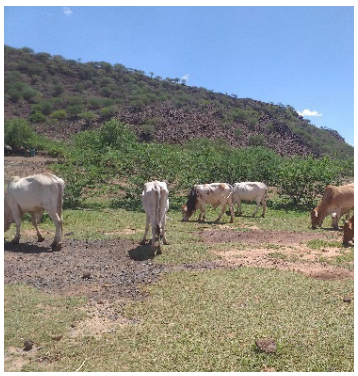
Baringo County Conservancies Association



LAKE BOGORIA CONSERVANCIES LANDSCAPE LAND USE PLAN

PLAN APPROVAL

The Conservancies Management Committees of Irong, Kiborgoch, and Chuine Wildlife Conservancies have approved the implementation of this land use plan for

Lake Bogoria Conservancies Landscape.

ON BEHALF OF IRONG COMMUNITY WILDLIFE CONSERVANCY	*On behalf* of Kiborgoch Wetland and Community Wildlife Conservancy	*On behalf of* Chuine Community Wildlife Conservancy
Chairman	**Chairman**	**Chairman**
Date:	**Date**	**Date**

PLAN ENDORSEMENT

This plan has been endorsed by Baringo County Government, Kenya Wildlife Conservancies Association, and Baringo County Conservancies Association.

On behalf of Baringo County Government	*On behalf of* Kenya Wildlife Conservancies Association	*On behalf of* Baringo County Conservancies Association
CEC- ENRT&WM	CEO-KWCA	CHAIRMAN-BCCA
Date:	Date:	Date:

ACKNOWLEDGEMENTS

The Land Use Plan was prepared by the Lake Bogoria Conservancies Landscape community through a participatory planning process. The management of Lake Bogoria Conservancies (Irong, Kiborgoch and Chuine Wildlife Conservancies) are grateful to the following institutions and individuals for supporting the development of this plan.

	Baringo County Government provided the meeting venue, participated in the planning meetings and gave relevant information on future tourism development strategies in Baringo County, and Lake Bogoria Landscape in particular.
	Baringo County Conservancies Association (BCCA), organised the planning meetings and mobilised workshop participants.
	The Kenya Wildlife Conservancies Association (KWCA) coordinated and oversighted the planning process.
	The United Nations Development Programme-GEF-Small Grants Programme provided funding support for the planning process through the KWCA.
	Kenya Wildlife Service, Kabarnet Station provided transport during the resource mapping exercise.
	Apollo Kariuki and Daniel Njaga provided land use planning and business planning technical assistance respectively.

EXECUTIVE SUMMARY

This document sets out a 5-year land use plan for the Lake Bogoria Conservancies Landscape (LBCL) and business plans for Irong, Kiborgoch and Chuine Wildlife Conservancies. The Land Use and business Plans were prepared by the Lake Bogoria Conservancies Landscape (LBCL) community through a participatory planning process involving the conservancies' officials, County Government officials, other Lake Bogoria landscape stakeholders and technical specialists. The planning process involved two key activities: Stakeholder Planning Workshop and Stakeholder Plan Validation Workshop.

The main document presents the LBCL land use plan while business plans for the three conservancies are presented as annexes.

The LBCL Land Use Plan

The plan aims to provide a framework for realizing the LBCL community's vision for the landscape. The vision of this plan is to ensure:

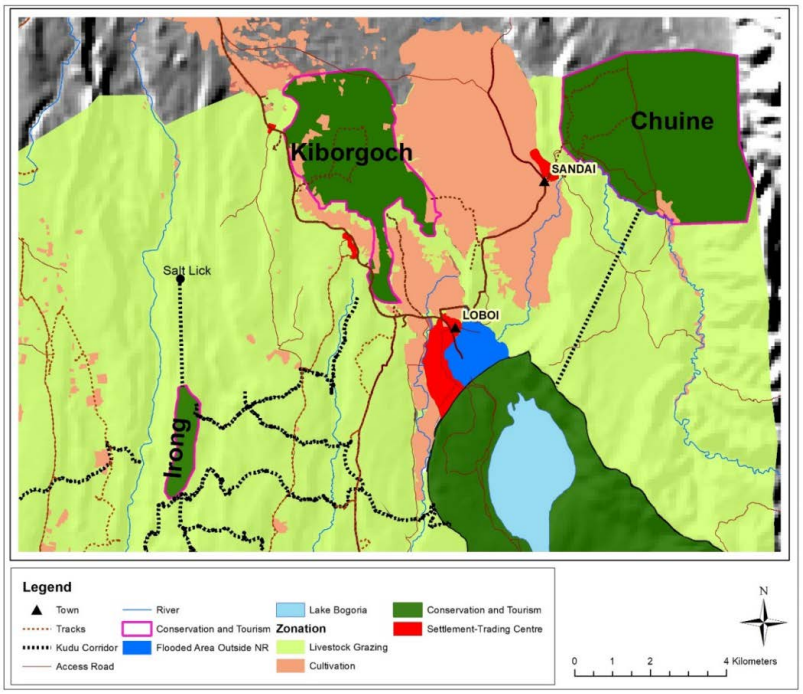
Land resources in the Lake Bogoria Conservancies Landscape are sustainably conserved and managed for livelihood improvement of the present and future generations

The geographic scope of the planning area

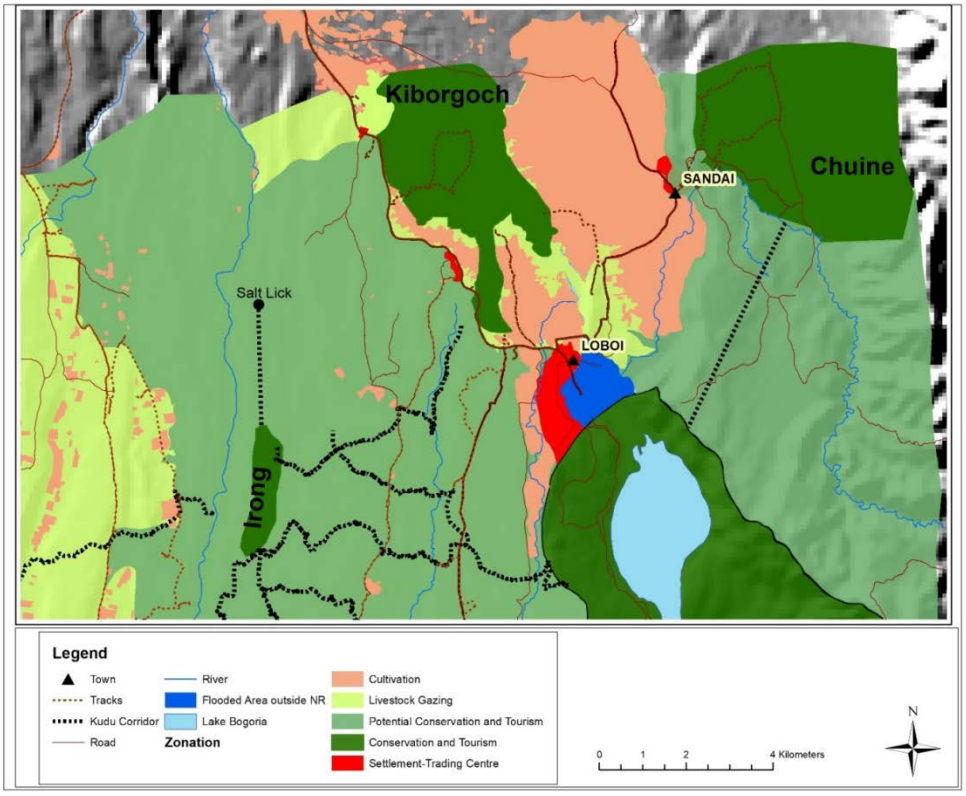
The geographic scope of the plan covers the three conservancies (Irong, Kiborgoch and Chuine Wildlife Conservancies) and the wildlife dispersal areas and corridors linking these conservancies with Lake Bogoria National Reserve. The geographic scope of the plan is shown in the figure below:

The current and proposed Land Use Patterns

The LBCL land use planning used remote sensing data from January 2021 from Google Maps to map the present land use in the planning area. The mapping was done using a Geographic Information Systems application, ESRI's ARCGIS. A preliminary present land use map of the area was digitized from the satellite image and secondary data layers on roads, rivers, trading centres were overlaid on the land use map. The preliminary land use map was later presented and discussed by stakeholders at a stakeholder planning workshop organised for the three Lake Bogoria Landscape conservancies. The workshop confirmed the present land use map and made proposals for the kind of land uses that they expect in the future. The present land uses and proposed land uses are given in the figures below.



Present Land Uses in the LBCL



Proposed land use zoning in the LBCL

Plan Implementation

Successful implementation of this plan requires establishment a community-led governance structure that brings together the LBCL community to collectively manage their land. A landscape wide community organization that coordinates natural resource management activities is lacking. This could be due to the current private land tenure system in the area which implies that land use decisions are mainly done at the individual level. Hence, it is difficult to address landscape-wide issues affecting natural resources such as land degradation if the community is not mobilized to address issues affecting it collectively.

This plan proposes establishment of a community plan implementation committee to coordinate the implementation of this land use plan. Membership of this committee will be drawn from the three conservancies and other coopted members. This committee will help the community to organize and implement Holistic Management in the conservation and tourism, and the livestock grazing zones.

