
Target 5.3	Eliminate harmful practices, such as child, early and forced marriage and Female Genital Mutilation
Target 5.4	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
Target 5.5	Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making including political, economic and public life
Target 5.6	Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development, the Beijing Platform for Action and the outcome documents of their review conferences

- **Goal 6:** Ensure availability and sustainable management of water and sanitation for all;
- **Goal 9:** Build resilient infrastructure, promote inclusive sustainable industrialization, and foster innovation;

*The proponent through the implementation of this project and undertaking of this ESIA and as outlined in the ESMP contributes to the attainment of the stated goals.*

#### **4.5 Institutional Framework for Environment Management**

Environmental Management in Kenya is largely stipulated in EMCA 1999 Revised 2015. The Act has established several institutions responsible for environmental regulation and monitoring. The Ministry in charge of overall environmental management guidance is the ministry of environment and natural resources. Under it are several other bodies and authorities as detailed in this subsection.

##### **4.5.1 Ministry of Environment and Natural Resources (MENR)**

The Ministry is charged with the responsibility to monitor, protect, conserve and manage the environment and natural resources through sustainable exploitation for socio-economic development aimed at eradication of poverty, improving living standards and ensuring that a clean environment is sustained. MENR's mission

statement and key objective is to facilitate good governance in the protection, restoration, conservation, development and management of the environment and natural resources for equitable and sustainable development.

#### **4.5.2 National Environmental Tribunal (NET)**

The tribunal is provided for under Section 125 of the Act. Its core purpose is to preside over appeals from administrative decisions by organs responsible for enforcement of environmental standards. An appeal may be lodged by a project proponent upon denial of an EIA license or by a local community upon the grant of an EIA license to a project proponent. NEMA may also refer any matter that involves a point of law or is of unusual importance or complexity to NET for direction.

#### **4.5.3 National Environment Management Authority (NEMA)**

NEMA is the administrative body that is responsible for the coordination of the various environmental management activities in Kenya. NEMA is also the principal government authority for implementing all environmental policies. NEMA is also responsible for granting EIA approvals and for monitoring and assessing activities in order to ensure that the environment is not degraded by such project activities.

The authority's core functions are:

- Advise the Government on legislative and other measures for the management of the environment or the implementation of relevant international conventions, treaties and agreements.
- Undertake and coordinate research, investigation and surveys, collect, collate and disseminate information on the findings of such research, investigations or surveys.
- Promote the integration of environmental considerations into development policies, plans, programmes and projects, with a view to ensuring the proper management and rational utilization of environmental resources, on sustainable yield basis, for the improvement of the quality of human life in Kenya.
- Coordinating the various environmental management activities being undertaken by the lead agencies
- To take stock of the natural resources in Kenya and their utilization and conservation.
- Initiate and evolve procedures and safeguards for the prevention of accidents, which may cause environmental degradation and evolve remedial measures where accidents occur e.g. floods, landslides and oil spills. Carry out surveys, which will assist in the proper management and conservation of the environment.
- Mobilize and monitor the use of financial and human resources for environmental management.

- Identify projects and programmes for which environmental audit or environmental monitoring must be conducted under this Act.
- Monitor and assess activities, including activities being carried out by relevant lead agencies, in order to ensure that the environment is not degraded by such activities. Management objectives must be adhered to and adequate early warning on impending environmental emergencies is given.

#### **4.5.4 National Environmental Complaints Committee**

The National Environmental Complaints Committee (NECC) is the body charged with the task of investigating complaints or allegations regarding the condition of the environment in Kenya and suspected cases of environmental degradation. The NECC also undertakes public interest litigation on behalf of the citizens in environmental matters. It is composed of seven members appointed by the Cabinet Secretary for Environment and Natural Resources headed by a chairman who is a person qualified to be appointed as a judge of the High Court of Kenya and members nominated by the Attorney-General, the Council of County Governors (Secretary), the Law Society of Kenya and the business community.

#### **4.5.5 National Environmental Council (NEC)**

The body was established under section 4(3) of EMCA 1999 revised 2015 and it consists of the line Ministry's Cabinet Secretary as the chairman, the principal secretary, representatives from public universities, research institutions, NGOs, the Director-General to NEMA and such number of members as may from time to time be determined by the line Ministry's Cabinet Secretary.

#### **4.5.6 National Environmental Action Plan Committee**

The committee was established under Section 37 of the Act. The committee is responsible for inter alia, for the development of a five-year national environment action plan. The national environment action plan contains among other aspects analysis of the natural resources of Kenya and their distribution, quantity and various uses.

The committee is also responsible for recommending legal and fiscal incentives for businesses that incorporate environmental requirements into their planning and operational processes as well as set out guidelines for the planning and management of the environment and natural resources. Upon adoption by Parliament, the national environment action plan becomes binding on all organs of government.

#### **4.5.7 Standards and Enforcement Review Committee (SERC)**

The SERC operates under NEMA as established under Section 70 of EMCA 1999 Revised 2015. It serves as a technical committee mandated with the task of formulation of environmental standards, methods of analysis, inspection, monitoring and technical advice on necessary mitigation measures. The Principal

Secretary under the Cabinet Secretary is the Chairman of the SERC. The members of the SERC are set out in the third schedule of the Act.

#### **4.5.8 County Environment Committees**

Section 29 (1) of EMCA 1999 provides that the Cabinet Secretary shall by notice in the gazette appoint County Environment Committees of NEMA in respect of every County. These committees assist NEMA in effectively carrying out its function of proper management of the environment at this level. It is instructive to note that the membership of these committees includes inter alia representatives of farmers or pastoralists, the business community, women and youth.

#### **4.6 NEMA Compliance**

The Kenyan government established the National Environmental Management Authority (NEMA) as the supreme regulatory and advisory bodies on environmental management in Kenya under EMCA 1999 revised 2015. NEMA is charged with the responsibility of coordinating and supervising the various environmental management activities being undertaken by other statutory organs. NEMA also guarantees that environmental management is incorporated into development policies, programmes, plans and projects

#### **4.7 Sectoral Integration**

Sectoral Integration encourages the provision of sustainable development and a healthy environment to all Kenyans. The NEC mandates NEMA with the following key functions; policy direction, setting national goals and objectives and determining policies and priorities for protection of the environment, promotion of cooperation among public departments, local authorities, private sector, non-governmental organizations and such other organizations engaged in environmental protection programmes and performing such other functions as contained in the Act.

Other stakeholders include Ministry of Devolution and ASALs Areas and NDMA, Ministry of Environment and Natural Resources, Ministry of Health and Sanitation, Ministry of Lands, Housing and Urban Development, Kajiado County administration and ministries.



## **CHAPTER FIVE: ANALYSIS OF THE PROJECT ALTERNATIVES**

The ESIA also included identification and assessment of alternatives to the proposed project alongside identifying adverse impacts. The proposed livestock-sale yard will serve Kimana, Mbirikani, Merueshi, Isineti, Poka, Emali, the Tanzanian market and the neighbouring wards and counties.

### **5.1 Livestock Sale Yard Alternatives**

Currently, Kimana has an already existing sale yard that will be rehabilitated. The alternative would mean construction of a new sale yard in a new location or not undertaking the rehabilitation. Failure to rehabilitate the sale yard means leaving the community to continue using the depilated sale yard and denying them the potential impacts from the new yard.

There exists an on-farm selling of livestock where traders buy directly from the farmers. This marketing has been existing for a while and the problem with this kind of market is that price is on mutual consent between the seller and buyer. This kind of system causes a lot of exploitation for the farmer.

Complete relocation of the site to a differently new location would mean starting afresh issues related to land ownership and sensitising the people who are already used to the existing sale yard. This would pose loss of revenue and is expensive in the long run to the farmers and hence not sustainable to their daily livelihood.

### **5.2 Project Design Alternative**

#### **5.2.1 Analysis of Alternative Construction Materials and Technology**

The proposed fencing of market and construction of market facilities will be done using modern, locally and internationally accepted materials to achieve public health, safety, security and environmental, as well as aesthetic, requirements. Equipment that saves energy will be given first priority without compromising on cost or availability factors.

The available technology is the use of metallic fabricated frames and fittings. Due to cost, durability and suitability; metallic frames is the most preferred option as it has been proved to be ideal for livestock markets across the country. Other various technologies available include; concrete frame construction, timber construction, prefabricated space frame construction and steel frame. The technology to be adopted will be the most economical and one sensitive to the environment. Heavy use of wood during construction is discouraged because of destruction of forests, not locally available and also quite expensive. The exotic species would be preferred to indigenous species in the construction where need will arise.

### **5.2.2 Project Resettlement Issues**

The proposed project will be in the current market site and where no one lives. Therefore, there will be no resettlement experienced.

### **5.2.3 Project Option Alternative**

The Kimana Sale Yard Project shall directly result to realization of the following benefits;

- i. Increased revenue collection by the project proponent
- ii. Improved living standards for residents of Kimana and its environs through marketing of various products apart from selling of livestock.
- iii. Increased economic activities in the market spurred by range of activities and businesses arising during the market days.

### **5.2.4 No Project Alternative**

This alternative means that the project should not proceed. The No Project Alternative in respect to the subject project implies the status quo remains. From an extreme environmental point of view, this looks like the most suitable alternative as there will be no interference with the existing environmental conditions. However, if this option is taken, the community members in Kajiado South and neighbouring communities will continue to face the following challenges

- i. Price exploitation by on farm traders
- ii. Increased theft scenarios in the area
- iii. Increased spread of diseases due lack of a proper paddocking system
- iv. Stunted economic growth within the area
- v. Loss of livestock during drought due to lack of a proper and ready market

From the above analysis, it becomes apparent that the No Project Option is not a viable alternative as the proposed livestock selling yard project will relieve the people of Kimana South and its environs livestock marketing and selling problem.

## **CHAPTER SIX: PUBLIC PARTICIPATION AND STAKEHOLDER CONSULTATION**

### **6.1 Preamble**

Consultation and public participation (CPP) is a key component of the ESIA process that helps in gathering environmental data, understanding likely impacts, determining community and individual preferences, selecting Project alternatives and designing viable and sustainable impact enhancement and mitigation measures. During the project life cycle, CPP is undertaken in the conceptualisation, design, construction and initial operation phases.

### **6.2 Objectives of Consultations and Public Participation**

The consultant conducted consultations to:

- i. Disclose the planned project to the public and other stakeholders
- ii. Collect baseline information related to socio-economic and the cultural environment
- iii. Solicit for feedback on the pertinent environmental and social issues expected from the project
- iv. Identify likely positive and negative impacts of the planned project
- v. Collect stakeholder opinions on suggested mitigation and remediation measures that should be undertaken to manage the impacts

### **6.3 Stakeholders Consulted**

The consultant conducted key informant interviews and public *barazas* with various stakeholders and the public with a view of gathering their views on various aspects regarding the proposed project. Table 6-1 gives the different categories of stakeholders that participated in the public consultations. 50 people participated in the public baraza in Kimana social hall and chief's office. Figures 6-1 and 6-2 provide sample photos of the consultation proceedings. Minutes of the proceedings and attendance list provided in *appendix 1, 2 & 3*.

**Table 0-1: Stakeholders Consulted**

<b>Category of stakeholder</b>	<b>Stakeholder consulted</b>
<b>County Government of Kajiado</b>	Ward Administrator Kimana Department of Agriculture, Livestock Veterinary Services & Fisheries
<b>National Government</b>	Area Chief, Kimana Location
<b>Project Proponent</b>	Kimana Sale Yard Committee KCSAP
<b>Institutions</b>	Kimana Health Center Kimana Mixed Day Secondary School

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

<b>General public</b>	Kimana community members including livestock farmers & traders
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The complete lists containing the stakeholders consulted are provided in Appendix two and three;



**Figure 0-1: Public Baraza at Kimana Social Hall**



**Figure 0-2: Public Baraza at the Chief's Camp Kimana**

## **6.4 Suggestions and Recommendation**

During the consultative stakeholder meeting, participants raised the following suggestions and recommendations:

- i. Need to ensure connectivity to clean water supply
- ii. The proponent and the contractor should involve local administration during the construction phase of the project. Liaison with the community should also continue during construction work and initial operation of the sale yard
- iii. Contractor to adhere to the relevant mitigation measures provided in the ESMP such as use of proper clothing's such as gloves, gumboots to prevent minor injuries during construction.
- iv. Contractor to reserve unskilled labour job opportunities to the locals
- v. Construction work should strictly observe standards of Occupational Health and Safety including the following;
  - The livestock sale yard to be fenced. Areas bordering the school to have a fence that will separate the school from the market and ensure the students cannot access the market. The fence should either be high enough with concrete blocks or iron sheets. Trees to be later planted along the fence from the market side.
  - Have a paddocking system to separate cattle from goats. An isolation paddock should also be put in place. The structure should also give a clear difference indicating those not sold and those animals sold.
  - Put up a modern revenue office and demolish the existing structure inside the market that has never been put into a definite use.
  - Put up a weighing scale in the new design.
  - Ensure the availability of water for animals during the market day.
  - Put up small kiosks for selling refreshments among others.
  - Those selling their livestock should borrow a leaf from the surrounding community (Ukambani) and adopt a signed sale sheet form their respective chiefs to curb livestock theft.
  - Animals should have a proper entry and exit point; car parking should be separate and allocate a slot for motorbikes.
  - Liaise with the roads department and put up bumps near the market along the Emali-Loitokitok road (C102); currently, since the road construction, 16 people have lost their lives during the Tuesday market days.
  - Construct shed to house the market people when it's raining.
  - Usage of safety gear and equipment by construction workers

## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

- Erection of safety signage along the construction site
- Provision of sanitation facilities and clean drinking water for construction workers
- The contractor should have a holding/ launching yard for materials and equipment to control environmental pollution. The contractor should also strive to use high quality construction materials as detailed in the design.

### 6.5 Anticipated impacts as suggested by the community during Baraza

#### 6.5.1 Positive Impacts

The community identified positive impacts associated with the proposed project to include: Increase in revenue collection for the community and the county government.; Job creation for the community; Reduced exploitation of farmers by middlemen; Increased income generation opportunities for women; Reduced incidences on theft of animals.

#### 6.5.2 Anticipated Negative Impacts and Mitigation Measures as Raised by the Community During the Baraza

The negative impacts and mitigation measures identified are summarized in table below: see *appendix 1, 2 & 3 for comprehensive minutes and attendance.*

**Table 0-2: Negative Impacts and their mitigation measures**

Negative Impact	Suggested Mitigation Measures
<b>Increase of disease vector due to concentration of livestock</b>	There will be spread of livestock diseases since there will be minimal control of livestock movement from one county to another during market days. The community are proposing for adequate monitoring and presence of veterinary officer during market days.  Disease surveillance and quarantine during outbreaks
<b>Liquid and Solid Waste pollution</b>	Proper waste disposal during construction and adequate instructions to operators on waste disposal  Training on proper disposal of chemicals through the safe use of pesticides
<b>Accidents from construction activities</b>	Establish an emergency and first aid control unit
<b>Substandard works and leading to collapse of the sale yard</b>	Close supervision by qualified personnel  The management committee and resident engineer to guide through the construction

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

<b>Spread of sexually transmitted diseases</b>	Educating on HIV aids control Awareness on STDS
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At the end of public consultation, there was broad based support for the proposed sub project by the community and all stakeholders.



## **CHAPTER SEVEN: ANTICIPATED ENVIRONMENTAL & SOCIAL IMPACTS AND MITIGATION MEASURES**

### **7.1 Preamble**

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

### **7.2 Positive Impacts**

The anticipated positive impacts include the following;

#### **i. Creation of Employment Opportunities for Residents of the Project Area**

The proposed project will provide short term and long-term employment opportunities to the local community. The construction phase will provide short-term opportunities for casual work and semi-skilled labour. During the operational phase, long-term employment opportunities will also be created which will generate income and improve their livelihoods.

#### **ii. Improved and Reliable Kimana Livestock Sale Yard**

Residents of Kimana village and its environs will benefit from an improved livestock-sale yard. Incidence of side selling and farmers' exploitation that currently occur due to lack of a well-organised market will be reduced. The project will also lead to improved market prices of livestock.

#### **iii. Increased Revenue Generation by the County and National Government**

The project will contribute to the county and national government kitty. The contractor will pay Value Added Tax (V.A.T) on purchasing materials for the project. Construction workers will also pay income tax from their earnings while working on the project. The project after completion will allow the county government to collect revenue from the sales of livestock other businesses arising in the market area.

#### **iv. Injection of Money to the Local Economy**

There will be a short-term increase in economic activity around the project area. The construction labour force will require food and other items that will be bought from the local community. The stabilised supply of food stuff to the workers will lead to injection and sprouting of business; additionally, resources saved from selling of livestock will be reduced.

#### **v. Reduced exploitation of herders by middlemen**



Through construction of the yard, there will be reduction of side selling of livestock as well reducing exploitation of farmers by middlemen who buy livestock at the homestead.

**vi. Improved business opportunities for women**

There will be income generation opportunities for local women by selling, tea, milk, clothing's and many more stuffs.

**vii. Improved security of animals**

A controlled market will reduce selling and buying of stolen livestock from the local or the neighbouring community.

