



## **STRATEGIC ENVIRONMENTAL SOCIAL ASSESSMENT (SESA) REPORT FOR OLGULULUI OLOLARRASHI GROUP RANCH LAND USE AND SUB-DIVISION SCHEME PLAN**

Submitted by:

**OLGULULUI OLOLARASHI GROUP RANCH  
ECO-TOURISM, FARMING AND NATURAL RESOURCE MANAGEMENT  
P.O. BOX 388, 00209 LOITOKITOK  
TEL: 0721 392 256, 0728 975 304, 0723 856 113**

Prepared by

**Planning & Environmental Consultancy Services Limited**

**P.O. Box 702 – 00517  
Nairobi, Kenya.  
+254 722 773 951**

**[pecskenya@gmail.com](mailto:pecskenya@gmail.com)**

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## CERTIFICATION

This Strategic Environmental Social Assessment (PLAN SESA) Report for Olgulului Ololarashi Subdivision Scheme Plan has been prepared under the leadership of Dr. Bernard Kaaria Irigia, NEMA Lead Expert Reg. No. 0079 of Planning and Environmental Consultancy Services (PECS) Limited, NEMA Firm Reg. No. 7839.

The report has been prepared with reasonable skills, care and diligence in accordance with the provisions of Environmental Management and Co-ordination Act Cap 387 section 57 A, the National Strategic Environmental Guidelines of 2012, the Environmental Impact Assessment and Audit Regulations of 2003 and other national and international policy Guidelines for Strategic Environmental Assessment.

We certify that the particulars given in this report are correct to the best of our knowledge.

LEAD EXPERT: Dr. Bernard Kaaria Irigia (NEMA Registration Certificate No. 0079), Planning and Environmental Consultancy (PECS) Ltd, NEMA Firm Reg. No. 7839, P. O. Box 702 – 00517, Nairobi, Kenya.

Email: [pecskenya@gmail.com](mailto:pecskenya@gmail.com) | [kaariairigia@gmail.com](mailto:kaariairigia@gmail.com) , Cell: 254-722773951

Lead Expert: ..... Signature: .....

Date: .....

PECS LTD STAMP: \_\_\_\_\_

PROJECT PROPONENT: OGR TRUST P.O Box ..... , Kenya.

Email: ..... , Cell: +254 .....

Executive Director: ..... Signature: .....

Date: .....

OGR TRUST STAMP \_\_\_\_\_

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## **NON-TECHNICAL SUMMARY**

### **Background of Olgulului Ololarashi Group Ranch**

Olgulului-Ololarashi Group Ranch (OOCR) is located in Kajiado County and encompasses (90%) Amboseli National Park, covering 1232 km<sup>2</sup>. The Olgulului Ololarashi Group Ranch (OOCR) covers approximately one hundred and thirty-three thousand, three hundred and thirty-eight hectares (133,338) of land, and is one of the largest landowners in the greater Amboseli Ecosystem. It is a registered as an entity with a certificate of registration and is managed by elected officials by its registered members. The ranch is located in Kajiado County, Loitokitok Sub County and adjacent to Amboseli National Park towards the Kenya Tanzania border. It engulfs the Amboseli National Park in the northern, western and southern directions. Proportionately, the group ranch is 3.5 times the size of Amboseli National Park (ANP).

The group ranch was incorporated in 1975 as part of the government sponsored land settlement scheme of 1968. In 2001, the group ranch had 3,418 members and this membership has gradually increased over the years with pastoralism being the primary economic livelihood not only within the OOCR but the entire Amboseli Ecosystem.

OOCR land is held under communal land tenure by 11, 485 (eleven thousand, four hundred and eighty-five thousand) registered members except for approximately 50 (fifty) parcels that are held under public and private land tenure system.

### **Genesis of land subdivision**

The genesis of OOCR land sub division scheme plan was first envisioned in the OOCR Conservation and Development Plan of 2011-2016. According to this plan OOCR members desired to have a future that will transform their socio-economic status to better standards by having a diversity of land uses that are compatible, carefully planned and regulated; Including having strong participatory institutions and governance structures founded on a comprehensive group ranch constitution. The main aim of land subdivision was to optimize and improve land use for the benefit of the community; manage human settlements; improve infrastructure; promote economic growth and compatible land use enterprises; promote agriculture and conserve the ecosystem for wildlife and pastoralism.

### **SESA Objective**

From the genesis of the land subdivision discussed above, it is clear that the desire of the OOCR community is to improve their socio-economic status mainly through the five (5) stated programmes for conservation of ecosystem for **conservation** and **pastoralism**, management of human **settlements**, promotion of **agriculture** and improvement of **infrastructure**. It is the implementation



of these programmes that will drive impacts, hence the need to undertake the SESA with a view to proposing measures to mitigate the negative impacts.

The SESA process is guided by the National Guidelines for SESA in Kenya, and Section 57A of the Environmental Management and Coordination (Amendment) Act, 2015 that requires all Policies, Plans and Programmes (PPPs) for implementation to be subjected to Strategic Environmental and Social Assessment (SESA). The aim of SESA is to guide land subdivision, provide a binding framework which will enable the implementation and enforcement of an agreeable, all-inclusive and optimal mix of land uses in OOCR.

### **Study methodology**

The study methodology involved literature review, preparation of data collection tools, field visits to OOCR, consultation with community and stakeholders, data collection, collation and analysis, analysis of project impacts and mitigation measures, development of a monitoring plan, and making recommendations.

### **Baseline information**

#### **Flora and Fauna**

Amboseli Ecosystem is so rich in flora and fauna that it has been named a UNESCO Biosphere Reserve. It has different ecological zones, which include natural dry mountain forest, mountains, savannah rangelands, wetlands and swamps. It is home to numerous Acacia species such as *Thornigli*, *Tortilis*, *Senegal* especially in the lower agricultural areas. The main animals include elephants, lions, wildebeest, cheetah, zebras, giraffes, impalas, baboons and hippos, not to mention over 400 different species of birds, 40 of which are birds of prey.

**Climatic condition:** The rainfall amount in the later areas of Amboseli basin ranges from as low as 300mm in low lands and on the slopes of Mt. Kilimanjaro it goes as high as 1250mm. The rainfall variation causes flooding and gully erosion towards the lower parts of Amboseli Ecosystem. The temperature ranges from 10°C-34°C. The coolest period is between July and August, while the hottest months are from November to April.

**Population:** The current registered members of the OOCR are eleven thousand, four hundred and eighty-five persons (11,485). Given the average household size of six (6) the total population of the ranch is estimated to be sixty-eight thousand, nine hundred and ten (68,910). Assuming an adult to child ratio of 1:3 the school going population is estimated to be twenty-two thousand, nine hundred and seventy (22,970).

**Land:** The proposed land uses in the subdivision scheme plan are pastoral areas which are divided into 8 (eight) blocks measuring 79,848.02 hectares, environmental conservation areas, which include Wildlife habitats; Bird's habitat, Livestock grazing, Wildlife dispersal, Surface water sources, Wildlife movement corridors and rivers & Natural drainage channels, measuring 46,019.45 hectares, irrigation area 5,227.02 hectares, transportation networks 3,783.26 hectares, social and physical infrastructure measuring 1,678.04 hectares.

**Cultural values:** OOG is home to authentic Maasai culture as it has cultural manyattas where tourists can experience their values and way of life. Maasai culture is known for its consistency over time, traditional lifestyle, pastoralism which is integrated with conservation of wildlife resources in Amboseli Ecosystem

## Study findings

### Project impacts and mitigation measures

The proposed OOG subdivision scheme has five programs covering 133, 338 hectares namely Pastoral Zone Scheme (58%); Environmental Conservation (34%); Irrigation (4%); Transport (3%); Social and Physical Infrastructure (1%).

No.	Programme	Positive impact:	Negative Impacts	Mitigation
1	Pastoralism:	Improved livelihoods from livestock farming	Increased livestock population beyond carrying capacity, overgrazing, human wildlife conflicts, transmission of diseases	Creation of grazing plans, zoning, no fencing land, no permanent bomas, no further land subdivision, developing enforcement guidelines
2	Settlement	Livelihood improvement and diversification of enterprise, improved access to social amenities and services	Uncontrolled development, mushrooming of settlements in non-designated areas, population increase, increase in social and wildlife crimes	Adhere to development plans, undertake land use clinics with department of physical planning,
3	Environment and Wildlife Conservation Zone	Enhanced wildlife conservation and management zones, improved tourism enterprises, hotels, campsites and game viewing areas Five conservancies in place Kitirwa, Kitendeni A and B, Ole Narika and Ilaingarunyoni Livelihoods improvement and benefit sharing	Conflict on land uses between grazing and conservancies, wildlife corridors pass through land subdivision areas, diseases transmission from wildlife to livestock, human wildlife conflicts, lack of strategic dry and wet season grazing areas, and mushrooming of campsites.	Align subdivision schemes with wildlife corridors, Set clear guidelines on grazing and conservation areas, enhance ranger training and distribution in designated areas
4	Transport infrastructure zone	Improved road access, enhance development, and land value, promote tourism product diversification	Development of roads in undesignated areas, off road driving, influx of new people and cultural deterioration of local values, Development of social amenities such as bars and associated negative social values	Adhere to zoning scheme plans, no bitumen for secondary roads, no off-road driving, no tertiary access roads

No.	Programme	Positive impact:	Negative Impacts	Mitigation
5	Irrigation Zone	Improved food security, employment creation, enhances alternative livelihoods	Deforestation to pave way for agriculture, unsustainable land use practices, gulley erosions,	Promote agroforestry, train farmers on sustainable land use practices, prohibit fencing of land, construction of permanent bomas or buildings, no change of users and further subdivision of land

## Conclusion and Recommendations

The OOCR land subdivision scheme is a comprehensive plan that takes into account the land use practices and community lifestyle in the Amboseli Ecosystem. It aims to address social issues, promote diversification, and ensure the conservation of wildlife. The plan consists of five programs: **Pastoralism, Settlement, Wildlife and conservation, Irrigation, and Transport infrastructure**, which aim to address meet various community needs within the ecosystem.

After reviewing the subdivision scheme plan, consulting with stakeholders, conducting field visits, and analyzing the situation, several remarks and recommendations have been made:

1. **Relevance and Responsiveness:** The plan is considered relevant as it addresses the needs of the community and aligns with the requirements of pastoralism and wildlife conservation in the OOCR and Amboseli Ecosystem. It also takes into account the aspirations and future of the community.
2. **Sustainability and Connectivity:** To enhance sustainability, it is important to consider key elements such as maintaining connectivity within the Amboseli Ecosystem. Wildlife corridors should not be blocked to prevent the transfer of negative impacts to other areas.
3. **Grazing Plans and Sensitization:** There is a need to raise awareness and conduct sensitization on existing grazing plans. In cases where such plans do not exist, it is necessary to develop them to ensure responsible land use.
4. **Land Clinics:** It is recommended to organize land clinics to educate and engage community members in adhering to the conditions of the subdivision scheme plan. This will help prevent the unauthorized establishment of settlements, campsites, and hotels in non-designated areas.
5. **Zoning Guidelines and Enforcement:** Developing guidelines for zoning schemes, particularly regarding the establishment of infrastructure, will contribute to maintaining aesthetics and

preserving the tourism characteristics of the area. Adequate enforcement mechanisms should be put in place to ensure compliance.

6. Taking cognizance of the fact that this is an Ex-post SESA, it is recommended that the plan be gazetted as it is with this SESA report annexed for ease of reference during plan implementation and review.
7. The OGR Management and their stakeholders should comply with the **Ten (10) Approval Conditions** on permission to subdivide issued by the Director of Physical Planning on 18<sup>th</sup> June, 2019 and attached in section 3.3.2 (Notification) of this SESA report.

## **1. INTRODUCTION**

### **1.1 Strategic Environmental Social Assessment Draft Report (Plan SESA)**

This draft report has been prepared as a part of Strategic Environment Social Assessment (Plan SESA) for Olgulului Ololarashi Group Ranch (OOCR) Subdivision Scheme Plan, in accordance with the section 57A (1) of the Environmental Management and Coordination Act (Amendment Act 2015), to reinforce and strengthen sustainable implementation of the Olgulului Land Use and Sub-Division Scheme Plan. The OOCR commissioned the Planning and Environmental Consultancy Services (PECS) Limited to undertake a comprehensive Strategic Environmental and Social Assessment (SESA) to ensure that the Land Use and Sub-Division Scheme Plan is well aligned with relevant policies, legal frameworks and subsidiary regulations for ease of implementation and enforcement.

This report assesses OOCR Land Use and Sub-Division Scheme Plan, implementation arrangements, including the legal enforcement of the necessary land use restrictions in the group ranch to avoid irreversible significant environmental and social impacts that are likely to be triggered by land use and sub-division plan. This includes incompatible, conflicting and unsustainable land uses, depletion and pollution of scarce water resources, spread of invasive species, overgrazing and land degradation, ecosystem dysconnectivity, loss of grazing areas and deteriorating livestock quality, increased human-wildlife conflicts, devaluation of tourism products, loss of livelihoods and increased poverty, among others.

### **1.2 Background of Olgulului Ololarashi Group Ranch**

Olgulului-Ololarashi Group Ranch (OOCR) surrounds 90% of Amboseli National Park and covers 1232 Km<sup>2</sup>. The group ranch was incorporated in 1975 as part of the government sponsored land settlement scheme of 1968. In 2001, the group ranch had 3,418 members and this membership has gradually increased over the years with pastoralism being the primary economic livelihood not only within the OOCR but the entire Amboseli Ecosystem.

The Olgulului Ololarashi Group Ranch (OOCR) is approximately one hundred and thirty-three thousand, three hundred and thirty-eight hectares (133,338) of land, and is one of the largest landowners in the greater Amboseli Ecosystem. The ranch is located in Kajiado County, Loitokitok Sub County and adjacent to Amboseli National Park towards the Kenya Tanzania border. It engulfs the Amboseli National Park in the northern, western and southern directions. Proportionately, the group ranch is 3.5 times the size of Amboseli National Park (ANP) as shown in Figure 1.

OOCR land is held under communal land tenure by 11, 485 (eleven thousand, four hundred and eighty-five thousand) registered members except for approximately 50 (fifty) parcels that are held under public and private land tenure system.

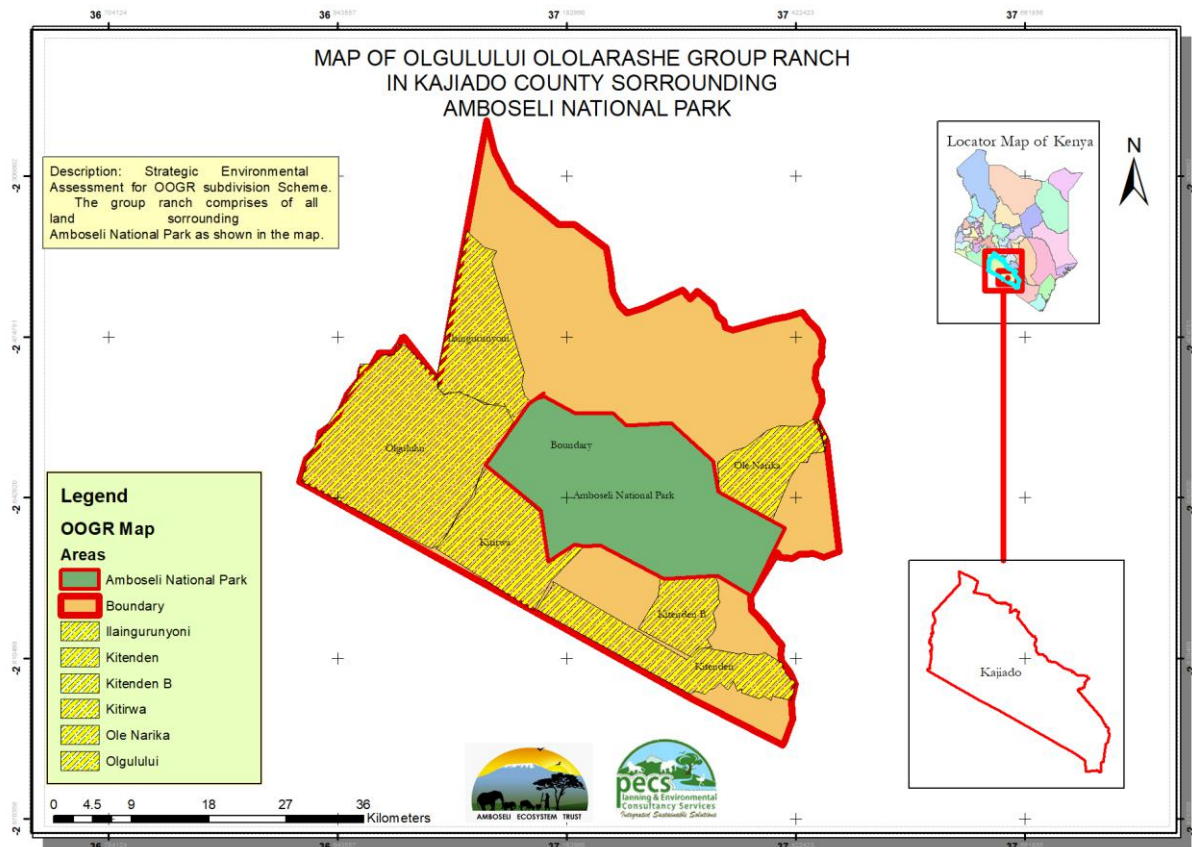


Figure 1: Location of Olgulului Ololarashe Group Ranch in Kajiado County in Amboseli

### 1.3 OOGR and wildlife connectivity in Amboseli Ecosystem

The group ranch borders the Republic of Tanzania to the south-west and Endoinet Game Reserve, Mailua Group ranch to the west, Eselenkei Group Ranch to the north, Mbirikani to the North East and Kimana to the east as shown in figure 3. The connectivity between OOGR, Amboseli National Park and other group ranches enables animals to move from one area to another during dry and wet seasons. According to Amboseli Trust for Elephant (ATE), there are around 68 Elephant families in the park which move freely in out throughout the season (see Figure 2), and some end up in Tanzania and there is need to make provision for this elephant corridors to enhance co-existence with wildlife. Wildlife connectivity corridors, according to International Fund for Animal Welfare, (IFAW) extends from Maasai Mara Game Reserve, to OOGR, Amboseli, Mbirikani, Chyulu and Tsavo National Park as shown in Figure 4 and 5. Hence any obstacle to these movement occasioned by land sub-division scheme plan, may trigger transfer of impacts to other areas in Amboseli Ecosystem. Similar sentiments were captured with Dr. David Weston from Africa Conservation Center that we need to take into consideration wildlife corridors and dispersal areas based on scientific research and facts. Hence this study explored environmental impacts of the proposed subdivision scheme plan, potential positive and negative impacts and propose mitigation measure, and areas of improvement for corrective measures.



*Figure 2: Elephants in Amboseli near OGR boarder with Amboseli National Park*



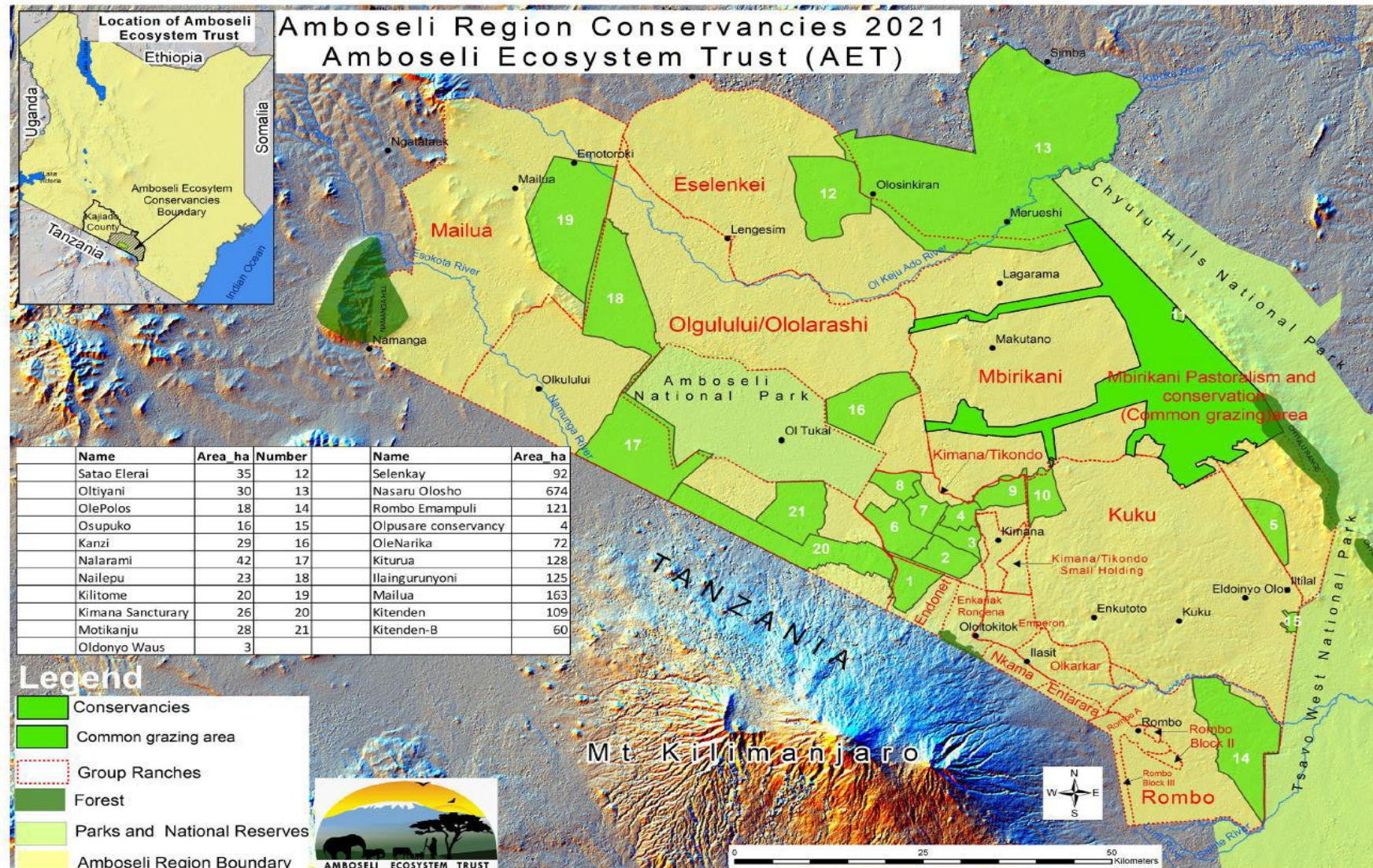


Figure 3: Amboseli Region Conservancies



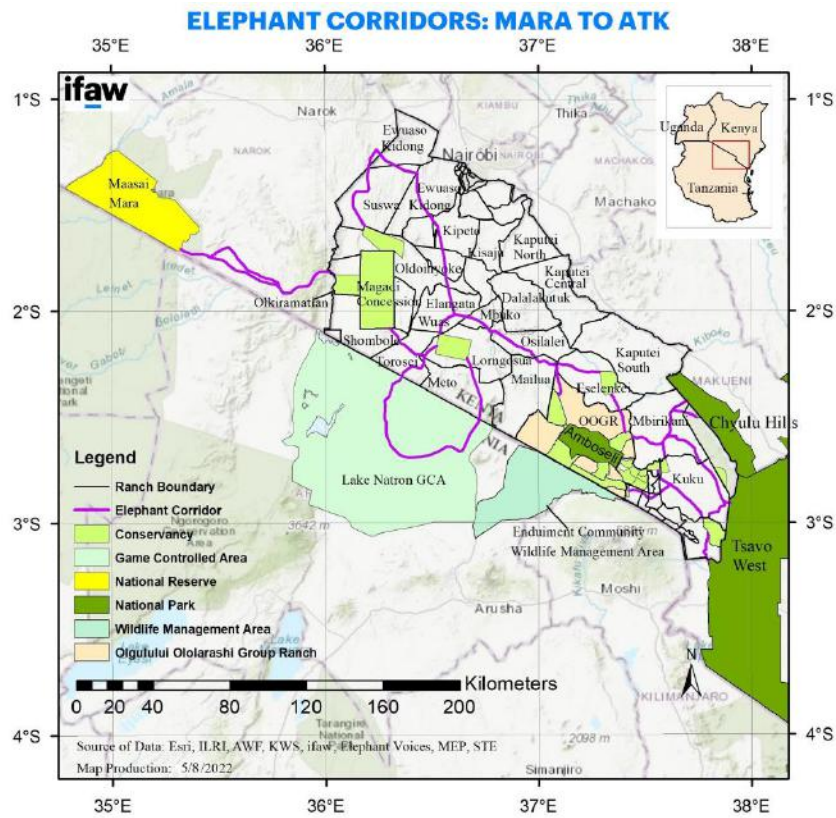


Figure 4: Elephant Connectivity Map showing linkages with Maasai Mara Game Reserve