Community Action Plan

The three conservancies (Irong, Kiborgoch and Chuine Wildlife Conservancies) have developed 5-year community action plans that, if implemented, will ensure that land use issues in the LBCL will be adequately addressed. The action plans provide proposed objectives and actions for each zone. For each action, responsible conservancy staff or officials as well as partners who could support its implementation are identified. In addition, the timeframe for each action is provided.

Irong, Kiborgoch and Chuine Wildlife Conservancies' Business Plans

Development and Marketing of Tourism and Camping Business in Irong Conservancy

Irong Conservancy seeks support from partners and stakeholders to develop a tourism business. This business option has been arrived at from different consultative meetings with the community representatives. Among other business projects identified include honey production, wildlife farming and livestock production. Tourism was chosen because of the following advantages:

- The conservancy is close to Lake Bogoria National Reserve which is a leading tourist destination,
- The conservancy borders Lake Bogoria Spa Resort which draws many local and international visitors to the area,
- The conservancy has several suitable campsites which have been identified,
- Tourism has no legal restrictions and hitches, and
- There is a proposed air strip which will facilitate access to the general destination.

The proposed tourism business entails developing a fundraising proposal to develop the tourism product; mapping and developing tourism facility sites; developing interpretation and signage in the conservancy; developing marketing materials and programme; recruiting staff and conducting training; and constructing and equipping Conservancy Office. The total cost of implementing the tourism business is estimated at **Ksh. 20,086,000.**

Development and Marketing of Cultural Village Tourism Business in Kiborgoch Conservancy

Kiborgoch Conservancy seeks support from partners and stakeholders to develop a tourism business. This business option has been arrived at from different consultative meetings with the community representatives. In a 2019 workshop the following projects were identified:

- Reed making due to availability of swamps,
- Opportunity for research,
- Proposed air strip which will boost tourism upon completion, and
- Irrigation to support crop production as an alternative livelihood.

In a further consultative workshop, the conservancy opted to develop a cultural village tourism business. It was found most suitable because the proposed cultural village site:

- is close to the road making it easy to tap the destination market,
- is opposite the Lake Bogoria Spa and Resort which is a major tourist attraction,
- is safe for visitors, and
- does not flood as it is on a mini plateau.

There are also tourism attractions in the conservancy, mainly scenery and wild animals in close proximity.

The business plan involves: developing a fundraising proposal to develop the tourism product; constructing the cultural village and associated facilities; developing interpretation and signage in the conservancy; developing marketing

materials and programme; and recruiting and training staff. The estimated budget to start this business is **Ksh. 13,700,000.**

Commercial Production, Branding and Marketing of Honey in Chuine Wildlife Conservancy

Chuine Wildlife Conservancy is seeking to generate income from its natural resources to support community livelihoods. From several consultative meetings and workshops with the members, many potential income generating projects have been identified which include:

- Wildlife utilization due to a vast land available for conservation,
- Bee keeping due to popularity of local honey as of high quality,
- Tourism due to availability of good sceneries and abundance of wild animals like ostriches and the Greater Kudu,
- Mining for red ruby and diatomite,
- Beadworks and papyrus weaving for women, and
- Research tourism due to its richness in biodiversity and breeding sites for Greater Kudu.

In a recent land use and business planning workshop, the conservancy stakeholders chose commercial production, packaging and marketing of honey as the preferred priority project.

Honey packaging was chosen because:

- The conservancy vegetation has plenty of the suitable species that produce high quality nectar,
- The project poses less conflict with any other land use,
- It is less expensive and not labour intensive,
- There is a lot of space available for beekeeping, and
- It is currently one of the economic activities conducted by the community.

The business involves developing a specific fundraising proposal to raise funds for the Beekeeping Project; constructing physical structures for storage, honey harvesting and offices; recruiting honey production and packaging team; conducting training on beekeeping and honey harvesting and storage; procuring equipment for beekeeping and honey harvesting; recruiting sales team and developing a sales and distribution programme; and conducting regular board and stakeholder meetings to review the project. The estimated budget needed to implement these activities is **Ksh. 31,489,000.**

Contents

FIGURES

TABLES

ACRONYMS

AEZ	Agroecological Zone
BCCA	Baringo County Conservancies Association
BCG	Baringo County Government
BoK	Bomas of Kenya
CABI	Centre for Agriculture and Bioscience International
CEC-ENRT&WM	County Executive Committee Member-Environment, Natural Resources, Tourism and Wildlife Management
CIDP	County Integrated Development Plan
CSDP	County Spatial Development Plan
EU	European Union
EWC	Endorois Welfare Council
GEF	Global Environment Facility
GIS	Geographic Information Systems
GOK	Government of Kenya
GPS	Global Positioning System
IBA	Important Bird Area
KALRO	Kenya Agricultural and Livestock Research Organisation
KATA	Kenya Association of Travel Agents
KATO	Kenya Association of Tour Operators
KEFRI	Kenya Forestry Research Institute
KFS	Kenya Forest Service
KTB	Kenya Tourism Board
KVDA	Kerio Valley Development Authority
KWCA	Kenya Wildlife Conservancies Association
KWS	Kenya Wildlife Service
LBCL	Lake Bogoria Conservancies Landscape
LBNR	Lake Bogoria National Reserve
LU	Livestock Unit
MoAL&F	Ministry of Agriculture, Livestock and Fisheries
MoT&W	Ministry of Tourism and Wildlife
NACOSTI	National Commission for Science, Technology & Innovation
NMK	National Museums of Kenya
NRT	Northern Rangeland Trust
RECONCILE	Resource Conflict Institute
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific Cultural Organization
USAID	United States of America International Aid

THE LBCL LAND USE PLAN

INTRODUCTION

This document sets out a 5-year land use plan for the Lake Bogoria Conservancies Landscape (LBCL) and business plans for Irong, Kiborgoch and Chuine Wildlife Conservancies.

The LBCL falls in Loboi, Kapkukui, Sandai, and Chebinyiny administrative locations of Baringo Central Sub-County, Baringo County (Figure 1). It hosts Lake Bogoria National Reserve, a globally renowned conservation area listed as an Important Bird and Biodiversity Area (IBA) by Bird Life International; a Ramsar site under the Ramsar Convention; and a World Heritage Site under the World Heritage Convention. It comprises of a mosaic of bushland, riverine woodland, swamp vegetation, and farmland that support a wide variety of wildlife species and livestock. The area is also the ancestral homeland of the indigenous Endorois Community.

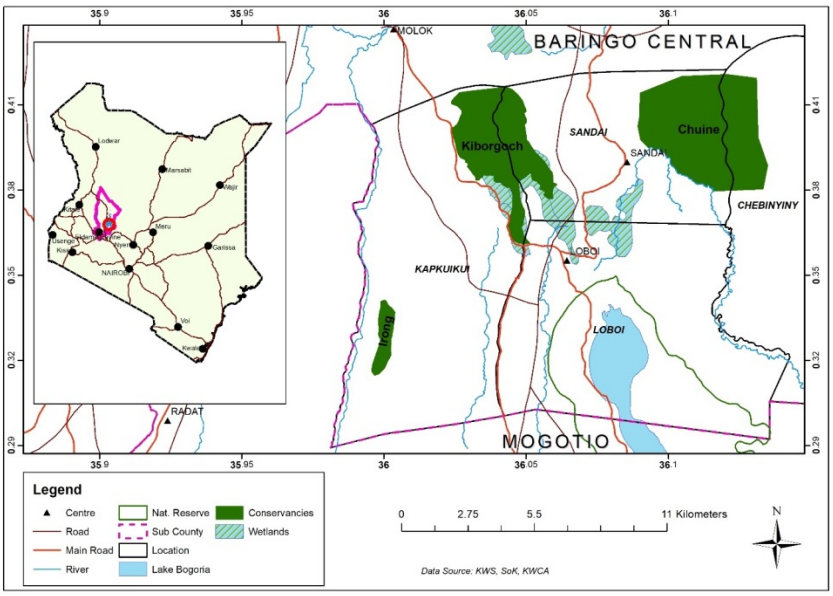


Figure 1. Regional setting of Lake Bogoria Conservancies Landscape

1.1 The planning process

The Land Use and Business Plans were prepared by the Lake Bogoria Conservancies Landscape (LBCL) community through a participatory planning process involving the conservancies' officials, County Government officials, other Lake Bogoria landscape stakeholders and technical specialists. Lists of participants at the planning workshops are provided in Annex 1.

The land use planning process was prompted by the increasing land use conversion that is underway in the LBCL and the impacts these changes are having on conservation and wildlife values in the landscape. The main trend is conversion of conservation-compatible uses such as livestock grazing to agriculture particularly along rivers and swamps where irrigation agriculture is possible, or rainfed agriculture where rainfall and soils permit.

In acknowledgement of the seriousness of these impacts, LBCL community with support from Baringo County Conservancies Association (BCCA) and Kenya Wildlife Conservancies Association decided to undertake a community land use planning process for LBCL. The development and implementation of this land use plan is meant to bring about sustainable land use management, propose land use adjustments, and contribute to improvement of livelihoods for conservancy members in the landscape.