### 7.3 Negative Impacts

The Project will involve the following activities:

**Table 0-1: Activities to be undertaken under the Project**

Phase	Activities
<b>Construction</b>	<ul style="list-style-type: none"> <li>• Delivery of construction metallic tubes, iron sheets for pit latrines and fittings to the construction site</li> <li>• Clearing of shrubs on the site</li> <li>• Temporal pole hole excavation</li> <li>• Delivery of material for bedding of concrete joints and associated valve chambers (e.g. sand, cement, and gravel)</li> <li>• Jointing of the tube sections (welding and bolting)</li> <li>• Backfilling of the pole hole with concrete</li> </ul>
<b>Operation</b>	<ul style="list-style-type: none"> <li>• Repair and maintenance of metallic poles</li> <li>• Connection of water to the site</li> </ul>
<b>Decommissioning</b>	<ul style="list-style-type: none"> <li>• Excavation and removal of pole from sites</li> <li>• Demolition of concrete joints and other civil works</li> <li>• Transportation of metallic tubes sections and fittings from the pipeline sites</li> <li>• Removal of solid wastes (i.e. earth material and civil wastes) from the site</li> <li>• Rehabilitation of the project site</li> </ul>

The following negative impacts are associated with the construction, operation and decommissioning phases of the project.

### **7.3.1 Negative Impacts and Mitigation during Construction Phase**

#### **1. Impacts on flora and fauna**

Existing vegetation especially the shrubs shall be disturbed during preparation for construction. The area is on very gentle in slope. There is also the potential of small ants on site. The ants will be affected through digging holes for metallic poles.

#### **Mitigation Measures**

The following measures for militating against adverse impacts on flora and fauna are recommended to the proponent for implementation;

- Minimize clearing of vegetation and preserve indigenous trees. Any plant trees cut then it should be replaced by planting.
- Precise points for pole erection should be identified and anthills should be avoided.

#### **2. Noise and Vibrations**

Increased noise levels will be experienced from the use of heavy construction equipment and vehicle movement. Increased vibrations during construction by equipment and vehicular movement. Noise during the project construction will mainly be caused by vehicles transporting materials, offloading of the metallic bars and cutting of the metallic bars. The vibration effect during the construction period will mainly result from the operation of machinery. The site is close to a school, health center and residence; this noise will affect especially young ones and more so those working on site who will have the necessary PPEs such as ear plugs.

#### **Mitigation Measures**

- Movement of vehicles to and from the site should be done during the day and not at night to avoid disturbance through noise and vibrations.
- Offloading of the metallic bars should be with minimal banging and slow placement on each other to avoid unnecessary noises.
- Workers to be provided with ear muffs/ plugs to avoid direct noise when cutting metal.
- Machinery including the generators for welding shall be serviced and maintained in optimal working conditions to minimize the noise that will be generated

#### **3. Air Quality and Dust Emission**

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

#### **Mitigation Measures**

- Regular servicing vehicle for transporting materials to avoid a lot of smoke emission which affects the air quality. Also regular servicing of machinery is encouraged.
- Traffic movement shall be limited to as low as 30km/hr along the project access roads to reduce the risk of dust emission.
- Employees likely to be exposed to dust emission will be provided with dust masks.
- The contractor to minimize the number of motorized vehicles in use, and also limit vehicle idle time

#### **4. Increased Vehicle and Human Traffic**

During the construction phase of the project, there will be an influx of construction workers to the project sites. This might contribute to the disruption of social order within the local communities. Increased vehicular traffic during the transportation of construction materials might result in the destruction of light traffic roads and increase the risk of transportation accidents.

#### **Mitigation Measures**

- Large signs should be placed showing vehicular traffic to and from the site to avoid unnecessary accidents.
- Adequate community awareness should be done to avoid stigmatization of non-locals
- Ensure traffic marshals are on-site to control movement of vehicles and machinery
- Ensure vehicles / machineries have warning systems installed

#### **5. Generation of Solid Wastes**

Project construction activities will generate various solid wastes ranging from cement bags waste, metallic pipes debris, other wrappings, equipment oils and greases, waste asphalt concrete, human wastes to food wastes. Poor handling and disposal of such waste will lead to environmental pollution. Such wastes have the potential to getting on fodder field and livestock might eat causing digestion problems and death.

#### **Mitigation Measures**

- Use of integrated solid waste management system through the following options: i) waste source reduction, ii) material reuse and recycling, and, iii) combustion,
- Disposing waste more responsibly in appropriate designated dumping sites,

- Using construction materials that have minimal or no packaging to avoid the generation of excessive packaging waste, and
- Providing waste collection sites and facilities within the site.
- Training workers and communities on good waste management practices
- Engaging licensed waste handlers to regular collect and dispose wastes from the waste bins/ skips

## **6. Health and Safety Hazards**

Construction workers and the local community will be susceptible to health and safety hazards during the construction phase of the project. Inherent occupational risks include musculo-skeletal injuries, and accidents from construction vehicles. The influx of construction workers may put pressure on existing local resources, cause social conflicts, promiscuity and the related sexually transmitted diseases. During construction, excess light produced from welding might affect the welder's eyes hence adequate measures should be adhered to.

### **Mitigation Measures**

- Employers to provide and ensure workers use PPE including gloves, footwear, goggles and head coverings
- In case of accidents, injured persons should be given first aid and immediately taken to the hospital
- Sensitize workers on OHS, First Aid, and on emergency preparedness and response
- Provide first aid kits and fire extinguishers
- Maintain an accident/ incident register
- Investigation on the cause of accidents done and adequate conclusion to be arrived at

## **7. Health Impact-Increase in incidences of HIV/AIDS and STDs**

The influx of people may bring communicable diseases to the project area, including sexually transmitted diseases (STDs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health resources.

### **Mitigation measures**

- Contractor to sensitize workers and community members on HIV/AIDS awareness
- Periodic HIV/AIDS and other communicable diseases Awareness Workshops for Contractor's Staff.
- Controlled access to Contractor's Workforce Camps by outsiders.

Contractor to provide standard quality condoms at the construction site during the construction period.

## **8. Gender Based violence and Sexual Harassment**

This impact is triggered during Project Construction Phase when the Contractor fails to comply with the following provisions; and 2/3 gender rule.

- (i) Failure to protect human risk areas associated with, disadvantaged groups, interfering with participation rights, and interfering with labour rights.

#### **Mitigation Measures of Human Rights and Gender Requirements**

- Ensure clear human resources policy against sexual harassment that is aligned with national law
- Integrate provisions related to sexual harassment in the employee COC
- Ensure appointed human resources personnel to manage reports of sexual harassment according to policy
- The Contractor shall require his employees, sub-contractors, sub-consultants, and any personnel thereof engaged in construction works to individually sign and comply with a Code of Conduct with specific provisions on protection from sexual exploitation and abuse
- The contractor will implement provisions that ensure that gender-based violence at the community level is not triggered by the Project, including:
  - ✓ effective and on-going community engagement and consultation, particularly with women and girls;
  - ✓ review of specific project components that are known to heighten GBV risk at the community level, e.g. compensation schemes; employment schemes for women; etc.
- the contractor shall develop specific plan for mitigating these known risks, e.g. sensitization around gender-equitable approaches to compensation and employment; etc
- The contractor will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project implementation.

#### **9. Sexual Exploitation and Abuse (SEA)**

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

#### **Mitigation Measures to Risk of SEA**

- Develop and implement an SEA action plan with an Accountability and Response Framework as part of the C-ESMP. The SEA action plan will follow guidance on the World Bank's Good Practice Note for Addressing Gender-based Violence in Investment Project Financing involving Major Civil Works (Sept 2018).
- The SEA action plan will include how the project will ensure necessary steps are in place for:
  - Prevention of SEA: including COCs and ongoing sensitization of staff on responsibilities related to the COC and consequences of non-compliance; project-level IEC materials;
  - Response to SEA: including survivor-centered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures; staff reporting mechanisms; written procedures related to case oversight, investigation and disciplinary procedures at the project level, including confidential data management;
  - Engagement with the community: including development of confidential community-based complaints mechanisms discrete from the standard GRM; mainstreaming of PSEA awareness-raising in all community engagement activities; community-level IEC materials; regular community outreach to women and girls about social risks and their PSEA-related rights;
  - Management and Coordination: including integration of SEA in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated PSEA focal points in the project and trained community liaison officers.

#### **10 Health Impact – Spread of COVID-19 amongst construction workers**

The World Health Organization declared COVID-19 a global pandemic after assessing both its alarming levels of spread and severity, and the alarming levels of inaction. Consequentially, WHO issued various guidance and measures to prevent the spread of the virus. The measures have been adopted worldwide. Similarly, the Kenyan government has since then issued several guidance and directives after the first case was registered on March 13<sup>th</sup> 2020. These included complete cessation of movement to and from areas considered hot spots and night curfew, social distancing guidelines, closure on non – critical and essential enterprises, closure of places of worship and public gatherings, mandatory use of masks in public places, among others.

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

Recently, the WHO has warned that the virus is here to stay for a long time and might persist and become our new way. The Government of Kenya has also lifted some of the initial movement controls and allowed the resumption of business, with certain industry specific guidelines being enforced. The duty of care has now been transferred to individual citizens and enterprises. Recognizing the potent risk this may present, it's difficult to clearly outline exhaustive mitigation measures under the mitigation impacts. As such, there is need for the client and the contractor to develop and adopt COVID-19 Standard Operating Procedure (SOPs) in line with the World Bank guidance, Ministry of Health Directives and site-specific project conditions. These SOPs need to be communicated to all workers and enforced to the latter without fail. In addition to the requirement of the SOPs, the following mitigation measure shall also be adopted:

**COVID-19 – Mitigation Measures:**

- (i) The Contractors will develop SOPs for managing the spread of Covid-19 during project execution and submit them for the approval of the Supervision Engineer and the Client before mobilization. The SOPs shall be in line with the World Bank guidance on COVID-19, Ministry of Health Directives and site-specific project conditions;
- (ii) Mandatory provision and use of appropriate Personal Protective Equipment (PPE) shall be required for all project personnel including workers and visitors;
- (iii) Avoid concentrating of more than 15 persons or workers at one location. Where more than one person are gathered, maintain social distancing of at least 2 meters. All workers and visitors accessing worksites every day or attending meetings shall be subjected to rapid Covid-19 screening which may include temperature check and other vital signs;
- (iv) The project shall put in place means to support rapid testing of suspected workers for covid-19;
- (v) Install handwashing facilities with adequate running water and soap, or sanitizing facilities at entrance to work sites including consultation venues and meetings and ensure they are



used;

- (vi) Ensure routine sanitization of shared social facilities and other communal places routinely including wiping of work stations, door knobs, hand rails etc;

### **11 Spread of COVID-19 amongst community members during consultations**

During consultations for ESIA and RAP, various activities will be undertaken. For efficient and meaningful engagement, a wide range of individual participants, groups in the local community and other stakeholders will be involved. The consultations will involve verification of PAPs covering the occupants of the affected area and vulnerable persons and groups; awareness raising, sensitization of PAPs and gauging attitude to the project; training and capacity building for livelihoods restoration grievance redress, execution of site - specific Surveys among others. The activities will lead to close interaction between the proponent and the community members leading to a high risk of spreading Covid – 19 amongst community members during the consultation process.

To minimize the social risk, measures will be required to ensure social distancing and appropriate communication measures. The mitigation measures will be supervised by a communications / stakeholder engagement / social safeguards experts in the project proponent's team.

#### **COVID-19 mitigation measures**

Electronic means of consulting stakeholders and holding meetings shall be encouraged whenever feasible. One on one engagements for the PAPs while observing social distance and adhering to PPE wearing shall be enforced;

Avoid concentrating of more than 15 community members at one location. Where more than one person are gathered, maintain social distancing of at least 2 meters;

The team carrying out engagements within the communities on one-on-one basis will be provided with appropriate PPE for the number of people they intend to meet;

Use traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, public announcements and mail) when stakeholders do not have access to online channels or do not use them frequently. Ensure to provide and allow participants to provide feedback and suggestions.

Hold meetings in small groups, mainly in form of FGDs if permitted depending on restrictions in place and subject to strict observance of physical distancing and limited duration.

In situations where online interaction is challenging, disseminate information through digital platform (where available) like Facebook and WhatsApp & Chat groups.

Ensure online registration of participants, distribution of consultation materials and share feedback electronically with participants

## **12 Labour influx to the project area**

The construction of fabricated metal frame fence, loading and unloading ramp, abolition block, office and market sheds require skilled labour. However, there will be need to engage casual and/or unskilled labour force to assist technicians during construction. The proposed works does not anticipate an influx of workers.

### **Mitigation measures:**

- Adhere to national labour code and WB policies through incorporating the same in the Procurement and Contract Agreement document for implementation by the contractor.
- Local community members will be given priority in employment opportunities, in casual and unskilled labour.

## **13 Violation of children rights by contractor and labour force on site**

The proposed project may result increased opportunities for the selling and buying of goods and services to the incoming workers and can lead to child labor to produce and deliver these goods and services.

### **Mitigation measures**

- The proponent to sensitizing the community on national children welfare policies, children laws and World Bank policies on the protection of children and the importance of children being educated.
- The Proponent ensuring the Contractor complies with national and WB policies and rules on welfare of children.
- Using ID Cards to verify the age of the workers and casuals.

## **i. Negative Impacts and Mitigation during the Operation Phase**

### **1. Soil Erosion**

Overgrazing will be realised during market days due to the high influx of animal's week in week out. The area is mostly dry, hence; this influx and low grass cover will cause loss of soil erosion and high runoff during rainy season currying top soils.

#### **Mitigation Measures**

- Erecting gabions where necessary
- Re-vegetation of the surrounding area to assist in holding of soil. This will reduce the amount of top soil erosion.
- Soil management measure such as controlled flocking and livestock movement on the designed paths should be observed

#### **2. Introduction of Disease Vector Problems**

The proposed project has potential to spread animal diseases e.g. foot and mouth, which is rampant during dry season, especially if sick animals are allowed to be sold without veterinary checking.

#### **Mitigation Measures**

- To adequately prevent this then livestock movement permits should be issued and disease inspections to be done at the market before transportation.
- The county government to have a Veterinary Officer at the market during each market day
- Herders to conduct regular/ scheduled vaccination of their livestock

#### **3. Solid Waste Generation**

The introduction of livestock selling yard will bring along other businesses. These businesses will lead to generation of solid waste, which get to nearby fodder fields affecting the livestock digestion system when ingested and eventually deaths.

- Use of integrated solid waste management system through the following options: i) waste source reduction, ii) material reuse and recycling, and, iii) combustion,
- Disposing waste more responsibly in appropriate designated dumping sites,
- Using construction materials that have minimal or no packaging to avoid the generation of excessive packaging waste, and
- Providing waste collection sites and facilities within the site.
- Training workers and communities on good waste management practices
- Engaging licensed waste handlers to regular collect and dispose wastes from the waste bins/ skips

## **ii. Negative Impacts and Mitigation Measures during the Decommissioning Phase**

Decommissioning means the restoration of the project area to its original status. This may be necessitated due to change of policy measures, project reaching its end life and many more.

The following negative measures may arise during this phase;

### **1. Loss of a well Organised Livestock Market**

The termination of the project at the end of project life will lead to an organised market for livestock. This will lead to individuals selling at the homestead and reintroduction of side selling hence ununiform prices and exploitation of farmers by livestock traders.

#### **Mitigation Measures**

- Alternative market for the local community should be designed/ sourced or
- Rehabilitation of the market

### **2. Loss of Revenue**

During project, operation there will be revenue collection from the livestock sale and through veterinary services. The other source of revenue includes through market generation outside the yard.

#### **Mitigation Measures**

- Train farmers on other forms of businesses and other livestock selling strategy as well as on alternative sources of income

### **3. Loss of Jobs**

There will be loss of livelihood when the jobs are lost from the people employed on the project.

#### **Mitigation Measures**

- Create awareness on the project closure to employees to ensure savings and diversification
- Train workers on other income-generating activities and livelihood skills

### **4. Increased Vehicular and Human Traffic**

During the decommissioning phase of the project, there will be an influx of decommissioning workers to the project sites. This might contribute to the disruption of social order within the local communities. Increased

vehicular traffic during the transportation of materials from the site might result in the destruction of light traffic roads and increase the risk of transportation accidents.

#### **Mitigation Measures**

- Large signs should be placed showing vehicular traffic to and from the site to avoid unnecessary accidents.
- Adequate community awareness should be done to avoid stigmatization of non-locals
- Ensure traffic marshals are on-site to control movement of vehicles and meachinery
- Ensure vehicles / machineries have warning systems installed

#### **10. Generation of Solid Wastes**

Project decommissioning activities will generate various solid wastes ranging from metallic pipes debris, equipment oils and greases, human wastes to food wastes. Poor handling and disposal of such waste will lead to environmental pollution. Such wastes have the potential to getting on fodder field and livestock might eat causing digestion problems and death.