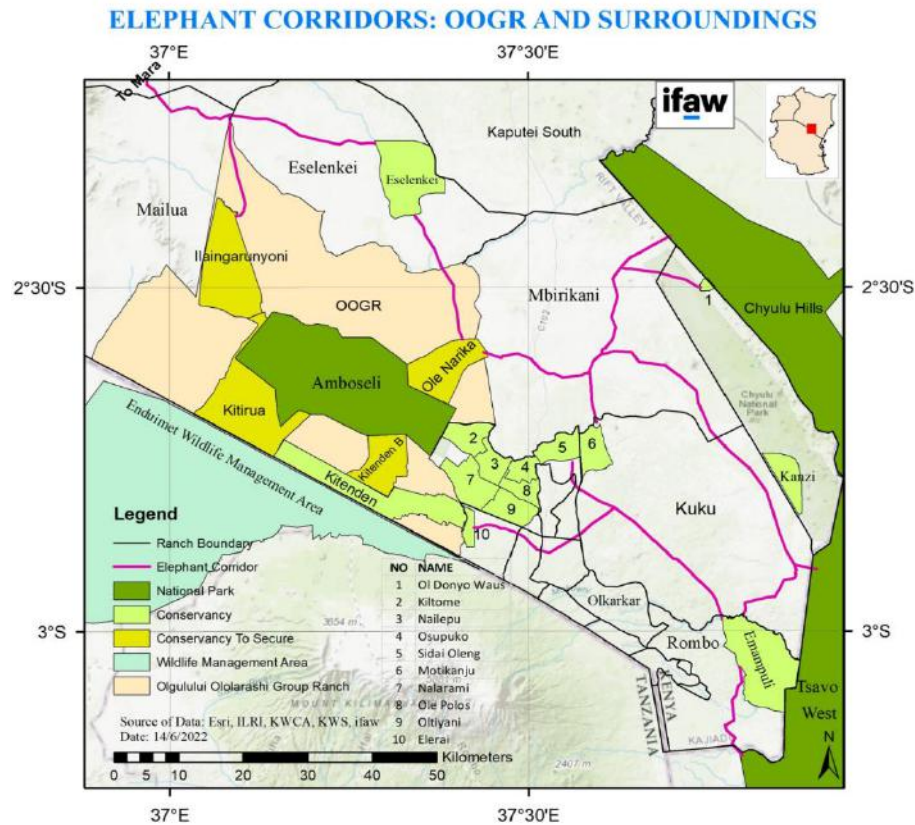


Figure 5: Elephant Corridors and connectivity map showing movement in and out of OAGR

Source: IFAW 2022

## **1.4 Genesis of OOCR land subdivision scheme**

Communal group ranch subdivision into individual plots in Amboseli Ecosystem is a threat to Amboseli Park wildlife conservation. The failure of the group ranch model of communal land ownership has led to concerted demand for individual land ownership, hence the glamour group ranch subdivision. Such demands have been increasing with time with the majority support for individual ownership coming from the cultivators, the youth and landless, who hope to secure a piece of land for private use, ownership security and cultivation. Despite widespread concerns that group ranch subdivision may fragment wildlife dispersal areas further, and interfere with their ranging, individual ownership has been adopted in all group ranches in Amboseli area. An emerging social consequence of subdivision is landlessness among the Maasai who sell newly acquired land to meet urgent and short-term financial needs.

The genesis of OOCR land sub division scheme plan was first envisioned in the OOCR Conservation and Development Plan of 2011-2016. According to this plan OOCR members desired to have a future that will transform their socio-economic status to better standards by having a diversity of land uses that are compatible, carefully planned and regulated; Including having strong participatory institutions and governance structures founded on a comprehensive group ranch constitution.

In order to promote strong partnership between OOCR and Amboseli National Park for mutual benefits arising from conservation and revenue generated. The members of OOCR formulated a four-step process of actualizing this vision by:

- a) Defining the most appropriate mix of land uses to be practiced in the OOCR in order to optimize the sustainable economic returns to OOCR.
- b) Providing a framework for delivering the optimal mix of land uses by dividing the OOCR into different zones where different types of land uses and activities are permitted.
- c) Formulating land use and land management policies to guide the use of land towards permitted uses.
- d) Providing an implementation framework that will realize the strategies and projects that were formulated.

## **1.5 Goal of OOCR Land Sub-division Scheme Plan**

Given the aforementioned steps and the desire of OOCR members to acquire individual titles to the land, it was deemed necessary to prepare subdivision scheme plans to guide this process as well as the registration of land rights to different types of land uses. The process of preparing the aforesaid scheme plans necessitated that the existing zoning scheme be re aligned to changes that have occurred since its preparation and the fact that the plans time frame has elapsed.

Therefore, the goal of the planning exercise was firstly to modify the zoning scheme that would act as the basis for revising land use and land management policies and guiding the preparation of subdivision schemes which indicate the individual parcels of land.

## 1.6 Purpose of OOCR Land Sub division Scheme plan

It is envisioned that the land use and the land subdivision scheme plan would be used for the following purposes;

- I. Basis for zoning the land for different activities.
- II. Basis for Development, management and control.
- III. Basis for provision of infrastructure and services.
- IV. Basis for protection and conservation of the environment.
- V. Basis for surveying the land and issuance of title deeds and registration of land rights.

## 1.7 Objectives of OOCR Land Subdivision Scheme

The objectives of land use and the land subdivision plan were;

- I. To optimize and improve the use of land and land-based resources in OOCR for the benefit of the local community.
- II. To manage human settlement by creating livable and functional centralized places for OOCR members to live, work and play to forestall the possibility of spontaneous and unregulated settlement.
- III. To provide social and physical infrastructure proximate to the population concentration and commensurate to the demand.
- IV. To spur economic development of the OOCR by expanding livelihood and income generating options and opportunities by;
  - a. Improving pastoralism practices.
  - b. Strengthening Tourism.
  - c. Developing intensive crop and fodder farming.
- V. To protect and conserve the fragile natural environment in OOCR to improve the quality of life and livelihoods of the community.
- VI. To improve local and regional connectivity of OOCR.
- VII. To promote good governance by mainstreaming transparency and accountability& by institutionalizing community participation in the management of the affairs of OOCR's development after the dissolution of the group ranch.

## 1.8 Justification for OOCR Land Use and Subdivision Scheme Plan

The need for the plan was driven by the desire of OOCR members to utilize local resources and opportunities sustainably to improve livelihoods of their members and to address the existing threats and anticipated key issues that constrain the actualization of its objectives for sustainable development. Some of the local resources, opportunities and threats as well as existing and anticipated key issues as envisaged in the subdivision scheme plan are as outlined in the table 1.1.

**Table 1.1 Local Resources Opportunities and Threats**

No.	Local Resources and Opportunities	Existing and anticipated key issues	Remarks
1.	Amboseli National Park is an iconic tourist destination and wildlife habitat	Sharing of benefits accruing from the park	
2	Presence of wildlife including the big five	Enhanced tourism experience and repeat clients	
3	Scenic beauty of the whole ecosystem including Mt. Kilimanjaro, Lake Amboseli and Chyulu Hills		
4	Culture including Maasai traditional practices such as pastoralism, artifacts, immaterial culture, traditional homes and bomas. Dressing, cuisine and bead works.	Compatible livelihood lifestyle with wildlife management and tourism enterprises	
<b>Threats</b>			
1	Rapidly increasing population	Demand for land rights	
		Shrinking livelihood options	
		Unregulated development including haphazard location of human settlement	
2	Increase in livestock population	Demand for grazing land	
3	Unregulated land use planning	Human wildlife conflicts	

## **2.0 DESCRIPTION OF THE OOCR LAND USE AND LAND SUBDIVISION PLAN**

The plan relates to Olgulului-Ololarashi Group Ranch which has a registered title acreage measuring approximately 133, 338 Ha (one hundred and thirty-three thousand, three hundred and thirty-eight hectares) of land. Largely, the land is held under communal land tenure by eleven thousand, four hundred and eighty-five thousand (11,485) registered members except for approximately 50 (fifty) parcels that are held under public and private land tenure system. The subdivision decision was as a result of the need by the owners to acquire individual title deeds for socio economic gains and for fear of the provisions of the Community Land Act of 2016 as interpreted by the County Government Land officials. According to the stakeholders who are strong supporters of wildlife conservation on their lands, they perceived that failure to subdivide would lead to their land being transferred to the government for public utility. The subdivision for Kimana Community Group Ranch was also a driver towards their decision to subdivide. The however resolved to subdivide but ensure sustainable utilization of the land. After resolving on subdividing and promoting sustainable development as a theme, they agreed on three **broad programs** namely **livelihoods, settlements and conservation programs**, on their Land Title No: Kajiado/ Olgulului-Ololarashi/647.

This has led into dividing the land into three zones namely, Conservation and Tourism Pastoralism and Wildlife and Cultivation development zones. In the OOCR there are four community Wildlife Conservancies, namely, Kitirwa, Kitendeni, Ole-Narika and Ilaingarunyoni.

### **2.0 Geographic and Temporal Scope of the Plan**

#### **2.0.1 Geographic Scope**

The plan relates to Olgulului-Ololarashi Group Ranch which has a registered title acreage measuring approximately 133, 338 Ha (one hundred and thirty-three thousand, three hundred and thirty-eight hectares) of land. Largely, the land is held under communal land tenure by eleven thousand, four hundred and eighty-five thousand (11,485) registered members except for approximately 50 (fifty) parcels that are held under public and private land tenure system.

#### **2.0.2 Temporal Scope**

In order to accomplish the task properly, two (2) broad level of planning have been undertaken namely; the revision of the Conservation and development plan for OOCR which covered a period of five years from 2011-2016 and the preparation of subdivision scheme plans for areas designated in the revised plan as pastoral grazing areas, conservancies, nucleated human settlements areas and the buffer zone. The preparation of the subdivision scheme plans was undertaken mainly for the purposes of guiding the issuance of title deeds to OOCR members as well as the user rights commensurate with the land use designation. The life span of the Conservation and development plan has been extended to ten years from 2019-2029 to provide ample time for its implementation. The plans shall be reviewed after five (5) years and revised accordingly upon expiry of its life span. The lifespan of the subdivision scheme plans has been set at five years (5) from 2019 to 2024 which is enough time for their implementation.

## **2.1 Purpose for the Strategic Environmental Social Assessment**

The major purpose of undertaking the Plan SESA was based on the realization that sustainable land use activities following land sub-division in the group ranch as envisaged in the scheme, may also have unforeseen impacts. This may be positive or negative impacts and if not enhanced or mitigated, they may affect livelihoods and the Amboseli Ecosystem in a negative way. The SESA will facilitate the gazettement of the Land Use and Sub-Division Scheme Plan within the provisions of section 57A (1) of EMCA Cap 387 thereby supporting the legal enforcement of the agreed land use restrictions for the long-term conservation of the group ranch environment and the common good of all group ranch members.

The main aim of the SESA was to provide a binding framework which will enable the implementation and enforcement of an agreeable, all-inclusive and optimal mix of land uses in OOG. The SESA will provide a legal and binding platform for: -

- a) Participatory identification and gazettement of nature-based enterprises, compatible land uses and sustainable income options within the wildlife conservancy and dispersal areas in Olgulului Olgolashi Group Ranch and
- b) binding framework for coherent land use management including sustainable livestock production, sustainable grazing strategy including binding grazing regulations, approved grazing management committee and clear obligations for land owners in order to ensure sustainable land use, equitable benefit sharing and reduced human wildlife conflicts in the wildlife conservancy and dispersal areas. The SESA will enable Olgulului Olgolashi Group Ranch to develop model governance frameworks and structures which can be replicated by other group ranches which are undergoing land sub-division.

## **2.2 Scope for the Strategic Environmental Social Assessment**

### **2.2.1 Overview**

The scope of the Plan SESA was guided by the important need of ensuring that the long-term implementation and enforcement of the Land Use and Sub-Division Scheme Plan for Olgulului Olgolashi Group Ranch is undertaken in accordance with prescribed thresholds as highlighted in county-level, national, regional and global frameworks especially the Kajiado County Land Sub-Division Guidelines 2018, County Spatial Plan 2019-2029, Amboseli Ecosystem Management Plan 2020-2030, Olgulului Management Plan, relevant East African Community (EAC) frameworks and global Multilateral Environmental Agreements (MEAs). The SESA will also provide a window for all the group ranch stakeholders to share their views regarding their vision, expectations and recommendations for their group ranch.

### **2.2.2 Terms of Reference (TORS)**

- a) Reviewing of the Land Use and Sub-Division Scheme Plan for Olgulului Olgolashi Group Ranch and all other documents for the SESA such as Kajiado County Land Sub-division Guidelines

2018, Kajiado County Spatial Plan 2019-2029, Amboseli Ecosystem Management Plan 2020-2030, Olgulului Management Plan, among other relevant frameworks including MEAs. The aim was to identify the areas of interface and linkages between the Land Subdivision and Land use Plan and other binding frameworks for effective governance and management of the group ranch.

- b) Determining the scope of the SESA: This was undertaken through the standard participatory scoping approach as provided in the National Constitution, EMCA Cap 387 and National SESA Guidelines 2012, among other guidelines.
- c) Gathering of baseline information and situation analysis whose aim was to provide a thorough understanding of the potential environmental and social risks (including unsustainable land use) which are likely to originate during the implementation of the Land Use and Sub-Division Scheme Plan for the Olgulului Ololarashi Group Ranch. The SESA has also made recommendations for suitable mitigation for any potential risks and impacts.
- d) Engage participatory approaches to effectively with the relevant stakeholders: The main aim was to ensure effective and sustained public participation during the SESA such as vulnerable and marginalized groups (e.g., women, youth, elderly). The SESA engagement process also ensured that cultural power relations and how they are exercised when it comes to decision making were respected and adhered to. The use of local leadership to disseminate information was adhered to and community meetings were held and all protocols observed.
- e) Prediction and analysis of environmental and social impacts: The team undertook a comprehensive analysis of the potential short term, medium term and long-term impacts which are likely to emerge through the implementation and enforcement of the Olgulului Land Use and Sub-Division Scheme Plan based on the review of documents, baseline surveys and stakeholder consultations. These included prediction of scale, magnitude (low, medium and high risks) and level of significance for the potential environmental (soil, water, biodiversity, climate change, etc.) and social impacts (poverty, human wildlife conflicts, gender inequality, household conflicts etc.).
- f) Identification of suitable environmental and mitigation options. The team identified suitable alternative measures for addressing mitigating environmental and social impacts during the implementation of the Olgulului Land Use and Sub-Division Scheme Plan including the enforcement of agreed land use restrictions in order to identify suitable tradeoffs and best-fit options to avoid unacceptable and unsustainable environmental and social situations in the group ranch.
- g) Identification of measures to enhance opportunities and mitigate adverse impacts: The team focused on the realization of the positive opportunities of the plan during its implementation including the enforcement of agreed land use restrictions especially in line with the

Sustainable Development Goals (SDGs) and recommended suitable strategies for minimizing any negative risks. The aim of the SESA was to develop “win-win” situations where multiple, mutually reinforcing gains could strengthen the economic base, provide equitable conditions for all, and protect and enhance the state of environment within the Olgulului Olorashi Group Ranch as well as the Greater Amboseli Ecosystem (GAE) and Kajiado County.

- h) Identification and gazettement of nature-based enterprises, compatible land uses and sustainable income options within the wildlife conservancy and dispersal areas in Olgulului Olorashi Group Ranch.
- i) Developing a binding framework for coherent land use management including sustainable livestock production, sustainable grazing strategy including binding grazing regulations, approved grazing management committee and clear obligations for land owners in order to ensure sustainable land use, equitable benefit sharing and reduced human wildlife conflicts in the wildlife conservancy and dispersal areas.
- j) Draft report on the findings of the SESA: This involved the preparation, compilation and presentation of a Draft SESA Report for review and validation. It included a succinct, Non-Technical Summary, the main report, and recommendations for corrective measures.
- k) Final SESA report for submission to NEMA and making recommendation to decision makers:
- l) Upon review of the draft report from NEMA, the team will prepare and present the Final SESA Report incorporating comments from all stakeholders for submission to NEMA. Thereafter, the team will follow-up with the NEMA Head Office in Nairobi to escalate approval, and gazettement of the Olgulului Land Use and Sub-Division Scheme Plan including the enforcement of agreed land use restrictions.

### **2.2.3 Specific Tasks**

This included but was not limited to the following;

- a) Undertaking a review of all documents relevant to the SESA Land Use and Subdivision Scheme Plan for Olgulului Olorashi Group Ranch (OOCR), including legal frameworks; Land Use and Sub-Division Scheme Plan for Olgulului Olorashi Group Ranch; Kajiado County Land Sub-division Guidelines 2018; Kajiado County Spatial Plan 2019-2029; Amboseli Ecosystem Management Plan 2020; Olgulului Management Plan and other relevant frameworks including Multilateral Environmental Agreements (MEAs) for sustainable management of the OOCR
- b) Undertaking a Stakeholder Consultation to determine the scope of the Strategic Environmental Assessment (SESA) and ensure an all-inclusive process including the



vulnerable and marginalized groups (e.g., women, youth, elderly) throughout the SESA process from screening, scoping and reporting stages to ensure that nobody is left behind.

- c) Collecting and collating baseline information to analyze data as well as situation analysis to understand potential environmental and social risks (including unsustainable land use) which were likely to originate during the implementation of the Land Use and Sub-Division Scheme Plan for the Olgulului Olorashi Group Ranch.
- d) Ensuring the SESA engagement process provides a clear understanding of the power relations between different stakeholders, and how they interact with each other and the environment in order to achieve agreeable options for the smooth implementation and enforcement of the Land Subdivision and Land use Plan.
- e) Assessing, predicting and analyzing environmental and social impacts: The consultant undertook a comprehensive analysis of the potential environmental and social impacts (short term, medium term and long-term), which were likely to emerge through the implementation and enforcement of the Olgulului Land Use and Sub-Division Scheme Plan.
- f) Identified suitable alternative measures for addressing mitigating environmental and social impacts during the implementation of the Olgulului Land Use and Sub-Division Scheme Plan including the enforcement of agreed land use restrictions in order to identify suitable tradeoffs and best-fit options to avoid unacceptable and unsustainable environmental and social situations in the group ranch. The consultant is also relied heavily on the application of the standard impact management hierarchy for the identification of the most appropriate options.
- g) Focused on the realization of the positive opportunities of the plan during the implementation of the Olgulului Land Use and Sub-Division Scheme Plan including the enforcement of agreed land use restrictions especially in line with the Sustainable Development Goals (SDGs).
- h) Developed a “win- win” Strategic Environmental and Social Management and Monitoring Plan (SESMMP) that is enforceable to protect and enhance the state of environment within the Olgulului Olorashi Group Ranch as well as the Greater Amboseli Ecosystem (GAE) and Kajiado County. The SESMMP contains a framework for coherent and sustainable land use management, sustainable livestock production, and sustainable grazing strategy.
- i) Developed a binding grazing regulation, specifying the roles of the (approved) grazing management committee, outlining clear obligations for land owners, guidelines for (in order to ensure sustainable land use,) equitable benefit sharing and specifying measures to reduce human wildlife conflicts in the wildlife conservancy and dispersal areas.

- j) Identified nature-based enterprises, compatible land uses and sustainable income options within the wildlife conservancy and dispersal areas in Olgulului Ololarashi Group Ranch and facilitate their gazettelement.
- k) Prepared a succinct, Non-Technical Summary for ease of understanding by all stakeholders and in particular local communities, who should be well informed about the environmental implications of the OOG R Land use/ Subdivision Plan to enable them submit informed SESA comments during the validation stage of the final document
- l) Prepared the final SESA Report containing suitable mitigation measures for any potential risks and impacts, mitigation measures for adverse impacts, enhancement measures for positive impacts, recommendations based on comments from all stakeholders, and finally present to AET and OOG R for endorsement before filling with NEMA for review and approval.
- m) Prepared the SESA Report and proposed suitable mitigation measures for any potential risks and impacts identified during the study, identify measures to enhance opportunities and mitigate adverse impacts and make recommendations.
- n) Follow-up the approval of SESA Report with the NEMA Head Office in Nairobi.
- o) Follow up the gazettelement of the Olgulului Land Use and Sub-Division Scheme Plan including the enforcement of agreed land use restrictions with the Kajiado County Government.

#### 2.2.4 SESA Study Team

This SESA scoping report for the OOG R land subdivision scheme plan has been prepared by the PECS Limited, a consultancy firm registered under EIA/EA Regulations 2003 with expertise from various disciplines including ecologists, GIS experts, Planners, Tourism Experts, Policy analysts and Environmentalists under the guidance of a NEMA Lead Expert and Team Leader Dr. Bernard Kaaria. The team members to be involved include the following:

Expert Name	Qualifications	Contact
Dr Bernard Kaaria Irigia	Team Leader-PhD, MSc, BSc	0722773951
Ms Lisper Njeri	BLL-Advocate, Legal Issues	0725730143
Nicholas Bunyige	BSC, Environmental Planning and Management, GIS	0701698811
Janet Umptho	Public Health and Safety	0722394549

<b>Expert Name</b>	<b>Qualifications</b>	<b>Contact</b>
Dr. Kariuki Chege	PhD, BSc Land use and GIS	0715936997
Francis Mwaura	Bsc, Msc Planning and Policy Analysis	0721956291
Dr. Dorcas Ndanu Kalele	PhD, BSc –Climate Change Specialist	0725801666

### **3. BASELINE INFORMATION**

#### **3.1 Overview**

The baseline information for this SESA is contained in the Olgulului-Ololarashi Group Ranch Land Use and Subdivision Plan (attached for reference). The planning and surveying process was professionally undertaken by Gatome and Associates, Consulting Surveyors and Planners in 2006 through a very participatory process by all stakeholders including the land owners, lead agencies representing the national government and non-governmental actors.

Initially the intention was to subdivide the land to facilitate issuance of titles to individual group ranch members and settlement on their respective parcels. The pressure to subdivide the land was occasioned by the desire to have individual land rights registered as guaranteed in the Constitution. Looking at the neighboring group ranches namely Kimana and Mailwa and other cases in the county of Kajiado, the pressure on the leadership to subdivide the group ranch has taken unprecedented dimension in the last four years. The initial instruction to the consultant was to subdivide the land equally into eight thousand six hundred (8,600) parcels for OAGR members appearing in the register then. However, in 2011 after wide consultations and engagement with the conservationists and other stakeholders, it was agreed that the subdivision model be reviewed in order to take into account the concerns relating to the protection of the Amboseli National Park in particular and the wider Amboseli Ecosystem in general. It is in appreciation of these concerns that the consultant was instructed to incorporate conservation planning principles into the subdivision exercise.