Land use planning context

The LBCL land use plan was developed with consideration of the Baringo County Integrated Development Plan (CIDP) 2018-2022, which in turn is developed in line with the Baringo County Spatial Development Plan (CSDP) 2017-2027[1]. As such, the land use plan does not introduce any type of land use that is not envisaged in the CIDP and CSDP. However, it rezones the broad land use zones that are described in the CIDP to accommodate land uses preferred by the LBCL community such as conservation and tourism. The plan reflects the future desired state that the community aims to attain in the landscape and it therefore captures the communities' long-term aspirations and how these can be realized.

1.2 Plan owners and implementers

At the stakeholder planning workshop, which was attended by officials from the three conservancies, stakeholders agreed that the land use plan will be owned by the Lake Bogoria Conservancies Landscape community. The community, through the conservancies management committees, will be responsible for plan implementation. It was also agreed that the chairpersons of the three conservancies will sign the plan approval page on behalf of the community.

However, to ensure successful implementation of the plan, the community will work closely with key stakeholders in the area including the County Government of Baringo, Kenya Wildlife Service, Baringo County Conservancies Association, and other development partners.

[1] According to the CIDP 2018-2022, the CSDP has been finalized but not published

1.3 Vision, goals and guiding principles

The plan aims to provide a framework for realizing the LBCL community's vision for the landscape (see below). The plan demonstrates the community's commitment to promote integrated land use management to foster sustainable community development. Although land use issues will be addressed at the landscape level because of the interconnectedness of the three conservancies, implementation of actions will be decentralized to the conservancy level.

Visioning

Through a participatory visioning exercise, participants identified the future desired conditions of the LBCL regarding: conservation and management of natural resources, tourism development and management, livestock production, cultivation, community benefits, and institutional and governance mechanisms.

The following are statements that were proposed by the LBCL community:

Conservation of natural resources

- Wildlife numbers have increased due to enhanced collaboration with communities
- Human-Wildlife coexistence has improved due to innovative conflict mitigation mechanisms that have been put in place e.g. Landscape consolation fund
- Rangeland condition has improved through implementation of rangeland restoration and rehabilitation measures
- Grazing pastures have improved through implementation of community grazing plans and habitat restoration measures
- Overgrazing in the common grazing areas has been minimized through controlled grazing
- Wildlife habitat in the landscape has expanded due to collaboration with communities
- Water sources have been protected ensuring adequate water for people, livestock and wildlife

Tourism development and management

- Lake Bogoria landscape is the preferred tourism destination in the country
- The landscape is offering well developed quality tourism
- The landscape is adequately marketed locally and internationally
- The conservancies have identifiable niche tourism products that differentiate them from the principal destination
- Tourism services in the conservancies are of high standards to ensure sustainable growth

Livestock production

- Local livestock breeds have been upgraded to high meat and milk yielding breeds
- Livestock production is commercialized to ensure better income and value for the community

Cultivation

- Financial returns from crop agriculture have increased without encroachment on critical wildlife habitats.
- Crop husbandry is more organic than chemical to minimize the threat of water pollution

Community benefits

- The overall community livelihoods have improved through increased benefits (e.g. employment, increased revenue and revenue sharing, bursaries for needy students)

Institutional and governance mechanisms

- Strong institutions and governance structures have been established
- Land management has improved through digitization of land parcels
- Security of the local community and visitors is enhanced
- The transport and communications infrastructure has been upgraded
- The conservancies are financially sustainable

Vision

From the above future desired conditions, **the vision of the LBCL land use plan** can be summarized as follows:

Land resources in the Lake Bogoria Conservancies Landscape are sustainably conserved and managed for livelihood improvement of the present and future generations

The LBCL Vision Statement is the cornerstone of this land use plan, and guides the goals, objectives and actions that are set out in the plan.

Goals

From the community visioning exercise, the goals of the land use plan are:

- To **conserve** wildlife and its habitats and promote human wildlife coexistence in collaboration with stakeholders
- To develop Lake Bogoria Landscape as a **premier tourism** destination
- To improve range condition to **support livestock** and wildlife grazing
- To improve **livestock breeds and husbandry** for enhanced economic returns
- To increase **financial returns from crop agriculture** while averting encroachment on critical wildlife habitats and pollution.
- To improve community livelihoods through **increased benefits** from integrated land use management
- To establish **strong institutions and governance mechanisms** that facilitate achievement of community aspirations

Guiding Principles

In the development and implementation of this Land Use Plan, the community will be guided by the following principles:

- **Efficiency**. The community will strive to ensure that the land is used in the best possible way. For instance, areas best suited for irrigated agriculture such as lowlands with plenty of water will be reserved for this land use, while bushlands that are not suitable for agriculture because of rainfall limitation and poor soils will be used for livestock grazing and wildlife conservation.

- **Sustainability**. The land resources will be used in a manner that ensures it is productive over several generations.

- **Equity.** The plan will work for all community members irrespective of gender and age or an individual's social status in the community. The present and future generations will have equitable access to benefits arising from management of natural resources in the LBCL.

- **Good Governance.** The community will establish governance mechanisms that are transparent and accountable in its landscape management approach.

- **Ecosystem Approach.** Efforts will be made to manage the landscape based on an ecosystem approach.

1.4 Plan Structure

The plan is divided into four chapters and three annexes as follows:

The Lake Bogoria Conservancies Landscape Land Use Plan

Chapter 1: Introduction
Chapter 2: Description of the Planning Area
Chapter 3: The LBCL Land Use Plan
Chapter 4. Plan Implementation

Annexes
Annex 1: Development and Marketing of Tourism and Camping Business in Irong Wildlife Conservancy
Annex 2: Development and Marketing of Tourism and Camping Business in Kiborgoch Wildlife Conservancy
Annex 3: Commercial Production, Branding and Marketing of Honey in Chuine Wildlife Conservancy

CHAPTER 2. DESCRIPTION OF THE PLANNING AREA

2.1 The geographic scope of the planning area

In defining the geographic scope of the land use plan, the community considered the following factors:

1. **The administrative locations where conservancies members are drawn from**:

a. Irong Wildlife Conservancy members are drawn from five locations, Kapkuikui, Loboi, Kamar, Koibos, Koibos-soi;
b. Kiborgoch Wildlife Conservancy members are from, Loboi, Sandai and Kapkuikui; and
c. Chuine Wildlife Conservancy members are from Sandai.

2. **Wildlife movement in the area, especially Greater Kudu movement routes**.

The Greater Kudu are known to roam widely in the area. They are found in the three conservancies and the Lake Bogoria National Reserve (LBNR). They access all the three conservancies through routes that are on private land owned by members of the local community. The corridors include:

a. LBNR-Chuine Wildlife Conservancy
b. LBNR- Irong Wildlife Conservancy - Kapnyimba salt lick
c. LBNR-Irong Wildlife Conservancy-Kiborgoch Wildlife Conservancy

It was noted that the Lake Bogoria Landscape is large and it has other administrative locations where additional conservancies could be established such as Sinende, Ol Kokwe and Kaplasgei locations.

However, it was agreed that the geographic scope of the plan will cover the ***three conservancies (Irong, Kiborgoch and Chuine Wildlife Conservancies) and the wildlife dispersal areas and corridors linking these conservancies with Lake Bogoria National Reserve***. In particular the plan will aim to integrate wildlife tourism with other compatible land uses such as livestock grazing.

Figure 2 shows the geographic scope of the planning area.

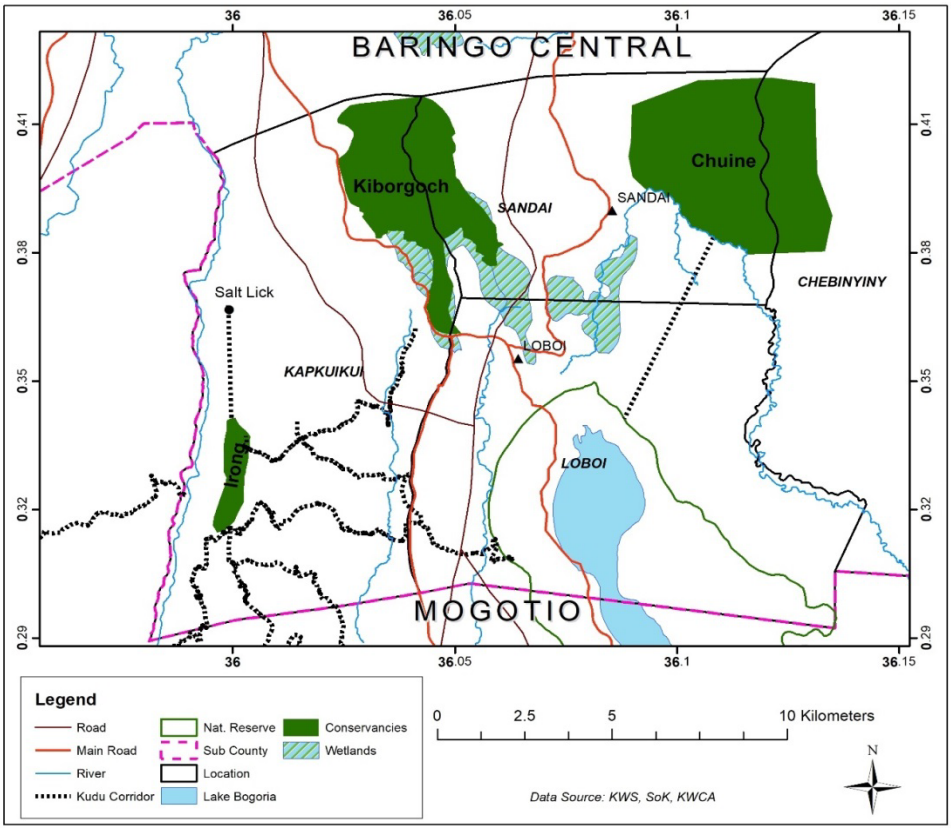


Figure 2. Geographic scope of the planning area

2.2 Wildlife Conservancies

The planning area has three established wildlife conservancies that together with Lake Bogoria National Reserve, are core conservation areas in the landscape. A description of these conservancies is given in the following sections:

Irong Wildlife Conservancy

This conservancy is located on the western side of the LBCL. It is centred on a hill that is communally owned and covers 303Ha with a potential expansion to 61450 hectares[2]. It draws its members from five administrative locations: Kapkuikui, Loboi, Kamar, Koibos, and Koibos-soi.