#### **Mitigation Measures**

- Use of integrated solid waste management system through the following options: i) waste source reduction, ii) material reuse and recycling, and, iii) combustion,
- Disposing waste more responsibly in appropriate designated dumping sites,
- Using construction materials that have minimal or no packaging to avoid the generation of excessive packaging waste, and
- Providing waste collection sites and facilities within the site.
- Training workers and communities on good waste management practices
- Engaging licensed waste handlers to regular collect and dispose wastes from the waste bins/ skips

#### **11. Health and Safety Hazards**

Decommissioning workers and the local community will be susceptible to health and safety hazards during the decommissioning phase of the project. Inherent occupational risks include musculo-skeletal injuries, and accidents from vehicles. The influx of workers during decommissioning may put pressure on existing local resources, cause social conflicts, promiscuity and the related sexually transmitted diseases. During construction, excess light produced from welding might affect the welder's eyes hence adequate measures should be adhered to.

#### **Mitigation Measures**

- Employers to provide and ensure workers use PPE including gloves, footwear, goggles and head coverings
- In case of accidents, injured persons should be given first aid and immediately taken to the hospital
- Sensitize workers on OHS, First Aid, and on emergency preparedness and response
- Provide first aid kits and fire extinguishers
- Maintain an accident/ incident register
- Investigation on the cause of accidents done and adequate conclusion to be arrived at

## **12. Health Impact-Increase in spread of HIV/AIDS and STIs**

The influx of people may bring communicable diseases to the project area, including sexually transmitted diseases (STDs), or the incoming workers may be exposed to diseases to which they have low resistance. This can result in an additional burden on local health resources.

### **Mitigation measures**

- Contractor to sensitize workers and community members on HIV/AIDS awareness
- Periodic HIV/AIDS and other communicable diseases Awareness Workshops for Contractor's Staff.
- Controlled access to Contractor's Workforce Camps by outsiders.

Contractor to provide standard quality condoms at the construction site during the construction period.

## **13. Gender Based violence and Sexual Harassment**

This impact is triggered during Project decommissioning Phase when the Contractor fails to comply with the following provisions;

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

### **Mitigation Measures of Human Rights and Gender Requirements**

- Ensure clear human resources policy against sexual harassment that is aligned with national law
- Integrate provisions related to sexual harassment in the employee COC
- Ensure appointed human resources personnel to manage reports of sexual harassment according to policy

- The Contractor shall require his employees, sub-contractors, sub-consultants, and any personnel thereof engaged in construction works to individually sign and comply with a Code of Conduct with specific provisions on protection from sexual exploitation and abuse
- The contractor will implement provisions that ensure that gender-based violence at the community level is not triggered by the Project, including:
  - ✓ effective and on-going community engagement and consultation, particularly with women and girls;
  - ✓ review of specific project components that are known to heighten GBV risk at the community level, e.g. compensation schemes; employment schemes for women; etc.
- the contractor shall develop specific plan for mitigating these known risks, e.g. sensitization around gender-equitable approaches to compensation and employment; etc
- The contractor will ensure adequate referral mechanisms are in place if a case of GBV at the community level is reported related to project implementation.

#### **14. Sexual Exploitation and Abuse (SEA)**

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

##### **Mitigation Measures to Risk of SEA**

- Develop and implement an SEA action plan with an Accountability and Response Framework as part of the C-ESMP. The SEA action plan will follow guidance on the World Bank's Good Practice Note for Addressing Gender-based Violence in Investment Project Financing involving Major Civil Works (Sept 2018).
- The SEA action plan will include how the project will ensure necessary steps are in place for:
  - Prevention of SEA: including COCs and ongoing sensitization of staff on responsibilities related to the COC and consequences of non-compliance; project-level IEC materials;
  - Response to SEA: including survivor-centered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures; staff

- reporting mechanisms; written procedures related to case oversight, investigation and disciplinary procedures at the project level, including confidential data management;
- Engagement with the community: including development of confidential community-based complaints mechanisms discrete from the standard GRM; mainstreaming of PSEA awareness-raising in all community engagement activities; community-level IEC materials; regular community outreach to women and girls about social risks and their PSEA-related rights;
- Management and Coordination: including integration of SEA in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated PSEA focal points in the project and trained community liaison officers.

#### **15. Labour influx to the project area**

The construction of fabricated metal frame fence, loading and unloading ramp, abolition block, office and market sheds require skilled labour. However, there will be need to engage casual and/or unskilled labour force to assist technicians during construction. The proposed works does not anticipate an influx of workers.

##### **Mitigation measures:**

- Adhere to national labour code and WB policies through incorporating the same in the Procurement and Contract Agreement document for implementation by the contractor.
- Local community members will be given priority in employment opportunities, in casual and unskilled labour.

#### **16. Violation of children rights by contractor and labour force on site**

The proposed project may result increased opportunities for the selling and buying of goods and services to the incoming workers and can lead to child labor to produce and deliver these goods and services.

##### **Mitigation measures**

- The proponent to sensitizing the community on national children welfare policies, children laws and World Bank policies on the protection of children and the importance of children being educated.



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

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- The Proponent ensuring the Contractor complies with national and WB policies and rules on welfare of children.
- Using ID Cards to verify the age of the workers and casuals.



## **CHAPTER EIGHT: ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN**

### **8.1 Preamble**

The purpose of the ESMP is to ensure that environmental and social impacts and risks identified during the ESIA study are effectively managed during the construction, operation and decommissioning phases of the proposed project. The ESMP specifies the mitigation and management measures for each impact/ risk, party allocated responsibility, means of monitoring and frequency, objective verifiable indicators and an indicative budget. The ESMP also establishes a monitoring plan, capacity building plan and institutional arrangements to support its implementation.

The ESMP should be availed to constructor who will be awarded the tender for construction by the proponent. The contractor should follow the ESMP as stated and submit a quarterly mitigation progress report to the proponent to ensure that the proposed mitigation is followed to the latter.

## 8.2 Environmental and Social Management Plan

Table 0-1: Environmental and Social Management Plan

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
<b>Construction Phase</b>					
Noise and Vibrations	<ul style="list-style-type: none"> <li>• Movement of vehicles to and from the site should be done during the day and not at night</li> <li>• Offloading of the metallic bars should be done with minimal banging and slow placement on each other to avoid unnecessary noises.</li> <li>• Welders/ fabricators should be provided with ear muffs / plugs to avoid direct noise.</li> <li>• Machinery and vehicles should be serviced and maintained to optimal working conditions</li> </ul>	Contractor	Throughout the construction phase	Number of workers provided with and using ear muffs Frequency of servicing of machinery and vehicles Time of vehicle movement to and from construction sites	50,000.00
Accidents along the Emali- Loitokitok road (C102)	<ul style="list-style-type: none"> <li>• Erect road bumps along the Emali-Loitokitok road before the sale yard from both ends.</li> <li>• Install speed signpost along the road before the sale yard from both ends.</li> <li>• Sensitize workers and locals/ beneficiaries on road safety</li> </ul>	Contractor	Throughout the construction phase	<ul style="list-style-type: none"> <li>• Number of bumps installed along the road</li> <li>• Number of accidents reported</li> <li>• Number of road safety trainings conducted</li> <li>• Number of people trained on road safety</li> <li>• Number of road safety signage</li> </ul>	200,000.00

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.**

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
				installed	
Impacts on flora and fauna	<ul style="list-style-type: none"> <li>Minimize shrub cutting along the yard fence.</li> <li>Restrict cutting of indigenous trees</li> <li>Minimize unnecessary cutting of trees at the ground</li> <li>Precise points for pole erection should be identified and anthills avoided.</li> </ul>	Contractor	Throughout the construction phase	<ul style="list-style-type: none"> <li>Number of tree cut and anthills dug</li> <li>Acreage of land cleared of vegetation</li> </ul>	20,000.00
Air Quality and Dust Emission	<ul style="list-style-type: none"> <li>Use of new/serviced vehicle for transporting materials.</li> <li>Traffic movement at the construction site shall be limited to as low as 30km/hr.</li> <li>Provision of dust masks to employees.</li> <li>Minimization of the number of motorized vehicles in use.</li> <li>Minimize vehicle idling</li> <li>Provide holding yard for materials</li> </ul>	Contractor	Throughout the construction phase	<ul style="list-style-type: none"> <li>Number of dust masks procured</li> <li>Number of workers provided with and using dust masks</li> <li>Number of motorized vehicles</li> <li>Frequency of vehicle/ machine servicing</li> </ul>	50,000.00
Increased traffic and human influx	<ul style="list-style-type: none"> <li>Signs boards placed to guide traffic to and from the site to avoid unnecessary accidents.</li> <li>Adequate community awareness should be done on healthy coexistence with the incoming people.</li> </ul>	Contractor	Throughout the construction phase	<ul style="list-style-type: none"> <li>Number of sign boards installed</li> <li>Number and nature of conflict cases reported</li> <li>Number of community sensitizations on road/traffic safety</li> </ul>	200,000.00
Generation of Solid Waste	<ul style="list-style-type: none"> <li>Disposing waste more responsibly in appropriate designated dumping sites,</li> <li>Using construction materials that have minimal or no packaging to avoid the generation of excessive packaging waste,</li> </ul>	Contractor	Daily Inspection	<ul style="list-style-type: none"> <li>Presence/ absence of scattered solid wastes at sites</li> <li>Number of waste receptors provided</li> </ul>	150,000.00

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	<ul style="list-style-type: none"> <li>and</li> <li>• Providing waste collection sites and facilities within the site.</li> <li>• Sensitize workers and beneficiaries on solid waste management practices</li> </ul>			<ul style="list-style-type: none"> <li>• No. of sensitization meetings on waste management held with workers</li> <li>• Number of community sensitization on waste management</li> </ul>	
Health and Safety Hazards	<ul style="list-style-type: none"> <li>• Sensitize workers on Occupational Health and Safety rules and regulations and the need to adhere to the same.</li> <li>• Train workers on Occupational Safety and Health</li> <li>• Provide workers with personal protective equipment</li> <li>• Provide portable toilet/pit latrine for construction workers</li> <li>• Secure construction site with warning reflector tape</li> </ul>	Contractor	Daily Monitoring	<ul style="list-style-type: none"> <li>• Number of sensitization on OSH rules and regulations</li> <li>• Number of workers trained on OHS</li> <li>• Number of PPEs provided</li> <li>• No of portable toilet/latrine</li> <li>• Perimeter secured by reflector tape</li> </ul>	150,000.00
Spread of COVID-19 amongst workers	<ul style="list-style-type: none"> <li>• The Contractor 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> </ul> <p>Mandatory provision and use of appropriate</p>	Contractor	Daily monitoring	<ul style="list-style-type: none"> <li>• Availability of SOP(s)</li> <li>• Training materials developed</li> <li>• Number of workers and concentration</li> <li>• Number of PPEs</li> <li>• Number of thermo guns</li> <li>• Number of sanitizers</li> <li>• Number of hand</li> </ul>	150,000.00

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	<p>Personal Protective Equipment (PPE) shall be required for all project personnel</p> <ul style="list-style-type: none"> <li>Avoid concentrating of more than 15 persons or workers at one location. Where more than one person are gathered, maintain social distancing at least 2 meters. All workers and visitors accessing worksites every day or attending meetings shall be subjected to rapid Covid-19 screening which may include temperature check and other vital signs;</li> <li>The project shall put in place means to support rapid testing of suspected workers for covid-19;</li> <li>Install handwashing facilities with adequate running water and soap, or sanitizing facilities at entrance to work sites including consultation venues and meetings and ensure they are used;</li> <li>Ensure routine sanitization of shared social facilities and other communal places routinely including wiping of workstations, door knobs, hand rails</li> </ul>			washing points	
Spread of COVID-19 amongst community	<ul style="list-style-type: none"> <li>Electronic means of consulting stakeholders and, holding meetings,</li> </ul>	Contractor	Daily monitoring	<ul style="list-style-type: none"> <li>Availability of</li> </ul>	100,000.00

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
members during consultations processes	<p>whenever possible, shall be encouraged whenever feasible. One on one engagements for the PAPs while observing social distance and adhering to PPE wearing shall be enforced;</p> <ul style="list-style-type: none"> <li>• Avoid concentrating of more than 15 community members at one location. Where more than one person are gathered, maintain social distancing at least 2 meters</li> <li>• The team carrying out engagements within the communities on one-on-one basis will be provided with appropriate PPE for the number of people they intend to meet; Use traditional channels of communications (TV, newspaper, radio, dedicated phone-lines, public announcements and mail) when stakeholders do not have access to online channels or do not use them frequently. Ensure to provide and allow participants to provide feedback and suggestions</li> <li>• Hold meetings in small groups, mainly in form of FGDs if permitted depending on restrictions in place and subject to strict observance of physical distancing and</li> </ul>			<p>SOP(s)</p> <ul style="list-style-type: none"> <li>• Training materials developed</li> <li>• Number of PPE bought and in use</li> <li>• Thermo gun in use</li> <li>• Provision of sanitizers</li> <li>• Provision of hand washing points</li> </ul>	



Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	<p>limited duration.</p> <ul style="list-style-type: none"> <li>In situations where online interaction is challenging, disseminate information through digital platform (where available) like Facebook and WhatsApp &amp; Chat groups.</li> <li>Ensure online registration of participants, distribution of consultation materials and share feedback electronically with participants.</li> </ul>				
Sexual Exploitation and Abuse by project workers against community members	<ul style="list-style-type: none"> <li>Develop and implement a SEA action plan with an Accountability and Response Framework as part of the C-ESMP. The SEA action plan will follow guidance on the World Bank's Good Practice Note for Addressing Gender-based Violence in Investment Project Financing involving Major Civil Works (Sept 2018).</li> <li>The SEA action plan will include how the project will ensure necessary steps are in place for: <ul style="list-style-type: none"> <li>Prevention of SEA: including COCs and ongoing sensitization of staff on responsibilities related to the COC and consequences of non-compliance; project-level IEC materials;</li> </ul> </li> </ul>	<p>Supervision Consultant</p> <p>GBV Expert</p>	Daily	<ul style="list-style-type: none"> <li>SEA Action Plan</li> <li>Code of Conduct</li> <li>Number of staff trainings</li> <li>SEA FP</li> <li>Community Liaison trained in PSEA</li> <li>IEC materials for workers sites and community</li> <li>Discrete SEA reporting pathway</li> <li>Relevant policies, e.g. investigations and discipline and whistleblower protection</li> <li>Monthly minutes from SEA coordination meetings</li> </ul>	100,000.00

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	<ul style="list-style-type: none"> <li>○ Response to SEA: including survivor-centered coordinated multi-sectoral referral and assistance to complainants according to standard operating procedures; staff reporting mechanisms; written procedures related to case oversight, investigation and disciplinary procedures at the project level, including confidential data management;</li> <li>○ Engagement with the community: including development of confidential community-based complaints mechanisms discrete from the standard GRM; mainstreaming of PSEA awareness-raising in all community engagement activities; community-level IEC materials; regular community outreach to women and girls about social risks and their PSEA-related rights;</li> </ul> <p>Management and Coordination: including integration of SEA in job descriptions, employments contracts, performance appraisal systems, etc.; development of contract policies related to SEA, including whistle blower protection</p>				

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	and investigation and disciplinary procedures; training for all project management; management of coordination mechanism for case oversight, investigations and disciplinary procedures; supervision of dedicated PSEA focal points in the project and trained community liaison officers				
Gender based violence by construction workers and increased transmission of HIV/AIDS and STDs	<ul style="list-style-type: none"> <li>Awareness creation at community level and sensitization of the workers</li> <li>Establishment of an appropriate grievance redress mechanism</li> </ul>	Proponent and contractor	Daily	<ul style="list-style-type: none"> <li>Number of community members trained/ sensitized on GBV and HIV/AIDS</li> <li>Presence of Grievance Redress Mechanism (GRM Committee; number of cases reported and resolved, etc.)</li> </ul>	150,000.00
Gender-based violence at the community level	<ul style="list-style-type: none"> <li>The contractor will implement provisions that ensure that gender-based violence at the community level is not triggered by the Project, including:                             <ul style="list-style-type: none"> <li>Effective and on-going community engagement and consultation, particularly with women and girls;</li> <li>Review of specific project components that are known to heighten GBV risk at the community</li> </ul> </li> </ul>	Supervision Consultant GBV Expert	Daily	<ul style="list-style-type: none"> <li>Mitigation plan for GBV occurring at the community level as a result of project implementation</li> <li>Number of GBV cases happening at the community level that receive survivor-centered referral and care</li> </ul>	50,000.00

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	<p>level, e.g. compensation schemes for women, employments schemes for women, etc.;</p> <ul style="list-style-type: none"> <li>Specific plan for mitigating these known risks, e.g. sensitization around gender-equitable approaches to compensation and employment</li> </ul> <p>The contractor will ensure adequate referrals mechanisms are in place if a case of GBV at the community level is reported related to project implementation</p>				
<b>Total Cost at Construction Phase</b>					<b>1,220,000.00</b>
<b>Operation Phase</b>					
Soil Erosion	<ul style="list-style-type: none"> <li>Adoption of soil and water management measures e.g. gabions</li> </ul>	County Government of Kajiado Sale yard management committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Area under soil and water management measures</li> <li>Number of community members practicing soil and water conservation measures</li> </ul>	50,000.00
Outbreak of human diseases e.g. cholera	<ul style="list-style-type: none"> <li>Maintain cleanliness in sheds for selling tea, snacks and other food stuff</li> <li>Provide clean water for drinking</li> <li>Clean sanitation facilities</li> </ul>	County Government of Kajiado Sale yard management committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Cleanliness in food courts</li> <li>Cleaning register</li> <li>Tapped water</li> </ul>	50,000.00