The OAGR members and conservation partners prepared the Olgulului-Ololarashi Conservation and Development Plan 2011-2016 that structured the group ranch into conservation and tourism development, pastoral development, wildlife and cultivation zones. Though this plan provided guidance for land development in OAGR, it did not meet the desires of the members of the ranch to acquire individual titles and land rights. It however, formed the basis for preparation of Land Use and Subdivision Scheme plan for OAGR. The Plan Scheme was finalized and submitted to the county government for approval, and it is after the approval that the subdivision process started.

#### **3.2. General approach**

Strategic Social Environmental Assessment (SESA) on the other hand is a process of preliminary identification and consideration of the possible negative impacts into the environment and human health caused by implementation of any policy, plan or programme (PPP). Essentially, SESA is used to integrate environmental considerations into PPP. The goal of a SESA is to improve policies, plans or programmes in such a way as to minimize their potential negative environmental impacts, maximize positive impacts and ensure that negative impacts that cannot be avoided are properly managed and offset during implementation of the PPP. In this regard the SESA process involved collecting, reviewing and collating relevant existing social, economic and environmental information on the OAGR land sub-division scheme plan and the Amboseli Ecosystem.

The objectives for SESA were guided by the National Guidelines for SESA in Kenya, and Section 57A of the Environmental Management and Coordination (Amendment) Act, 2015 that requires all Policies, Plans and Programmes (PPPs) for implementation to be subjected to Strategic Social Environmental Assessment (SESA).

The Parent Act Cap 387 had no mention of Strategic Environmental Social Assessment and this created a gap in environmental impacts originating from policies, plans and programmes.

Strategic Environmental Social Assessment (SESA refers to a range of analytical and participatory approaches to integrate environmental consideration into policies, plans, or programs (PPP) and evaluate the inter-linkages with economic and social considerations. SESAs are approaches for obtaining and evaluating environmental information prior to its use in decision making in the development process (NEMA 2012: p.8). Consistent with Agenda 21 principles, SESA is a proactive approach to integrate environmental considerations into the higher levels of decision-making. SESAs include prediction and evaluation of social, economic and health impacts as well as environmental impacts of plans, policies and programmes. The principles upon which SESA is based include the following:-

- (i) Sustainable development and sustainable use of natural resources;
- (ii) Enhanced protection and conservation of biodiversity and physical surroundings;
- (iii) Inter-linkage of human settlement and cultural issues;
- (iv) Integration of socio-economic and environmental factors;
- (v) Interactive and inclusion of public and stakeholder engagement;
- (vi) Focus on broader environmental and social issues rather than on site-specific impacts in order to resolve issues that cannot be addressed at the project level;
- (vii) Identification and comparison of alternative scenarios.

### **3.3. SESA STUDY PROCESS**

Three broad steps were followed in the SESA study of the proposed OOG Subdivision Scheme Plan. They included screening, scoping and the detailed SESA study.

#### **3.3.1 Screening**

Screening was undertaken to determine whether the proposed OOG subdivision scheme plan required a Strategic Environmental Assessment. After consultations with the client and NEMA, it was recommended that the subdivision scheme Plan undergoes a SESA. In response, NEMA guided the study team to prepare a plan Brief and submit to NEMA for review. The brief acted as the screening document which was approved and the NEMA screening response is attached in Appendix 1 of this report. The consultant was guided to proceed and prepare a scoping report with the terms of reference and potential issues of concern.

#### **3.3.2 Scoping**

Following the determination that a SESA was necessary for the Plan; the scoping study was done to identify the key issues to be studied during the detailed SESA study. This was done through literature review and wide stakeholder and public consultation in order to identify and describe the key environmental impacts of the proposed plan as envisaged by the proponents, key stakeholders and the public. A scoping report was submitted to NEMA and approved as attached in Appendix 2.

### **3.3.3 Detailed SESA Study**

The detailed SESA study involved baseline data collection from various sources including the OGR land sub-division and land use scheme plan; review of relevant policies, legislation and institutional framework; analysis of reasonable alternatives; identification, analysis and prediction of environmental and social impacts; development of appropriate mitigation measures and impact management strategies. Other steps involved formulation of Strategic Environmental and Social Management Plan (SESMP); and Environmental Management and Monitoring Plan (EMMP).

### **3.3.4 Consultation with the client**

The SESA screening and scoping process started with a consultative meeting with the Client OGR Management and AET. This involved getting a clear background of the project, the main objectives of the SESA and its integration with the OGR land sub-division scheme plan, developing a comprehensive Consultation and Public Participation plan (CPP), and establishing scoping boundaries for environmental, socio-economic and institutional concerns that needed to be addressed in the planning and SESA process.

### **3.3.5 Literature review**

This involved reviewing Policy, Legislative and Institutional Frameworks. Some of the documents reviewed included:

- Sustainable Development Goals of 2015 (SDGs),
- Kenya's Vision 2030,
- National wildlife Conservation Policy,
- National Land Policy,
- the Strategy for Revitalization of Agriculture,
- the Water Policy,
- Energy Policy and the draft Environmental Policy.

The legal and regulatory documents included

- Kenya Constitution of 2010,
- the Environmental Management and Coordination (Amendment) Act of 2015,
- National Guidelines for Strategic Environmental Assessment of 2012,
- Wildlife and Conservation management Act 2016
- the Water Act of 2016
- Physical Planning Act Cap 286 of 1996

The study team also reviewed past SESA studies to aid in the deeper understanding of the process and possible type of outcomes.

### **3.3.6 Field visit**

It is important to note that the SESA process began in August 2022, and some of the activities and consultative meetings were done in 2022. The initial meetings with the client and other stakeholders were held around 10<sup>th</sup> October-17<sup>th</sup> 2022. They included visit to the client's offices in Amboseli for reconnaissance, consultation with community members, and heads of conservancies, the Kenya Wildlife Service, Elephant Trust, International Fund for Animal Welfare (IFAW) and Big Five, among others. The consulting team also prepared data collection tools for Key Informant Interviews (KII), and Focused Group Discussions (FGDs) which were administered on site. During the field visit, the

team also made observations on features on the ground and established facts to be considered in the SESA preparation process. These included facts on the type of terrain (landscape), slope, vegetation, sensitive ecological features, site land uses, neighboring land uses, status of the land quality and observable environmental and socio-economic challenges. The SESA team also visited all the conservancies within OOCR to get a glance of what it entails and how they are operated.

### **3.3.7 Key Informant Interviews**

Key informants were undertaken with County Government of Kajiado, office of the Governor, Department of Physical Planning, KWS, ACC, Big Five, IFAW, Amboseli Ecosystem Trust, Elephant Trust, Ministry of Interior (local chiefs) and local leaders.

### **3.3.8 Consultation with community leaders**

The study team held meetings with community leaders from OOCR who represent various sectors such as grazers, women group, and those involved in grass bulking project. The team also held consultation with Kitirwa Conservancy which trains rangers for protecting conservancies in OOCR.

### **3.3.9 Brain Storming Sessions**

Brain storming sessions on all emerging issues were held throughout the study period to identify, analyze and synthesize the key issues of land use, environmental and socio-economic concerns that need to be addressed in the Plan SESA. The issues agreed on were directly incorporated in the plan. Continuous consultation with the Client, AET, NEMA and office of Governor in Kajiado County was held throughout the study.

## **3.4 SESA Report Structure and format**

**Non-Technical Executive Summary:** This section presents a summary of the SESA report. It will broadly cover the SESA background, study methodology, study findings, baseline environmental conditions of the plan area, environmental impacts, mitigation, environmental management plan, conclusions and recommendations.

**Chapter 1: Introduction** - This chapter gives general background information, location, justification of the Plan and SESA, objectives and the SESA study team.

**Chapter 2: Approach and Methodology** - This chapter describes the approach and detailed methodology used to achieve the study objectives.

**Chapter 3: The SESA for the OOCR Land Use and Land Subdivision Plan** - This chapter gives a Brief description of the Plan.

**Chapter 4: Review of Policy, Legal and Institutional Framework** - This chapter provides an overview of the policies, legislation and institutional frameworks relevant to the SESA study and implementation of the plan

**Chapter 5: Baseline Environmental Conditions** - This chapter describes the existing physical, biological and socioeconomic environmental conditions of the plan context.

**Chapter 6: Stakeholder and Public Consultations** - This chapter details the stakeholders consulted, public consultations held and emerging issues.

**Chapter 7: Analysis of Alternatives** - This chapter discusses alternatives identified during the planning stage and may include management strategies, types of interventions, technologies, land use options as well as plan project activities to the proposed land uses, interventions, enforcement mechanisms and standards for enforcement. The **NO Action** option is also discussed.

**Chapter 8: Impact identification, prediction and Mitigation** - This chapter presents an analysis of the potential environmental and socioeconomic impacts and possible mitigation measures.

**Chapter 9: Environmental Initiatives and Strategies** - This chapter describes the environmental initiatives and management strategies the OGR Plan will adopt. This will broadly be presented in relation to dynamics in land use, water resources, mitigation plan, waste management, biodiversity, population influx, energy conservation and development control guidelines among others.

**Chapter 10: Strategic Environmental and Social Management and Monitoring Plan (SESMMP)** - This chapter describes the management plan of the environmental and socioeconomic impacts. The chapter further describes the monitoring plan that includes costs and timelines.

**Chapter 11 - Conclusion and Recommendations** -This chapter provides the conclusion and recommendations of the SESA study.

## **3.5. The Subdivision Process**

### **3.5.1 Application**

Application for subdivision dated 19th May 2010 was approved by the Land Control Board (Form 2A). The entire size of 133,338 Ha be divided into portions of 12,140.8 Ha and the balance be subdivided equally and transferred to members of the Group Ranch for permanent ownership. For transparency and accountability, the letter was signed by the District Commissioner on behalf of the land control board



The request for subdivision was approved by the Director, Kajiado County physical planning vide letter of consent (form 2A attached).

### **3.5.2 Notification**

A Notification of Approval of Development Permission (Form P.P.A.2) dated 18<sup>th</sup> June ,2019 was issued and it contains 10 approval conditions as shown in Figure 6 and will form the bulk of the mitigation measures to guide and minimize negative land use impacts.



**COUNTY GOVERNMENT OF KAJIADO**  
**COUNTY PHYSICAL PLANNING DEPARTMENT**  
P.O. BOX 11-01100  
KAJIADO  
**FIFTH SCHEDULE**



FORM P.P.A. 2 {S.33 (1) (A)}

Registered No. Application S/1160/2019

**NOTIFICATION OF APPROVAL OF DEVELOPMENT PERMISSION**

**TO:**  
**OLGULULUI OLOLARASH GROUP RANCH,**  
**P.O BOX 388,**  
**LOITOKITOK**

Pursuant to provisions of PPA Cap 286, the Subdivision Approval Committee has approved the subdivision scheme plans submitted on 11/06/2019 for L.R. No. Kajiado/Olgulului Ololarashi/6477 situated in Loitokitok via Minute 010/2019 on 18/06/2019 subject to the following / appended condition(s):

1. All land/parcels designated for public use (both in urban areas and beyond) to be surrendered to the County Government for custody and administration free of charge without any conditions.
2. The County recommends conditional titles to beneficiaries in the scheme. Any further subdivision or fragmentation shall not be allowed
3. Land designated as conservancies is restricted from human activities. Any development shall be subject to recommendations and approval by the County.
4. There shall be a clear buffers between the settlements and both the National Park and conservancies. The buffer should be maintained at all time to minimize encroachment.
5. The County shall be allowed free access to exercise monitoring, inspection and regulating of land to ensure sustainable use ,intergenerational equity and protection of land against abuse
6. All nature assets within the subdivided zone remains National and County assets; protected by the County Regulations and National Statutes; Both the County and National governments shall regulate use and exploitation. Only County and National governments shall provide policy and regulation
7. Registry Index Map (RIM) must be amended before allocation of new numbers
8. Obtain Compliance Certificate from the County Government in accordance with Physical Planning Act (Cap 286).
9. The County government of Kajiado is indemnified against any unforeseen circumstances that may result from professional negligence and/or misrepresentation of facts by the applicant
10. The County Government of Kajiado can nullify the approval or cause amendments of the conditions of approval in case of non-compliance as it may deem fit

Dated.....18 JUN 2019.....  
A.T. KUYEII  
COUNTY DIRECTOR OF PHYSICAL PLANNING

Signed.....  
County Director of Physical Planning

Figure 6: Conditions for Approval for OOGRR Sub-division Scheme Plan (Form P.P.A 2)

Ministry of Lands and Physical Planning, Kajiado County letter ref Kajiado/LD/33 dated 19/11/2020 on subdivision of Loitokitok/Olgulului/Ololarashi/6477 states that the survey has been issued with the new numbers and approved as follows: Loitokitok/Olgulului/Ololarashi/6852-9592 (field sketch attached).

### **3.5.3 Certificate of Compliance**

Certificate of Compliance (Form P.P.A.5) no 02502 issued to OOCR for subdivision of Kajiado/Olgulului/Ololarashi/6477 situated in Loitokitok Municipality within Kajiado County for approved plan with special Conditions stipulated in the notification of approval (Form P.P.A.2); in compliance with the Physical Planning Act (CAP 286 of 1996) and the county Land and Zoning standards/ Guidelines with respect to registered application (form P.P.A.1) dated 18/6/2019

The OOCR Land Use and Land Subdivision Plan is expected to contribute significantly in securing the land for environmental and wildlife conservation for the benefit of the people of Olgulului and enhance their livelihood through pastoralism and other economic activities, and achieve sustainability of land use and tenure for the present and future generations.

## **3.6 Geographical location**

The Olgulului-Ololarashi Group Ranch (OOCR) is located in Kajiado County. The group ranch measures approximately one hundred and thirty-three thousand, three hundred and thirty-eight hectares (133,338 Ha). It engulfs or surrounds the Amboseli National Park in the northern, western and southern directions. Proportionately, the group ranch is 3.5 times the size of Amboseli National park (ANP). The ranch is bordered by the Republic of Tanzania to the south-west, Mailua Group ranch to the west, Eselenkei Group Ranch to the north, Mbirikani to the North East and Kimana to the east.

## **3.7 Climatic conditions of the OOCR area**

The rainfall pattern in the OOCR area is bi-modal and in sync with the rest of Kajiado County. 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 however; the bimodal rainfall pattern is not uniform across the County. The long (March to May) rains are more pronounced in the western part of the County while the short (October to December) rains are heavier in the eastern part where OOCR is located.

The rainfall amount in the later areas of Amboseli basin ranges from as low as 300mm unlike the Ngong hills and the slopes of Mt. Kilimanjaro which receive rains of as high as 1250mm.

The temperature of the area varies in relation to altitude and season. The highest temperatures recorded are 34°C while the lowest temperatures experienced is about 10°C in the south eastern slopes of Mt. Kilimanjaro which borders the group ranch. The coolest period is between July and August, while the hottest months are from November to April.

Due to the climatic conditions of the area the OOCR annual rain fed cannot support agriculture sustainably. However, the area can support livestock keeping and pastoralism albeit with constraints associated with unreliable rainfall and long period of droughts.

### 3.8 Population in the Group Ranch

#### 3.8.1 Current population estimates

The current registered members of the OOG are eleven thousand, four hundred and eighty-five persons (11,485). Given the average household size of six (6) the total population of the ranch is estimated to be sixty-eight thousand, nine hundred and ten (68,910). Assuming an adult to child ratio of 1:3 the school going population is estimated to be twenty-two thousand, nine hundred and seventy (22,970).

#### 3.8.2 Land parcels, schools and health facilities requirements

The land requirement for pastoralism activities is 11, 485 Ha, Conservancies 11, 485 Ha, and Settlement 7,000 Ha. The envisage total land requirement is 29,970 Ha as shown in table 2 to 3 below;

**Table 3.1: Number of parcels required**

No.	Land use characteristic	Hectares	Remarks
1	Pastoralism	11,485	The pastoral parcels confer to the owner grazing rights and not settlement rights.
2	Conservancies	11,485	The conservancy parcels confer to the owner the rights of apportionment of benefits accruing from conservation and tourism activities.
3	Settlement	7000	The settlement parcels confer to the owner the rights of occupation and construction to the land in accordance with development control regulations outlined in the plan.
	<b>Total</b>	<b>29,970</b>	

**Table 3.2: Number of schools and health facilities required**

No.	Facility	Number(s) required	Existing	Additional
1	Assorted Education facilities	19	5	14
2	Level 1 Hospital	1	0	0
3	Health centers and dispensaries	9	4	5

#### 3.8.3 Other population needs

The plan envisages that the population of OOG will need land and way leaves for the following: infrastructural facilities; adequate and portable water, energy and electricity, spaces and places for recreation, solid and liquid wastes disposal facilities. Improvement of living conditions should include provision of adequate accessibility within and between the settlement and to the external world. The

population should be facilitated to provide shelter for themselves as well as their being afforded opportunities for working, employment and income generation.

### 3.9 Land use

#### 3.9.1 Current land use

The land in the OGR as per the subdivision scheme is as follows; Grazing 42%, Wildlife habitat 17%, Kitirwa conservancy 10%, Manyatta and local centers 7%, Swamp and Wetlands 4%, Classified and unclassified roads 3%, seasonal rivers 2%, birds' sanctuary or habitat 1% and airstrip 0.01% as shown in Figure 7 and 8.

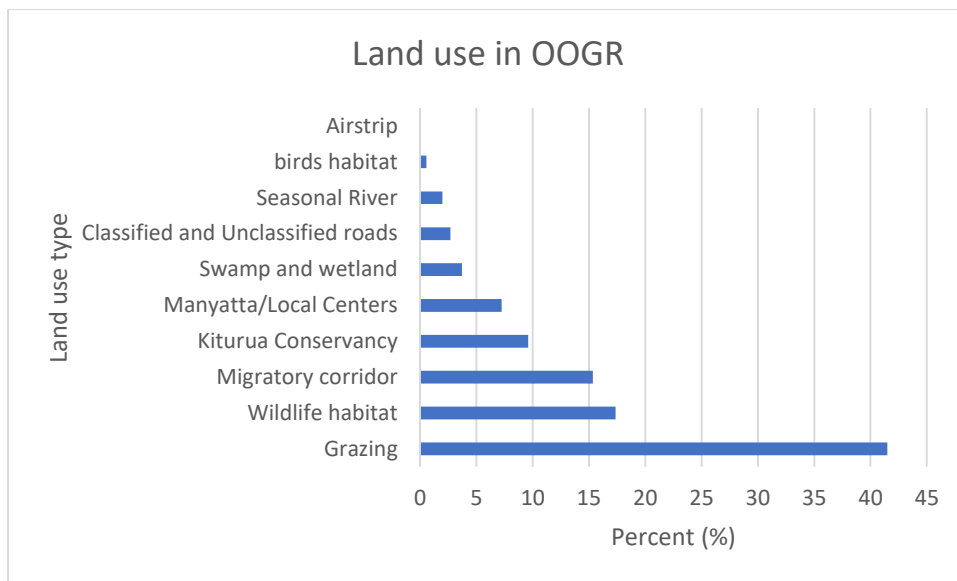


Figure 7: Land Use in OGR by Percentage

Sources: Gatome and Associates, Consultants, 2019.

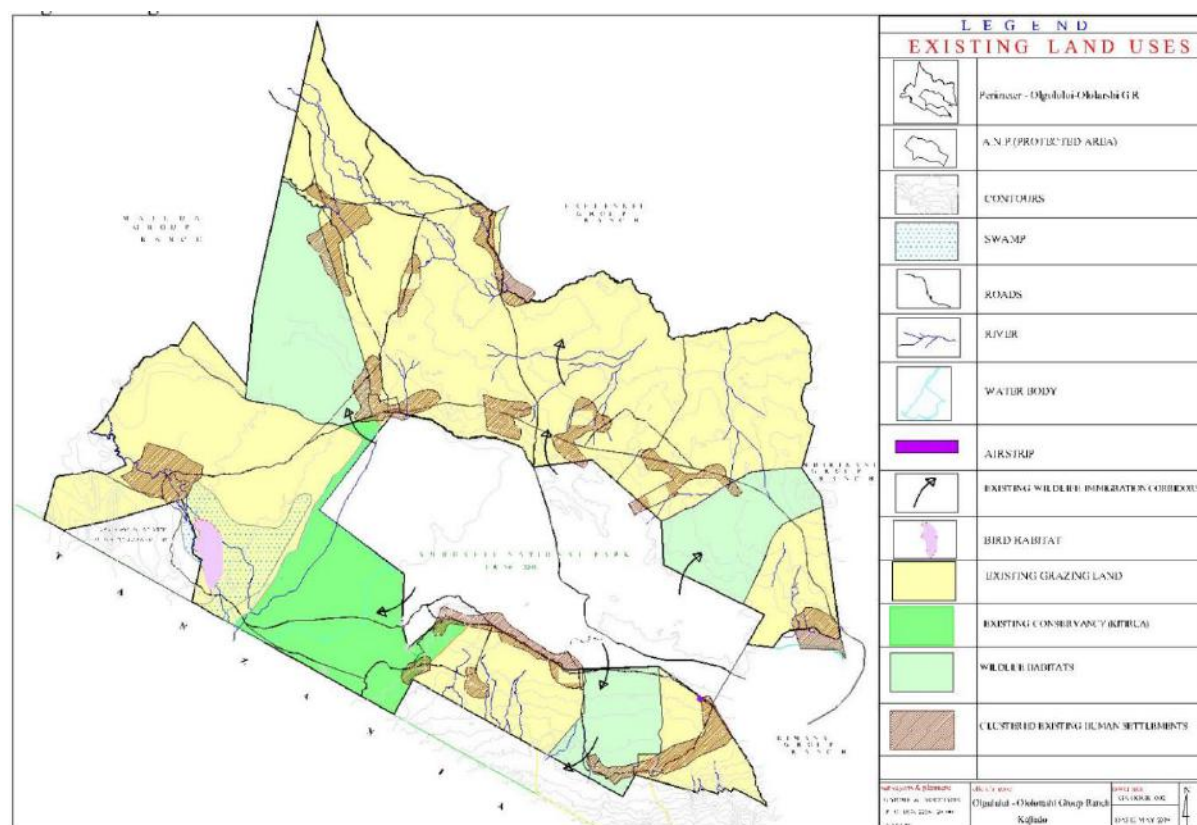


Figure 8: Land Use Map of OGR

### 3.9.2 Physical analysis

Physical analysis was undertaken in order to establish the topographic characteristic of the land and to establish suitability of the land from physiographic perspective. Broadly, this analysis resulted into the division of the land into hilly areas, gently sloping areas, flood plains, river beds and riparian areas and land with rocky outcrops. The analysis reveals generally that most of the land is developable without constraints except for low lying areas which may be prone to flooding and the river beds and riparian areas which may not be available for development due to sources of water. The results of the physical analysis are indicated in table 3.3 and figure 9.