[2] **Information on the size of the conservancies is from the "*Baringo County Conservancies Association Conservancies Profiling Report 2020*". *The Actual registered size of Irong conservancy is 303 Ha. The rest is potential expansion area***

Besides its tourism potential, this conservancy and its surrounding areas are a critical Greater Kudu habitat that provide linkage to Lake Bogoria National Reserve. The conservancy is also a wildlife stepping stone from the reserve to Kiborgoch Wildlife Conservancy where wildlife access salt licks, water and forage. One of the key cultural values under the custody of the conservancy is an archeological site that is located near Kaptombes trading centre. However, the site has not been studied to generate meaningful interpretation information to visitors.

Kiborgoch Wildlife Conservancy

This conservancy is located in the northern part of the LBCL and covers 2880 hectares. Its members are drawn from three administrative locations: Loboi, Kapkuikui and Sandai. Majority of the conservancy is a swamp which is important for conservation of wildlife species such as burchell's zebras, common waterbuck, hyenas, and diverse terrestrial birds (e.g. Masai Ostrich and crowned crane) and waterbird species (e.g. lesser flamingo). The conservancy is communally owned and it is used as a grazing area by the community. However, due to lack of controlled grazing, the conservancy is overgrazed and degraded. It is also overrun by the invasive species, Mathenge (*Prosopis julliflora).*

Chuine Wildlife onservancy

Chuine Wildlife Conservancy is located on the northeastern part of LBCL and covers 1805 hectares. This is a thickly wooded area which is an important wildlife conservation area as well as dispersal area for LBNR wildlife such as Greater Kudu. The conservancy is located in Sandai location and has potential of expansion to include parts of Chebinyiny and Kiserian administrative locations.

Table 1 gives information on the conservancies' establishment, membership, estimated beneficiaries, legal status, size and land tenure status.

Table 1. Summary of conservancies details

COMMUNITY CONSERVANCY	YEAR ESTABLISHED	NUMBER OF REGISTERED MEMBERS	TOTAL NUMBER OF BENEFICIARIES	LEGAL STATUS	EST. AREA (HA)	LAND TENURE SYSTEM
Irong	2009	815	13000	CBO	131	Community
Kiborgoch	2015	600	8500	CBO	808.44	Community
Chuine	2010	304	3000	CBO	1805	Community

2.3 Key resources in the LBCL

The LBCL resources can be grouped into four broad categories: Biodiversity, Tourism, Cultural and Socioeconomic.

Biodiversity resources

The LBCL hosts diverse habitats which in turn host a wide array of wildlife species. Habitats in the landscape include wetlands (lake, swamps, springs and rivers) that support diverse bird species, especially waterbirds (e.g. flamingos) and fish species. A new subspecies of the Nile tilapia (*Oreochromis niloticus*) was

discovered in one of the-- warm water springs draining into Loboi Swamp demonstrating the importance of the wetlands to biodiversity and community livelihoods[3]. The wetlands especially those outside the reserve are important to the local communities for water and food production.

The bushland habitat supports diverse herbivores species. The common ones that are found inside and outside the national reserve include the Greater kudu which is nationally classified as vulnerable[4], common waterbuck, burchell's zebra, and Grants gazelle among others. Primates are represented by Patas monkey and vervet monkey. Carnivores include Leopard and spotted hyena which are classified nationally as endangered and vulnerable respectively. Terrestrial birds such as the Masai Ostrich are also found in the bushland habitats.

Annex 6 gives a checklist of mammals in the Lake Bogoria National Reserve and its environs[5].

Socioeconomic resources

The bushlands and swamps are important livestock grazing areas for the community. However, due to lack of community grazing management plans, the pastures are overgrazed. Several swamps and rivers occur in the plan area. The Loboi swamp is the largest water reservoir for irrigated agriculture, livestock, and domestic supply. Rivers Loboi and Waseges are key water sources for the irrigation agriculture in the area. Swamps along River Waseges also play an important role in nutrient removal, agro-chemical retention and sediments filtration[6]. The swamps are a source of papyrus reeds that are harvested and used in making diverse products including mats. In addition, the community harvest wild plants in the area for use as herbal medicine. There is also a thriving apiculture in the area.

Apart from wildlife resources, the LBCL has other diverse tourism resources. These include developed resources such as the Lake Bogoria Spa Resort, and undeveloped

[3] http://www.kenweb.or.ke/index.php/projects/loboi-swamp.html
[4] Sixth Schedule of Wildlife Conservation and Management Act, 2013
[5] CGB, 2007. Lake Bogoria National Reserve Integrated Management Plan 2007-2012
[6] CGB, 2007. Lake Bogoria National Reserve Integrated Management Plan 2007-2012

ones such as viewing points, caves, waterfalls and an archeological site. From the viewing points one can enjoy panoramic views of the distant hills and Lakes Baringo and Bogoria below. The landscape has hot springs that can be used to develop community-run spas thereby diversifying tourist activities in the area.

Cultural resources

The indigenous Endorois community that occupy the LBCL has largely preserved its culture which is displayed at the Endorois Cultural Centre. There are also several cultural sites set aside by the community for conducting cultural activities such as circumcision and traditional prayers. There is also an archeological site located near Kaptombes trading center that is run by Irong conservancy. However, this site has not been developed for tourism or education use. There is a need to develop interpretation trails and display panels at the site to enhance visitor appreciation of the site.

2.4 Land tenure

Land tenure in the LBCL is majorly private land with landholding averaging about 2.5ha[7]. Due to the land tenure status, there have been land use changes from nomadic pastoralism to communal sedentary grazing in the former pastoralism areas east, west and south of Lake Bogoria. Land tenure has led to increased subdivision of land as the population in the area increases resulting in unsustainable land parcels. There is need to provide alternative livelihood opportunities to remove pressure on land.

2.5 Land Use

Land use in the LBCL is majorly influenced by the following factors: the Agro-Ecological Zoning[8]; availability of water for irrigation; and steepness of the land. The LBCL falls under three Agro-Ecological Zones: Lower Midland (LM) Zone 5, Lower Midland (LM) Ranching Zone 6; and Inner Lowland (IL) Ranching Zone 6. Although the annual average rainfall in the three zones seems adequate with 500—700 mm, distribution during the year is scattered into three seasons making each one too weak and short. However, irrigated farming is practiced on alluvial valley soils with water from rivers in the landscape[9]. Figure 3 shows the AEZs in the LBCL while Table 2 gives their descriptions.

[7] ***CGB, 2018. Baringo County Integrated Development Plan***

[8] ***Agro-ecological zone is a land resource mapping unit, defined in terms of climate, landform and soils, and/or land cover, and having a specific range of potentials and constraints for land use(Fao, 1996).***

[9] ***MoALF, 1983. Farm Management Handbook of Kenya. VOL. II- Natural Conditions and Farm Management Information***

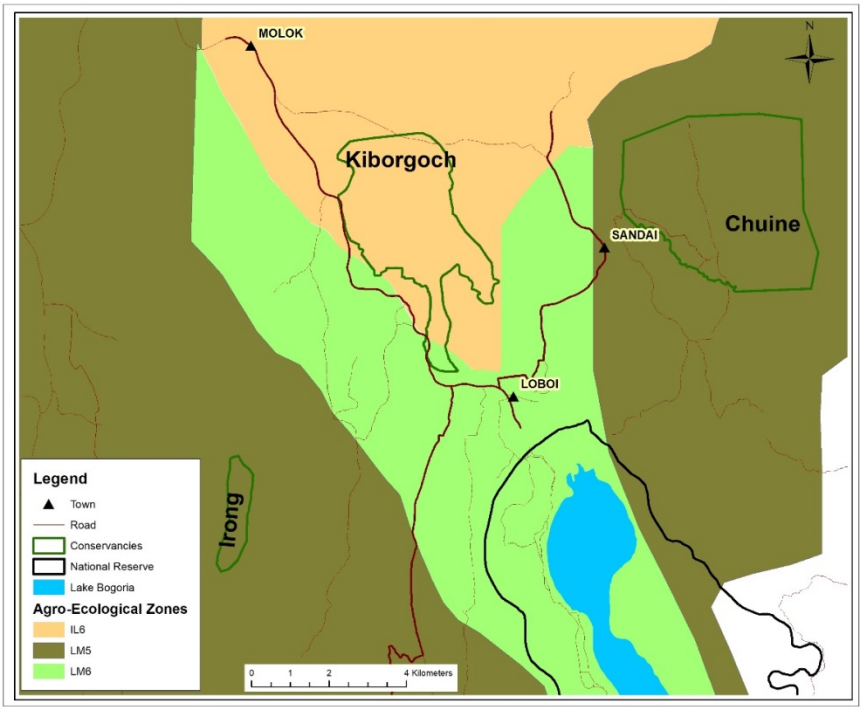


Figure 3. LBCL Agroecological zones[10]