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.**

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
Accidents along the Emali- Loitokitok road (C102)	<ul style="list-style-type: none"> <li>Lobby Ministry of Roads for erection of road bumps along the Emali- Loitokitok road before the sale yard from both ends.</li> <li>Lobby Ministry of Roads to install speed signpost along the road before the sale yard from both ends.</li> <li>Sensitize workers and locals/ beneficiaries on road safety</li> </ul>	Sale Yard Committee	Throughout the construction phase	Number of bumps installed along the road  Number of accidents reported Number of road safety trainings conducted Number of people trained on road safety Number of road safety signage installed	50,000.00
Introduction of Disease Vector Problems including zoonotic diseases	<ul style="list-style-type: none"> <li>Control livestock into and from the area using movement and vaccination permits.</li> <li>Veterinary officer clinically examining animals entering the sale yard</li> </ul>	County Government of Kajiado Sale Yard Committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Number disease infection cases</li> <li>Number of livestock movement/ vaccination permits</li> <li>Presence of veterinary office at the entrance</li> </ul>	50,000.00
Solid Waste Generation	<ul style="list-style-type: none"> <li>Disposing waste more responsibly in appropriate designated dumping sites,</li> <li>Providing waste collection sites and facilities within the site.</li> <li>Engage a licensed waste handler</li> <li>Train workers and beneficiaries on waste management practices</li> </ul>	County Government of Kajiado Sale yard committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Presence of toilet facilities</li> <li>No. of sensitization meetings on waste management held with workers</li> <li>Number of community sensitization on waste management</li> </ul>	150,000.00
Increase in insecurity	<ul style="list-style-type: none"> <li>Engage private security guards to provide security on the sale yard</li> </ul>	County Government of Kajiado Sale yard committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Number of insecurity cases</li> <li>Number of security guards engaged</li> </ul>	150,000.00

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
Conflicts between sellers and buyers	<ul style="list-style-type: none"> <li>Establishment of an appropriate grievance redress mechanism</li> <li>Train the Sale Yard Committee and beneficiaries on conflict management and resolution</li> </ul>	County Government Of Kajiado Sale yard committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Number of conflicts/ grievances reported</li> <li>Number of grievances resolved</li> <li>Number of trainings on conflict management</li> <li>Number of people trained on conflict management</li> </ul>	50,000.00
Theft and cruelty to animals	<ul style="list-style-type: none"> <li>Create awareness on relevant acts of parliament relating to animals e.g. Branding stock act, prevention of cruelty to animals act, stock and produce act among others</li> <li>Signed sale sheet form by chief/veterinary/inspectorate office</li> <li>Provide water in watering troughs for the animals adlib</li> </ul>	County government of Kajiado Sale yard committee	Throughout operation phase	<ul style="list-style-type: none"> <li>Number of sensitization/training meetings</li> <li>Number of people sensitized on these laws</li> <li>Number of signed sale sheet forms</li> <li>Troughs with water</li> </ul>	50,000.00
<b>Total Cost at Operation Phase</b>					<b>600,000.00</b>
<b>Decommissioning Phase</b>					
Loss of Revenue	<ul style="list-style-type: none"> <li>Train farmers on other forms of business and other livestock selling strategy</li> </ul>	County Government of Kajiado	Decommissioning Phase	<ul style="list-style-type: none"> <li>Number of businesses lost/ affected</li> <li>Alternative livestock selling mechanisms identified and operationalized</li> </ul>	200,000.00
Loss of a well Organised Livestock Market	<ul style="list-style-type: none"> <li>Alternative market for the local community should be designed/ sourced</li> </ul>	County Government of Kajiado	At the Decommissioning Phase	<ul style="list-style-type: none"> <li>No of side selling experienced</li> <li>Number of alternative markets identified</li> </ul>	250,000.00
Loss of Job	<ul style="list-style-type: none"> <li>Create awareness on the project closure to employees to ensure savings and diversification</li> <li>Train workers and communities on</li> </ul>	County Government of Kajiado	Throughout the decommissioning phase	<ul style="list-style-type: none"> <li>Number of workers losing their livelihood</li> <li>Number of workers/ beneficiaries trained on</li> </ul>	100,000.00

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.**

Potential Impact	Mitigation/ Enhancement Measures	Responsibility	Monitoring means / Frequency	Verifiable Indicators	Estimated Costs (KSh.)
	alternative livelihood activities			other alternative livelihood activities	
Increased Vehicular and Human Traffic	<ul style="list-style-type: none"> <li>• Signs placed showing vehicular traffic to and from the site to avoid unnecessary accidents.</li> <li>• Adequate community awareness should be done, to avoid any rejection of the influx of people to and from the site.</li> </ul>	Contractor	Daily Monitoring	<ul style="list-style-type: none"> <li>• Number of signage installed</li> <li>• Number of community sensitization</li> </ul>	150,000.00
Generation of Solid Waste	<ul style="list-style-type: none"> <li>• Disposing waste more responsibly in appropriate designated dumping sites,</li> <li>• Engage a licensed waste handler</li> <li>• Train workers and beneficiaries on waste management practice</li> </ul>	Contractor	Daily Inspection	<ul style="list-style-type: none"> <li>• Presence of toilet facilities</li> <li>• No. of sensitization meetings on waste management held with workers</li> <li>• Number of community sensitization on waste management</li> </ul>	300,000.00
Health and Safety Hazards	<ul style="list-style-type: none"> <li>• Occupational Health and Safety rules and regulations adherence.</li> <li>• Occupational Safety and Health Training for contractor's staff</li> <li>• Conduct orientation talks and visits</li> <li>• Investigation on the cause of accidents done</li> </ul>	Contractor	Daily Monitoring	<ul style="list-style-type: none"> <li>• Number of sensitization on OSH rules and regulations</li> <li>• Number of workers trained on OHS</li> <li>• Number of PPEs provided</li> </ul>	250,000.00
<b>Total Cost at Decommissioning Phase</b>					<b>1,250,000.00</b>

Implementation of the Construction Phase of the ESMP will cost KSh. 1,220,000.00 and should be included as part of construction cost and loaded into the contract. During the first year of operations a cost estimate of KSh. 600,000.00 should be set aside for monitoring and trainings, this should be spearheaded by KSCAP County Project Coordinating Unit and an estimated cost of KSh. 1,250,000.00 for decommissioning phase is projected.

### **8.3 Monitoring and Evaluation**

Monitoring and Evaluation (M&E) is a process that helps improve performance and achieve results. The overall purpose of M&E is the measurement and assessment of performance in order to more effectively manage the impacts of a project. The overall objective of environmental and social monitoring is to ensure that mitigation measures are effectively being implemented. Environmental and social monitoring will also enable response to new and developing issues of concern. The activities and indicators that have been recommended for monitoring are presented in the ESMP.

#### **8.3.1 Internal Monitoring**

The CPCU in general and CESCOs in particular will take the responsibility of conducting regular internal monitoring of the project to verify the results of the Contractor and to audit direct implementation of environmental mitigation measures contained in the ESMP and construction contract clauses for the Project. The proponent will also initiate periodic / annual environmental audits; the audit shall check that mechanisms are in-place to ensure that:

- The ESMMP being used is the up to date version;
- Variations to the ESMMP and non-compliance and corrective action are documented;
- Appropriate environmental training of personnel is undertaken;
- Emergency procedures are in place and effectively communicated to personnel;
- A register of major incidents (injuries, complaints) is in place and other documentation related to the ESMP; and
- Appropriate corrective and preventive action is taken by the Contractor once instructions have been issued

The Ministry of public works, KCSAP and the Contractor' project teams will include environmental and social experts who will oversee implementation of ESMP. Monitoring will be a systematic assessment of the activities in relation to the specified criteria of the condition of approval. The negative measures raised should be mitigated with the measures indicated in the ESMP. The CPCU and CESCOs will undertake regular monitoring of ESMP implementation, and the contractor safeguards officers will be required to regularly report on status of ESMP implementation.

#### **8.3.2 External Monitoring**

An independent consultant will be hired by the proponent to conduct annual environmental audit to ensure that the environment is protected in line with the EMCA regulations. NEMA holds the overall responsibility for licensing the project and conducting periodic visits to ensure that environmental guidelines are being observed during



## Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

implementation of the project. NEMA will therefore review environmental monitoring and environmental compliance documentation submitted by the project proponent.

### 8.4 Self-Audit Monitoring Plan

Communicating internally and externally, if effectively done will ensure:

- Better understanding and appreciation of target groups to the proposed project conditions and benefits;
- No or minimum disruption by the project to other developed/under-development projects and vice versa;
- Minimum impacts and risks; and
- Community participation in helping and making choices to develop suitable and acceptable avoidance/mitigation measures.

### 8.5 Capacity Building

Capacity building during the project will be conducted for project staff/ construction workers and the local community. The contractor is responsible for ensuring that workers are provided EHS training as stipulated in legislation. A training register should be kept on site for all training conducted as proof for auditing purposes. Training of the construction work-force will include the following content as a minimum;

- The significance of the site HSE policy
- The pertinent HSE issues of the project activities;
- Roles and responsibilities towards conforming with the ESMP and the HSE policy and procedures
- Potential consequences of departure from specified operating procedures
- Corrective measures to be undertaken as a consequence of non-compliance

The contractor in-collaboration with the proponent will conduct community sensitization on various social issues that include;

- HIV/ AIDS awareness (i.e. transmission, prevention, counselling, treatment)
- Prevention and treatment of other sexually transmitted infections
- Environmental conservation and ecosystem protection
- Access and safety around the project construction site

## **8.6 Emergency Preparedness and Response**

Emergency preparedness should be given the priority during the ESMP implementation and operation, where all key procedures should be reviewed for emergency preparation, including the occupational health and safety programs for the farmers and the workers.

During the pre-construction phase, the Contractor will be required to document procedures for managing these potentialities and to train key personnel on these procedures. He should also ensure that adequate and correct emergency equipment are available where they should be. The prepared plan documents should clearly identify implementation responsibilities.

The emergency management plan should be reviewed and verified by the County Environment & Social Safeguards Officer (CESSCO). The implementation of this plan should also be monitored and evaluated. Whenever environmental and/or social emergency situation is triggered during the construction phase, the CESSCO should directly inform the Contractor requesting him to respond according to the stated plan. After a drill or incidents occurrence, these processes should be reported on, reviewed and modified by the CESSCO. In this regard, the CESSCO should hold the responsibility of reviewing and verifying the Contractor reports and plan adaptations.

The ESMP implementation and performance should be monitored continually; performance, conformance and non-conformance audit should be applied on in order to adapt the plan by adopting effective corrections whenever needed. Environmental audits should be conducted on an annual basis. All records should be stored in orderly and easily accessible manner, enabling individual items to be located easily and ensuring that the records are protected. The audit reports should be reported in accordance to the stated reporting structure. The selected auditors should hold acceptable experience with relevant tasks and capable of undertaking such responsibilities, and should be accepted by the Ministry of Agriculture.

For the purpose of this project, the audit would cover but not be limited to the following categories of issues influencing the planning and implementation of the project:

1. Environmental and technical issues;
2. Socio-economic issues; and
3. Gender and socio-cultural issues.

The corrective and preventive actions based on audit findings and their consequences will be monitored. The periodic audit findings will be summarized into an audit report and reviewed during the project review meeting by the county staff.

## 8.7 Administration of the ESMP

The ESMP will be administered by the four (4) different institutions (i.e. County Government of Kajiado, NEMA, Ministry of public works, KCSAP-CPCU and the Contractor). The role of NEMA will be to conduct monitoring visits to ensure that the impacts envisaged under the ESMP are being managed effectively.

In order to guarantee the effective implementation of the ESMP, the responsibilities and authority of the various persons/ institutions which will be involved in the project need to be clearly defined. The roles of and responsibilities of each party in administering the ESMP are provided in Table 8.2;

**Table 0-2: Roles and Responsibilities of key stakeholders**

Party	Roles and Responsibilities
<b>NEMA</b>	<ul style="list-style-type: none"> <li>• Exercise general supervision and co-ordination over all matters relating to the environment</li> <li>• Conduct periodic visits to ensure that the terms of the project license are being observed</li> <li>• Reviews the ESIA Report and when satisfied issues the EIA License</li> </ul>
<b>County Government of Kajiado</b>	<ul style="list-style-type: none"> <li>• Drafting of comprehensive tender documents that include environmental specifications in the tender specifications</li> <li>• Selection of qualified, environmentally conscious contractors</li> <li>• Supervision to ensure that objectives of this ESMP are met by conducting regular monitoring of ESMP implementation</li> </ul>
<b>Ministry of public works and KCSAP</b>	<ul style="list-style-type: none"> <li>• Ensure that the proposed ESMP is up to date and is being used by the contractor</li> <li>• Conduct periodic audits of the ESMP to ensure that its performance is as expected</li> </ul>
<b>Construction Contractor</b>	<ul style="list-style-type: none"> <li>• Ensure compliance environmental all environmental standards</li> <li>• Implements the mitigation measures specified in the ESMP</li> </ul>

## 8.8 Review of the ESMP

County staff should review the ESMP on a periodic basis as per a documented procedure to ensure its continued suitability and effectiveness. During the review, the staff should effectively utilize all available information, including internal and external audit findings, environmental concerns, objectives, targets, non-conformance, and corrective

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.**

and preventive actions in order to improve the ESMP implementation. The review results will be recorded and maintained and the resultant decisions and actions taken will be implemented by the concerned personnel. ESMP has been designed to ensure maximum environmental and social protection, better coordination and cooperation between the project stakeholders and minimum cost implications.

### 8.9 ESMP Reporting Structure

Monitoring efforts would be in vain in the absence of an organized record keeping practice. It is the responsibility of the M&E specialist to ensure the development of a database that includes a systematic tabulation of process and performance indicators, maintenance schedules, compliance and process performance monitoring outcomes. The ESMP reporting structure is as shown in Table 8.3 as follows:

**Table 0-3: The Proposed ESMP Reporting Structure**

Report	Report Type	Frequency
Progress Report	Document the ESMP implementation progress, limitations & difficulties based on regular monitoring. This includes checking & corrective actions. The progress report should also address the conducted public consultation sessions.	Monthly, Quarterly & Annually.
Emergency Management Plan	The plan should document for emergency preparation, including the health & safety programs (for farmers and & project employee) for all key procedures reviewed, in addition to all necessary adequate & correct emergency equipment.	Prior to construction Phase
Self -Audit Reports	ESMP Performance, Conformance & Non-conformance Audit, this should also include checking & corrective actions	Quarterly & Annually.
Environmental & Social Management Evaluation Report	Evaluation Report of the Project Environmental & Social Impacts. The evaluation should also document to all conducted management practices & to evaluate the effect of these practices	Once upon completion of construction

## **CHAPTER NINE: CONCLUSIONS AND RECOMMENDATION**

### **9.1 Conclusion**

The proposed Kimana Livestock Sale Yard in Kajiado will contribute positively to the environment, social, health and also economic wellbeing through an in-depth assessment and evaluation of the environmental and social impacts. In addition, the project poses some negative impacts that have adverse effects to the environment, social and economic being of the project site during the various phases of project. To enable the project to be realised then, specific mitigation measures has been proposed. The following are some of the conclusive remarks on the proposed project based on the impacts and assessment done.

- i. The proposed project is highly welcomed by the community due to lack of a well-designed livestock selling yard. The existing yard is dilapidated.
- ii. The community have embraced the project and are awaiting its construction.
- iii. The EMSP has provided measures to mitigate adverse impacts, allocated the responsibilities for implementing the measures and the budget.

### **9.2 Recommendations**

The following are some of the recommendations for the avoidance and mitigation measure for the adverse environmental and social impacts from the proposed livestock selling yard project.

- i. A complete audit be undertaken and submitted to NEMA a year after the project is commissioned to ensure that all the proposed mitigation measures have been complied with;
- ii. Construction works in the proposed Project is carried out in accordance with approved designs, regulations, policies and laws;
- iii. The project coordinator to ensure that proper and timely communication on project activities is affected to guarantee project ownership.
- iv. The proponent and county government to put security measures during transportation of the animals and employing of market auctioneer.
- v. The Ministry of Public Works, KCSAP and the contractor should work together to ensure full implementation of the ESMP for proper enhancement and mitigation of impacts emanating from the project

In conclusion, the positive impact outweighs the negative impacts raised. Mitigation measures for the negative impacts have been given and, in the end, it is economically viable and therefore it should be allowed to proceed.

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

**REFERENCES**

- GoK, Environmental Impact Assessment/Audit Regulations 2003 revised 2015, (Legal Notice No.101) Government Printer, Nairobi.
- GoK, Environmental Management and Coordination Act (EMCA, 1999) revised 2015, Government Printer, Nairobi.
- GoK, Factory and Other Places of Work Act, CAP 514. Government Printer, Nairobi.
- GoK, Kenya Population and Housing Census 2019 Volume II. Government Printer, Nairobi.
- GoK, Legal Notice 31: Factories and Other Work Places (Safety and health committees) Rules, 2004, Government Printer, Nairobi.
- GoK, NDMA Act (2016), Government Printer, Nairobi.
- GoK, Public Health Act, CAP 242, Government Printer, Nairobi.
- Kajiado County Integrated Development Plan 2018-2022
- World Bank, Environmental Assessment Sourcebook. Volume II. Sectoral Guidelines. Technical paper number 140. Environmental Department. The World Bank, Washington, D.C., 199.