Table 3.3 Physical analysis

No	Physical characteristics	Area in Hectares	Percent (%)
1	Gently sloping areas	102,883.47	73
2	Hilly areas	25,003.87	18
3	Flood plains	5227.85	4
4	Rocky outcrop	4898.22	3
5	Riverbeds and riparian	2778.60	2



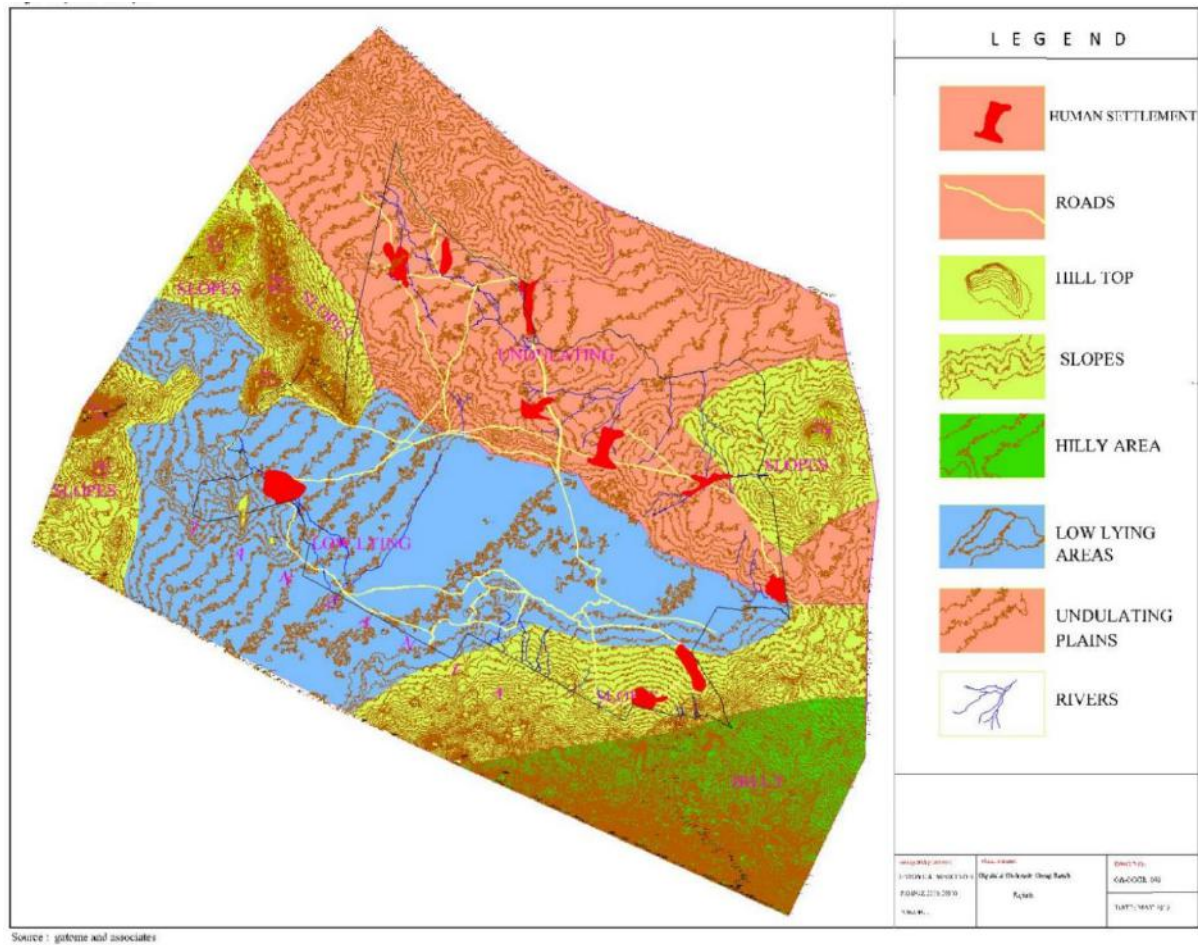


Figure 9: Physiological Map of OOGR

### 3.9.3 Land Suitability

The land suitability assessment undertaken incorporated physical analysis, land cover classification, the climatic condition of the area (Agro-ecological zone) and the existing land use in order to determine how the use of the land may be optimized and improved. This assessment resulted into mapping of land suitability in the form of activities that may be undertaken in the whole of OGR as indicated in figure 10, and this was critical in informing OGR land sub-division scheme. The activities identified included pastoralism and livestock grazing, wildlife dispersal areas, tourism and establishment of tented camps, existing settlements and extension settlement areas.

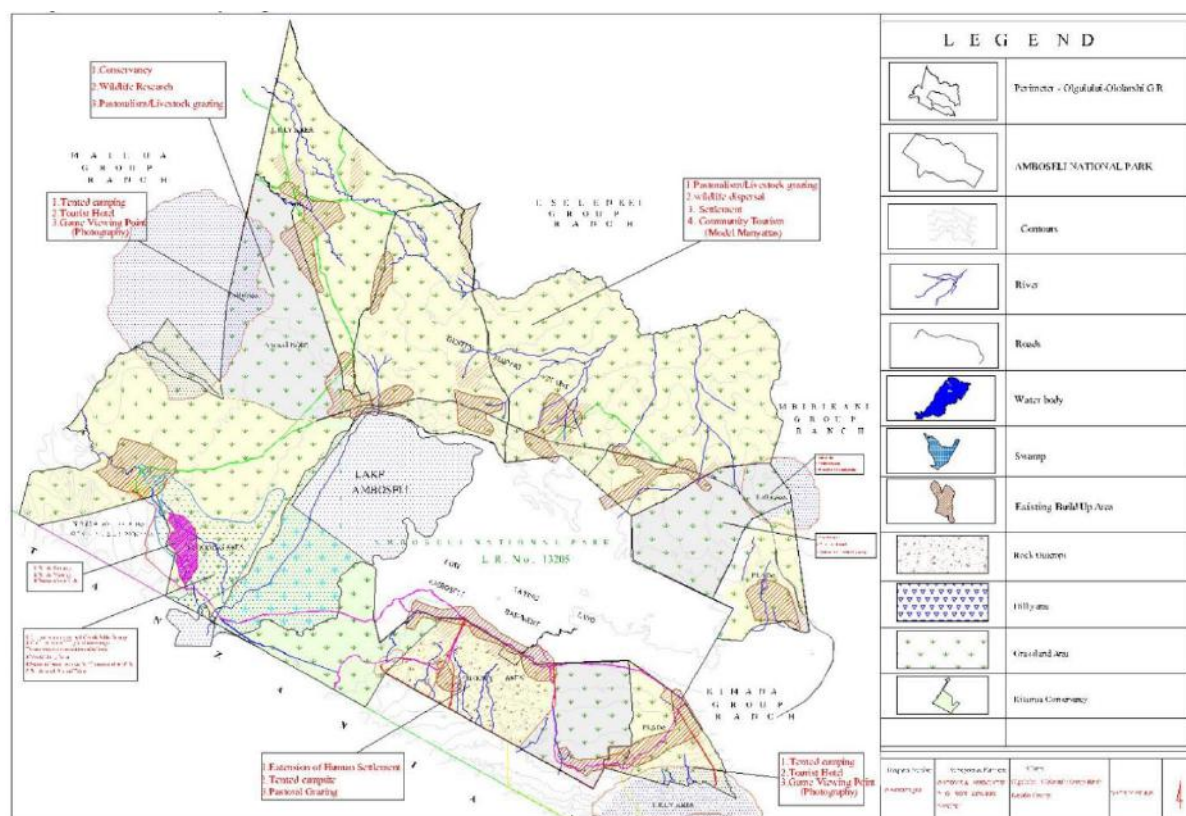


Figure 10: Land Suitability Map

### 3.6.4 Land Tenure

Most of the land in OOG is community land, however up to 50 parcels have been converted for various public uses ranging from bore holes, primary schools, trading centers, health centers, cattle dips, water points, tanks and booster. A few parcels have been converted to private ownership. The list of land held under public and private tenure is as indicated in table 3.4.

Table 3.4: List of land parcels under public and private tenure

Land Parcel No.	User	Land Parcel No.	User	Land Parcel No.	User
2	Naiperra	23	Lalager Health Center	41	Nkiito
3	Ilmariba Primary School	24	Lalager Borehole	42	Nkiito water point
4	Ilmariba trading center	25	Lalager cattle dip	43	Kinyei cattle dip
5	Ilmariba Health center	26	Emutoroki borehole	44	Nkiito cattle dip
6	Ilmariba cattle dip	27	Emutoroki cattledip	46	Meshenani cattle dip
7	Ilmariba borehole dip	28	Lenku Ole Mpaa (private)	47	potato water point
8	Baringoi Cattle dip	29	Lenku Ole Mpaa (private)	48	Patoto cattle dip
9	Baringoi borehole	30	Kitendeni cattle dip	49	Meshenani pressure break tank
10	Olgulului Health Center	33	lengism cattle dip	50	Lemiito booster
11	Olgulului Primary School	34	Lengism nursery school		
12	Olgulului trading center	35	Lengism trading center		
13	Olgulului cattle dip	36	Lengism health center		

Land Parcel No.	User	Land Parcel No.	User	Land Parcel No.	User
14	Olgulului borehole	37	Lengism boarding school		
19	Olgulului county borehole	38	Naiperra cattle dip		
20	Lalager Primary school	39	Risa water point		
21	Lalager trading center	40	Risa cattle dip		

### 3.9.4 Human settlement

The pattern of human settlement in OOCR is clustered/ nucleated. The members of OOCR reside in the following settlements and centers; Meshenani, Risa, Enkong Narok, Namelok, Ilkilunyet, Olgulului, IlMarba, Embaringoi, Lengisim, Nkiito, Lemito, Kitirua and Illarekerr as shown in Figure 11, Nos B1- B13. The location of the settlement has been influenced by a number of factors; transportation corridors, existing water sources, the nearness to Amboseli National Park, availability of services and the nature of the land. The human settlement performs a number of functions namely residential, commercial, administration, rural service center and education.

The advantages of this form of settlement include ease of provision of services, security including from wildlife and freeing of land for grazing and conservation activities. The location of human settlements is indicated in human settlement mapping figure 11.

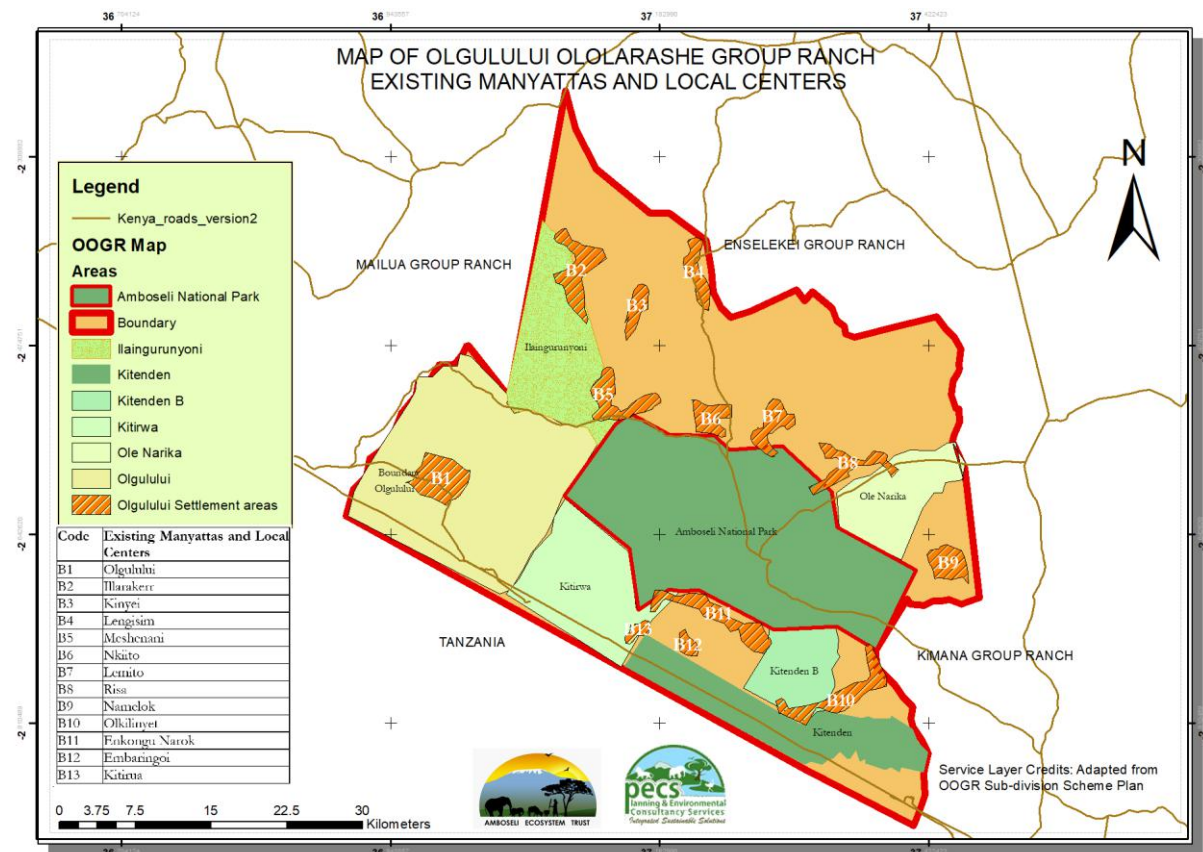


Figure 11: Human Settlement areas



## **4. POLICY, LEGAL, REGULATORY AND INSTITUTIONAL FRAMEWORK**

**4.1 Overview:** There are numerous national and international policy, legal, regulatory and institutional frameworks that guide the requirements and preparation of a SESA. International policies include those ratified by the country concerning environmental issues. The national level provides the legal, regulatory and institutional frameworks for EIA and SESA studies. The following section is a summary of the international, national and sectoral policies and principles considered in the study.

### **4.2 POLICY FRAMEWORK**

#### **4.2.1 International Conventions**

##### **United Nations Framework Convention on Climate Change**

The primary purpose of the convention is to establish methods to minimize global warming and in particular emission of greenhouse gases. The Convention was adopted on 9<sup>th</sup> May 1992 and came into force on 21<sup>st</sup> March 1994. Kenya ratified the Convention on 30<sup>th</sup> August 1994 thereby committing to join the international community in combating the problem of climate change. The National Environmental Management Authority is the agency acting as the national focal point for this protocol.

The objective of the Convention is; “Stabilization of the greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”. A summary of steps envisaged to implement the Convention to achieve the objectives include:

- Preparation and implementation of abatement plans on climate change.
- Integration of climate change consideration into the development of environmental, social and economic policies.
- Promoting the sustainable management of sinks and GHG reservoirs.
- Promoting research and cooperation in information exchange.
- Development of education, training and public awareness raising programs.
- Promoting and developing research and systematic observation.

These activities are related to seeking and processing of information, building long-term scenarios, identification and evaluation of abatement options and strategies, climate change vulnerability evaluation of the most likely scenarios, policy design for the implementation of abatement and/or adaptation activities, evaluating the social and economic impacts of activities that are to be implemented and integrating them into the global and sector objectives, evaluating the viability of the scenarios foreseen.

The execution of these obligations implies that the implementation process of the AEMP should adopt environmentally friendly processes that sustain the ecosystem and reduce emission of greenhouse gases. Improvement and restoration of the ecosystem through afforestation will automatically reduce GHG emissions in the general area since vegetation acts like as carbon sequestration mechanism. However, measures must be put in place to minimize emissions through appropriate technologies like gaseous emissions neutralization and ample green cover.

### **Vienna Convention for the Protection of the Ozone Layer**

Intergovernmental negotiations for an international agreement to phase out ozone depleting substances concluded in March 1985 with the adoption of the Vienna Convention for the Protection of the Ozone Layer. This Convention encourages intergovernmental cooperation on research, systematic observation of the ozone layer, monitoring of CFC production, and the exchange of information.

The convention's declaration demands a voluntary attempt at monitoring development processes, their resultant emissions and the impacts on the ozone layer for purposes of knowledge and information sharing in order to combat the same. The management plan involves steps to restore wetlands and improve the ecosystem. These and the additional measures outlined in this SESA report will go a long way to minimize the emissions that affect the ozone layer.

### **Convention on Biological Diversity**

This convention was prepared to ensure the conservation and sustainable use of biodiversity. Kenya signed the convention on 5th June 1992 and ratified the same on 26th July 1992. NEMA is the national focal point to this Convention. The provisions of this convention have been integrated in many laws of Kenya such as Wetlands, Riverbanks, Lake Shore and Sea Shore Management Regulations, 2009 (Legal Notice No. 19).

The management plan proposes restoration of swamps, river systems and other ecological systems which will ensure direct positive implications on the natural plant biodiversity. These measures coupled with the recommendations of this SESA report will greatly improve biodiversity conservation.

### **Ramsar Convention on Wetlands**

The Ramsar Convention on Wetlands is primarily concerned with the conservation and management of Wetlands. Parties to the convention are required to promote prudent use of wetlands within their territories and to take measures for the conservation of the same. One way to conserve the wetlands (as proposed under this convention) is establishing nature reserves whether they are included in the Ramsar list or not. The wetlands include swamps, marshes, bogs, soaks, shallow lakes, ox-bow lakes, river meanders and flood plains, as well as riverbanks, lakeshores where wetland plants grow. They also include marine and inter-tidal wetlands such as deltas, estuaries, mudflats, mangroves, salt marshes, sea grass beds, shallow coral reefs and creeks.

The main aim of the management plan is restoration and improvement of existing wetlands and river systems within the ecological system which is in line with the objectives of this convention. This SESA proposes additional measures to improve, manage and conserve wetlands and other water bodies.

### **Convention on the Elimination of all Forms of Discrimination against Women**

The Convention places explicit obligations on states to protect women and girls from sexual exploitation and abuse. The ecological system is located in a pastoralist area where cultural practices do not favor women rights. Additionally, tourism and related activities may infringe on human rights of women in the community. This SESA proposes measures to observe and adopt the guidelines of this convention during its implementation. The realization of a non-discriminatory environment can be realized through preventive and mitigation measures by the SESA on matters of social concerns.

### **Agenda 21 and Millennium Development Goals, 2015.**

The Agenda 21 entails a comprehensive plan of action to be undertaken globally, nationally and locally by organizations affiliated to the United Nations, governments, and other groups in every area in which human's impacts on the environment. Kenya continues to implement Agenda 21 plan of action by incorporating its principles in national policies, plans, programmes and strategies. The provisions have been incorporated in the Management Plan to promote sustainable development, which comprises of the three (3) underlying tenets of economic, social and ecology, which are well outlined in the Environmental and Social Management Plan section of this SESA. This SESA has also taken cognizance of the eight (8) Millennium development goals of 2015 namely; Eradicating extreme poverty and hunger; achieving universal primary Education; promoting Gender Equality and Empowering Women; Reducing Child Mortality; Improving Maternal Health; Combating HIV/Aids, Malaria and other Diseases; Ensuring Environmental Sustainability and Developing Global Partnerships for Development.

### **4.2.2 National Policy Framework**

#### **Kenya Vision 2030**

As the country's development blueprint covering the period 2008-2030, Vision 2030 aims to achieve a "globally competitive and prosperous country with a high quality of life by 2030" (GOK, 2007). Specifically, Vision 2030 aims at transforming Kenya into "a newly industrializing, middle-income country providing a high quality of life to all its citizens by the year 2030 in a clean and secure environment" (Ibid). The Vision is summarized in three pillars namely economic; social, and political pillars. Environment and water sectors fall under the social pillar while the tourism sector falls under the economic pillar. Additionally, in the vision, Kenya will seek to improve the capacity for adaptation to global climatic change and also harmonize environment related laws for better environmental planning and governance. Specific strategies will involve: promoting environmental conservation for better support to the economic pillar flagship projects; the application of economic incentives; and the commissioning of public-private partnerships (PPPs) for improved efficiency in water and sanitation delivery.

In this regard, the Vision cannot be achieved in the absence of a clean environment and this fits well with the management plan. The objectives of the Amboseli Ecosystem Management Plan are well aligned to the ideals of Vision 2030 as it meets objectives of the economic (tourism) and Social (environment and water) pillars through offering economic opportunities and protection of the environment. The positive impacts of improved tourism in the ecosystem will be employment, improved income generation and sustained social and health of the people.

#### **Draft National Environment Policy, 2013**

The draft National Environment Policy upholds the tenets of environment management and planning in Kenya by tracing the same to the Rio Earth Summit of 1992, which helped a great deal in raising the understanding of the link between environment and development (GOK, 2013). The policy recognizes the importance of the link between development and sustainable environment by stating the following key principles, among others;

- (i) Promotion and support SMEs and other industries to adopt appropriate environmentally sound technologies through provision of appropriate incentives and disincentives,

- (ii) To develop and promote use of strategic environmental social assessment in development plans, policies and programmes

Overall, the government recognizes the need to integrate environmental concerns in all policy, planning and development processes. It states thus in the policy document, 'Integration of environmental considerations in all national, county and relevant sectoral policies, planning and development processes is critical if this policy is to achieve its goal and objectives' (GOK, 2013). This SESA report is geared towards showing how the proposed management plan fulfils, complies and assist the provisions and objectives of the Environmental Policy. Chapter eight of this report details all the possible impacts of the implementation of the plan and shows how the negative impacts will be mitigated.

#### **National Environment Action Plan, 2009**

This Plan recognizes the environmental challenges facing industries, among others as; generation and management of solid, liquid and hazardous waste; gaseous emissions; adoption of cleaner production technologies and compliance with EIA/EA; waste and water regulations; importation of obsolete technologies; unregulated importation of toxic and hazardous chemicals; air and noise pollution; inappropriate technology in energy production; and poor planning in respect to industrial and residential areas. The National Action Plan proposes, among others, the following interventions: enhance use of cleaner production systems, finalize and implement regulations on toxic and hazardous chemicals and finalize and implement regulations on noise pollution.

This SESA report clearly shows how the above propositions are tackled by the Management Plan according to the provisions for implementation of EMCA 1999 and the associated environmental regulations. Chapter eight of this report details all the possible impacts of the implementation of the management plan especially the tourist facilities and activities and shows how the negative impacts will be mitigated.

#### **Sessional Paper No. 3 of 2009 on National Land Policy**

The National Land Policy was formulated to provide an overall framework and define the key measures required to address among others, the critical issues on land, land use planning, environmental degradation, conflicts and unplanned proliferation of informal urban settlements, outdated legal framework, institutional framework and information management. The policy further encourages a multi-sectoral approach to land use, provision of social, economic and other incentives and put in place an enabling environment for investment, agriculture, livestock development and the exploitation of natural resources.

The main objective of the AEMP is to enhance and improve the ecosystem for the benefits of all stakeholders and the ecosystem and thus seeks to address and enact the principles of this policy. The ecological system is a national reserve surrounded by communal and private land and thus specific land issues will be addressed. The SESA outlines various recommendations for land use to enhance acceptability and appropriateness of the proposed activities.

#### **National Water Policy, 2012**

The National Water Policy is informed by the gains made on implementation of reforms in the water sector as anchored on the National Water Policy of 1999 (NWP 1999) also referred to as Sessional Paper No. 1 on National Policy on Water Resources Management and Development, the Water Act 2016, existing related policy documents, and the globally recognized Integrated Water Resources Management (IWRM) approach (GOK, 2012). The policy aligns itself to the constitution in regard to creation of a system of democratic governance in which powers are devolved both vertically and

horizontally in efforts to take measures to achieve the progressive realization of the cultural and socio-economic 'rights to water', an enabler of wealth creation and poverty alleviation (GOK, 2012). Most importantly, the key principle of the policy is to ensure a comprehensive framework for promoting optimal, sustainable, and equitable development and use of water resources for livelihoods of Kenyans' (GOK 2012).

In this regard the AEMP proposes various water management and conservation issues among them protection of wetlands and rivers, protection of critical water springs from degradation and promotion of rainwater harvesting technology and support establishment of Water Resource Users Associations (WRUAs) to enhance management of water sources. Addressing these issues will ensure protection of the affected water resources, supply and efficient utilization of water resources as well as the safe disposal of wastewater.

### **The National Forest Policy, 2014**

The Forest Policy, 2014 provides a framework for improved forest governance, resource allocation, partnerships and collaboration with the state and non-state actors to enable the sector contribute in meeting the country's growth and poverty alleviation goals within a sustainable environment.