Table 2. The AEZ's in LBCL, their description and cultivation and livestock grazing potential

Agro-Ecological Zone	Description	Cultivation potential	Livestock grazing potential
LM5	*Livestock-Millet Zone*	• Fair yield potential for sorghum and millet. • Poor yield potential for maize	• 4 - 6 ha/LU on Acacia wood- and bushland if not degraded • Goats thrive better than cattle and sheep.
LM6	*Lower Midland Ranching Zone*	• Rainfed agriculture only in suited places especially with water concentration.	• About 10 ha/LU on undestroyed dry bushland or *Acacia mellifera* Acacia-Commiphora Woodland • Most areas degraded and eroded, there up to 25 ha/LU required
IL6	*Inner Lowland Ranching Zone*	• Rainfed agriculture only in suited places especially with water concentration	• Like LM 6, but grazing very limited at present due to overgrazing.

[10] ibid

Adopted from: MoALF, 1983. Farm Management Handbook of Kenya. VOL. II-Natural Conditions and Farm Management Information

The major land uses in the planning area are: cultivation, livestock grazing, and conservation and tourism (Figure 4). These land uses are described in the following sections.

Cultivation

As mentioned above, the LBCL is a semi-arid area receiving 700 mm of rainfall per year. In addition, the potential evaporation exceeds 2500 mm/year which is 3 to 4 times the rainfall[11]. With this negative hydrological budget, rainfed farming is limited. However, due to increasing population and lack of alternative livelihood means, the local community is expanding rainfed farming in the area. Consequently, natural habitats in the area are declining spelling doom for wildlife conservation and ecological integrity.

The rainfed cultivation area within the LBCL is mainly in Irong Conservancy's influence area, which is an important dispersal area for Lake Bogoria National Reserve's wildlife. Expansion of rainfed agriculture in this area poses the risk of escalating human-wildlife conflicts as well as loss of a potential conservation area.

Irrigation farming is concentrated around Loboi Swamp and along Rivers Loboi and Waseges. Farmers in the irrigation schemes focus on the lucrative maize seed farming. Farmers are contracted by seed companies such as Kenya Seed Company who provide the maize seed for planting and the market for the farmers harvest. The major irrigation schemes include (Figure 3):

[11] *Gail Ashley Natural and anthropogenic impacts on a freshwater wetland, Lake Bogoria, Kenya . https://serc.carleton.edu/vignettes/collection/58425.html*

- Kamoskoi Irrigation Scheme
- Kaptombes Irrigation Scheme
- Kapkuikui Irrigation Scheme
- Tembererwe Irrigation Scheme
- Sokotoiwo Irrigation Scheme
- Sukutek Irrigation Scheme

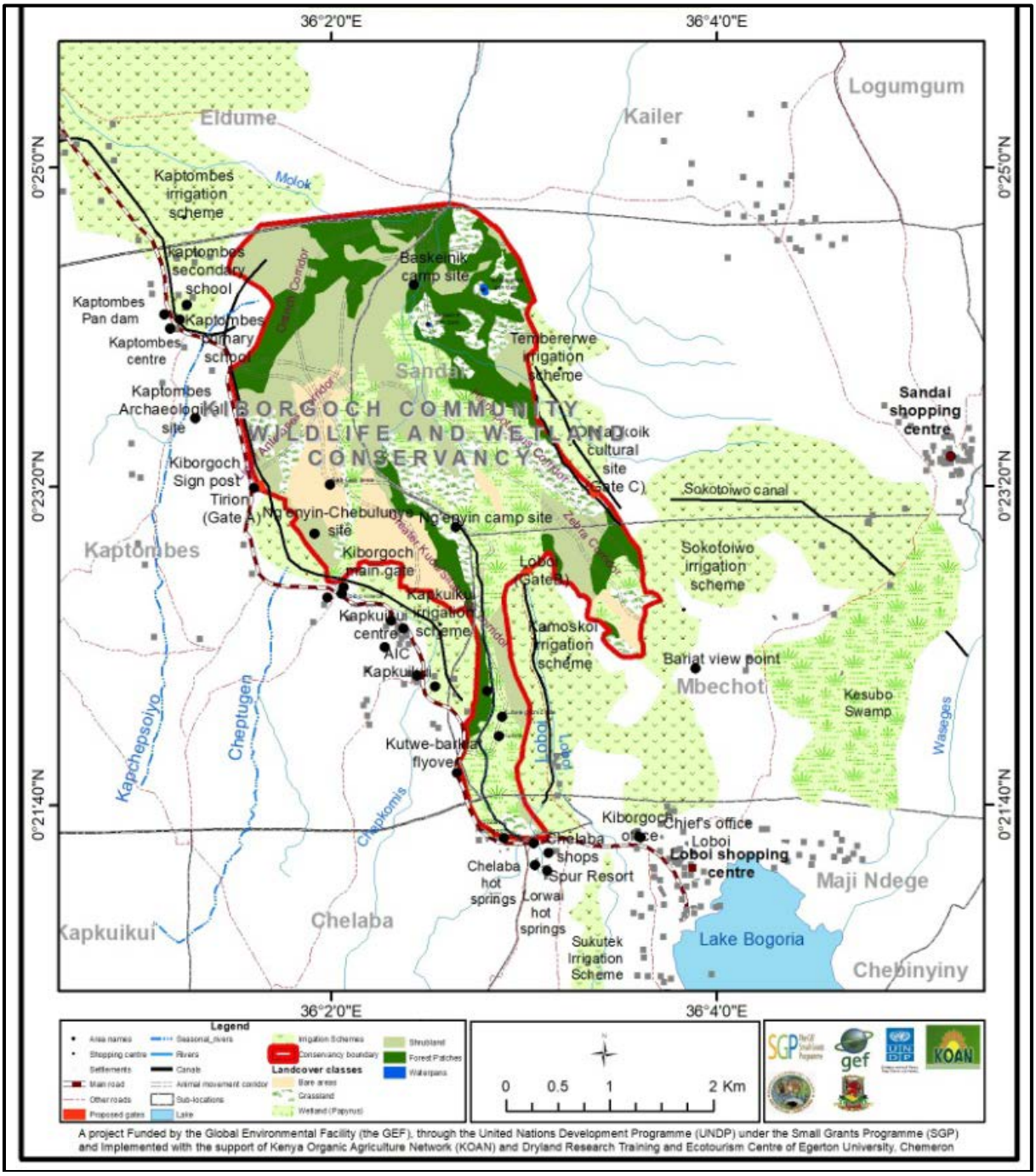


Figure 4. Major irrigation schemes in the LBCL

The returns from maize seed farming is as shown in table 3.

Table 3. Per acre cost and benefit of certified maize seed production[12]

Item	Cost (Ksh)
Maize yields (Kg/acre)	2000
Sale Price (Ksh/acre)	65
Ploughing	2500
Ridging	1500
Planting	1200
Fertilizer	4,250
Weeding	1600
Irrigation	800
Detasseling	3000
Harvesting and handling	1500
Transport	1000
Shelling	500
Baringo Cess	1000
Production cost	18,850
Total Revenue	130,000
Net Revenue (Maize yields/acre X sale price -production cost)	**111,150**

The returns rain fed maize farming is as shown in table 4.

Table 4. Per acre cost and benefit of rainfed maize farming[13]

Item	Cost (Ksh)
Maize yields (Kg/acre)	900
Sale Price (Ksh/kg)	33.3
Ploughing	3200
Harrowing	2800
Seeds	2500
Planting	2000
Fertilizer	4,250
Weeding	2500
Harvesting	3000
Transport	1000
Shelling	800
Production cost	22,050
Total Revenue	30,000
Net Revenue (Maize yields/acre X sale price -production cost)	**7,950**

[12] *Information from Raphael Kipsoi, Vice Secretary, Kiborgoch Conservancy*
[13] *Information from Raphael Kipsoi, Vice Secretary, Kiborgoch Conservancy*

From table 3 the annual income from an acre of maize seed farming is approximately Ksh. 111,150. This is more than 20 times[14] what a farmer would get from leasing the land for tourism. With these high returns, therefore, irrigated maize seed farming is expected to continue being the land use type of choice at existing and potential irrigation schemes as it outcompetes other potential land uses. However, annual income from rainfed farming seems low at Ksh. 7,950 (Table 4 above) and tourism could compete with it. It is therefore recommended that tourism development be prioritized in the rainfed farming areas west of Lake Bogoria National Reserve.