## APPENDICES

### Appendix 1: Minutes of Public Consultation Meetings

#### MINUTES OF PUBLIC PARTICIPATION MEETING FOR THE PROPOSED KIMANA LIVESTOCK SALE YARD AT THE CHIEF'S CAMP AND KIMANA SOCIAL HALL, KIMANA WARD HELD ON 26 FEBRUARY 2020.

##### Agenda

1. Opening Remarks.
2. Project Description
3. Arising Issues
4. Way Forward
5. A.O.B

##### Preliminary

The meeting was called to order at 12.30 pm, chaired by the area chief Mr. Joseph Parmuat and coordinated by Mr. Chesire Komen. One of the residents gave a word of prayer followed by self-introduction by every participant present. This was conducted by Dr. Melita Lein, the Sub-county Veterinary Officer and thereafter welcomed everyone to the meeting. Brief remarks were then made by the following persons:

##### Chairperson, Kimana Livestock Market.

He welcomed all people present and noted that this was the third round of meeting/consultation with KCSAP. While giving out a brief history of the market, he indicated that the market started in the late 1980s in Mbirikani and in early 1990s, it moved to its present location. The first perimeter fence and paddocking was done in around 1995 and has been repaired several times with the latest being done in 2018. He confirmed that the land housing the sale yard was donated by the community to be used as livestock market therefore no person is claiming ownership.

##### Chief, Kimana Location

He underscored the importance of public consultations on EIA processes and involvement of stakeholders. He lauded the organisers for not scheduling the meeting on a typical market day (Tuesdays) on which the community members are usually very busy. His major concern was that the market was missing lavatory facilities and tapped water.

##### The Ward Administrator, Kimana Ward

He welcomed the team of experts together with representatives from technical departments and Kimana residents to the meeting. He emphasized the importance of public consultations on EIA process and asked residents to be free

## **Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.**

and air all their concerns on the proposed project in order to be captured in the EIA report. He pledged support from his office and that of the county government in realizing the objectives of the project.

### **County Environmental and Social Safeguards Compliance Officer (CESSCO) – KCSAP Kajiado**

Mr. Chesire (CESSCO – Kajiado) took participants through an overview and organizational structure of the project from the national, county and community perspective. He emphasized that the objective of the project is to increase agricultural productivity, built resilience in the wake of climate change challenges and reduce greenhouse gases emissions. He noted that preparation of ESIA was recommended following ESS screening done in December, 2019. He pointed out that designs and drawings for the proposed market are on-going and their inputs during the meeting will go a long way in enriching them. He indicated that a contractor will later be identified following government procurement regulations and guidelines.

### **Min 1: Opening Remarks**

The ESIA Consultant gave a brief overview of the whole evolution of environmental concerns and law that led to the present situation. They explained that in an ESIA process, a public consultation was necessary, acknowledging that the public meeting was an important stage as is a requirement in the Environmental Management and Coordination Act (EMCA) 1999 revised in 2015. They also stated that the purpose of the meeting was to create awareness of the proposed construction of the Kimana livestock-sale yard, to obtain views/ concerns of the stakeholders, and to clarify issues that are not clear about the project. The consultant also gave a breakdown of the procedures involved in capturing the views, presentation of the report and the follow up to the resolutions thus formulated to the time when a decision is made by the authority (NEMA).

### **Min 2: Project Description**

The lead consultant, Mr. Josephat Omari gave a brief description of the project to the community members in attendance on the project area, location and beneficiaries; Need for the project and components of the system.

The locals were made aware that the project proponent was the Kenya Climate Smart Agriculture Programme (KCSAP) with an aim of improving the current livestock sale yard to a more improved and modern structure as a way of improving the market's commercial use as a source of revenue collection for the community and county. He alluded that the construction of livestock sale yard was a priority of the National government as well as the county government to curb the livestock loss due to deaths experienced during adverse drought and helps in achieving vision 2030 of self-sufficiency and sustainability and as well achieving KSCAP's goal of sustainably increasing agricultural productivity and incomes, resilience and reduce greenhouse gasses.

### **Community Proposals for the new design**

- The livestock sale yard to be fenced. Areas bordering the school to have a fence that will block the students and the market. The fence should either be high enough with concrete blocked or iron sheets. Trees to be later planted along the fence from the market side.
- Have a paddocking system to separate cattle from shoats. An isolation paddock should also be put in place. The structure should also give a clear difference indicating those not sold and those animals sold.



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

- Put up a modern revenue office and demolish the existing structure inside the market that has never been put into a definite use.
- Put up a weighing scale in the new design.
- Put up modern or improved lavatory facilities. The revenue collected by the county and the group committee to ensure proper hygiene.
- Ensure the availability of water for animals during the market day.
- Put up small kiosks for selling refreshments among others.
- Those selling their livestock should borrow a leaf from the surrounding community (Ukambani) and adopt a signed sale sheet form their respective chiefs to curb livestock theft.
- Animals should have a proper entry and exit point; car parking should be separate and allocate a slot for motorbikes.
- Liaise with the roads department and put up bumps near the market along the Emali- Loitokitok road (C102); currently, since the road construction, 16 people had lost their lives during the Tuesday market days.
- Construct shed to house the market people when it's raining.

### **Min 3: Arising Issues**

The lead expert invited the members to give their views regarding the project as they wished, and the following concerns were raised:

#### **Positive impacts**

The community applauded the project construction, with each of them giving a go-ahead of the Project. Some of the reasons for the project appraisal were as follows: -

- i. The market would serve as a social interaction place for people of difference background thus promoting peace and reconciliation with people from Mariakani, Nakuru and Tanzania. The social interaction would also enable the people of Kimana learn about different types of breeds thereby helping them improve on their local livestock breeds.
- ii. Job creation for the community: the community felt that the project development would create a short-term job during the construction and implementation process, hence improving the means of livelihood of the people employed.
- iii. The new market structure will be safer especially for women
- iv. The yard will act as the revenue collection for the community and the county government. This is through imposing a tax on the livestock sold and during vaccination. There would also be indirect revenue collection from other outsiders who will be selling foodstuffs, clothing and many more outside the yard during market days.
- v. Through the construction of the new yard, there will be a reduction inside selling of livestock as well as reducing imposing low prices on local livestock farmers at the homestead.
- vi. During market days, there will be an increase in trade of selling livestock and buying foodstuffs and other goods, therefore, increasing diversification of products since there will be the introduction of new products to market and to the community.
- vii. There will be market creation for young men, women and old men by selling, tea, milk, clothing and much more stuff. The new livestock sale yard would ensure ready market availability for the residence of Kimana and the neighbouring counties. This would in turn help educate the young children and generally, improve the literacy levels in the county.
- viii. A controlled market will reduce the selling and buying of stolen livestock from the local or the neighbouring community.
- ix. Paddocking and isolation of sick animals would help control diseases.
- x. There will be no loss of community land since the rehabilitated project will be put up in an already existing market.

#### **Negative Impacts**

The following are the few negative impacts raised by the community due to the proposed construction of the livestock sale yard.

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

- i. There will be little shrubs cutting to create site for the rehabilitated livestock sale yard construction. They are proposing that the proponent should fence around any short indigenous trees within the project location and should any tree be cut, the proponent should plant similar or more around the proposed site.
- ii. There might be spread of livestock diseases since there will be minimal control of livestock movement from one county to another during market days. The community was proposing for adequate monitoring and presence of veterinary officer during market days. An isolation paddock should also be included in the design.
- iii. The possibility of animal theft during the local market days would be high. Cases mostly arose when animals mix during the Tuesday market days and some get sold in neighbouring markets e.g. Emali. Having a well-designed market will however encourage sales at one market place i.e. the Kimana sale yard and reduce theft cases. The chief should also ensure that only one place is set out for sale activities at any particular time. Reinforcement security personnel should also be present in the market and work with both the chief and the people.
- iv. Market wastes at the Kimana market. Like any other market, the dumping of waste materials is common during a busy market day. The new market should, therefore, have dust bins and a proper place /space where the county government would collect them for disposal.
- v. Steel materials sometimes tend to have a corrosive effect and tend to wear down with rust with time. The constructor should ensure proper materials are used in the design to guarantee durability. The community was also assured that the design would be better than the existing sale yard asserting examples from those in the surrounding areas e.g. 'Bisil'.
- vi. Noise and sight from sales have been reported to cause distraction to the pupils of Kimana Mixed Day Secondary School. A high perimeter fence or wall should be constructed between the school and the market to help reduce this effect.
- vii. The community was worried that if the proposed design would not have a proper lavatory facility in time, the market would be prone to diseases. The design of a proper toilet facility should be included in the new design.
- viii. Accidents during construction. The contractor should provide adequate PPEs with proper clothing such as gloves, reflectors etc to mitigate against these accidents.
- ix. Spread of HIV and Aids: The project area might experience an influx of construction workers from other areas. This will directly affect the normal social set up of communities living in the project area thereby possible decay of morality, increase in school drop-outs due to available unskilled labour, possible child labour, petty thieves and increased HIV/AIDS incidence and communicable diseases. Proper sensitisation and public awareness should be encouraged to mitigate these effects.

The figure shows the community members and consultant at the chief's camp and Kimana Social Hall which are neighbouring the project site.

#### **Min 4: Way Forward.**

The Consultants requested the people present to follow-up on any communications and memorandum issued so that the final Environmental Impact Assessment Study Report put in their comments for further action, and that NEMA will

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.**

request for public comments through the newspapers. It was reported that the ESIA report will be available at the County Environment Office in Kajiado, where the residents and other stakeholders may go to review it and present their comments.

The Consultant assured the residents that recommendations for the project would be made accordingly.

**Min 5: Adjournment**

There being no other business for discussion the meeting was adjourned at 5.15 pm with prayer from the one of the locals

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Appendix 2: Attendance List



Republic of Kenya  
Kajiado County  
KENYA CLIMATE SMART AGRICULTURE  
PROJECT  
(KCSAP)  
**ATTENDANCE LIST**





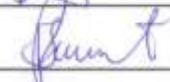









Kenya Climate Smart Agriculture  
Kajiado County

ACTIVITY: ..... ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED KIMANA LIVESTOCK SALE YARD IN KAJIADO

SOUTH ..... Kimana Livestock Camp ..... DATE: 26<sup>th</sup> Feb 2020

S/NO	NAME	GENDER M/F	ORG./DEPT.	PHONE NO.	SIGN
1.	SAMMY NJUGUNA	M	LIVESTOCK PRODUCTION	0724485498	
2.	Nelson Njida	M	Livestock keeper	0724173810	
3.	SORDRA SAMSON	M	Livestock keeper	077771600	
4.	JOSEPH NJOROGE	M	LIVESTOCK FARMER	0722834380	
5.	TIMOTHY NJOROGE	M	Livestock keeper	0727174463	
6.	MARGARET LEINA	F	ADMIN OFFICE	0728 294 215	
7.	JANEI LEKIMANKUSI	F	Livestock keeper		
8.	NTOROS PAPA I	M		0708921615	
9.	Patricia Makera	M	Livestock	0723277441	

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

S/NO	NAME	GENDER M/F	ORG./DEPT.	PHONE NO.	SIGN
10.	KELVIN LENGETE	M	FARMER	0724373708	
11.	Raphael-K. Nailianga	M		0728301261	Reg.
12.	KIMARE MAPINA	M		0777947812	Kimare
13.	Peter Chege	M	Ward manager	0722322169	
14.	JOSEPH PARKINAT	M	AREA CHIEF	0721697417	
15.	Esther Solanka	F	Sub-County Livestock Prod. office	0723518327	
16.	AMOS SAKIMPA	M	WARD ADMIN Kimana WARD	0720226632	
17.	RAEL-C. BARSAIYA	F	County ECD ward Co-ordinator	0712454371	
18.	Tajiri Kandiuru	M	Ward Kimana	0729381443	
19.	GEORGE BANAATI	M	Ward Kimana	07418808213	
20.	Kennedy Kandiuru	M	Ward Kimana	0717992017	
21.	Borant Parkinat	M	Livestock Market Committee	0706645380	
22.	Laimaga Kandiuru	M	farmer-livestock	-	
23.	MENUSI PALMET	M	farmer		

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.



Government of Kenya (GoK)

Republic of Kenya  
Kajiado County  
KENYA CLIMATE SMART AGRICULTURE  
PROJECT  
(KCSAP)

**ATTENDANCE LIST**



Kenya Climate Smart Agriculture  
Kajiado County




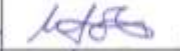










ACTIVITY: ..... ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED KIMANA LIVESTOCK SALE YARD IN KAJIADO

SOUTH ..... Kimana Const Camp ..... DATE: 25<sup>th</sup> Feb, 2023

S/NO	NAME	GENDER M/F	ORG./DEPT.	PHONE NO.	SIGN
1.	Mary Jane Ole Tigani	M	farmer	0718227087	MA
2.	Martine Ole Mung'ara	M	farmer	0741239312	MA
3.	Gumbui Kandiwa	F	farmer		
4.	Ram Salasika	F	farmer		
5.	Ruth Masiku	F	farmer		Ruth
6.	Masiku Ngor	F	farmer		
7.	Jonathan Kilusu	M	Farmer	0723783605	
8.	Rene O. Ogar	M	MOU - NES	073112524	
9.	NAOMI S. KATIIPA	F	FARMER	0716538894	NAOMI



Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

S/NO	NAME	GENDER M/F	ORG./DEPT.	PHONE NO.	SIGN
10.	Gamingu Mayeser	m	farmer	0700302033	
11.	Sorabab Samau	m	farmer	0724712574	
12.	DAVID MUNGAI	M	Entrepreneur	0775371978	
13.	JOHN WAIHA	M	farmer	0712587774	
14.	Mary Sein	f	FARMER	0704709124	
15.	OSARIK IKOOL	m	FARMER		
16.	ZAKATE MERITEI	M	farmer	0724730671	
17.	Peter Kariruki	M	Farmer	0723221645	
18.	CHRISTOPHER MARI	M	Farmer	0701600055	
19.	SOLONKA Saitoti	m	Farmer	0723036718	
20.	NKIMINIS MEKIKI	M	FARMER	0723275977	
21.	David Toge	m	Farmer	0723610392	
22.	JOSEPH MAEN	m	FARMER	0711924082	
23.	MOKOI MUGISI	m	FARMER	0721407084	



Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.



Government of Kenya (GoK)

Republic of Kenya  
Kajiado County  
KENYA CLIMATE SMART AGRICULTURE  
PROJECT  
(KCSAP)  
**ATTENDANCE LIST**



Kenya Climate Smart Agriculture  
Kajiado County

ACTIVITY: ..... ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED KIMANA LIVESTOCK SALE YARD IN KAJIADO

SOUTH ..... Kimana Game Camp ..... DATE: 26<sup>th</sup> Feb 2020

S/NO	NAME	GENDER M/F	ORG./DEPT.	PHONE NO.	SIGN
1.	Kilelo tisho	m		0716794652	
2.	Peter Ntawasa	m	FARMER	07072583185	
3.	Japhar omari	m	head farmer	0720205302	
4.	Athanas K. Chesie	M	KCSAP	0721582421	
5.					
6.					
7.					
8.					
9.					