The main features of the revised policy framework for forest conservation and sustainable management include: (a) The enactment of a revised forests law to implement this policy. (b) The mainstreaming of forest conservation and management into national land use systems

(c) Clear division of responsibilities between public sector institutions where Ministry responsible for forestry provides an oversight role in national forest policy formulation, and regulatory function of the sector, thereby allowing Kenya Forest Service to focus on the management of forests on public land, and the role of the County governments in implementing national policies, County forest programmes including the delivery of forest extension services to communities, farmers and private land owners, and management of forests other than those under Kenya Forest Service.

(d) The devolution of community forest conservation and management, implementation of national forest policies and strategies, deepening of community participation in forest management by the strengthening of community forestry associations, and the introduction of benefit-sharing arrangements.

(e) The preparation of a national strategy to increase and maintain forest and tree cover to at least 10% of the total land area and for the rehabilitation and restoration of degraded forest ecosystems, and the establishment of a national forest resource monitoring system. Status of the Forests and Forest Resource Assessment reports will be published on a regular basis.

(f) The adoption of an ecosystem approach for the management of forests, and recognition of customary rights and user rights to support sustainable forest management and conservation.

(g) The establishment of national programmes to support community forest management and a forestation/reforestation on community and private land.

(h) The preparation of national standards for forest management and utilization, and the development of codes of conduct for professional forestry associations.

(i) The introduction of a chain-of-custody system for timber and wood products, and legal origin and compliance certificates for exporters of timber and wood products.

### **Draft National Livestock Policy, 2019**

The Policy provides guidance to national and county governments in the development of the Livestock Industry in line with Vision 2030 and the Constitution of Kenya, 2010. The Policy interventions clearly spell out the role of each level of government while providing the necessary linkages. The Policy is consistent with current government strategies including the Vision 2030 and its Medium-Term Plans (MTP's), the Big Four Agenda and the sector wide agricultural sector development strategies that have been developed to enable the achievement of national development objectives.

The Livestock Policy covers key issues relating to: farm animal genetic resources, livestock feeds and nutrition, inputs, animal diseases and pests, livestock marketing, research and extension and food security. In developing this sub-sector policy, it is appreciated that over 80% of Kenya's land mass is arid and semi-arid and livestock is the main source of livelihood in these areas. It is further noted that even in the non-ASAL areas, the livestock sub-sector constitutes an important source of family income and food security. In addition, livestock directly contributes to the foreign exchange earnings for our nation through export of livestock products, live animals and germplasm. As such, livestock development agenda in the country will be pursued towards commercialization.

The Policy recognizes the major stakeholders in the Livestock sub-Sector and proceeds to define their respective roles. It also takes cognizance of the impact of livestock activities on the environment and other natural resources such as land, water and wildlife/livestock interaction. Social inclusivity and related challenges have also been given attention due to their impact on the livestock sub sector.

This Policy recognizes the potential of the ASALs in livestock production and proposes options for the economic exploitation of these areas. The Policy takes cognizance of the contribution of the livestock value chain including non-conventional livestock species to the country's Gross Domestic Product.

The policy is expected to guarantee sustainability of livestock farming as a major economic thrust in the country. It is also expected to enhance Kenya's leadership position in livestock growth and development within the region and beyond.

One of the management programs proposed in the AEMP is the **Community Livelihoods and Socio-Economic Programme** whose purpose of is "to win space for livestock, and improve livestock and agricultural productivity to realize the socio-economic aspirations of the AE community within a sustainable framework". The draft National Livestock Policy will be a key guideline in the implementation of the community livelihood and socio-economic program.

### **National Industrialization Policy, 2012**

Sessional paper no. 9 of 2012 on the National Industrialization Policy Framework for Kenya is about transforming Kenya into a globally competitive regional industrial hub.

This Sessional paper sets the base for increasing growth rates, generation of sufficient employment opportunities, and fostering Kenya's integration into the global economy.

It takes into cognizance the Vision 2030 aspirations; current status of the Kenyan economy; changes and development in the global economy; challenges of the industrial sector; and opportunities arising there from. It also takes into account some of the lessons learnt and best practices from Newly Industrialized Countries (NICs). The policy is aligned to the Kenya Vision 2030 which aspires to transform Kenya into a middle income rapidly-industrializing country, "a globally competitive and prosperous nation, offering a high quality of life to all its citizens" in a secure and healthy environment.

This policy framework focuses on value addition for both primary and high valued goods; and linkages between industrial sub-sectors and other productive sectors to drive the industrialization process and aims at providing strategic direction for the sector growth and development.

This policy framework focuses on value addition for both primary and high valued goods; and linkages between industrial sub-sectors and other productive sectors to drive the industrialization process and aims at providing strategic direction for the sector growth and development.

For purpose of this policy, the industrial sector is defined as comprising the manufacturing, construction, mining and quarrying sub-sectors. The Industrialization policy will play a key role in guiding sustainable implementation of related activities proposed by programs such as tourism in the AEMP 2020-2030.

### **Energy Policy, 2012**

The broad objective of the national energy policy is to ensure adequate, quality, cost effective, and affordable supply of energy to meet development needs while protecting and conserving the environment. The specific objectives are to:

- Provide sustainable quality energy services for development
- Utilize energy as a tool to accelerate economic empowerment for urban and rural development
- Improve access to affordable energy services
- Provide an enabling environment for the provision of energy services
- Enhance security of energy supply
- Promote development of indigenous energy resources, and
- Promote energy efficiency and conservation as well as prudent environmental, health and safety practices

The management plan and SESA lays out strategies to monitor the range condition and develop measures to improve the poor range condition within the Amboseli Ecosystem which must involve promotion of alternative sources of energy apart from wood and charcoal.

### **Public Health Policy, 1994**

The Kenya Health Policy Framework set out the policy agenda for the health sector up to the year 2010. The policy includes strengthening of the central policy role of the Ministry of Health (MOH), adoption of an explicit strategy to reduce the burden of disease, and definition of an essential cost-effective healthcare package. To operationalize the health policy framework, the paper on National Health Sector Strategic Plan (NHSSP, 1999-2004) was developed in 1994. The plan focused on the essential priority packages based on the burden of disease and the required support systems to deliver services. Major players in the health sector include the government represented by the Ministry of health and the local government, private sector, and non-governmental (NGOs). The implementation of the devolved system of government has led to the active involvement of the lower levels of government albeit with major challenges. The role of the county governments includes implementation of the health policies, maintaining quality standards, and coordinating and controlling all county public health activities. Public health challenges in urban areas revolve around poor sanitation, unhygienic environment, and non-adherence to planning and building regulations.

The AEMP and SESA guidelines to equitable sharing of water resources, management of solid and liquid waste which ensures improved cleanliness and health of the local community, tourists and workers.

### **Economic Recovery for Wealth and Employment Creation Strategy, 2006**

The overall goal of the strategy is to ensure clear improvement in the social and economic well-being of all Kenyans; thereby giving Kenyans a better deal in their lives, and in their struggle to build a modern and prosperous nation (GOK, 2006). This strategy paper has commanded a great deal of attention in recent years and essentially subsumes the Poverty Reduction Strategy Paper (PRSP). The key areas covered in the strategy include, among others; reforms in trade and industry and safeguarding the environment and natural resources.

Some of the main management objectives of the AEMP that improve the welfare of the community include enhancing tourism returns to local communities, diversification, promotion and marketing of tourism and visitor experience, reduction of human-wildlife conflict, community benefits from natural resource use diversified and equity in benefit sharing ensured, improved livestock productivity and improved livestock production and marketing. These among others, will result in improvement of infrastructure, livelihoods and the economic status of the local community and investors through equitable and environmentally friendly exploitation of the ecological system. The SESA also outlines the mitigation measures for any adverse environmental impact that may result in the exploitation of the ecosystem.

## **4.3. LEGAL FRAMEWORK**

### **4.3.1 Constitution of Kenya, 2010**

The Constitution is the supreme law of the land. It lays the foundation on which the wellbeing of Kenya is founded. The constitution's provisions are specific to ensuring sustainable and productive management of land resources; transparent and cost-effective administration of land; and sound conservation and protection of ecologically sensitive areas. Specifically, Chapter 2 Part 4, on the Bill of Rights, section 42 provides that every person has the right to a clean and healthy environment, which includes the right: (a) to have the environment protected for the benefit of present and future generations through legislative and other measures. Article 69 outlines specific provisions on the environment; subsections (d) encourage public participation in the management, protection and conservation of the environment, and g) provides for elimination of processes and activities that are likely to endanger the environment.

The AEMP has made provisions to ensure a clean and healthy environment through the environmental and social management plan. Provisions for optimal utilization of natural resources particularly forests, water and energy through promotion of efficiency and conservation measures are well outlined in the plan and SESA. The SESA further provides for the management of solid and liquid wastes, reduced pollution and management of the natural resources including water, land and wildlife.



#### **4.3.2 Environment Management and Coordination Act, 2015**

This Act may be cited as the Environmental Management and Co-ordination (Amendment) Act, 2015. 2. (1) The Environmental Management and Coordination Act, 1999, in this Act referred to as the "principal Act" is amended in section 2- (a) by deleting the definition of "coastal zone" and inserting the following new definition- 'coastal zone" means the geomorphologic area where the land interacts with the sea comprising terrestrial and marine areas made up of biotic and abiotic components or systems coexisting and interacting with each other and with socio-economic activities; (b) by deleting the definition of "District Environment Committee"; (c) by deleting the definition of "District Environment Action Plan"; (d) by deleting the definition of "Provincial Environment Committee"; (e) by deleting the definition of "exclusive economic zone" and inserting the following new definition- "exclusive economic zone" has the meaning assigned to it by the United Nations Convention on the Law of the Sea; (f) by deleting the definition of "local authority";

Environmental Management and Coordination Act, 2015 describes the legal and institutional framework for environmental management. General principles of the act are that every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment. The entitlement to a clean and healthy environment includes the access by any person in Kenya to various public elements or segments of the environment for recreational, educational, health, spiritual and cultural purposes. Reference to this act is made together with other relevant regulations that form the environmental legal framework namely, the Environment (Impact Assessment and Audit) Regulations formulated in 2003. Based on these laws and regulations, relevant rules and a series of environmental criteria were developed to facilitate enforcement of the law. These are discussed below:

#### **4.3.3 Environmental (Impact Assessment and Audit) Regulations, 2003**

The Environmental (Impact Assessment and Audit) Regulations, state in Regulation 3 that “the Regulations shall apply to all policies, plans, programmes, projects and activities specified in Part IV, Part V and the Second Schedule of the Act”(ER-EIA, 2003). Section 42 and 43 address Strategic Environment Social Assessments; section 42(1) requires lead agencies in consultation with NEMA to subject all policy, plans and programmes for implementation to a Strategic Environment Assessments while regulation 42 (3) commits the government and all lead agencies to incorporate principles of SESA in the development of sector or national policy.

#### **4.3.4 Air Quality Regulations, 2013 (Legal Notice No. 34)**

These regulations spell out levels of ambient air quality standards that should not to be exceeded. Part II prohibits an individual from causing immediate or subsequent air pollution. Section 6 states that “no person shall cause or allow emission of the priority air pollutants prescribed in the Second Schedule of the regulations to cause the ambient air quality limits prescribed in the First Schedule to be exceeded” (AQR, 2013).

#### **4.3.5 Waste Management Regulations, 2006 (Legal Notice 121)**

These regulations provide for the management of waste. Part II regulation 4 (1) provides that no person shall dispose of any waste on a public highway, street, road, recreational area or in any public place except in a designated receptacle; regulation 4 (2) further states that a waste generator shall collect, segregate and dispose such waste in the manner provided for under these regulations and finally; and regulation 5 (1) provides for cleaner production methods. It states that a waste generator shall minimize the waste generated by adopting the following cleaner production methods:

- i. Improvement of production process through; conserving raw materials and energy; Eliminating the use of toxic raw materials; and Reducing toxic emissions and wastes;
- ii. Monitoring the product cycle from beginning to end by: Identifying and eliminating potential negative impacts of the product; enabling the recovery and re-use of the product where possible; and incorporating environmental concerns in the design and disposal of a product.

This SESA report has incorporated the Environmental and Social Management Plan and Environmental Monitoring Plan to ensure that the waste management regulations are complied.

#### **4.3.6 Water Quality Regulations, 2006 (Legal Notice No. 120)**

This regulation has provisions for ensuring water quality standards by actors and players in the water sector. Regulation 8 provides for all operators and suppliers of treated water, containerized water and all water vendors to comply with the relevant quality standards in force. Regulation 9 provides for water quality monitoring and states that the Authority in consultation with the relevant lead agency, shall maintain water quality monitoring for sources of domestic water at least twice every calendar year.

#### **4.3.7 Controlled Substances Regulations, 2007 (Legal Notice No.73)**

According to these regulations, producers and/or importers of controlled substances are required to include a material safety data sheet. Persons are prohibited from storing, distributing, transporting or otherwise handling a controlled substance unless the controlled substance is accompanied by a material safety data sheet. Manufacturers, exporters or importers of controlled substances must be licensed by NEMA. Further, any person wishing to dispose of a controlled substance must be authorized by NEMA. The licensee should ensure that the controlled substance is disposed of in an environmentally sound manner. These regulations also apply to any person transporting such controlled substances through Kenya. Such a person is required to obtain a Prior Informed Consent (PIC) permit from NEMA.

Persons handling controlled substances are required to apply for a permit from NEMA. Any licensee who imports or produces any controlled substances is required to ensure that all persons who receive or buy such substances sign a declaration form. Where an imported controlled substance does not meet set specifications, NEMA shall require the licensee to return the controlled substance to the country of origin at his/her cost or pay to NEMA the cost of disposing of the controlled substance. The EEIP Master Plan and this SESA report and specifically the Environmental and Social Management and Monitoring Plans have incorporated the handling of controlled substances to ensure safety of all the actors reduced harm and/or injury is caused to the people working in the sector and to the environment.

**4.3.8 Wetlands, Riverbanks, Lake Shore and Sea Shore Management Regulations, 2009-Legal Notice No. 19**

Management of wetlands is guided by the following principles:

- Resources on the river banks, lake shores and the sea shore shall be utilized in a sustainable manner;
- Environmental impact assessment as required under the Act shall be mandatory for all major activities on river banks, lake shores and the seashore; and
- Special measures, including prevention of soil erosion, siltation and water pollution will be enforced.

Section 9 clause 2(c) provides that a strategic environmental social assessment be conducted for specific wetlands management plans. On use of wetlands, section 11 (1 and 2) details the activities permitted and environmentally sound to ensure sustainable management of the wetlands.

In this regard the AEMP proposes various water management and conservation issues among them protection of wetlands and rivers, protection of critical water springs from degradation and promotion of rainwater harvesting technology and support of establishment of Water Resource Users Associations (WRUAs) to enhance management of water sources.

**4.3.9 Noise and Excessive Vibration Pollution (Control) Regulations, 2009 (Legal Notice No. 25)**

These rules provide for the noise regulations that apply to every factory, premises, place, process and operations to which the provisions of the Factories and Other Places of Work Act (Cap 514) apply. Section 1.4 of the legislation details the permissible levels of noise in a work place; section 5 and 6 elaborate on the recommended noise prevention programme as well as measurement and records to be undertaken by the contracted company during construction and operational phases of the project.

A great amount of noise and vibrations are expected in the activities proposed in the AEMP such as construction of roads and tourist infrastructure and these regulations will serve as guidelines to the investors. Specifically, the SESA has incorporated the Environmental and Social Management Plan that will ensure the tolerable Limits of Noise and Vibrations are not exceeded and that the recommendations in the regulations are adhered to.

**4.3.10 County Government Act, No 17 of 2012**

The County Government Act aims at giving effect to Chapter 11 (Devolution) of the constitution and provides for the county government powers, functions and responsibilities in the delivery of services and for connected purposes. The act emphasizes the need for a consultative and participatory approach where the principles of planning and development facilitation in a county serve as a basis for engagement between the county government and the citizenry, other stakeholders and interest groups (Article 102 (i)).

The SESA study involved a participatory process whose hallmarks are public participation and stakeholder consultations to ensure that all their environmental and social concerns are incorporated. Therefore, individuals and institutions directly or indirectly affected by implementation of the AEMP are entitled to express their interests and have them respectively taken into consideration in the decision-making process. Additionally, County Governments must be involved in matters of public

land, water, health and infrastructure development in their respective areas of jurisdiction to avoid conflicts with county development plans.

#### **4.3.11 Physical Planning Act, Cap 286 of 1996**

The main objectives of this Act are inter alia to provide for proper coordination between the different levels of government in the preparation and implementation of the various physical development plans. Part IV of the act specifically provides for the preparation of physical development plans for the selected area and selected purpose for the concerned administrative unit, while Part V, on “control of development” provides for powers of planning authorities in development permission including application and approval of development proposals. The act stipulates development application procedures and for approvals in regard to: (i) change of use: change in the use of land; (ii) extension of use, that is, adding other use to the land (20% of the total land); (iii) amalgamation: combination of the plot or use of land; and, (iv) sub-division that is, separating the use of the land.

The provisions are crucial in the AEMP as they give some guidelines and controls since some of the issues of the plan includes alteration of use and sub-division in the case of ranches. This will give guidelines to the stakeholders in implementation of the various actions.

#### **4.3.12 National Land Commission Act, CAP 5D of 2012**

This is an act of parliament that provides for the functions and powers of the National Land Commission, which among others gives effect to the Constitution, the objects and principles of devolved government in land management and administration, and for connected purposes. In relation to the SESA study, this Act provides for:

- a. The management and administration of land in accordance with the principles of set out in Article 60 of the Constitution and the national land policy,
- b. A linkage between the National Land Commission, county governments and other institutions dealing with land and land related resources

Section 19 (1) provides that the commission shall, subject to the physical planning and survey requirements, process applications for allocation of land, change and extension of user, subdivision of public land and renewal of leases.

#### **4.3.13 Energy Act, CAP 314 of 2006**

The Energy Act was enacted to amend and consolidate the laws relating to energy, to provide for the establishment, powers and functions of the Energy Regulatory Commission (ERC) and the Rural Electrification Authority (REA), and for connected purposes. Sections 46, 47, 48, 49, 50, 51, 52, 53 and 54 provide for procedures for acquisition (whether through willing surrender or compulsorily) of and the use of way leaves. Specifically, section 53(1) provides that for the purpose of the conveyance, transmission, or supply of electrical energy, a licensee may erect, fix, install or lay any poles, wires, electric supply lines, power or other apparatus in, upon, under, over or across any public streets, roads, railways, tramways, rivers, canals, harbors or government property, in the manner and on the conditions as provided in this Act.

The most crucial provision for this SESA study is the environmental, safety and health standards compliance for electrical installations such as electrical fences proposed for the national reserve. The

AEMP and this SESA study re-emphasize the provisions of this act through analyses of any possible negative and positive impacts and respective mitigation measures for the negative impacts.

#### **4.3.14 The Forest Conservation and Management Act, 2016 (No. 34 of 2016).**

This is an Act of Parliament to give effect to Article 69 of the Constitution with regard to forest resources; to provide for the development and sustainable management, including conservation and rational utilization of all forest resources for the socioeconomic development of the country and for connected purposes.

This Act makes provision for the conservation and management of public, community and private forests and areas of forest land that require special protection, defines the rights in forests and prescribes rules for the use of forest land. It also makes provision for community participation of forest lands by community forest association, the trade in forest products, the protection of indigenous forests and the protection of water resources.

Sec 74 -Cooperation Regarding Cross border Forest Resources: The Director General may, with the approval of the Board, develop management plans for purposes of sustainable management of cross-border forest resources. 75. (1) where a provision of this Act requires a person to conserve or protect the environment, the relevant provisions of the Environmental Management and Coordination Act, 1999, shall also apply with respect to the manner in which the conservation or protection shall proceed. (2) No user rights or other license or permit granted under this Act shall exempt a person from complying with the relevant provisions of the Environmental Management and Co-ordination Act, 1999, or any other written law concerning the conservation and protection of the environment. (3) A user or other related right shall not be granted under this Act where the requirement for a strategic environmental, **cultural**, **economic** and social impact assessment license under the Environmental Management and Co-ordination Act, 1999, has not been complied with.

The Forests Act provides for the establishment, development and sustainable management including conservation and rational utilization of forest resources for the socio-economic development of the country. The Act provides for the creation of the Kenya Forest Service with the responsibility to: Provide forest extension services by assisting forest owners, farmers, and associations in the sustainable management of forests; Promote the empowerment of associations and communities in the control and management of forests, and; Manage forests on water catchment areas primarily for purposes of water and soil conservation, carbon sequestration, and other environmental services. The Kenya Forest Service is a key stakeholder in the management of the natural resources and will play major role in the implementation of the AEMP.

#### **4.3.15 Wildlife Conservation Act 2013**

This Act may be cited as the Wildlife Conservation and Management Act, 2013. 2. This Act shall apply to all wildlife resources on public, community and private land, and Kenya territorial waters. 3. (1) In this Act, unless the context otherwise requires— "aircraft" means any type of aero plane, airship, balloon or kite, whether captive, navigable or free, and whether controlled or directed by human agency or not; "alien species" means a species that is not indigenous to Kenya or an indigenous species

translocated to a place outside its natural distribution range in nature and which in its natural habitat is usually found in nature; "animal" means any species or the young or egg thereof, but does not include a human being or any animal which is commonly considered to be a domestic animal or the young or egg thereof; "authorized officer" includes a member of, the Service, a forest officer, a fisheries officer, a police officer, a customs officer, an administrative officer, or any person so designated under this Act; "biodiversity" means the variability among living organisms from all sources including ecosystems and the 1243 2013 Wildlife Conservation and Management No. 47 ecological complexes of which they are a part, encompassing ecosystem, species and genetic diversity;

#### **4.3.16 Community Land ACT 2016**

AN ACT of Parliament to give effect to Article 63 (5) of the Constitution; to provide for the recognition, protection and registration of community land rights; management and administration of community land; to provide for the role of county governments in relation to unregistered community land and for connected purposes [Act No. 27 of 2016.]

#### **4.3.17 The Physical and Land Use Planning ACT, 2019**

An ACT of Parliament to make provision for the planning, use, regulation and development of land and for connected purposes ENACTED by the Parliament of Kenya

#### **4.3.18 The Land ACT, 2012 No. 6 of 2012**

An ACT of Parliament to give effect to Article 68 of the Constitution, to revise, consolidate and rationalize land laws; to provide for the sustainable administration and management of land and land-based resources, and for connected purposes

#### **4.3.19 Tourism ACT Date**

[Date of commencement: 1st September, 2012.] An Act of Parliament to provide for the development, management, marketing and regulation of sustainable tourism and tourism-related activities and services, and for connected purposes

#### **4.3.20 The Building Code of 1997**

The Code states that prior to erection of buildings an application, submission of plans and payment of fees are to be made to the municipal/county council. It also contains requirements relating to certificates for occupation of premises. These are adoptive bylaws under the now repealed Local Government Act and are under revision. These will be sought by respective investors in development of tourist structures. The SESA has provided for adequate mitigation measures against any potential environmental impacts of the developments in the EMMP Section.

#### **4.3.21 KS Code (2009): Building Code of the Republic of Kenya (2009 Edition)**

These Regulations cover provisions for national, regional and local physical planning, siting, site operations, building design, building and infrastructure services, disaster risk management on construction sites and maintenance of all buildings as contained in these Regulations.