Figure 4 shows the present land use patterns in the LBCL.

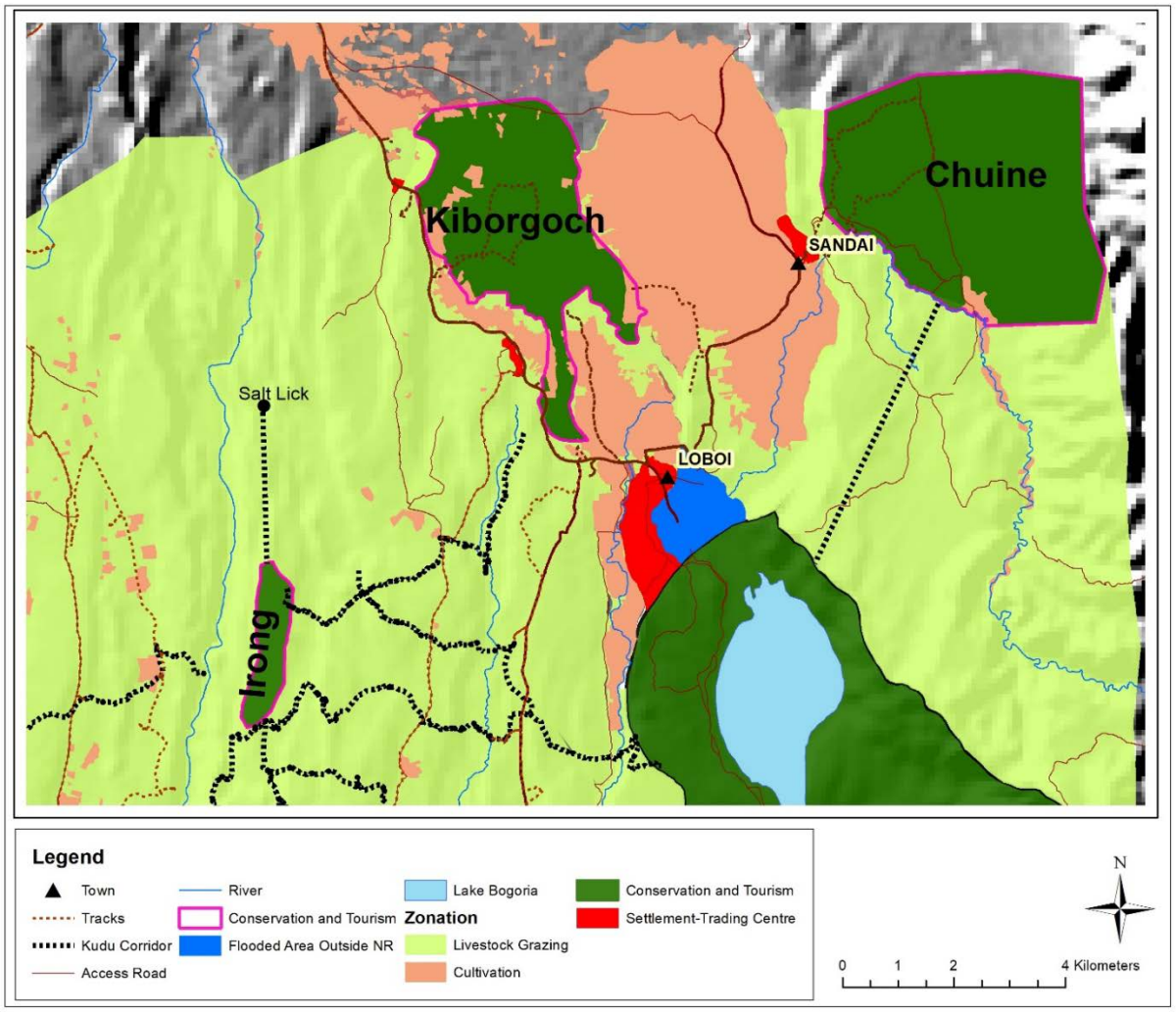


Figure 5. LBCL present land use

[14] *Assuming a land rent of Ksh. 5000/acre/year*

Livestock grazing

As in other parts of the country where range lands have been subdivided, land fragmentation through fencing and sedentarization is increasing in the LBCL as individuals settle permanently on their land parcels. Considering that the recommended stocking rate in the LBCL is 4 - 6 ha/Livestock Unit[15] when land is not degraded, the number of livestock that can be supported by an individual's land parcel (averaging 2.5ha) can't sustain even one livestock unit. This partly explains why LBCL livestock grazing system is largely communal despite private land ownership. Livestock is grazed close to settlements during the wet season and at the swamps and hills (e.g. Irong Hill) during the dry season. Livestock kept include cattle sheep and goats. However, the area is more suited for goats[16].

With subsistence livestock keeping being a key economic activity in the area, there are a number of issues that could be addressed to help improve the economic viability of this land use. This includes improvement in livestock husbandry practices, improvement of livestock breeds, and controlled grazing, among others. An important role of this Land Use Plan will, therefore, be to promote sustainable livestock productivity within the LBCL to ensure that livestock keeping continues to provide sustainable economic and ecological benefits to the community. This will be achieved through a multipronged approach that will seek to improve livestock pastures as well as improve livestock breeds and husbandry.

The current costs and benefits of livestock production in the LBCL are given in Table 5.

Table 5. Livestock production costs and benefits for cattle[17] and sheep/goats[18]

Item	Cost/revenue (Ksh)	Item	Cost/revenue (Ksh)
Average no. cattle per household	10	Average no. sheet/goats	20
No. cattle sold/year	3	No. sheep/goats sold/year	5
Selling price /cattle	25,000	Selling price /Sheep/goats	3000
Cost of production per cattle/year		Cost of production per sheep or goat/year	
• Herding	2400		
• Deworming • Dipping • Vaccination • Production cost per cattle	300 260 240 3200	Deworming Dipping Vaccination Production cost	60 260 100 420
Total production cost (10 Cattle)	32,000	Total production cost	8400
Total Revenue (No. cattle sold/year X selling price)	75,000	Total Revenue	15,000
Net Revenue (Total revenue-production cost)	43,000	Net Revenue (Total revenue-production cost)	6,600
Annual returns from livestock sales	**49,600**		

[15] *MoALF, 1983. Farm Management Handbook of Kenya. VOL. II- Natural Conditions and Farm Management Information*
[16] *ibid*
[17] *Information on cattle production was obtained from Wilson Rotich and Samuel Kiptek, Manager and Chairman, Irong Conservancy respectively*
[18] *Information on sheep/goat production was obtained from Raphael Chepsoi, Vice Chairman Kiborgoch Conservancy*

From table 5, it seems that livestock production combined with tourism could yield substantial returns to a farmer. Assuming a farmer leases his 5 acres for Ksh. 4,000 [19] per year for tourism development and his livestock continues to access the land for grazing, albeit in a controlled grazing system, the farmer can make Ksh. 69,600 from livestock and land leasing. This is significantly higher than if the 5 acre land parcel was used for rainfed farming where the returns would be approximately Ksh. 39,750 (Table 4).

Conservation and tourism

Conservation

The LBCL, and the Lake Bogoria in particular, is world-renowned for its spectacular abundance and diversity of biodiversity and wildlife habitats. In the landscape are the permanent wetlands that are critical habitats for a variety of mammal and bird species as mentioned under section 2.3. Habitat mosaics in the area also host diverse mammal species including the area's flagship species, the Greater Kudu. Wildlife movements occur throughout the LBCL, with mapping of Greater Kudu movement routes suggesting that they use the area around Irong Conservancy a lot (Figure 2). The importance of the LBCL as a wildlife dispersal area and in protecting wildlife movement corridors, as well as in protecting other important habitats, is a key factor driving the development of this Land Use Plan.

Tourism

The LBCL harbors Lake Bogoria, one of the most important tourist attractions in Kenya, drawing hundreds of visitors from the rest of the country and abroad. The Lake's main attraction are millions of flamingos that use the lake as feeding habitat while it's also of great scenery value due to hot geysers and hot springs. As a World Heritage Site, Ramsar site and Important Bird Area, the lake is an important resource from both an environmental and biodiversity perspective, as well as because of the major economic role it plays as the bedrock of tourism in the County.

The LBCL currently has very low visitor densities, which can be attributed to several factors:

First, is the small number of existing tourism facilities (only one lodge-Lake Bogoria Spa Resort). The majority of visitors never spend the night here as the destination remain a one day visit activity. However, the existing lodge reports good occupancy suggesting the in-vestments in good facilities could attract more business.

Second, the area has had poor road access, especially with respect to the rest of the tourism circuit which runs between Mt Kenya, Nakuru and Maasai Mara. Visiting Baringo is usually seen as detour from the main circuit which discourages its inclusion in safari itineraries. Opening of the road access between Baringo and Laikipia would go a long way towards tapping on the main tourism circuit.

[19] *Land rent per acre in the rainfed areas*

Locally the main road from Nakuru to Baringo and Bogoria is accessible throughout the year. However, the road network within the landscape especially around the conservancies is poor. This discourages visitation and remains a big constraint to tourism growth in the area.