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Appendix 3: Key Informant Interviews List



Government of Kenya (GoK)

Republic of Kenya  
Kajiado County  
KENYA CLIMATE SMART AGRICULTURE  
PROJECT  
(KCSAP)



Kenya Climate Smart Agriculture  
Kajiado County

**Key Informants**

ACTIVITY: ENVIRONMENTAL IMPACT ASSESSMENT FOR PROPOSED KIMANA LIVESTOCK SALE YARD IN  
KAJIADO SOUTH

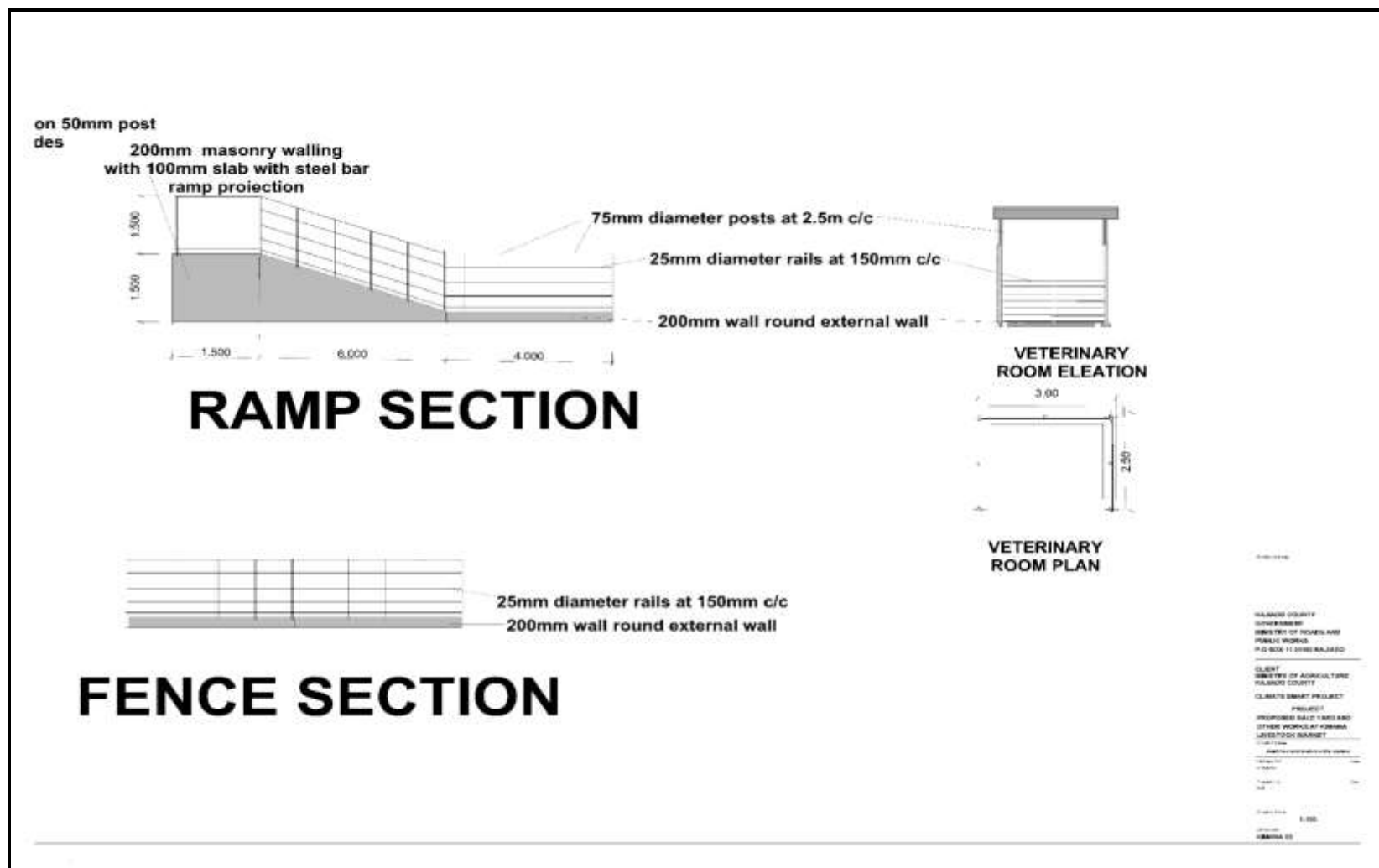
No.	Name	Designation	ID No.	Contacts / email	Signature
1.	DR. MELTAN L. EIN	J.C.O	30915702	0717325928 dulaint7@gmail.com	
2.	Amos SAKIMPA	WARD ADMIN KIMANA	27623073	0720226532 amotef9@gmail.com	
3.	JOSEPH PARNIAT	AREA CHIEF KIMANA	20359353	0721897417 jparniat@yahoo.com	
4.	Raphael K. Ngunjiri	Chairman	1353212	0728301261	
5.	JOSEPH K. NKOREO	Committee member	13641561	0722834380	
6.	BARATI OLE PARKENETI	Committee member	0498261	0706695380	
7.	NAOMI S. KATIHA	Committee m.	25664119	0716538894	
8.	LEAH N. MUNGARA	PRINCIPAL KIMANA MKT	7467362	0722890448	
9.	ERIC L. LOHUSOT	Kimana H/C	13071590	0720426786	

Key Informant Interview List

1

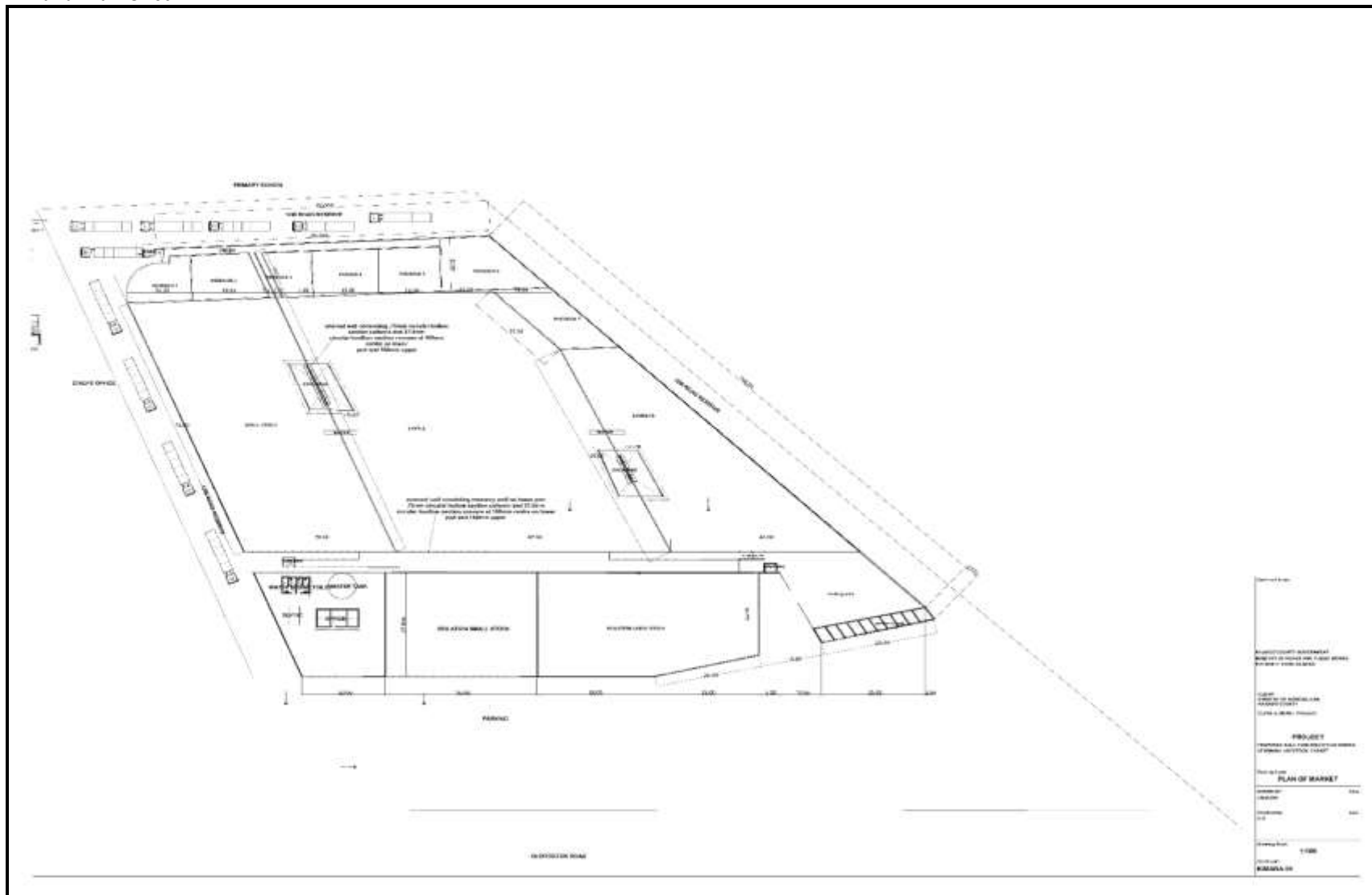
#### Appendix 4: Sale Yard Approved Drawing Details

##### Kimana Sale Yard Elements

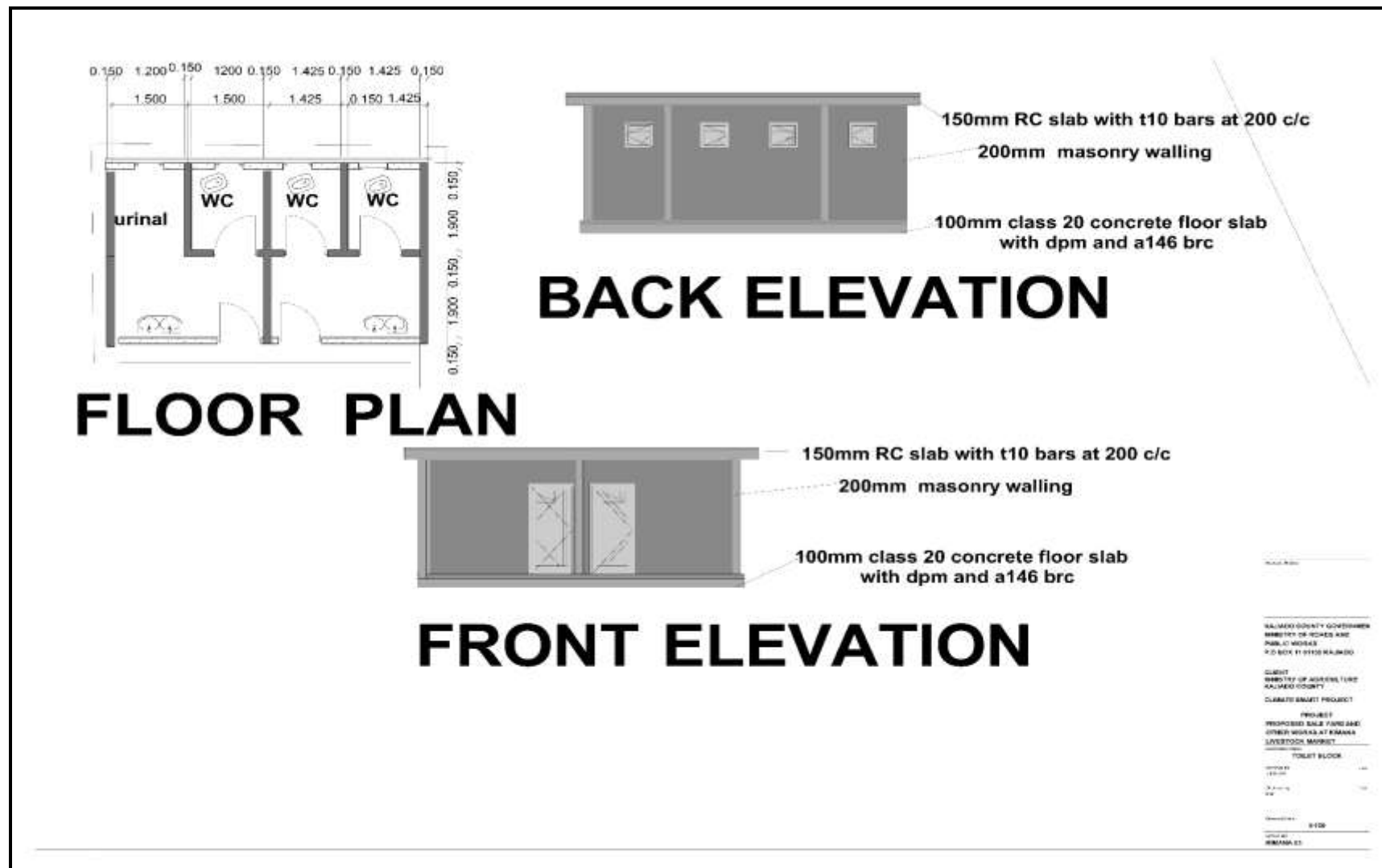


# Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

## Kimana Plan Shed



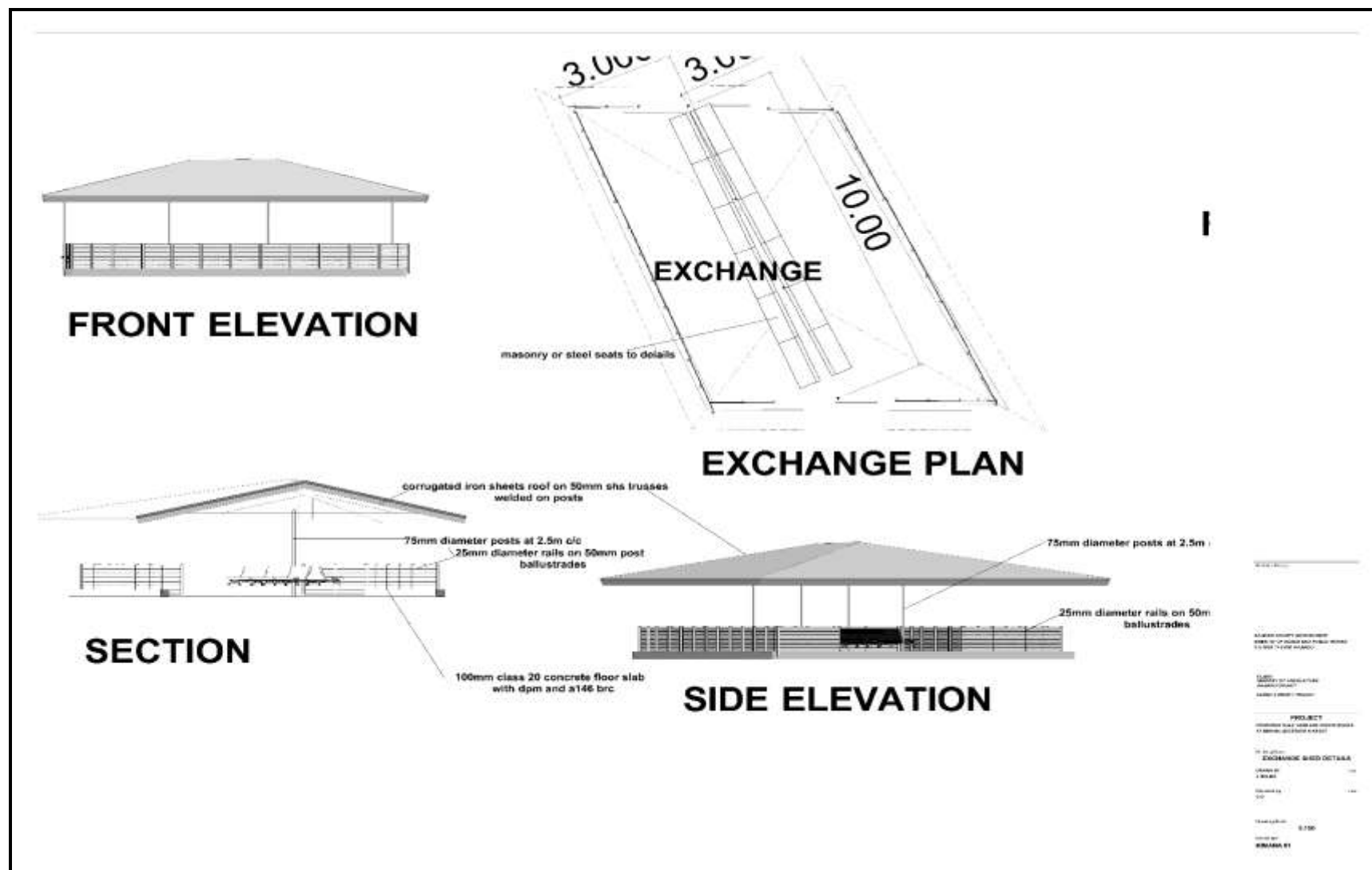
### Kimana Toilet Block





# Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

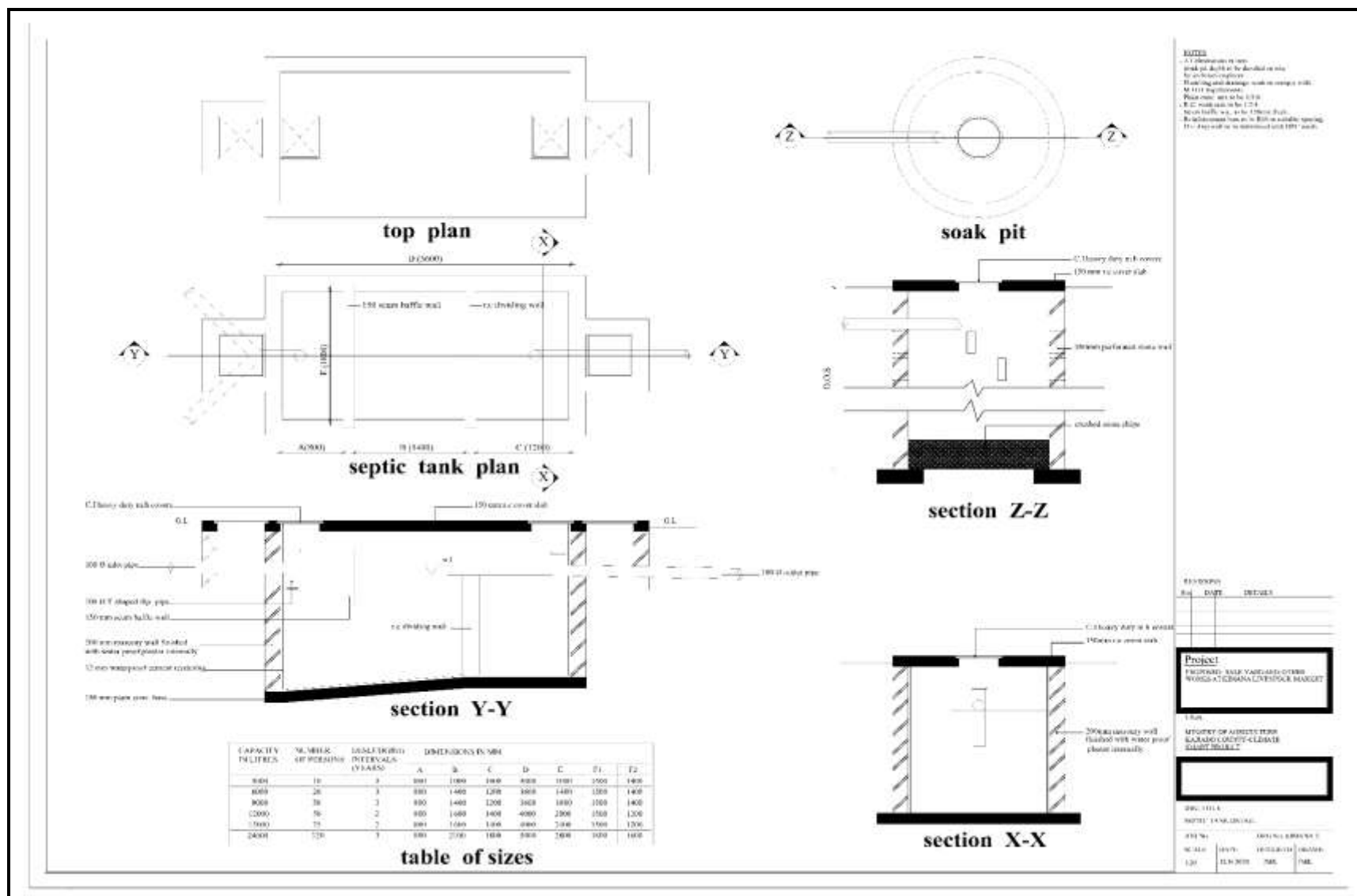
## Kimana Exchange shades.