#### **4.3.22 Water Act 2016**

The act provides regulations for the management and development of water resources, water supply and sewerage development in all parts of the country with the objective of conserving, protecting and

allocating such resources in order to meet the various needs while ensuring safe disposal of wastes. Part II, section 18, of the act provides for national monitoring and information system on water resources while sub-section 3 allows the Water Resources Authority (WRA) to demand from any person or institution, specified information, documents, samples or materials on water resources. Furthermore, the act vests the rights of all water to the state, and the power for the control of all bodies of water with the Minister, in consultation with the water catchments boards, it aims at among others: (i) provision of and conservation of water; and, (ii) apportionment and use of water resources.

The AEMP has made provisions for conservation, monitoring and sharing of available water resources in the ecosystem. The AEMP proposes various water management and conservation issues among them protection of wetlands and rivers, protection of critical water springs from degradation and promotion of rainwater harvesting technology and support establishment of Water Resource Users Associations (WRUAs) to enhance management of water sources. This SESA report contains an Environmental and Social Management Plan to ensure efficient utilization of the water resources in the area.

#### **4.3.23 Occupational Health and Safety Act (OSHA), 2007**

This is an Act of Parliament, which provides for the safety, health and welfare of all workers and all persons lawfully present at workplaces. The act further provides for the establishment of the National Council for Occupational Safety and Health and for connected purposes. The act repealed the Factories and Other Places of Work Act. It applies to all workplaces where any person is at work, whether temporarily or permanently and therefore will apply to the project during implementation of objectives that involve construction.

## **4.4 INSTITUTIONAL FRAMEWORK**

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

The authority is the key agency in charge of coordination of environment management activities, ensure compliance environmental guidelines and advise government on legislative and measures concerning environment management. NEMA is also the national focal point for enforcement of the principals of international policies on environment. EMCA (1999) provides NEMA with powers to approve or disapprove major developments in wildlife conservation areas based on proper planning and assessment of environmental impacts outlined in SESA studies (GoK, 1999b).

The authority has to ensure compliance of the AEMP based on an approved SESA study by the project proponent. This is done with a view to ensuring the proper management and rational utilization of environmental resources. NEMA a key player in all environmental matters in the country, and is the approving authority of the SESA and EIA studies/reports prepared under this project.

### **4.4.2 National Environment Council**

The National Environment Council (NEC) is established under Section 4(1) of the Environmental Management and Coordination Act no. 8 of 1999. The key functions of the Council, among others, include;

- (a) Set national goals and objectives and determine policies and priorities for the protection of the environment;

- (b) Promote cooperation among public departments, local authorities, private sector, non-governmental organizations and such other organizations engaged in environmental protection programmes

#### **4.4.3 National Environmental Complaints Committee**

The functions of the Complaints committee are to:

- a) Investigate any allegations or complaints against any person or against the Authority in relation to condition of the environment in Kenya; or on its own motion, any suspected case of environmental degradation, and to make a report of its findings together with its recommendations thereon to the Council;
- b) Prepare and submit to the Council, periodic reports of its activities, which report shall form part of the annual report on the state of the environment under section 9(3); and
- c) Perform such other functions and exercise such powers as may be assigned to it by the Council.

#### **4.4.4 Ministry of Water and Irrigation**

The ministry is responsible for the establishment, coordination and operationalization of the water service boards in Kenya. Thus, all the service boards through the relevant acts are expected to effectively and efficiently provide services related to water resources management and water projects' development. The realization of the water sector in the AEDP will involve this ministry through the Water Management Authority.

#### **4.4.5 County Environment Committee**

Under the Environmental Management and Co-Ordination (Amendment) Act, 2015 No. 5 of 2015, County Environment Committee is constituted by the Governor in consultation with the relevant county organs. The role of the committee includes the proper management of the environment within the county and developing a county strategic environmental action plan every five years. For purposes of this plan and SESA study, apart from being a key stakeholder, the county government shall provide an oversight role on environmental issues.

#### **4.4.6 Water Service Providers**

These are corporate entities established under Cap 486 of the laws of Kenya. The entities are fully owned by the county government. The companies are in charge of water supply in their defined area of service and is therefore expected to be a major stakeholder in the AEMP



## **5. OOCR SESA METHODOLOGY**

### **5.1 General approach**

The general approach for the study included consultation with the client to review the Terms of Reference, and the understanding of the scope of work. The study team held consultations at AET offices in Amboseli with the Chairman of the Board, OOCR Committee and the CEO and his team.

### **5.2 Review of the OOCR Land Use and Subdivision Plan**

A desk review of the OOCR land subdivision scheme plan and other relevant legal instruments were reviewed and key among them were:

- Legal options Report
- Amboseli Management Plan
- OOCR Conservation Development Plan
- Strategic Assessment of Amboseli Management Plan
- State of Conservancies Report 2020
- Wildlife Dispersal Areas Report, Vision 2030
- Environmental Management and Coordination Act (EMCA) 2015
- EMCA (Wetlands, river banks, lake shores and sea shore management) Regulations, 2009 (GoK, 2009a)
- Physical Planning Act, Cap 286, of 1998 (GoK, 1998)
- Water Act, Cap 372 of 2002 (GoK, 2002)
- Forest Act No. 7, of 2005 (GoK, 2005)
- The Forest (Charcoal) Rules, 2009, Legal Notice No. 186 (GoK, 2009c)
- Wildlife (Conservation and Management) Act Cap 376 of 1976, 1989 & Bill, 2013 (GoK, 2013)
- Agriculture Act (GoK, 1955)
- Tourism Act, No. 28 of 2012 (GoK, 2012e)
- Public Health Act, Cap 242 (GoK, 1986)
- Crop Production and Livestock Act, Cap 321 of 1926 (GoK, 2005c)
- Energy Act No 12 of 2006 (GoK, 2006c)
- Community Based Tourism Framework (2009) (GoK, 2009f)
- Vision 2030 (GoK, 2008b)
- National Environment Action Plan (2009-2013) (GoK, 2009b)
- National Biodiversity Strategy and Action Plan (2000) (GoK, 2000b)
- National Master Plan for the Conservation and Sustainable Management of Water Catchment Areas in Kenya (2012), (GoK, 2012b)
- National Conservation and Management Strategy for Elephants in Kenya (2012-2021) (KWS, 2012)
- National Conservation and Management Strategy for the Black Rhino and Management Guidelines for the White Rhino in Kenya (2007-2011) (KWS, 2007)
- National Conservation and Management Strategy for Lions and Spotted Hyenas (KWS, 2010)
- Nairobi Metro 2030 (GoK, 2008a)

- Agricultural sector Development Strategy 2010-2020 (GoK, 2010d)
- National Climate Change Response Strategy (2009) (GoK, 2010b)
- National Tourism Master Plan (GoK, 1995)
- Local area management plans (e.g., GR and Conservancy Management Plans)

### **5.3 Field Visits**

Field visits were undertaken to OOCR from the 10<sup>th</sup> to 15<sup>th</sup> October for data collection, KII, observations and familiarization with the project area. The study team undertook site visits beginning with AET offices, OOCR conservancies in Kitirwa, Kitendeni, Amboseli National Park, Grazing banks, Centres, Irrigation sites in Namelok and in Ilmisigeiyo. Questionnaires were used for data collection, and use of matrices for impact analysis, as well as observations were made and geo-referenced using a GPS.

### **5.4 Consultation and Public Participation**

Consultation and Public Participation commenced with a meeting held with the OOCR Management and AET on 14<sup>th</sup> October, 2022 at their offices in Amboseli. Thereafter, the study team was given a go ahead to visit other stakeholders. Key among the stakeholders visited, were the Kenya Wildlife Service, IFAW, Africa Elephant Trust, Big Five, County Government of Kajiado Office of the Governor and the Department of Physical Planning as shown in Plates 4.1-4.4. A list of stakeholders consulted is attached in Appendix.



**Plate 5.1: Meeting at AET with OGR Committee**



**Plate 5.2: Meeting with Meshenani Curio Vendors**



**Plate 5.3: Meeting with Meshenani Women Grassbank group**



**Plate 5.4: Meshenani Grass Bank**



## **6. ANALYSIS OF OPTIONS**

### **6.1 No Land Use and Subdivision Plan Option**

This option will ensure that the land use status quo remains as it was in the past. Land is all communal and is leased out for conservation. This option will ensure that the land use remains pastoralism and conservation which will leave community members as beneficiaries with very little options to improve their livelihoods. In this regard they will continue to wallow in poverty, as the current land use option is limited in terms of improving income to community members, and livelihood activities. In addition, community discontent on the current land use will continue to pile up and it may be counterproductive.

### **6.2 Land use plan only**

Land use plan only will ensure that allocation is done for grazing, conservation and transport infrastructure. This option will ensure that pastoralism, and conservation thrive, and will only benefit a few and will continue to create dissenting voices and may not be preferable.

### **6.3 Subdivision Plan Only**

This option will ensure that land for settlements and centres and utilities is subdivided. This option is not wholesome and will leave out critical value of the land which supports pastoralism and conservation.

### **6.4 Integrated Land subdivision scheme plan**

This entails undertaking a land subdivision scheme plan and subjecting it to a Strategic Environmental Assessment to ensure that it takes into consideration environmental concerns, and integrate them into the plan. This will ensure positive environmental impacts are enhanced, negative ones are mitigated, and taken into account through the project period, and reviewed as is required. The option will also ensure holistic and sustainable land use by all stakeholders.

## 7. DESCRIPTION OF OGR SUB DIVISION SCHEME PLAN, POTENTIAL IMPACTS AND MITIGATION MEASURES

### 7.1 Overview

The proposed land uses in the revised scheme plan are pastoral areas which are divided into 8 (eight) blocks measuring 79,848.02 hectares, environmental conservation areas, which include Wildlife habitats; Bird's habitat, Livestock grazing, Wildlife dispersal, Surface water sources, Wildlife movement corridors and rivers & Natural drainage channels, measuring 46,019.45 hectares, irrigation area 5,227.02 hectares, transportation networks 3,783.26 hectares, social and physical infrastructure measuring 1,678.04 hectares as shown in Table 5.1.

**Table 7.1: Zoning Scheme land proposed land allocation by hectares**

No.	Zoning Scheme	Hectares	Percent (%) of Total land
1	Pastoral areas	79,848.02	58
2	Environmental conservation: Wildlife habitat, corridor and dispersal areas, Bird sanctuary, natural resources and drainage	46,019.45	34
3	Irrigation Area	5227.02	4
4	Transport infrastructure	3,783.26	3
5	Social and Physical Infrastructure	1,678.04	1
	Total	136,555.79	100

### 7.1 Pastoral Zone Scheme

#### 7.1.1 Description of the zoning scheme

Pastoralist zoning scheme are measures 79,848 Ha and is divided into eight zones with representatives and elected leaders. The zones are namely; Kitiwa Namelok, Ormoti, Olgulului, Meshanane, Loolakef, Lengisen, Lisanjalt and Enkong-Narok zone. The groups also have a grazing plan to guide their activities. These areas allow for the establishment of cattle dip, livestock development activities such as fattening camps, animal watering points. A number of livestock from OGR members graze in the group ranch and during dry season, they venture into Amboseli National Park, and the newly established conservancies.

#### 7.1.2 Positive impact

Livestock grazing constitutes the livelihood of local communities in OGR. It therefore goes without question, that having vast lands for grazing improves livelihoods. It enables communities to earn a

decent living, pay school fees, and fend for their families. In line with this livestock population will certainly increase.

Water is a major issue in livestock farming, and in areas where there are boreholes, there is need to enhance it, provide for value addition. During this study we noted that in Enkong Narok, there are two boreholes which provide water to local communities and livestock. In one borehole which we were informed its depth was 35 meters, there is provision for water for livestock and around 800 meters, a watering pan for elephants has been established on the elephant's corridor, to keep them from interfering with livestock. This is commendable and worth replicating in other areas.

### 7.1.3 Negative impact

Increase in livestock population, also can lead to overgrazing, which can reduce fodder not only for domestic animals but also wildlife. It is noted that in OGR livestock and wildlife conservation are compatible land uses but not without conflict because of competition for resources within the same rangeland since there is no clear demarcation. There are times when farms within the rangelands also attract wildlife leading to direct human-wildlife conflicts, breaking of granaries, crop raiding and killing of people and livestock. Human-wildlife interactions can also lead to transmission of diseases such as the malignant catarrh from wildebeest to cattle.

### 7.1.4 Mitigation measures

Mitigation measure include:

- Establishing a clear boundary on livestock areas, and wildlife zones
- Enforce grazing plans, and demarcate designated areas to ensure everyone is aware and adheres to the rules.
- Develop education materials to promote and enhance awareness,
- Ensure continual auditing and monitoring.
- Enhance formation of grazing banks in all pastoralist zones
- No fencing of land to allow animal and wildlife movement
- Construction of permanent Bomas not allowed
- Further subdivision of the area not allowed
- Develop guidelines, rules and ensure enforcement by the relevant stakeholders

**Table 7.2: Pastoral Zone Impact Mitigation Guideline**

Permitted uses	Restriction	Management Standards	Actions(Remarks)	By Who?
i. Grazing of livestock	i. Construction of permanent 'bomas'	i. Controlled grazing to be encouraged	Develop a grazing plan	OGR
ii. Building of traditional manyatta's and livestock bomas	ii. Fencing iii. Further subdivision	ii. Establishment of communal graze banks	Provide signage to inform on permitted land use in the area	OGR

Permitted uses	Restriction	Management Standards	Actions(Remarks)	By Who?
iii. Animal watering point iv. Cattle deep v. Fodder storage stores	iv. Change of User v. Change of ownership vi. Road construction	iii. Sensitization on carrying capacity and modern animal husbandry		

## 7.2 Clustered Settlement Zone

### 7.2.1 Description of clustered settlement zone

These areas will entail establishment of residential and commercial houses, social amenities such as health and educational facilities, community halls, churches, open air market, game fence to around nucleated establishment, and burial sites. These clustered settlements have already started taking shape around Enkong Narok near Serena Hotel, as it has a school, health center, borehole, and scattered residential areas.

### 7.2.2 Positive impact

The establishment of the above social amenities will lead to livelihood improvement and diversification of enterprises and other small and medium businesses. It will also bring essential services such as improved road network, health services, and access to electricity, close to the people, and improve their quality of life.

### 7.2.3 Negative impacts

One of the key challenges with clustered settlement developments include:

- Lack of standards and mushrooming of settlements in non-designated areas.
- Establishment of settlements without provision for essential services such as water, health and sanitation, infrastructure, and security.
- The establishment of settlements may trigger influx of people and may lead to proliferations of social and wildlife crimes such as poaching.

### 7.2.4 Mitigation measures

In order to mitigate the negative impacts likely to be generated by the clustered settlements, the following measures are suggested:

- Develop standards on settlement that are within the sub division scheme plan, and the framework of Amboseli Ecosystem Management Plan.
- Support establishment of police post in designated areas to deal with social disorders in settlements
- Develop a site master plan and sensitize communities on its uses

- Undertake land clinics in consultation with the department of physical planning in Kajiado County, to create awareness on land use and zonation.
- Discourage raring of livestock in settlement areas
- Plot coverage 50% for residential, and 75% for commercial
- Use eco-friendly standards on iron sheets that match well with nature and aesthetics of the area,
- Adopt rain water harvesting, solar and renewable energy, as well as waste disposal mechanisms such as oxidation ponds.



Plate 7.1: Center in Enkong-Narok



Plate 7.2: Emerging houses in Enkong Narok

## 7.3 Environmental and Wildlife Conservation Zone

### 7.3.1 Description of the areas

Environmental and Wildlife Conservation areas are designated for wildlife habitat and management, and are utilized for tourism through game viewing, wildlife research, establishment of hotels, campsites, bird watching and controlled livestock grazing. The area established for conservation is approximately 46019 Ha, which is approximately 34% of the entire OGR land.

There are five established conservation areas namely; Kitirwa, Kitendeni A and B, Ole Narika and Ilaingarunyoni. Though the conservancies are at their formative stages, some have established tourism facilities already on site while others are proposed. Kitirwa is managed by Ker Downey and Kitendeni by IFAW. In Kitinden IFAW is supporting conservation cause through training of rangers and enhancing security OGR. So far Kitendeni has trained 87 rangers comprising both women and men, some of who are deployed in the following areas:

No	Conservancy	Area	Number of Trained Rangers
1	Kitendeni	Lemomo	17
		Imarba	9
		Isiruai	5
2	Kitirwa	Esiteti	12
3	Ole Narika	Risa	17 (14 women, 3 men)



		Nairabala	5
4	Ilaingarunyoni	Ilaingarunyoni	8
		Osewan	7
		Mangula	7

Kitendeni conservancy which is supported by International Fund for Animal Welfare (IFAW), has an established fully functional office, ranger quarters, training camp, radio communication facility with over 50 km range which fully covers the park and OOCR conservancies. There also four trained and licensed drone pilots, which makes it possible to enhance efficiency through use of technology. Rangers are also trained on wildlife related data collection, using Survey 123 App, and mobile phones, and relay the information on a timely basis.



**Plate 7.3: Meeting in Kitendeni Conservancy**



**Plate 7.4: Kitenden Conservancy Office**



**Plate 7.5: Kitendeni Conservancy Resource Center**



**Plate 7.6: Meeting with KWS rangers in Kitirwa**

### **7.3.2 Positive impacts**

The proposed sub-division is in favor of conservation of natural resources and wildlife. Great efforts have been made to ensure that significant and strategic land has been identified and set aside for conservation. Positive impacts identified are as follows:

- It will enhance co-existence between the local people and wildlife and
- These conservancies will also secure wildlife habitats and protection as the establishment of ranger posts will improve on protection and compliment KWS rangers in Amboseli Ecosystem.
- Livelihoods improvement, as beneficiaries will earn a living from bed nights and leasing of land, and establishment of cultural manyattas.

### **7.3.3 Negative Impacts**

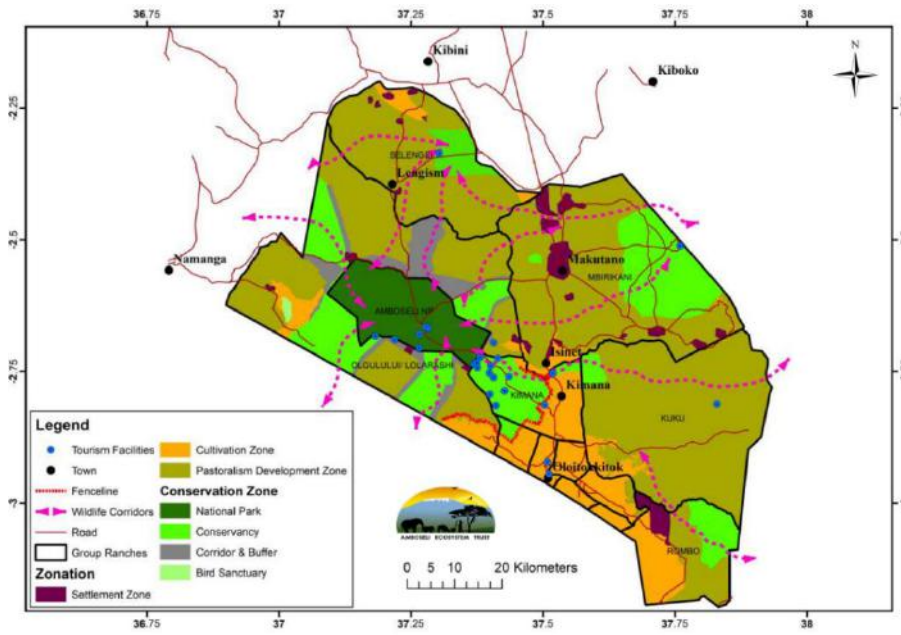
Some of the negative impacts arising from conservation area are as follows:

- The land subdivision did not take into consideration scientific evidence on wildlife connectivity from one park to another and although there is provision for corridors in certain areas, the land is still sub-divided under 21-acre parcels etc. This has potential to create blockages and bottlenecks on wildlife movement leading to human wildlife conflicts as shown in Figure 4 & 5.
- There is no clear distinction on where the boundary for grazing and conservancies begins and end when it comes to implementation as animals graze freely as shown in Plate 5.7 and leading to conflict as shown in Plate 5.8.
- The likelihood for disease transmission from wildlife to livestock and vice versa is very high. Malignant Catarrh, bovine tuberculosis, par tuberculosis, brucellosis, and avian influenza, rabies, and cattle fever tick (vector control)—have a wildlife reservoir that is a recognized impediment to eradication in domestic populations. The complex nature of these systems highlights the need to understand the role of wildlife in the epidemiology, transmission, and maintenance of infectious diseases of livestock. Successful management or eradication of these diseases will require the development of cross-discipline and institutional collaborations, to mitigate the risks posed at the livestock–wildlife interface.
- Lack of strategic dry and wet season grazing areas will interfere with visitor experience during dry seasons as animals will migrate to wetlands in the park or other areas in the ecosystem.
- Proliferation and mushrooming of campsites in undesignated areas which will enhance accommodation facilities which will lower costs and impact on Amboseli as high value tourism destination.

#### **7.3.4 Environmental and Wildlife Conservation Impacts Mitigation Measures**

The following mitigation measures are proposed in order to reduce negative environmental impacts in OGR and Amboseli Ecosystem

- Align subdivision scheme with data on wildlife movement, to set aside corridors and dispersal areas (Migratory Corridor Map in Figure 3, 4,5, 11, 12,13, 14 and 15) which can be leased out to potential conservationists to protect wildlife. This can also be leased out for carbon offsetting for grasslands.
- Demarcate and put clear signage on boundaries for grazing and conservancies
- Establish guidelines, Regulations, enhance enforcements, ranger patrols, education and awareness on land use limitations etc.