The LBCL also suffers from an identity crisis brought about by insecurity in the neighbouring areas. Regular reports of cattle rustling discourages investments and also visitation leading to low tourism activity.

The poor development of the LBCL's tourism product and the low level of current tourism investment in the area has been compounded by several other factors, including the fact that specific tourism investment opportunities in the area have not been identified, a lack of general awareness of the area's potential for tourism development, and most importantly, the lack of a framework to facilitate collaboration between the Lake Bogoria Conservancies and potential tourism partners in identifying and developing new tourism schemes. An important function of this Land Use Plan will be to help identify potential areas within the LBCL where nature-based tourism can be developed through partnerships with tourism investors. The communities can lease the conservancies to tourism investors and reap benefits in terms of, concession lease fees, employment, conservancy entry fees, and bed night fees.

Settlement

Most land within the LBCL is privately owned by members of the local community. This has resulted in settlement on individual land parcels. However, some parts of the landscape where cultivation is constrained by terrain and rainfall are sparsely settled. In addition, the communally owned conservancies are not settled making such areas and the unsettled areas around them good focal areas for conservation and tourism programmes. Further, a significant number of people are settled at the trading centres such as Loboi, Sandai, Kapkukui, Kaptombes, Majimoto, among others.

2.6 Major problems and opportunities

Land degradation

Majority of the communities in Baringo County rely on livestock and small-scale agriculture for their livelihood. The sustainability of these activities is constrained by the degraded landscapes manifested in form of soil erosion, overgrazing, uncontrolled charcoal burning, and invasive species.

The key factors causing land degradation and habitat loss in the planning area are discussed in the following paragraphs:

- **Human encroachment on fragile habitats:** The landscape is experiencing increasing conversion of wetlands and riverine habitats into irrigated farming. This is fueled by increasing population and corresponding demand for land to farm. For instance, Loboi swamp reduced by over 60% between 1969 and 2002 due to irrigation, harvesting of papyrus and land reclamation[20,21]. In addition,

[20] *http://www.kenweb.or.ke/index.php/projects.html*

Kesubo swamp has completely been converted to irrigated farms. The wetlands are important habitats for many aquatic animals such as fish and waterbirds. They also filter water off pollutants before it drains into Lake Bogoria. There is need to demarcate the wetlands clearly and enforce the law to protect these wetlands and riverine habitats.

- **Soil erosion:** The hilly habitats in the Lake Bogoria Landscape are degraded by soil erosion. This soil ends up in the lowland swamps such as Loboi. It is worth noting that sediment loads at Sandai forced River Waseges to change course in 2008. Prior to that the river drained into Lake Baringo but increased sedimentation caused it to change its course to drain into Lake Bogoria[22]. Soil erosion is accelerated by overgrazing and lack of soil conservation intervention measures in the landscape. To curb soil erosion there is a need to enhance environmental conservation awareness among the local community and control factors that are accelerating it such as overgrazing and charcoal burning.

- **Livestock overgrazing:** The community conservancies are common grazing areas where the local community adjacent to the conservancies graze their livestock. In addition, although the land tenure in the landscape has changed from community to private land, communal grazing is still practiced. Communal livestock grazing without attendant pasture management plans and grazing controls has led to severe overgrazing in the conservancies and the landscape in general. However, since livestock pastures are common pool resources, the community could establish grazing management systems that introduce rotational grazing ensuring that grazed pastures have time to recover.

- **Uncontrolled charcoal burning:** Charcoal burning is practiced by some of the community members as an alternative livelihood. This is leading to gradual clearance of dryland adapted trees that are preferred for charcoal making and woody shrubs some of which are of medicinal value. Clearing trees and shrubs for charcoal production is also a contributing factor to soil erosion in the area. There is need to enforce charcoal regulations in the area to forestall continued tree cutting for charcoal production. This is a task that the community, through their traditional institutions and the conservancies management, can collaborate with the local administration to control.

- **Invasive species:** The Lake Bogoria Conservancies Landscape is over run by the invasive species, Mathenge (*Prosopis juliflora).* This species has invaded the conservancies, particularly, Kiborgoch conservancy, reducing the area available for livestock and wildlife grazing significantly. There is a need to embark on an invasive species eradication programme to prevent continued loss of pastures and biodiversity in general.

Human–wildlife conflict

Human wildlife conflict is mainly manifested in form of livestock predation and crop raiding. The problem animals responsible for livestock predation include leopards and hyenas while those responsible for crop raiding include zebras and primates. However, the most serious conflict is snake bite which in many instances lead to human death and permanent injuries. Latest reports indicate that up to 10 people die in Baringo County due to snake bites each year. The main challenge is availability of anti-venom in hospitals which are also far between. The conservancies can adopt a program to ensure anti-venom is

[21] *ASHLEY, G.M., MAITIMA MWORIA, J.M., MUASYA, A.M., OWEN, R.B., DRIESE, S.G., HOVER, V.C., RENAUT, R.W., GOMAN, M.F., MATHAI, S., and BLATT, S.H., 2004, Sedimentation and evolution of a freshwater wetland in a semi-arid environment, Loboi Swamp, Kenya, East Africa: Sedimentology, v. 51, p. 1-21.*

[22] *Kareri, W.R. 2018. Land Use Changes and Their Impacts on Wetlands in Loboi Plains Baringo County, KENYA.*

provided nearest to the communities and many village scouts and community leaders trained on its administration to save lives whenever snake bites occur.

To curb human-wildlife conflicts the conservancies can work with KWS to empower the community scouts to control problem animals. Further, opportunities to develop human-wildlife conflict response mechanisms that improve local livelihoods such as increasing access to development of snake anti-venom, could promote co-existence among the communities and wildlife.

Livestock Diseases

Livestock in the LBCL are affected by diseases such as foot and mouth disease, contagious Bovine Pleuro-pneumonia, Contagious Caprine Pleuropneumonia, East Coast fever, Diarrhea, Mange, Red water, worms and Heart water[23]. All of these diseases are highly contagious and cause huge livestock losses. As a way of intervention, the community has established cattle dips to control livestock pests such as ticks. They also vaccinate livestock against diseases.

Climate change

Climate change is depicted by frequently changing weather patterns which have made rainfall very unreliable causing frequent droughts and famine. This climatic variability limits rangeland regeneration and reduces grazing land[24]. On the other hand, heavy and unpredictable rainfall causes serious flooding which has had negative effects on economic activities in the area.

Drought

The landscape, as is the case with most of Baringo County, is prone to frequent and severe droughts. These droughts lead to loss of crops and livestock impacting community livelihoods. To mitigate drought impacts, the County Government has been encouraging irrigated farming where this is possible. The communities and conservancies should be encouraged to form a drought mitigating program where animals especially livestock are sold off at the onset of droughts to forestall huge losses.

Expansion of Lake Bogoria

Lake Bogoria, like many other rift valley lakes in the country, has recorded substantial swelling in recent years leading to displacement of people living adjacent to the lake. The extent of this expansion is not well understood and the future is hard to predict as there is no good data to forecast the process. This casts a shadow of uncertainty around conservation and human activities in the landscape.

The conservancies shall work closely with the disaster preparedness department of the county and national governments to monitor the situation and arrest any emergencies.

Over abstraction of water for irrigation

There is concern that the use of water from upstream catchment areas and ground-water aquifers is beyond the natural ability of the ecosystem to recharge itself. Small irrigation dams have been constructed on rivers flowing into the

[23] *CGB, 2018. County Integrate Development Plan, 2018-2022*
[24] *Ibid*

lakes and river flows have reduced substantially in recent years. Given the rate of population increase and intensification of land use in the area, this trend seems likely to accelerate, unless deliberate steps are taken to curb water abstraction[25].

A comprehensive list of problems and opportunities identified by stakeholders during the Stakeholder Planning Workshop is provided in table 6.

Table 6. Summary of problems and opportunities identified by stakeholders

Land Use Zone/Thematic area	Objectives and Problems	Opportunities
Conservation	***Habitat Management*** • Human encroachment on fragile habitats (riverine and swamp habitats) • Over abstraction of water for irrigation • Invasive species (prosopis spp.) • Wildfires • Charcoal burning • Overharvesting of reeds • Water pollution • Degradation of water catchment areas • Drought • Diversion of water for agricultural use • Climate change • Obstruction of wildlife corridors • Soil erosion across the landscape • degradation of woodland ***Wildlife Management*** • Human-wildlife conflict • Poaching ***Research and Monitoring*** • Limited research on resources	• Rich birdlife – Lake Bogoria is an IBA and Ramsar site. • Diverse vegetation types - Bushland, bushland woodland, swamp vegetation • Diverse wild animals • Water points e.g. rivers, springs, wetlands, pan dams • Water catchment areas • Rivers, Springs, swamps and dams • Established Conservancies management structures • Availability of the veterinary services within the area of jurisdiction • Established umbrella body for conservancies i.e BCCA • Lake Bogoria National Reserve management • Baringo County Government • Non local Conservation partners including SGP, GEF, UNDP, USAID, EU • Government agencies e.g. KWS, Local administration, Local administration • The County Climate Change Policy
Tourism	***Tourism Product Diversification*** • Lack of differentiation between the three conservancies and their unique products ***Tourism Marketing***	• The local community's conservation culture • Hospitable Tugen culture • Endorois culture (Traditional rites, Traditional medicine, Cultural dancers, Traditional weaving)