Septic tank



# Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.



Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard Kimana  
Ward, Kajiado South Sub-County, Kajiado County.

Appendix 5: Land Allocation Details

*Allotment letter.*

**THE COUNTY GOVERNMENT OF KAJIADO**

P.O. Box: 11-01100, Kajiado, Kenya, Tel: +254 (020) 2043075, Fax: +254 (020) 2043080  
E-mail: info@kajiado.go.ke, Website: www.kajiado.go.ke

**County Department of Lands, Physical Planning and Urban Development**

Date: 11-Jun-2020

To:  
KIMANA LIVESTOCK SALE YARD

P.O BOX 11 KAJIADO 01100

PIN: FD51419358Q

ID: 000000 - National ID

KIM29875

**ORIGINAL**

**Property Details:**

Plot Number:	C1	Formerly (00)PUBLIC UTILITY)
Location:	KIMANA TRADING CENTRE	
Size:	1.89	
Plot Identity:	Public Utility	

This is to confirm allotment of the above-referred plot to you by The County Government of Kajiado on acceptance of which will be signified by initially paying:-

1. Annual Rent	Ksh. 1500
2. Survey Fees	Ksh. 1168
3. Service Charge	Ksh. 190
4. Plot Identification fees	Ksh. 500

**Conditions:**

- This plot must be developed for purpose indicated only.
- The County Government may repossess (Without compensation) any plot that remains undeveloped for 2(two) years after allocation.
- Sale, subdivision, sublease, change of use or change of the plot may only be done with the written consent of the County Government.
- All Building plans in respect of the plot must be approved by the County Government before execution.
- This letter is only valid when signed by the County Public Lands Registrar.

**Signed:**

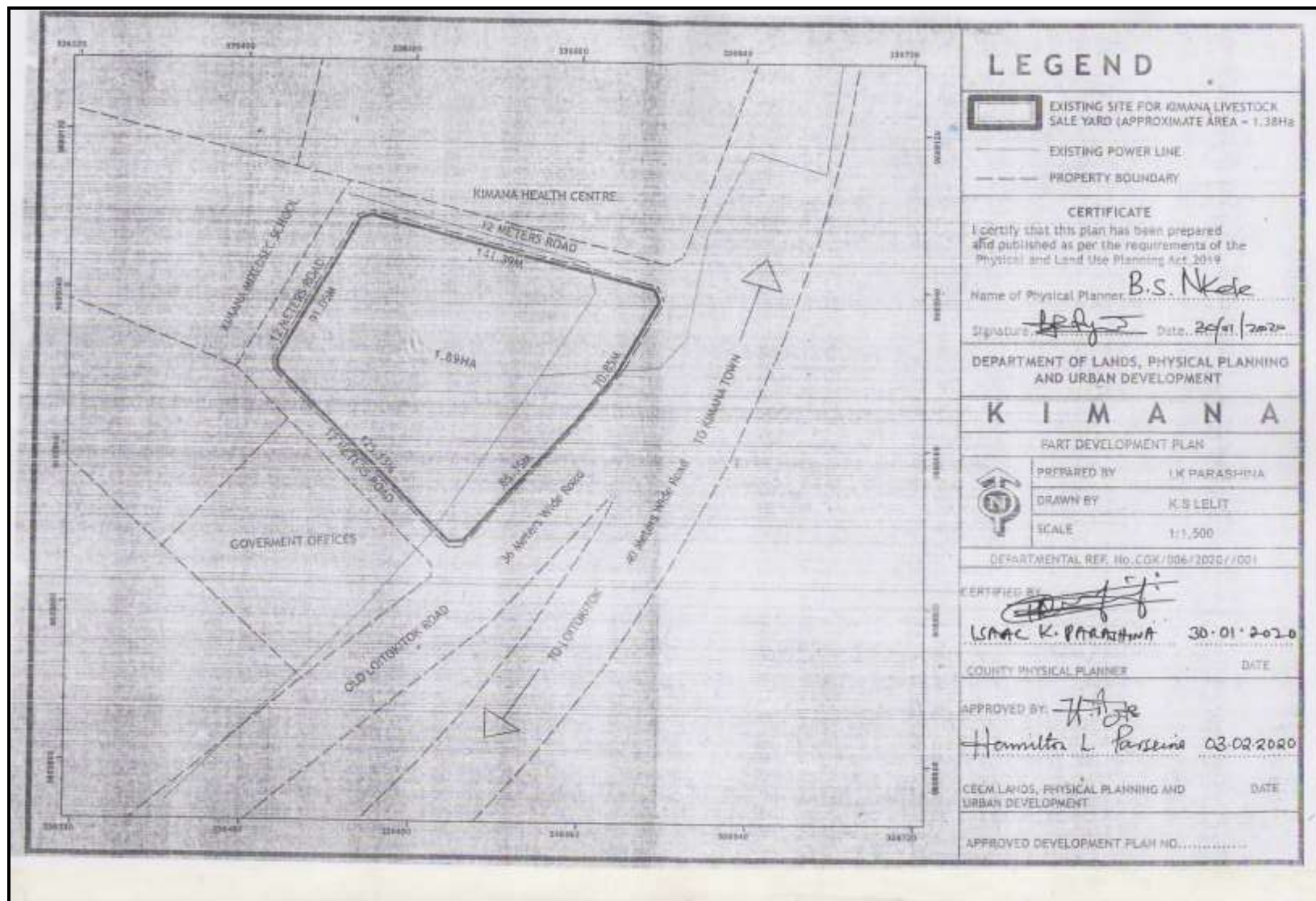
NAME: Jonathan M. Osour  
County Public Lands Registrar

TERMS AND CONDITIONS APPLY

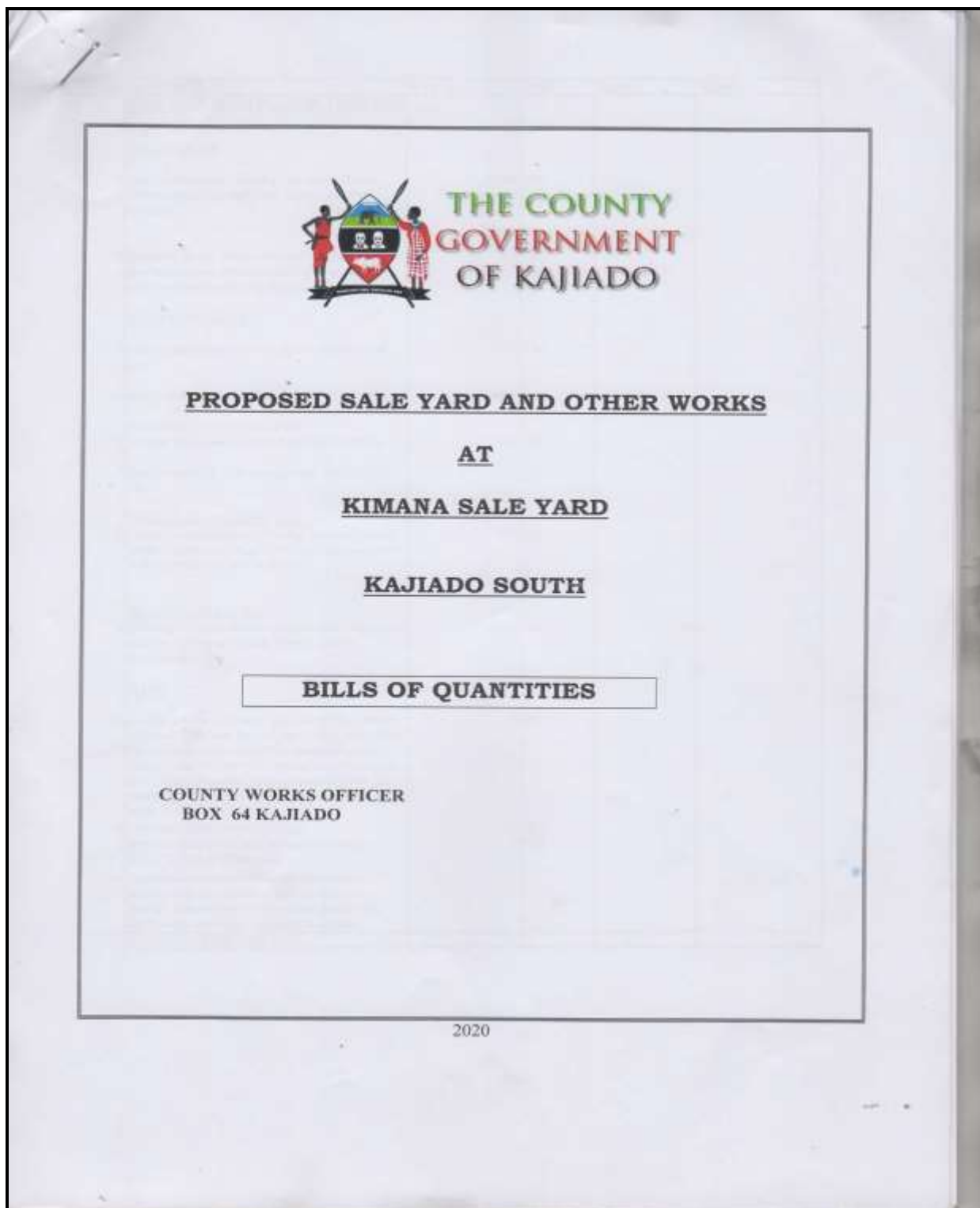
007360

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

Land Details – PDP



Appendix 6: Bill Of Quantities





Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County.



MINISTRY OF ROADS, PUBLIC WORKS, TRANSPORT, HOUSING & ENERGY

TEL: KAJIADO-020-02043075  
FAX: 0202043075/80  
Email: ceworks@kajiado.go.ke  
REF: CGK/PW/CO/VOL.1/35

CHIEF OFFICER ROADS, PUBLIC WORKS,  
TRANSPORT & ENERGY  
P. O. BOX 11 - 01100  
KAJIADO

Date 30TH JUNE 2020

TO: Chief officer Agriculture  
FROM: Chief Officer Roads & Public works  
RE: UPRICED BQ.

Forwarded here with please find 1 No. BQ for your necessary action.

Item	Description	WARD
1	Proposed sale yard and other works at kimana sale yard <i>Eng. est 194</i>	kimana

COUNTY GOVERNMENT OF KAJIADO  
CHIEF OFFICER  
ROADS & TRANSPORT & ENERGY  
30 JUN 2020  
SIGNATURE *[Signature]*  
LEKINA TOTUL  
CHIEF OFFICER ROADS, PUBLIC WORKS

*Received*  
COUNTY GOVERNMENT OF KAJIADO  
CHIEF OFFICER  
AGRICULTURE & FISHERIES  
*[Signature]*  
RECEIVED  
P.O. Box 11 - 01100 KAJIADO  
*30/6/2020*

# Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County.

## Appendix 7: Household Socio-Economic Questionnaire.

Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South.

### Household Socio-Economic Questionnaire

Questionnaire No.

--	--	--

#### SECTION A INTRODUCTION

Hello. My name is [ ]. I work for an Independent Consultant. We have been subcontracted by the Kenya Climate Smart Agriculture, Kajiado County to conduct an Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South. This study will help us obtain information that will be used to identify potential socioeconomic impacts of the proposed project.

Name of Respondent	<u>RAC C. BARSAYIA</u>	County	<u>KAJIADO</u>
Respondent Contact	<u>0712 45 4371</u>	Sub-county	<u>LOITOKIOT</u>
Respondent ID No.	<u>13692187</u>	Ward	<u>KIMANA</u>
Date of Interview	<u>26/02/2020</u>	Location	<u>KIMANA</u>
Name of Interviewer	<u>ONARI</u>	Sub Location	<u>KIMANA</u>
Supervisor		Village	<u>SABA SABA / IMPRAN</u>

(NOTE: This questionnaire shall be administered only to the household head or any other responsible adult person in the household at the time of the survey)

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South

**SECTION B DEMOGRAPHIC DATA**

B1	B2	B3	B4	B5	B6	
Sex of respondent  1. Male 2. Female ✓	How old are you (yrs)?  1. < 18 yrs 2. 18 – 25 yrs 3. 26 – 35 yrs 4. 36 – 45 yrs ✓ 5. 46 – 60 yrs 6. Above 60 yrs	What is your marital status?  1. Married (No. of Spouses) <u>1</u> 2. Widowed 3. Divorced 4. Separated 5. Never Married (99) Others (Specify)	Do you have any children under the age of 18 yrs?  1. Yes ✓ 2. No >>B6	If yes, how many?  <u>1</u>	What is the highest level of education you attained?  1. Pre-primary 2. Primary 3. Secondary 4. College 5. University ✓ 6. Never Attended (99) Others (Specify)	
B7	B8	B9				
How long does it take to get to the nearest school?  1. < 20 mins ✓ 2. 21 – 40 mins 3. 41 – 60 mins 4. Over 1 hour	What type of house you dwell in?  1. Permanent 2. Semi-Permanent ✓ 3. Temporary	What materials have you used to build the house?  <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Walls</b>                              1. Wood &amp; mud                              2. Stones &amp; mud                              3. Stones &amp; cement                              4. Cement blocks                              5. Wood poles                              6. Bricks                              (99) Others (Specify)  <u>Iron sheets</u> </td><td style="width: 50%; vertical-align: top;"> <b>Roof</b>                              1. Mud                              2. Thatch                              3. Iron Sheet ✓                              4. Tin                              5. Poles                              6. Polythene                              7. No roof                              (99) Others (Specify)                         </td></tr> </table>			<b>Walls</b> 1. Wood & mud 2. Stones & mud 3. Stones & cement 4. Cement blocks 5. Wood poles 6. Bricks (99) Others (Specify) <u>Iron sheets</u>	<b>Roof</b> 1. Mud 2. Thatch 3. Iron Sheet ✓ 4. Tin 5. Poles 6. Polythene 7. No roof (99) Others (Specify)
<b>Walls</b> 1. Wood & mud 2. Stones & mud 3. Stones & cement 4. Cement blocks 5. Wood poles 6. Bricks (99) Others (Specify) <u>Iron sheets</u>	<b>Roof</b> 1. Mud 2. Thatch 3. Iron Sheet ✓ 4. Tin 5. Poles 6. Polythene 7. No roof (99) Others (Specify)					

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

*Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South.*

**SECTION C HEALTH AND VULNERABILITY**

C1	C2	C3	C4	C5
How long does it take to get to the nearest health centre?  1. < 20 mins ✓ 2. 21 – 40 mins 3. 41 – 60 mins 4. Over 1 hour	Do you have any member of your household who is disabled?  1. Yes 2. No ✓	What is the nature of disability? 1. Lameness 2. Blind N/A 3. Deaf 4. Dumb 5. Crippled 6. Crossed eyes 99. Others	Has any member of your household been ill within the last four months?  1. Yes 2. No ✓	If yes, what is/was the member suffering from? 1. Malaria 2. Flu/Cough N/A 3. Stomach disorders 4. Diarrhoea 5. Cholera 6. Headaches 7. Chronic illness 8. Other (Specify)

NB: Chronic illnesses include Ulcers, Sickle Cells, Cancer, Diabetes, Asthma, High Blood Pressure, Tuberculosis, and HIV/AIDS.