Source: Amboseli Management Plan 2019

Figure 12: Zonation Map for OOCR

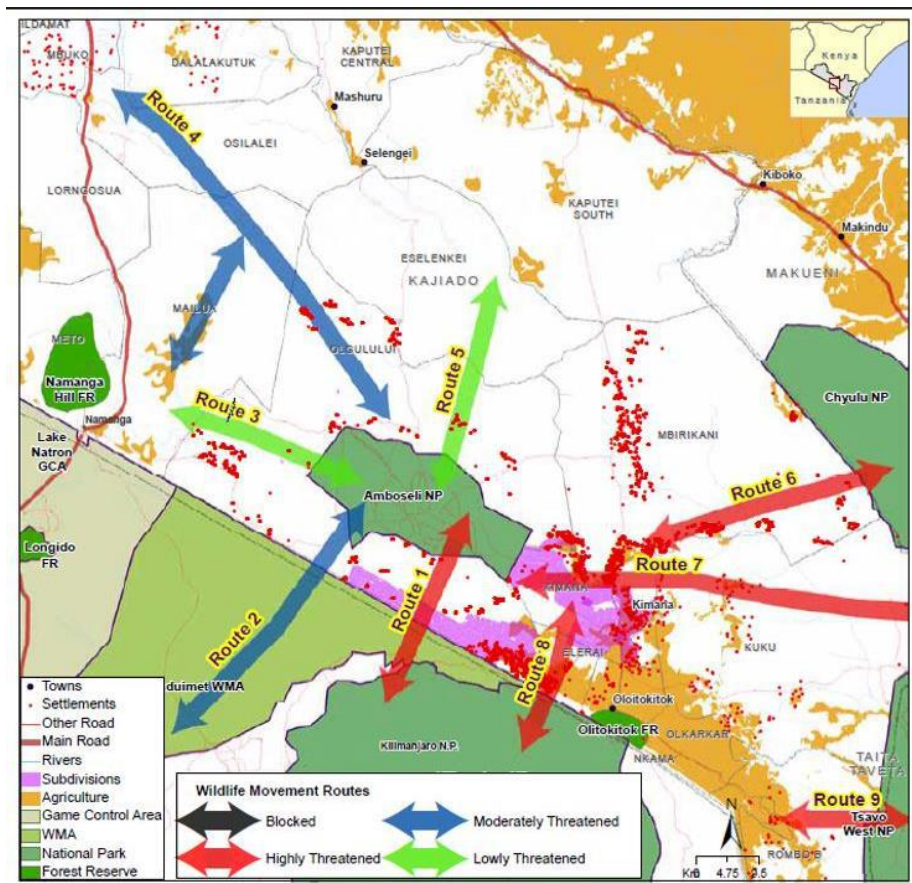


Figure 13: Wildlife Corridors in Amboseli Ecosystem

Source: GoK (DSRS) Wildlife Corridors and Dispersal Areas Report



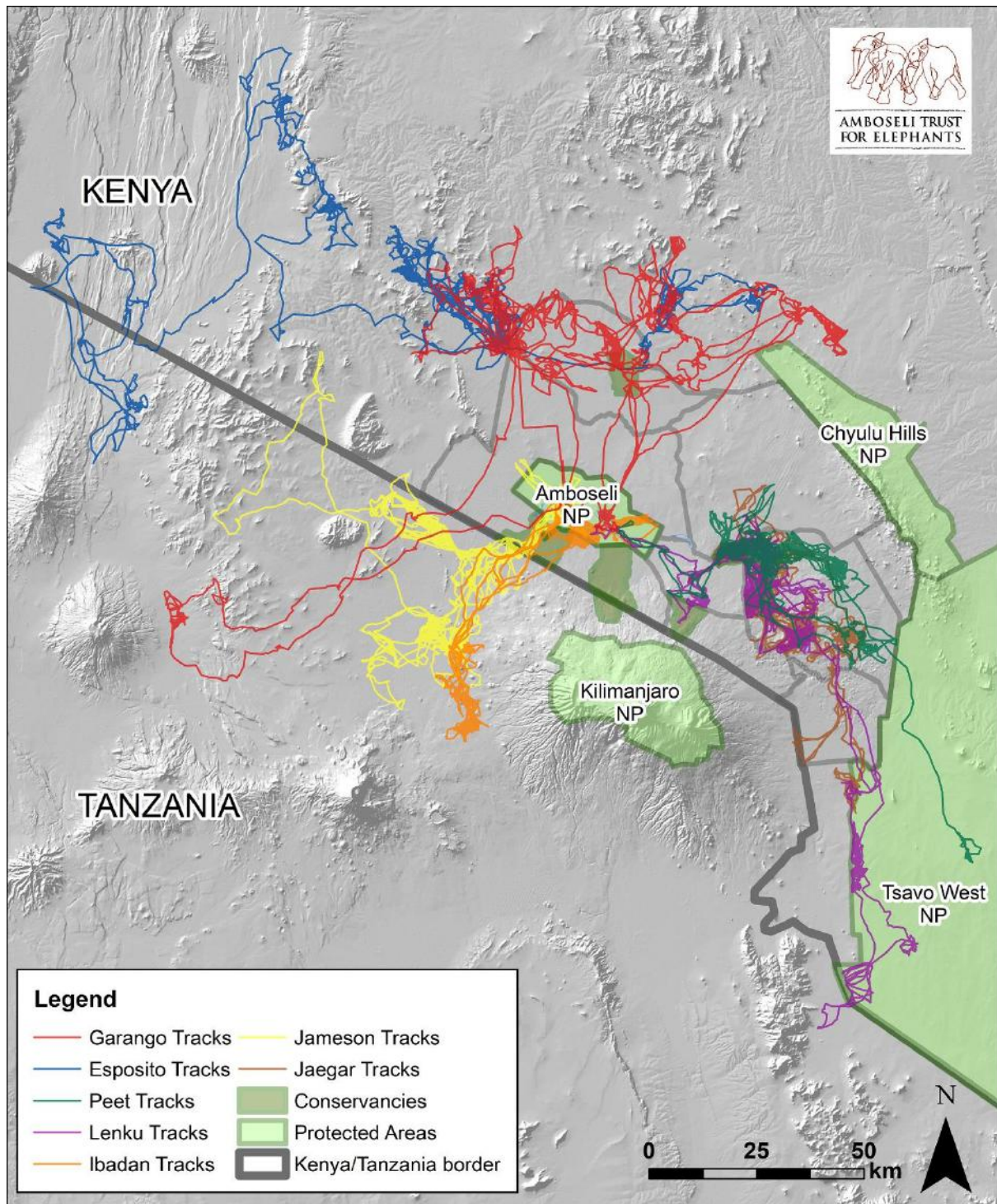


Figure 14 Elephant tracks in Amboseli courtesy Amboseli Trust for Elephant



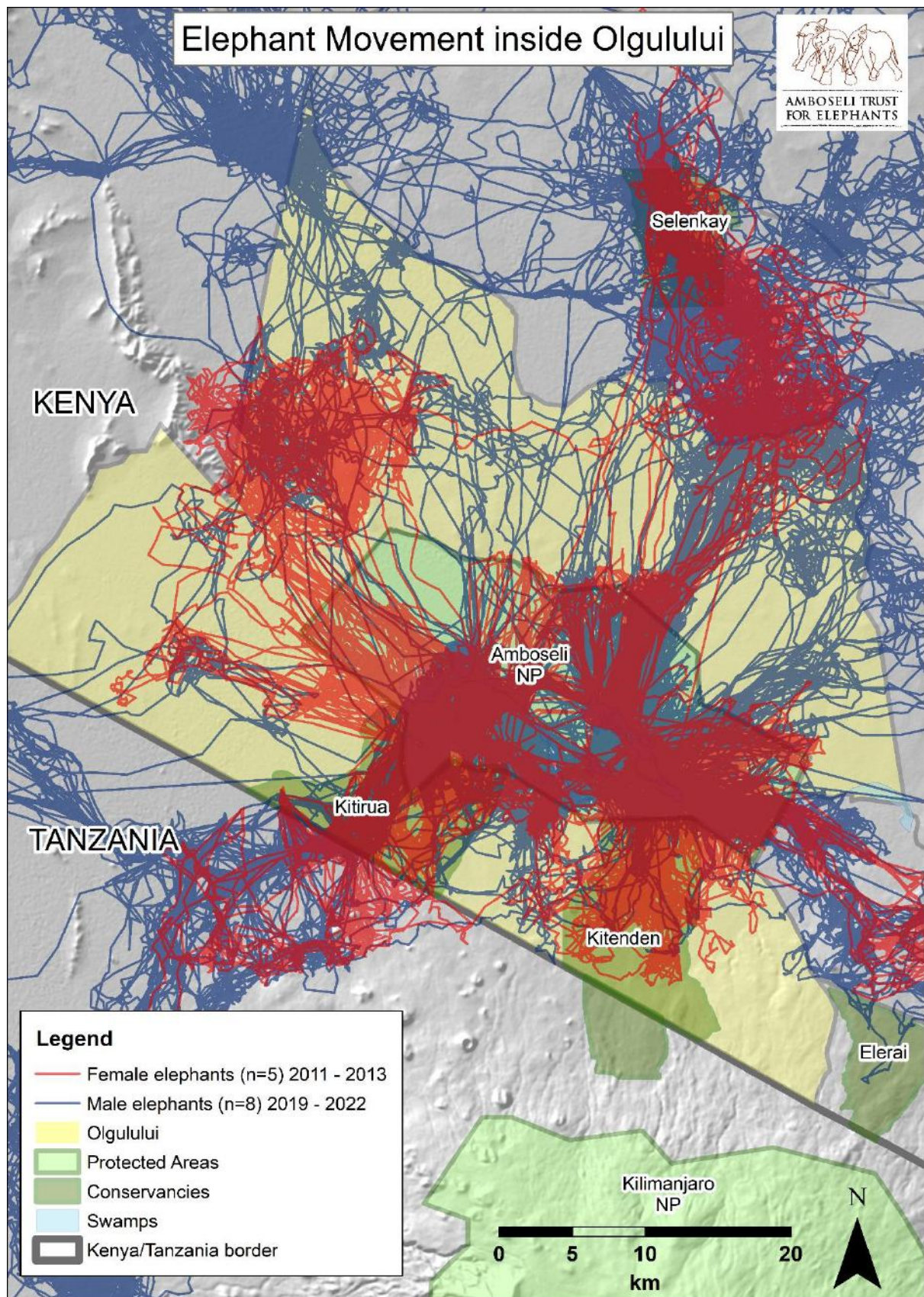


Figure 15 Elephant Movement in Olgulului courtesy Amboseli Trust for Elephants





**Plate 7.7: Livestock grazing in Kitendeni Conservancy**



**Plate 7.8: Cow killed by Elephants in a conservancy**



**Plate 7.9: A camel killed in a conservancy**

## **7.4 Transport Infrastructure Zone**

### **7.4.1 Description**

The transport infrastructure refers to roads that are primary (C 103) and secondary in nucleated settlements. The primary road can be bituminized or graveled subject to government development plans. The purpose of roads on the conservancies, and grazing zones is for the purposes of issuance of title deeds, and shall not be graded. Utility lines such as electricity will be aligned with the primary roads. Air strips may be improved to bitumen as need be subject to Environmental Impact Assessment license, and authorization from relevant authorities, and securing of the premises.

### **7.4.2 Positive impacts**

Access roads have a tendency to improve livelihoods through opening up the areas in the following ways:

- It will enhance access to goods and essential services in the area
- It will improve efficiency and mobility
- It will trigger development of centers within OOCR
- It will enhance land value for commercial development and collaterals



### **7.4.3 Negative Impacts**

Improved road access, in as much as it brings in development, it also brings in unforeseen impacts. Critical among them are:

- Development of roads in undesignated areas
- Off road driving ruining the nature of the land especially in pastoralist and conservation areas
- It will trigger influx of new people with conflicting cultures, that are not compatible with conservation
- It will trigger development of social amenities such as bars and associated moral decay such as prostitution, which may not augur well with cultural values of the local communities.

### **7.4.4 Mitigation**

The following mitigation measures will ensure that the roads are established as envisioned in the OGR subdivision scheme plan:

- The widths of primary, and secondary roads reserve shall be maintained at 40 m, 36M, and 25 M as per zoning scheme
- Nucleated settlement roads shall be maintained at 25M, 18M, 15M, to 9M as the scheme plan
- Do not permit Bituminization of secondary roads
- Maintain roads, provide signage to show “no off-road driving” and associated penalties
- In order to mitigate degradation of natural environment, do not open tertiary access roads
- No construction of any form on primary and secondary road reserves

## **7.5 Irrigation Zone**

### **7.5.1 Description of the area**

Namelok and Ilmisigeiyo are two designate areas for irrigation which form a major breadbasket in Kimana and Loitokitok. These areas are very fertile and are a major source of tomatoes and onions. In order to reduce human wildlife conflict in these areas, Big life has supported erection of 100.72km short fence, of which 25km is in the new irrigated area in Ilmisigeiyo. Members of OGR have been allocated 10 acres each in this area and majority of the land owners have leased to external people for farming. Land along Kitendeni conservancy frontiers has been leased to IFAW for conservation purposes.

### **7.5.2 Positive impacts**

The positive impacts arising from converting land for agriculture use are as follows;

- It will enhance food security in the area that is predominantly pastoralist zone.
- It will create employment for farmers and locals
- It will improve food and nutrition in the area

- It will provide alternative livelihood option, especially in an area where drought impacts on livestock

### **7.5.3 Negative Impact**

The negative impact arising from irrigated farms lies on unsustainable land use practices. It was noted that some members are leasing out the land for farming, and tenants are cutting down trees and not engaging in any agroforestry practices. The land around Ilmisigeiyo primary school is an example of unsustainable land use practice as shown in Plate 5.11. Leases' as it has been seen in other parts of the country, focus on their profits and have no interest in conserving the environment as has been seen in Narok. This in effect leads to flush floods and creation of huge gulley's as was evident at the time of this study and shown in Plate 5.10.

### **7.5.4 Mitigation measures**

In order to ensure that the land use in irrigated areas is well utilized the following mitigation measures are proposed:

- Those converting land for agriculture and cutting trees, should engage in agroforestry by undertake boundary tree planting, this will act as windbreak, and prevent wind erosion. It will also support soil structures that are subject to erosion if not well protected.
- Chemical wastes and containers should be disposed properly to prevent contamination of water sources, and affecting wildlife
- Farmers should be trained on Sustainable Land use and Management (SLUM) practices
- For sustainability enhance ownership of the short electric fence, to ensure that farmers can maintain it as human wildlife conflicts are unpredictable as captured in Plate 5.12 a day before our study team visited the area.
- Prohibit fencing of land
- As per the OGR sub-division scheme prohibit construction of permanent bomas or buildings
- No change of users and further subdivision of land



**Plate 7.10: Gully erosion in the irrigation zone Ilmisigeiyo**

**Plate 7.11: Bare agricultural land cleared of trees and no boundary tree planting**



*Courtesy: Kitendeni Conservancy 2022*

**Plate 7.12: House and maize storage facility in Ilmisigeiyo destroyed by elephants**

#### **7.6.7 Offsite significant impacts**

Given the pressure to subdivide and occupy the land by OGR members there is the looming danger that the potential of the land may be reduced if development is unplanned and not regulated.

The pressure or clamor for title deeds and registration of land rights by OGR members is palpable and unstoppable. This has been occasioned by among other reasons the fact that all group ranches/ community lands in the area surrounding OGR have been provided with ownership documents and occupied by their members.

The clamor is also as a result of the desire to benefit equitably from the benefits accruing from the land and land-based resources in OGR. However, the challenge faced by the leadership and members of OGR is how to achieve the aforementioned desire of the community without compromising the potential of the land and the fragile environment in which it is situated. Apart from this, the other challenge that is faced in this respect, relates to how to regulate the use and development of land once title deeds have been provided to the members.

## 8. STRATEGIC ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN (SEMMP)

No.	Programme	Key issues	Potential Impacts	Mitigation measures	Responsibility	Frequency	Costs	Verifiable indicators
1.	<b>Pastoralism</b>	Overstocking	Overgrazing	Promote and enforce grazing plans	Grazing committee	Daily		Number of livestock per grazing area Number of grass banks established
		Human wildlife conflict	Grazing in conservation areas	Enforce provisions of subdivision schemes on land allocation	OOGR committee/Grazing committee	Daily		Number of incidences reported
		Establishment of manyattas	Illegal settlements	No permanent manyattas in grazing areas	OOGR Committee/Grazing committee	Daily		No Manyattas in grazing zones
		Fencing	Creating barriers for animals and wildlife	No fencing in grazing areas and in settlements	OOGR Committee	Daily		No incidence of fencing
2	<b>Conservation areas</b>	Blocking of wildlife corridors	Human wildlife conflicts	Provide for connectivity and free movement of animals and wildlife	OOGR committee	Quarterly		Cases of Human wildlife conflicts reported

No.	Programme	Key issues	Potential Impacts	Mitigation measures	Responsibility	Frequency	Costs	Verifiable indicators
		Grazing in conservation areas	Transmission of diseases from wildlife to animals	Ensure livestock are kept in designated areas out of conservation areas. Provide signage for grazers to understand	Grazing committee	Daily		No. of disease transmission cases reported
3	<b>Settlement areas</b>	Non-adherence to settlement plans	Mushrooming of unplanned houses and tents	Stick to settlement scheme plan, and develop standards for the same	OOCR committee	Daily		No of settlements and tented camps approved and within approved standards
		Selling of land	Disenfranchisement of locals	No land sub-division	OOCR Committee	Daily		No of plots sold or taken up by the proposed Trust
		Population growth	Congestion, proliferation of wildlife and social crimes	Establishment of police posts in centers, and security committees.	OOCR committee	Once		No. of police posts established; No. of security committees formed
4	<b>Irrigation areas</b>	Clearing of trees	Wind and soil erosion, Creation of gully's, Flash floods, and flooding of conservation areas	Practice agroforestry	OOCR irrigation committee	Quarterly		No. of farmers planting trees on boundaries, No. of tree nurseries established in the area

No.	Programme	Key issues	Potential Impacts	Mitigation measures	Responsibility	Frequency	Costs	Verifiable indicators
		Non-maintenance of fence	Human wildlife conflict	Training of community scouts to take over the fence, enhance community ownership of the fence to ensure sustainability	OOCR committee/BIG five	Quarterly		No. of scouts trained, no of community members involved in fence maintenance
5	Infrastructure	Proliferation of roads in non-designated areas	Off road driving, soil erosion,	Ensure only designated roads are used and maintained	County Government/Public works/KWS	Daily		No. of roads identified and classified. No. of cases of off-road driving reported.

## **9. CONCLUSION AND RECOMMENDATIONS**

### **9.1: Conclusions**

The OOCR land subdivision scheme is a well thought out plan which has taken into consideration land use practices around the community and the people's way of life. It has strived to address social issues surrounding the need for diversification and benefit sharing while integrating conservation of wildlife in Amboseli Ecosystem. The plan has five programmes namely Pastoralism; Settlement; Wildlife and conservation; Irrigation; and Transport infrastructure, which seek to address various needs within the ecosystem. The call to undertake this SESA is timely and very critical in addressing some of the issues that have been identified in order to ensure that the plan is implemented in a smooth way and it is sustainable in the long run.

Based on review of the subdivision scheme plan, consultation with stakeholders, observations, field visits, situation analysis, and study findings, we wish to make the following remarks for consideration

- The plan is relevant, based on needs of the community, and responsive to pastoralism and wildlife conservation requirements in OOCR and within Amboseli Ecosystem. The Subdivision plan has also taken into consideration the desires and aspirations of the community and their future.
- In order to enhance sustainability, the plan needs to take into consideration key elements such as connectivity of the Amboseli Ecosystem and ensure that wildlife corridors are not blocked leading to transfer of impacts in other areas.
- There is need to undertake sensitization and awareness on grazing plans that are in place, and where none exists, there is need to develop one.
- There is need to undertake land clinics so that during implementation of the plan community members adhere to the conditions of the Sub division scheme plan and mitigate mushrooming of settlements, campsites and hotels in non-designated areas.
- There is need to develop guidelines for zoning scheme with attendant enforcement mechanisms especially on establishment of infrastructures to enhance aesthetics and maintain tourism characteristics.

### **9.2: RECOMMENDATIONS**

The OOCR land subdivision scheme is a comprehensive plan that takes into account the land use practices and community lifestyle in the Amboseli Ecosystem. It aims to address social issues, promote diversification, and ensure the conservation of wildlife. The plan consists of five programs: **Pastoralism, Settlement, Wildlife and conservation, Irrigation, and Transport infrastructure**, which aim to address meet various community needs within the ecosystem.



After reviewing the subdivision scheme plan, consulting with stakeholders, conducting field visits, and analyzing the situation, several remarks and recommendations have been made:

1. **Relevance and Responsiveness:** The plan is considered relevant as it addresses the needs of the community and aligns with the requirements of pastoralism and wildlife conservation in the OOCR and Amboseli Ecosystem. It also takes into account the aspirations and future of the community.
2. **Sustainability and Connectivity:** To enhance sustainability, it is important to consider key elements such as maintaining connectivity within the Amboseli Ecosystem. Wildlife corridors should not be blocked to prevent the transfer of negative impacts to other areas.
3. **Grazing Plans and Sensitization:** There is a need to raise awareness and conduct sensitization on existing grazing plans. In cases where such plans do not exist, it is necessary to develop them to ensure responsible land use.
4. **Land Clinics:** It is recommended to organize land clinics to educate and engage community members in adhering to the conditions of the subdivision scheme plan. This will help prevent the unauthorized establishment of settlements, campsites, and hotels in non-designated areas.
5. **Zoning Guidelines and Enforcement:** Developing guidelines for zoning schemes, particularly regarding the establishment of infrastructure, will contribute to maintaining aesthetics and preserving the tourism characteristics of the area. Adequate enforcement mechanisms should be put in place to ensure compliance.
6. Taking cognizance of the fact that this is an **Ex-post SESA**, it is recommended that the plan be **gazetted** as it is with this SESA report annexed for ease of reference during plan implementation and review.
7. The OOCR Management and their stakeholders should comply with the **Ten (10) Approval Conditions** on permission to subdivide issued by the Director of Physical Planning on 18<sup>th</sup> June, 2019 and attached in section 3.3.2 (Notification) of this SESA report.

8. During implementation it is crucial that the OOCR members comply with the zonation, grazing, conservation plans and guidelines, and where these are unavailable or inadequate suitable ones be developed. Proper instruments are crucial in enforcement mechanisms.

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## APPENDICE

### APPENDIX 1: TITLE DEED

  
REPUBLIC OF KENYA  
THE REGISTERED LAND ACT  
(Chapter 300)

# Title Deed

Title Number AK/OLCULULUT LOKARASH /6477

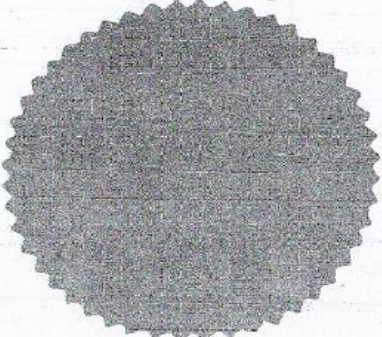
Approximate Area 133,338 Ha

Registry Map Sheet No. 173/3, 181 W/2, 181/1 & 172/4

*This is to certify that* OLCULULUT LOKARASH GROUP RANCH

is (are) now registered as the absolute proprietor(s) of the land comprised in the above-mentioned title, subject to the entries in the register relating to the land and to such of the overriding interests set out in section 30 of the Registered Land Act as may for the time being subsist and affect the land.

GIVEN under my hand and the seal of the  
Kajiado District Land Registry  
this 17th day of November 2009


  
W. H. Nyaboni 067  
Land Registrar

EDITION: 1		PART A—PROPERTY SECTION	
OPENED: 12.11.09			
REGISTRATION SECTION		EASEMENTS, ETC.	NATURE OF TITLE
OLULULUI LOKARASHI			
PARCEL NUMBER		ABSOLUTE	ABSOLUTE
6477			
APPROXIMATE AREA		ABSOLUTE	ABSOLUTE
133,338 Ha.			
REGISTRY MAP SHEET No.		ABSOLUTE	ABSOLUTE
73/3, 181W/2, 181/1 & 172/4			

[illegible]



## APPENDIX 2: CERTIFICATE OF INCORPORATION



**MINISTRY OF LANDS AND PHYSICAL PLANNING**

Telegraphic Address: "LANDCON"  
Telephone: Nairobi 718050  
When replying please quote


LAND ADJUDICATION AND  
SETTLEMENT DEPARTMENT  
P.O. Box 30297  
**NAIROBI**

REF: GR/1/101 Date: 21<sup>st</sup> November, 2018

The Chief Land Registrar  
P.O. Box 30089  
**NAIROBI**


RE: **CERTIFICATE OF INCORPORATION NO. 00096 OLGULULUI/  
OLOLARASHI GROUP RANCH**

Enclosed herewith please find a copy of Certificate of Incorporation for the  
above named Group Ranch for your record purposes.

  
**EUSTACE N. KITHUMBU**  
**FOR: DIRECTOR OF LAND ADJUDICATION AND SETTLEMENT**

**C.C**  
District Land Adj/Settlement Officer  
P.O. Box 52  
**KAJIADO**

The Chairman  
Olgulului/Ololarashi Group Ranch  
**LOITOKITOK**



FORM B

REPUBLIC OF KENYA



THE LAND (GROUP REPRESENTATIVES) ACT  
(CAP. 287, SECTION 7 (2))

CERTIFICATE OF INCORPORATION

NO. 00096

I, EUSTACE N. KITHUMBU, Registrar of Group Representatives, hereby certify that subject to the limitations and exemptions listed on the back of this certificate the **OLGULULU/OLOOLARASHI GROUP RANCH** whose representatives at the date of the issue of this certificate are:

1. DANIEL KIRIA LETURESH
2. LONINGO OLE SEREKA
3. JOSEPH KIPAIPAI NTAANI
4. ELIJAH KEEN NAINI
5. LEPERES OLE KOSEI
6. THOMAS MARIMPET
7. LENKISHON KIMITI SITOA
8. KEEN OLE NKOMIYA
9. RINKOINE KALAMA
10. SIMON MPUTE OLOITIPITIP

is incorporated under section 7 of the Land (Group Representative) Act, Cap. 287.