**SECTION D WATER & SANITATION**

D1	D2	D3	D4
What is your main source of water for domestic use? 1. Water pans 2. Boreholes 3. River/Stream ✓ 4. Shallow Well 5. Piped water supply 6. Dam 7. Water Kiosks (99) Other (Specify)	How long does it take to get to the nearest water source from your homestead? 1. < 20 mins ✓ 2. 21 – 40 mins 3. 41 – 60 mins 4. Over 1 hour	How do you ensure water for household use is safe? 1. Boiling 2. Filtering 3. Decanting 4. Use of Chemicals ✓ 99. Others	Do you have a toilet within your compound? 1. Yes ✓ 2. No >>> D6



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in  
Kimana Ward, Kajiado South Sub-County, Kajiado County.**

Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South

<p><b>D5</b></p> <p>If Yes in D4 above, what type is it?</p> <ol style="list-style-type: none"> <li>1. VIP latrine</li> <li>2. Simple latrine ✓</li> <li>3. Flush toilet</li> <li>99. Others</li> </ol>	<p><b>D6</b></p> <p>If No how do you dispose of human waste?</p> <ol style="list-style-type: none"> <li>1. Neighbours Toilet</li> <li>2. Bush</li> <li>3. Burying within compound N/A</li> <li>99. Others</li> </ol>

**SECTION E INCOME & LIVELIHOOD**

<p><b>E1</b></p> <p>Do you own any land?</p> <ol style="list-style-type: none"> <li>1. Communal</li> <li>2. Yes ✓</li> <li>3. No &gt;&gt;&gt; E3</li> </ol>	<p><b>E2</b></p> <p>If Yes, what is the size?</p> <ol style="list-style-type: none"> <li>1. &lt; 1 acres</li> <li>2. 1 - 2.5 acres ✓</li> <li>3. 2.6 - 4 acres</li> <li>4. 4.1 - 5 acres</li> <li>5. Above 5 acres</li> </ol>	<p><b>E3</b></p> <p>What is your main source of income?</p> <ol style="list-style-type: none"> <li>1. Crop Farming ✓</li> <li>2. Livestock keeping</li> <li>3. Bee Keeping</li> <li>4. Poultry Farming</li> <li>5. Formal Employment</li> <li>6. Charcoal production</li> <li>7. Trading/Businessman (Specify)</li> </ol>	<p><b>E4</b></p> <p>Name any other income generating activities practiced.</p> <p style="text-align: center;">Salary</p>

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County**

*Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South.*

E4	E5	E6	E7
Do you practice crop farming? 1. Yes ✓ 2. No >>> E7	If Yes, which crops do you cultivate?	How much do you get per acre/annum?	Do you practice animal farming? 1. Yes 2. No ✓
	Cassava	Cassava	
	Millet	Millet	
	Sorghum	Sorghum	
	Maize ✓	Maize 28 bags	
	Onions	Onions	
	Beans ✓	Beans 10 bags	
	Vegetables	Vegetables	
	Tomatoes	Tomatoes	
	Others	Others	

E8	E9
If Yes, which animals do you keep?	What is the nature of your business?
Goats	N/A
Sheep	
Cattle N/A	
Camel	
Poultry	
Others	

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County**

*Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South*

**SECTION F: ASSETS- TREES AND CROPS**

F1	F2	F3			F4
Which of your plants are affected within the proposed project site?	Which of your trees are affected within the proposed project site?	What is the Number, Type and Size of your affected trees?			What are the benefits of these trees?
1. Trees >>> F2 2. Crops >>> F5 3. Others (Specify)	1. Exotic 2. Indigenous 3. Both Exotic and Indigenous 4. Fruit 5. Others (Specify)	Number	Type	Size (S, M, L)	1. Source of Income 2. Medicinal Value 3. Prestige 4. Environmental Conservation 5. All the above 6. Others (Specify)

N/B: Size of Trees is either Small (S), Medium (M) or Large (L)

F5	F6			F7
What kinds of your Crops are affected?	What is the Number, Type and Size of your affected Crops?			Why do you own these Crops?
1. Food crops 2. Pasture 3. Cash crop 4. Others (Specify)	Number	Type	Size (Area)	1. Source of Income 2. Source of food 3. Animal feeds 4. All the above 5. Others (Specify)
	2	Food crops	1 acre	

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County**

*Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South.*

F9		
Which are the common types of tree species within the area? Kindly tick those affected within the Proposed Livestock Sale Yard Location.		
Local Name	Scientific Name	Affected (Tick the affected)
Dringolua		
Hava		

**SECTION G: SOCIAL STRUCTURES**

G1	G2
<p>Which of these Public facilities are you closest to?</p> <ol style="list-style-type: none"> <li>1. Livestock Sale Yard</li> <li>2. Primary School ✓</li> <li>3. Secondary School ✓</li> <li>4. Health Centre ✓</li> <li>5. Road ✓</li> <li>6. Water Source/Point</li> <li>7. Historical Sites</li> <li>8. Others (Specify)</li> </ol>	<p>Distance to public facility?</p> <ol style="list-style-type: none"> <li>1. &lt; 500m ✓</li> <li>2. 501m to 1 km ✓</li> <li>3. 1-2 km</li> <li>4. 2-3 km</li> <li>5. 3-5 km</li> <li>6. More than 5 km</li> </ol>

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County**

Consultancy Service for Environmental Impact Assessment for Proposed Kimana Livestock Sale Yard in Kajiado South

Public Facility	Distance
Health Centre 4	100metres
Public Schools - Primary 2	200metres
Secondary 3	20metres
Shopping Centre	
Road 5	10 metres

**SECTION H:**

Do you support the Project?

1. Yes ✓
2. No

☐

Any additional Comments:

The community is very impressed with the proposition of constructing the Kimana Livestock Sale yard and it will really improve the standards of living of the people and improve the economic status of the people, thank you in advance.

THE END

THANK YOU FOR YOUR TIME

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County

Appendix 8: Screening Checklist

4

  
**nema**  
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY  
OFFICE OF THE COUNTY DIRECTOR OF ENVIRONMENT, KAJIADO  
PO BOX 620-0110  
KAJIADO

**REF: NEMA/CDE/KJD/4/8/16/VOL. 2** **DATE: 15<sup>TH</sup> JANUARY, 2020**

**THE County Project Coordinator  
Kenya Climate Smart Agriculture Project  
KAJIADO COUNTY**

**RE: REQUIREMENT FOR AN ENVIRONMENTAL IMPACT ASSESSMENT  
REPORT FOR THE PROPOSED CONSTRUCTION OF KIMANA LIVESTOCK  
SALE YARD.**

Following a field visit and screening of the proposed construction of Kimana Livestock sale yard located within Kimana Township in Kajiado south Sub-County, The Authority recommends the project proponent to undertake an Environmental Impact Assessment and submit the report to enable acquisition of an EIA license as required by EMCA (CAP 387).

  
**FLORENCE MWIKALI  
FOR: COUNTY DIRECTOR OF ENVIRONMENT  
KAJIADO COUNTY**

  
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY  
COUNTY DIRECTOR OF ENVIRONMENT  
KAJIADO  
**15 JAN 2020**  
P. O. Box 620 - 01100, KAJIADO  
Email: kajiado@nema.go.ke



Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana Ward, Kajiado South Sub-County, Kajiado County

# ESS SCREENING FOR KIMANA LIVESTOCK SALE YARD

## Environmental and Social Screening for Kimana Livestock Sale Yard

### Section A: Background information

Name of County	Kajiado
Name of CSU/Monitoring Officer/Researcher	Athanas Chesire
Sub-project location	Kimana - Kototokole
Name of CBO/Institution	Kimana Livestock Sale Yard
Postal Address	
Contact Person	Raphael Khaleya
phone	0728301261
Sub-project name	Modernization of Kimana Livestock Sale Yard
Estimated cost (KShs.)	16,500,000.00
Approximate size of land area available for the sub-project	1.89 Hectares
Objectives of the subproject	<ul style="list-style-type: none"> <li>- Increase livestock productivity &amp; incomes</li> <li>- Promote &amp; improve traditional due to effects of climate change</li> <li>- Employment &amp; job creation opportunities</li> <li>- Increased County government revenue</li> </ul>
Activities/enterprises undertaken	Livestock marketing & sales
How was the sub-project chosen?	In the C.O.P. & continued observation as reported by field staff
Expected subproject duration	6 months

### Section B: Environmental Issues

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

**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County**

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

*If the*

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

**Section C: Socio-economic Issues**

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

**Section D: Natural Habitats**

Will the sub-project:		
Be located within or near environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?	<input type="checkbox"/>	<input type="checkbox"/> ✓
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		
Adversely affect environmentally sensitive areas or critical habitats – wetlands, woodlots, natural forests, rivers, protected areas including national parks, reserves or local sanctuaries, etc.)?	<input type="checkbox"/>	<input type="checkbox"/> ✓
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		
Affect the indigenous biodiversity (flora and fauna)?	<input type="checkbox"/>	<input type="checkbox"/> ✓
<i>NB: If the answer is yes, the sub-project should not proceed.</i>		
Cause any loss or degradation of any natural habitats, either directly (through project works) or indirectly?	<input type="checkbox"/>	<input type="checkbox"/> ✓



**Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County**

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

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

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

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

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



Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County

☐ CSU's and CDE will provide detailed guidance on mitigation measures as outlined in the ESMF; and

☒ Specific advice is required from CDE<sup>2</sup>, Lead Officer t and CSUs regarding sub-project specific EIA(s) and also in the following area(s)

[type here]

☐ All sub-project applications/proposals MUST include a completed ESMF checklist. The KCSA-CSU and CDE will review the sub-project applications/proposals and the CDEs will sign off;

☐ The proposals will then be submitted to KCSAP PIU 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 EIAs, 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 EIA report at a public place accessible to project-affected groups and local NGOs/CSOs.

Completed by: [type here]

Name: [type here]

*Alhannu Chisire*

Position / Community: [type here]

*CESSCO*

Date: [type here]

*14/1/2020*

Field Appraisal Officer (CDE): [type here]

*Florence J. Munitahi*

*for CDE - Kajiado County*

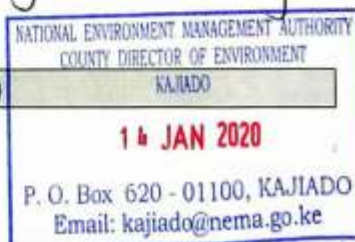
Signature: [type here]

*[Signature]*

Date: [type here]

*14/1/2020*

Note:



Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County

Project category	Characteristics
A	Full and extensive ESIA needed- irreversible environmental impacts; impacts not easy to pick or isolate and mitigation cost expensive; ESMP design not easily done; Must have the EIA done and future annual EAs instituted
B	Site specific environmental impacts envisaged; mitigation measures easy to pick, not costly and ESMP design readily done; need an ESIA and future EAs
C	Have minimal or occasionally NO adverse environmental impacts; exempted from further environmental processes save environmental audits

<sup>1</sup> Project County Coordinating Unit

<sup>2</sup> County Director of Environment and the County Technical Team

Environmental and Social Impact Assessment of the Proposed Kimana Livestock Sale Yard in Kimana  
Ward, Kajiado South Sub-County, Kajiado County

Appendix 9: Expert practicing licence.

FORM 7 (r.15(2))

  
**nema**  
nashitigira yote | shai wote | naifika wote

**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/12156  
Application Reference No: NEMA/EIA/EL/16288

M/S **Josphat Omari**  
(individual or firm) of address  
P.O. Box 1500-00600, NAIROBI

is licensed to practice in the  
capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Lead Expert**  
registration number **7645**

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

Issued Date: **2/25/2020** Expiry Date: **12/31/2020**

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

P.T.O.  
  
ISO 9001: 2008 Certified



## Appendix 10: Chance Find Procedure

### 1. Purpose of the chance find procedure

The chance find procedure is a project-specific procedure that outlines actions required if previously unknown heritage resources, particularly archaeological resources, are encountered during project construction or operation. A Chance Find Procedure, is a process that prevents chance finds from being disturbed until an assessment by a competent specialist is made and actions consistent with the requirements are implemented.

### 2. Scope of the chance find procedure

This procedure is applicable to all activities conducted by the personnel, including contractors, that have the potential to uncover a heritage item/site. The procedure details the actions to be taken when a previously unidentified and potential heritage item/site is found during construction activities. Procedure outlines the roles and responsibilities and the response times required from both project staff, and any relevant heritage authority.

### 3. Induction/Training

All personnel, especially those working on earth movements and excavations, are to be inducted on the identification of potential heritage items/sites and the relevant actions for them with regards to this procedure during the Project induction and regular toolbox talks.

### 4. Chance find procedure

If any person discovers a physical cultural resource, such as (but not limited to) archaeological sites, historical sites, remains and objects, or a cemetery and/or individual graves during excavation or construction, the following steps shall be taken:

1. Stop all works in the vicinity of the find, until a solution is found for the preservation of these artefacts, or advice from the relevant authorities is obtained;
2. Immediately notify a foreman. The foreman will then notify the Resident/Supervising Engineer and the Environment Officer (EO)/Environmental Manager (EM);
3. Record details in Incident Report and take photos of the find;
4. Delineate the discovered site or area; secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities take over;
5. Preliminary evaluation of the findings by archaeologists. The archaeologist must make a rapid assessment of the site or find to determine its importance. Based on this assessment the appropriate strategy can be implemented. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage such as aesthetic, historic, scientific or research, social and economic values of the find;
6. Sites of minor significance (such as isolated or unclear features, and isolated finds) should be recorded immediately by the archaeologist, thus causing a minimum disruption to the work schedule

of the Contractor. The results of all archaeological work must be reported to the National Museums of Kenya (NMK), once completed.

7. In case of significant find the National Museums of Kenya (NMK) should be informed immediately and in writing within 7 days from the find.

8. The onsite archaeologist provides the NMK with photos, other information as relevant for identification and assessment of the significance of heritage items.

9. The NMK must investigate the fact within 2 weeks from the date of notification and provide response in writing.

10. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;

11. Construction works could resume only after permission is granted from the responsible authorities.

12. In case no response received within the 2 weeks' period mentioned above, this is considered as authorization to proceed with suspended construction works.

One of the main requirements of the procedure is record keeping. All finds must be registered. Photo log, copies of communication with decision making authorities, conclusions and recommendations/guidance, implementation reports - kept.

#### 5. Additional information

##### Management options for archaeological site

- a) **Site avoidance.** If the boundaries of the site have been delineated attempt must be made to redesign the proposed development to avoid the site. (The fastest and most cost-effective management option)
- b) **Mitigation.** If it is not feasible to avoid the site through redesign, it will be necessary to sample it using data collection program prior to its loss. This could include surface collection and/or excavation. (The most expensive and time-consuming management option.)
- c) **Site Protection.** It may be possible to protect the site through the installation of barriers during the time of the development and/or possibly for a longer term. This could include the erection of high visibility fencing around the site or covering the site area with a geotextile and then capping it with fill. The exact prescription would be site- specific.

##### Management of replicable and non-replicable heritage

Different approaches for the finds apply to replicable and non-replicable heritage.

##### Replicable heritage<sup>1</sup>

<sup>1</sup> Replicable cultural heritage is defined as tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures. Archaeological or historical sites may be considered replicable where the particular eras and cultural values they represent are well represented by other sites and/or structures.

Where tangible cultural heritage that is replicable and not critical is encountered, mitigation measures will be applied. The mitigation hierarchy is as follows:

- a) Avoidance;
- b) Minimization of adverse impacts and implementation of restoration measures, in situ;
- c) Restoration of the functionality of the cultural heritage, in a different location;
- d) Permanent removal of historical and archaeological artefacts and structures;
- e) Compensation of loss - where minimization of adverse impacts and restoration not feasible.

#### **Non-replicable heritage<sup>2</sup>**

Most cultural heritage is best protected by in situ preservation, since removal is likely to result in irreparable damage or even destruction of the cultural heritage. Nonreplicable cultural heritage must not be removed unless all of the following conditions are met:

- a) There are no technically or financially feasible alternatives to removal;
- b) The overall benefits of the project conclusively outweigh the anticipated cultural heritage loss from removal; and
- c) Any removal of cultural heritage must be conducted using the best available technique advised by relevant authority and supervised by archaeologist.

#### **Human Remains Management Options**

The handling of human remains believed to be archaeological in nature requires communication according to the same procedure described above. There are two possible courses of action:

- a) **Avoid.** The development project is redesigned to completely avoid the found remains. An assessment should be made as to whether the remains may be affected by residual or accumulative impacts associated with the development, and properly addressed by a comprehensive management plan.
- b) **Exhume.** Exhumation of the remains in a manner considered appropriate by decision makers. This will involve the predetermination of a site suitable for the reburial of the remains. Certain ceremonies or procedures may need to be followed before development activities can recommence in the area of the discovery.

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<sup>2</sup> Nonreplicable cultural heritage may relate to the social, economic, cultural, environmental, and climatic conditions of past peoples, their evolving ecologies, adaptive strategies, and early forms of environmental management, where the (i) cultural heritage is unique or relatively unique for the period it represents, or (ii) cultural heritage is unique or relatively unique in linking several periods in the same site. Examples of non-replicable cultural heritage may include an ancient city or temple, or a site unique in the period that it represents.