Dated at Nairobi this 21ST NOVEMBER, 2018.



### APPENDIX 3: MINUTES OF GENERAL ELECTION MEETING

MINUTES OF ANNUAL GENERAL MEETING OF OLGULULUI/ OLOOLARRASHI  
GROUP RANCH ON 19TH NOVEMBER, 2018.

VENUE: ENKONGU NAROK, NEAR SERENA-AMBOSELI.

**PRESENT:**

1. Daniel K. Leturesh- Chairman
2. Sammy Manina- Vice Chairman
3. James M. Moonka - Secretary
4. John Milia Muli- Treasurer
5. Bob Kimiti
6. Joshua Nasisi Nkapayia
7. Matei Koromo
8. Joel Tumuke
9. Keteko Kisopia
10. Joshua Talasua

**IN ATTENDANCE**

**National Government Officials**

1. Mr. L.M. Kinyua - DCC Kajiado South
2. Mr. Stephen Mayaka - Assistant Director of Land Adjudication and Settlement representing Registrar of Group Representatives- Presiding Officer.
3. Mr. Josiah Lessan - County Land Adjudication and Settlement Officer- Kajiado County - Taking Minutes
4. Ms. Nancy Isatia- LASA
5. Mr. Simon Wanjau- LASA
6. Mr. Moss Ndiwa - OCPD Kajiado South
7. Mr. Onesmus Mugela - DAPC Kajiado South

**County Government of Kajiado Officials**

1. Mr. Alais Kisota -CEC Public Service, administration and Citizen Participation.
2. Mr. Moses Murunya - Chief Officer Lands, Physical Planning and Urban Development.
3. Mr. Jonathan Maisson - Ward Administrator Entonet Lenkissim
4. Mr. Japheth Saruni - Sub County Administrator Kajiado South.





5. Mr. Philip Murkuku - Deputy Director Land Administration.
6. Mr. Mulu Halake - National Land Commission County Coordinator.

## AGENDA

Election of New Group Representatives of Olgulului/Olgolarrashi Group Ranch.

### Min. 1. Quorum

Over 95% of the Registered members attended.

### Min. 2. Preliminaries

A preliminary meeting was held at Serena Lodge Amboseli for briefing the contestants. This was a follow up of a signed agreement spelling out the mode of election. The session went well and all the contestants were in agreement as follows:

1. Queue voting would be the mode of election.
2. Vote counting would start at 2:00 pm.
3. The two contestants for the Chairman would stand at the head of their respective queue for counting.
4. Each contestant chairman would nominate 6 agents each for the exercise to ratify genuine members.
5. Counting Officers shall be Mr. Simon Wanjau and Nancy Isatia both of the department of Land adjudication.
6. The contestant with the highest simple majority would be declared the winner.
7. Both parties unanimously agreed that All members present in the queue will be counted.
8. The looser in the election to concede defeat and work with the elected committee.
9. The Presiding Officer Mr. Stephen Mayaka shall announce the Results to all present at the end of Counting and Tallying.
10. The Presiding Officer declared the Group Representatives officially dissolved at 2:00 pm to pave way for the Election of New Office Bearers.

### Min. 3 Vote Counting

Counting started at 2:20 pm and went on smoothly up to 5:40 pm when Tallying started.



With the Tallying having been completed the following were Elected into Office with a Majority of 8,796 votes against 8,516 for his opponent:

1. Daniel Kiria Leturesh - Chairman - ID no. 3929575
2. Loningo ole Sereka - Vice Chairman - ID no. 22460901
3. Joseph Kipaipai Ntaani - Secretary - ID no. 28544544
4. Elijah Keen Naini - Treasurer ID no. 14672882
5. Leperes ole Kosei - Member - ID no. 24925986
6. Thomas Marimpet - Member - ID no. 24973254
7. Lenkishon Kimiti Sitoya - Member - ID no. 25671632
8. Keen ole Nkomiya - Member - ID no. 25666635
9. Rinkoine Kalama - Member - 11728094
10. Simon Mpute Oloitipitip - Member - Member - ID no. 22475359

**Min. 4. Adjournment**

There being no other business the meeting ended at 6:00 pm with a word of Prayer.


**J.K.Lessan**

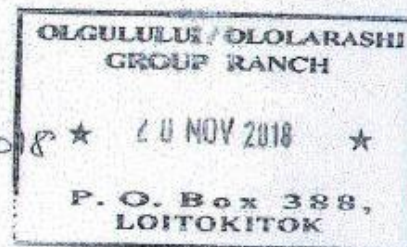
**County Land Adjudication and Settlement Officer, Kajiado**

Signature.....  20/11/2018

Daniel Kiria Leturesh

Chairman Olgulului/Oloolamashi Group Ranch



Signature.....  20/11/2018





## APPENDIX 4: LETTERS OF APPROVAL AND NOTIFICATION

**COUNTY GOVERNMENT OF KAJIADO**  
COUNTY PHYSICAL PLANNING DEPARTMENT  
P.O. BOX 11-01100  
KAJIADO  
FIFTH SCHEDULE



FORM P.P.A. 2 {S.33 (1) (A)}


Registered No. Application S/1160/2019

**NOTIFICATION OF APPROVAL OF DEVELOPMENT PERMISSION**


**TO:**  
**OLGULULUI OLOLARASH GROUP RANCH,**  
**P.O BOX 388,**  
**LOITOKITOK**

Pursuant to provisions of PPA Cap 286, the Subdivision Approval Committee has approved the subdivision scheme plans submitted on 11/06/2019 for L.R. No. Kajiado/Olgulului Ololarashi/6477 situated in Loitokitok via Minute 010/2019 on 18/06/2019 subject to the following / appended condition(s):


1. All land/parcels designated for public use (both in urban areas and beyond) to be surrendered to the County Government for custody and administration free of charge without any conditions.
2. The County recommends conditional titles to beneficiaries in the scheme. Any further subdivision or fragmentation shall not be allowed
3. Land designated as conservancies is restricted from human activities. Any development shall be subject to recommendations and approval by the County.
4. There shall be a clear buffers between the settlements and both the National Park and conservancies. The buffer should be maintained at all time to minimize encroachment.
5. The County shall be allowed free access to exercise monitoring, inspection and regulating of land to ensure sustainable use ,intergenerational equity and protection of land against abuse
6. All nature assets within the subdivided zone remains National and County assets; protected by the County Regulations and National Statutes; Both the County and National governments shall regulate use and exploitation. Only County and National governments shall provide policy and regulation
7. Registry Index Map (RIM) must be amended before allocation of new numbers
8. Obtain Compliance Certificate from the County Government in accordance with Physical Planning Act (Cap 286).
9. The County government of Kajiado is indemnified against any unforeseen circumstances that may result from professional negligence and/or misrepresentation of facts by the applicant
10. The County Government of Kajiado can nullify the approval or cause amendments of the conditions of approval in case of non-compliance as it may deem fit

Dated.....  


Signed.....  
County Director of Physical Planning



**REPUBLIC OF KENYA**  
**COUNTY GOVERNMENT OF KAJIADO**  
**DEPARTMENT OF PHYSICAL PLANNING**  
**P.O.BOX 11-01100**  
**KAJIADO**



**THE PHYSICAL PLANNING ACT (CAP 286)**

(Form P.P.A.5) n.4 (3)

### CERTIFICATE OF COMPLIANCE

Certificate No. **02502**

Name of Applicant OLGULULUI OLOLARASH GROUP RANCH

Address P.O. BOX 388 - LOITOKITOK

Type of development SUBDIVISION

On L.R. / Parcel No. KAJIADO/OLGULULUI-OLOLARASH/6477

Situated in LOITOKITOK (Municipality, Township, etc.)

Locality (Road, Street, Estate, etc) OFF HATUNGA ROAD within Kajiado County

This is to certify that the application as above is in compliance with:


(a) Local Physical Development Plan


(b) Approved Subdivision Plan no \_\_\_\_\_

(c) Special Conditions stipulated in the Notification of Approval (Form P.P.A.2)  
 dated 18/06/2019 Minute No 010/2019

(d) In compliance with the Physical Planning Act (Cap 286 of 1996) and County land use zoning standards/guidelines with respect to registered application no. (P.P.A 1) \_\_\_\_\_

Date of Issue 18/06/2019 Fees Paid (Kshs) 1500 Official Receipt No. TT19170x4452






Signature \_\_\_\_\_

County Director of Physical Planning



## APPENDIX 5: VIRTUAL MEETING ON SEA SCREENING



**nema**  
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

Mobile Lines: 0724-255 598, 0723-363 010, 0733-013 046  
Toll-free Numbers: 0800-210170, 0800-2185718  
Toll-free Lines: 0786-101180, 0741-101100

P.O. Box 07839, 00200  
Pope Road, Nairobi, Kenya  
E-mail: [dg@nema.go.ke](mailto:dg@nema.go.ke)  
Website: [www.nema.go.ke](http://www.nema.go.ke)

**REF: NEMA/SEA/3/39/VOL II/II** **23<sup>rd</sup> November 2022**

<p><b>The Director,</b> Amboseli Ecosystem Trust P.O. Box 346-00209 <b>LOITOKOT</b></p>	<p><b>The Chairman,</b> Mbirikani Group Ranch, P.O. Box 84 - 00209 <b>LOITOKOT</b></p>
<p><b>The Chairman,</b> Eselenket Group Ranch, P.O. Box 339 - 80132 <b>SULTAN HAMUD</b></p>	<p><b>The Director,</b> Olguluni Olorashi Group Ranch, P.O. Box 346-00209 <b>LOITOKOT</b></p>

**RE: MEETING FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE AMBOSELI ECOSYSTEM MANAGEMENT PLAN (AEMP) 2020 -2030, LOITOKOT KAJIADO COUNTY**

The National Environment Management Authority (NEMA) is established under the Environmental Management and Coordination Act (EMCA), 1999 to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of all policies relating to the environment.

Section 57A of the Act provides for Strategic Environmental Assessment (SEA) for "(i) All Policies, Plans and Programmes for implementation shall be subject to Strategic Environmental Assessment". The SEA shall be conducted in accordance with the Environmental (Impact Assessment and Audit) Regulations, 2009 and the National SEA guidelines, 2012 issued under the Act.

The Authority has received SEA for:


1. The Mbirikani Group Ranch Land Use and Sub Division Plan, Kajiado County
2. The Eselenket Group Ranch Land Use and Sub Division Plan, Kajiado County
3. The Olguluni Olorashi Group Ranch (OGR) Land Use and Sub-Division Plan, Kajiado County
4. The Amboseli Ecosystem Management Plan (AEMP), 2020 -2030, Kajiado County

Page 1 of 2

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P.T.O

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ISO 9001:2015 Certified

The processing of these SEAs has revealed that they are all located within the same locality i.e the Amboseli Ecosystem. The technical complexity and the potential Environmental & Social risks associated with the implementation of the Plans requires a concerted technical evaluation to inform decision making.

In view of the above and the need for a comprehensive engagement process, the Authority is inviting you to a virtual technical meeting to be held on **Monday, 28<sup>th</sup> November 2022** through google meet/zoom (link to be shared by NEMA) starting at **10:00 AM** to clarify the following issues among others:


1. Clear description of the Plan sites including geospatial data delineating the plan sites in relation to each other.
2. Stakeholders mapping, identification and the engagement process.
3. The potential individual and cumulative impacts of the Plans to the Amboseli Ecosystem and proposed measures.
4. The linkages between the existing PPPs with the strategic actions at different tier levels (the links between the PPP and higher - and lower-tier strategic actions).
5. The objectives of the land use and sub division plans and the integration of the Amboseli Ecosystem Management plan in the Land Use Plan making process.

Ensure that you are accompanied by your technical team including the SEA experts to clarify on any issues that may arise. Note that effective and sustained stakeholder's engagement and appropriate communication methods are vital for a successful SEA process.

**ZEPHANIAH OUMA**  
**FOR: DIRECTOR GENERAL**



## APPENDIX 6: NEMA SITE VERIFICATION MEETING



**nema**  
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

Mobile Lines: 0724-353 398, 0725-343 010, 0735-913 046  
Toll-free Wireless: 820-2191376, 020-2193718  
Incident Lines: 0788-101100, 0741-101100

P.O. Box 67839, 00200  
Papo Road, Nairobi, Kenya  
E-mail: dg@nema.go.ke  
Website: www.nema.go.ke

**REF: NEMA/SEA/S/2/079** **22<sup>nd</sup> March 2023**

<p><b>The Director,</b> Amboseli Ecosystem Trust P.O. Box 346-00209 <b>LOITORTOK</b></p>	<p><b>The Chairman,</b> Mbitikani Group Ranch, P. O. Box 84 - 00809 <b>LOITORTOK</b></p>
<p><b>The Chairman,</b> Eselenket Group Ranch, P. O. Box 389 - 00132 <b>SULTAN HAMUD</b></p>	<p><b>The Director,</b> Olgululul Olororashi Group Ranch, P. O. Box 346- 00109 <b>LOITORTOK</b></p>

**RE: SITE VERIFICATION VISIT AND SITE MEETING FOR THE STRATEGIC ENVIRONMENTAL AND SOCIAL ASSESSMENT (SESA) FOR THE AMBOSELI ECOSYSTEM MANAGEMENT PLAN (AEMP) 2020 - 2030 AND 3 GROUP RANCHES IN LOITORTOK KAJIADO COUNTY**

The Authority makes reference to the submitted SESA applications for;


1. The Mbitikani Group Ranch (MGRSP) Land Use and Sub-Division Plan, Kajiado County (NEMA/SEA/S/2/078)
2. The Eselenket Group Ranch Land Use (EGRLSP) and Sub-Division Plan, Kajiado County (NEMA/SEA/S/2/077)
3. The Olgululul Olororashi Group Ranch (OOLRSP) Land Use and Sub-Division Plan, Kajiado County (NEMA/SEA/S/2/079)
4. The Amboseli Ecosystem Management Plan (AEMP), 2020 -2030, Kajiado County (NEMA/SEA/S/2/080)

The processing of these SESAs has revealed that they are all located within the Amboseli Ecosystem. The complexity and the potential Environmental & Social risks associated with the implementation of these Plans requires a concerted technical evaluation and ground truthing exercise to inform decision making.

Page 1 of 2

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In view of the above and the need for a comprehensive engagement process, NEMA has organized for a site verification visit to Amboseli Ecosystem as detailed below;

1. Undertake site meetings with the Plan Owners (AET, MGR, EGR and OOCR) together with the relevant lead agencies namely KWS, WEA and Kajiado County Government on the 28<sup>th</sup> March 2023 as from 10:00AM (venue to be communicated in due course).
2. Undertake site visit of the Amboseli Ecosystem and the individualized group ranches namely Mbitikani, Eselenket and Olgululul Olororashi Group Ranches on the 29<sup>th</sup> March 2023 to inform the processing of the SESA applications.

Ensure that you are accompanied by your technical team including the SESA experts to clarify on any issues that may arise. Note that effective and sustained stakeholder's engagement and appropriate communication methods are vital for a successful SESA process.

Mr. Reagan Awino 0728869283 is available to provide clarifications and further logistical and planning details.



**STEPHANUS OUMA**  
FOR: DIRECTOR GENERAL

## APPENDIX 7: SESA SCOPING REPORT APPROVAL



### NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY

Mobile Lines: 0724-253 398, 0723-363 010, 0735-013 046  
Telkom Wireless: 020-2101370, 020-2183718  
Incident Lines: 0786-101100, 0741-101100

P.O. Box 67839, 00200  
Popo Road, Nairobi, Kenya  
E-mail: [dgnema@nema.go.ke](mailto:dgnema@nema.go.ke)  
Website: [www.nema.go.ke](http://www.nema.go.ke)

NEMA/SEA/5/2/079

13<sup>th</sup> April 2023

The Director,  
Olgulului Ololorashi Group Ranch,  
P. O. Box 346- 00209  
**LOITOKTOK**

**RE: APPROVAL OF THE SCOPING REPORT FOR THE STRATEGIC ENVIRONMENTAL AND SOCIAL ASSESSMENT (SESA) FOR THE OLGULULUI OLOLORASHI GROUP RANCH (OOG) LAND-USE AND SUB-DIVISION PLAN, KAJIADO COUNTY**

The National Environment Management Authority (NEMA) has reviewed the issues addressed to the scoping report that was submitted to the Authority on 11<sup>th</sup> April 2023.

In light of the provisions of section 57 A of the Environmental Management and Coordination Act (EMCA), Regulations 42 and 43 of the Environmental (Impact Assessment and Audit) Regulations, 2003 and the National Guidelines for Strategic Environmental Assessment 2012. The scoping report for the proposed Olgulului Ololorashi Group Ranch land use and subdivision plan is hereby **APPROVED**. However, the issues raised vide our letter dated 27<sup>th</sup> February 2023 (*copy attached*) needs to be comprehensively incorporated during the SESA study.

As you prepare to undertake the SEA study, the Authority informs you that effective and sustained stakeholder's engagement and appropriate communication methods are vital for a successful SEA process.

Ensure that linkages between the Master Plan and other regional, National and local plans are taken into consideration. You are informed to engage your SESA experts (*Planning & Environmental Consultancy Services (PECS) Ltd*) who shall conduct the SESA process and prepare the draft SESA report for submission to NEMA.


Along with the prescribed fees of Kshs. 1 million (1,000,000) submit ten hard copies and one electronic copy of the draft SESA report (which should include a non-technical summary and the submission form).

  
**MARGARET NJUKI**  
**FOR: DIRECTOR GENERAL**

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









## APPENDIX 8: LIST OF PARTICIPANTS FOR NEMA SCOPING MEETING


  
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

SITE VERIFICATION AND SITE MEETING FOR THE STRATEGIC ENVIRONMENTAL AND SOCIAL  
ASSESSMENT (SESA) PROCESS FOR THE AMBOSELI ECOSYSTEM PLAN (AEMP) 2020-2030 AND 3 GROUP  
RANCHES IN LOITOKTOK KAJIADO COUNTY

ATTENDANCE LIST

Dates: 29/Nov-2023



No.	Name	Institution	Designation	Contacts (Phone No. & Email)	Signature	Signature	Signature
1.	MARGARET NJUKI	NEMA	SPCO	mngjuki@nema.go.ke			
2.	MARRIAN KISKO	NEMA	SPED	mikekoko@nema.go.ke			
3.	Kennedy Chugandu	Utari DV	SACC	ckugandu2015@gmail.com			
4.	Adrian Jimu	KWS	AWI	ajimu@kws.go.ke			
5.	Francis Mwangi	ENEM/HP	Consultant	francis.mwangi@zenith.com			
6.	David Mwangi	ENEM/HP	Consultant	mwangidavid@gmail.com			
7.	JAMES MUTIMU	ENEM/A	Consultant	0722857230			
8.	Johana Arben O. Ouma	NEMA	SEO	johanaarben@gmail.com			
9.	VALENTINE OKOTH	WRA	L.O	0725639127 valentiaokoth@gmail.com			
10.	FINNE W. MACHARIA	NEMA HQ	PCO	fmacharia@nema.go.ke			

  
NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY (NEMA)

SITE VERIFICATION AND SITE MEETING FOR THE STRATEGIC ENVIRONMENTAL AND SOCIAL  
ASSESSMENT (SESA) PROCESS FOR THE AMBOSELI ECOSYSTEM PLAN (AEMP) 2020-2030 AND 3 GROUP  
RANCHES IN LOITOKTOK KAJIADO COUNTY

ATTENDANCE LIST

Dates: .....

No.	Name	Institution	Designation	Contacts (Phone No. & Email)	Signature	Signature	Signature
1.	Matthew Suluh	C.G.K	Physical Planner	0702150645			
2.	Daniel Mefo	MBIRIKANI GR	WGR C/Man	0721291354			
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							



No.	Name	Institution	Designation	Contacts (Phone No. & Email)	Signature	Signature	Signature
11.	Christine Mwinzi	WRI	dscentist	0722299912			
12.	Daniel Ole Kidi	MGRCS		0721682890			
13.	Joel Ole Leshao	MGR	CM Subdivision	T.F. 0722475080			
14.	Oceanic Sakwa	NEMA		0720318948			
15.	ERIC Dcette	NGNA	PEED	0726069351			
16.	ANDREW MACHO	STAFF OF KENYA	SUB COUNTY SUPERVISOR	0721376687			
17.	PAUL NTIATI	MGR	MGR - TRAFFIC	0729353176			
18.	Dr. Bernard Kagia	PSCS Ltd	MD	0722773951			
19.	Kaikai Olohipip	Amiseli C. Trust	Partnership Gvt	0700727499			
20.	Lekapuka Kenka	Subcounty Administrator	Director	0728917388			
21.	Kennedy Ciampanda	Lubwa	SACC	0723667579			
22.	Jackson Mwangi	EGR	TREASURER	0726078675			
23.	Jacos Jyici	EGR	Committee member	0745655435			
24.	Daniel Mapi	MGR - Secretary	Secretary	0724772240			
25.	LESANTA KIKONYU	Vice MGR	V/CHMR	0711542572			
26.	Brian Leylon	BLE	CEO	0721941926			
27.	Joningo serka	OGR	V/CHMR	0727759703			
28.	JOSEPH KIRAPAI	OGR	Secretary	0728975304			
29.	Joshua Leylan	OGR	Treasurer	0723856115			

## APPENDIX 9: NEMA LICENSES FOR EXPERT AND FIRM

FORM 7

  
**nema**  
mazingira yetu | uhai wetu | wajibu wetu

(r.15(2))

**NATIONAL ENVIRONMENT MANAGEMENT  
AUTHORITY(NEMA)  
THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT  
ENVIRONMENTAL IMPACT ASSESSMENT/AUDIT (EIA/EA) PRACTICING  
LICENSE**

License No : NEMA/EIA/ERPL/18586  
Application Reference No: NEMA/EIA/EL/24440

M/S **Planning and Environmental Consultancy Services Limited**  
(individual or firm) of address  
P.O. Box 702 - 00517 Nairobi

is licensed to practice in the  
capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Firm of Experts**  
registration number **7839**

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

Issued Date: 1/13/2023      Expiry Date: 12/31/2023

Signature.....

  
(Seal)  
Director General  
The National Environment Management Authority

P.T.O.

  
ISO 9001:2015 Certified

FORM 7

  
**nema**  
mazingira yetu | uhai wetu | wajibu wetu

(r.15(2))

**NATIONAL ENVIRONMENT MANAGEMENT  
AUTHORITY (NEMA)  
THE ENVIRONMENTAL MANAGEMENT AND CO-ORDINATION ACT  
ENVIRONMENTAL IMPACT ASSESSMENT/AUDIT (EIA/EA) PRACTICING  
LICENSE**

License No : NEMA/EIA/ERPL/18587  
Application Reference No: NEMA/EIA/EL/24442

M/S **Dr. Bernard Kaaria Irigia**  
(individual or firm) of address  
P.O. Box 702 - 00517 Nairobi

is licensed to practice in the  
capacity of a (Lead Expert/Associate Expert/Firm of Experts) **Lead Expert**  
**General**  
registration number **0079**

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

Issued Date: 1/13/2023      Expiry Date: 12/31/2023

Signature.....

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

P.T.O.  
  
ISO 9001:2015 Certified