[25] *Lake Bogoria National Reserve Integrated Management Plan, 2007-2012*

Land Use Zone/Thematic area	Objectives and Problems	Opportunities
	• Limited marketing of the conservancies ***Tourism infrastructure*** • Swelling of Lake Bogoria	• Cultural heritage sites- praying hills, circumcision sites, worship sites • Swimming sites • Medicinal plants • Archaeological site • Caves • Lake Bogoria National Reserve is a tourist attraction • Proximity to roads • Potential natural spas in Kiborgoch • Scenic areas-e.g. swamps, hills • Nature trails that cut across the Lake Bogoria landscape • View points • Swimming sites • Beautiful scenery • Air vents • Greater Kudu as a unique selling point • Lake Bogoria Spa hotel • Geysers and hot springs in the catchment • Bird watching site • Kudus watching site
Livestock grazing	***Livestock management*** • Grazing land degradation • Overgrazing ***Livestock Husbandry*** • Livestock diseases	• Communal grazing areas in the conservancies • Bee keeping projects
Cultivation	***Rain fed farming*** • Land degradation as a result of unsustainable agricultural practices ***Irrigated farming*** • Use of pesticides in farms (insect species such as wild bees)	• Maize seed companies • Market for maize seed
Institutions and governance	***Conservancy establishment and governance*** • Exclusion of community members in planning and conservancy development • Limited knowledge by community members on the benefits of having a conservancy	• Employment opportunities e.g. conservancy scouts, and managers, local hospitality industry • Conservation awareness in the community • *Mathenge* tree *(Prosopis julliflora)* • Transport and

Land Use Zone/Thematic area	Objectives and Problems	Opportunities
	• Lack of conservancies management plans • Inadequate conservancy membership registration • Inefficient conservancy partnerships • Poor infrastructure • Lack of funds • Inaccessibility- i.e. poor transport and communication networks ***Awareness creation*** High population growth rate ***Community Collaboration*** • Land and boundary conflicts with neighboring community • Cultural conflict ***Land management*** • Increased human settlement • Individualization of land ownership ***Community benefits*** • Poverty • Unemployment	communication infrastructure • Government Compensation scheme for human wildlife conflict • Secure land tenure • Registered conservancies • The County Charcoal Bill • County budgeting allocation on environmental and wildlife education and awareness programme • County government program on mass tree planting • The 10% revenue sharing from LBNR • BCG Legislation on pasture, conservation and tourism • Policies on land use and wetlands conservation and management • Valuable minerals • Non local Conservation partners including SGP, GEF, UNDP, USAID, EU • Government agencies e.g. KWS, Local administration, Local administration

CHAPTER 3. THE LBCL LAND USE PLAN

3.1 Planning Approach and Methodology

The planning process was guided by the FAO Guidelines for land-use planning[26] to formulate the *Land Use Plan for Lake Bogoria Conservancies Landscape*. The guidelines prescribe a bottom-up participatory planning approach in the formulation of a rural land use plan. Consequently, the land use planning process was participatory involving key stakeholders in the planning area. Stakeholder participation in the planning process ensured that the plan is owned by the community who will be responsible for implementing it. In the development of the land use plan, stakeholders participated in the planning process through several planning activities. These included field reconnaissance tours, and planning and plan validation workshops. The ensuing proposed land use plan is therefore based on a shared vision of stakeholders in regard to land use and management in the Lake Bogoria Conservancies Landscape.

The land use mapping used remote sensing data from 5/7/2019 and 15/1/2021 to map land use in the LBCL (Figure 5), and from data 5/1/2017 and 5/7/2019 to map the greater LBCL (Annex 4). The mapping was done using a Geographic Information Systems application, ESRI's ARCGIS. A preliminary present land use map of the area was digitized from the satellite image and secondary data layers on roads, rivers, trading centres were overlaid on the land use map. The preliminary land use map was later presented and discussed by stakeholders at a stakeholder planning workshop organised for the three Lake Bogoria Landscape conservancies. The workshop confirmed the present land use map and made proposals for the kind of land uses that they expect in the future. The workshop was followed by a resource mapping exercise of key resources in the planning area after which a land use zoning map of the preferred land use scenario was prepared.

3.2 Resource mapping

At the stakeholder planning workshop, participants were divided into three groups according to the conservancy they were from (Irong, Kiborgoch and Chuine). Each group was tasked to identify all the key resources in their conservancies and their zone of influence. These resources were categorized as either natural or sociocultural resources. The groups were also asked to provide the local place name of each resource of interest (See Annex 2).

To facilitate the resource mapping, the groups were asked to select at least one person who was conversant with the locations of the identified resources. These conservancy representatives included the managers of Irong and Chuine Wildlife Conservancies, and the Vice Chairman of Kiborgoch Wildlife Conservancy. These three conservancy representatives and the plan facilitators were then tasked to record the geographic coordinates of each resource that was identified.

The mapping team divided itself into two teams as it had two Global Positioning Systems (GPS) at its disposal. Using the predefined resource lists, the mapping team drove, rode a motorbike or walked to each of the listed resources and recorded its geographic coordinates using a GPS. The mapping teams also used

[26] *FAO, 1993. Guidelines for Land-Use Planning (FAO Development Series No. 1). ISBN 92-5-103282-3*

the high resolution and freely available satellite images from Google maps to identify features on the ground and orientate. Each resource that was georeferenced was also photographed. Resource mapping for Irong Wildlife Conservancy and surrounding areas took two days while that of Kiborgoch and Chuine Wildlife Conservancies took one day each.

After the field work the GPS information was downloaded in a computer and analysed using the Arc GIS Geographic Information Systems (GIS) software to generate a draft resource map. This map was later presented to stakeholders from the three conservancies for validation at a validation workshop. Participants reviewed the map for correctness and pointed out place names that were misspelled or incorrect. They also provided additional information that had been left out during the first planning workshop. The corrections made by participants were then incorporated in the resource map and the final map produced.

3.3 Land Use Zoning

Rationale

A number of land and resource uses, some of which are conflicting are practiced in the LBCL. The purpose of this section is, therefore, to identify the different land uses in the landscape and to assess their impacts on each other in terms of them being acceptable, complementary or conflicting. The aim is to provide a framework for facilitating co-existence of different land uses with minimal conflicts.

The zonation scheme was developed by LBCL conservancy officials with inputs from other LBCL stakeholders, taking into account the potential of the different LBCL land use options. First stakeholders brainstormed on the land uses that are likely to be perpetuated in the landscape and seven land uses were identified including, conservation, cultivation, livestock grazing, tourism, bee keeping, mining and settlement. The land uses were arranged in a matrix[27] to identify those that are acceptable, conflicting and those that are complimentary (Table 7).

Table 7. Land use conflict matrix

	Conservation	Cultivation	Livestock Grazing	Tourism	Bee Keeping	Mining	Settlement
Conservation	NC	XX	X	√	√	XX	XX
Cultivation	XX	NC	X	XX	√	X	√
Livestock Grazing	X	X	NC	X	√	X	√
Tourism	√	XX	X	NC	√	XX	XX
Bee keeping	√	√	√	√	NC	X	√
Mining	XX	X	X	XX	X	NC	X
Settlement	XX	√	√	XX	√	X	NC

Key

NC	No conflict
X	Conflict but can be managed
XX	Conflict and difficult to manage together
√	Land uses that complement one another

[27] *Institutional Training. Module 1.10. Conservancy Management Plan Development. http://www.nacso.org.na*

Table 8 shows land uses that are compatible and can be practiced together without conflicts; those that are partially compatible and can be practiced together with conflict management; and those that are incompatible and efforts should be made to separate them.

Table 8. Land use that cannot be practiced together, and those that can be managed or practiced together

Land use compatibility	**Action needed**
Incompatible 1. Conservation and cultivation; 2. Conservation and mining, 3. conservation and settlement 4. Tourism and cultivation 5. Tourism and mining 6. Tourism and settlement	Avoid practicing these land uses together
Partially compatible 1. Conservation and livestock grazing 2. Cultivation and livestock grazing 3. Tourism and livestock grazing 4. Livestock grazing and mining 5. Bee keeping and mining 6. Mining and settlement	Manage these land uses together
Compatible 1. Conservation and tourism 2. Conservation and bee keeping 3. Cultivation and bee keeping 4. Cultivation and settlement 5. Livestock grazing and bee keeping 6. Livestock grazing and settlement 7. Bee keeping and tourism 8. Bee keeping and settlement	Promote practicing of these land uses together

The current land use map and resource map developed during the resource mapping exercise were reviewed with an aim of preparing a land use zoning map and prescriptions that minimize land use conflicts as shown in tables 7 and 8 and promotes conservation and tourism in the planning area. Four main land use zones are proposed, ***Cultivation zone; livestock grazing zone; conservation and tourism zone; potential conservation and tourism zone; and settlement zone-Trading Centre.*** Other minor land uses, such as mining and bee keeping will be conducted within these five broad zones as prescribed in table 9. In addition, rural settlement will continue at varying levels in all the zones apart from the trading centres.

Figure 5 presents the proposed LBCL land use zoning.

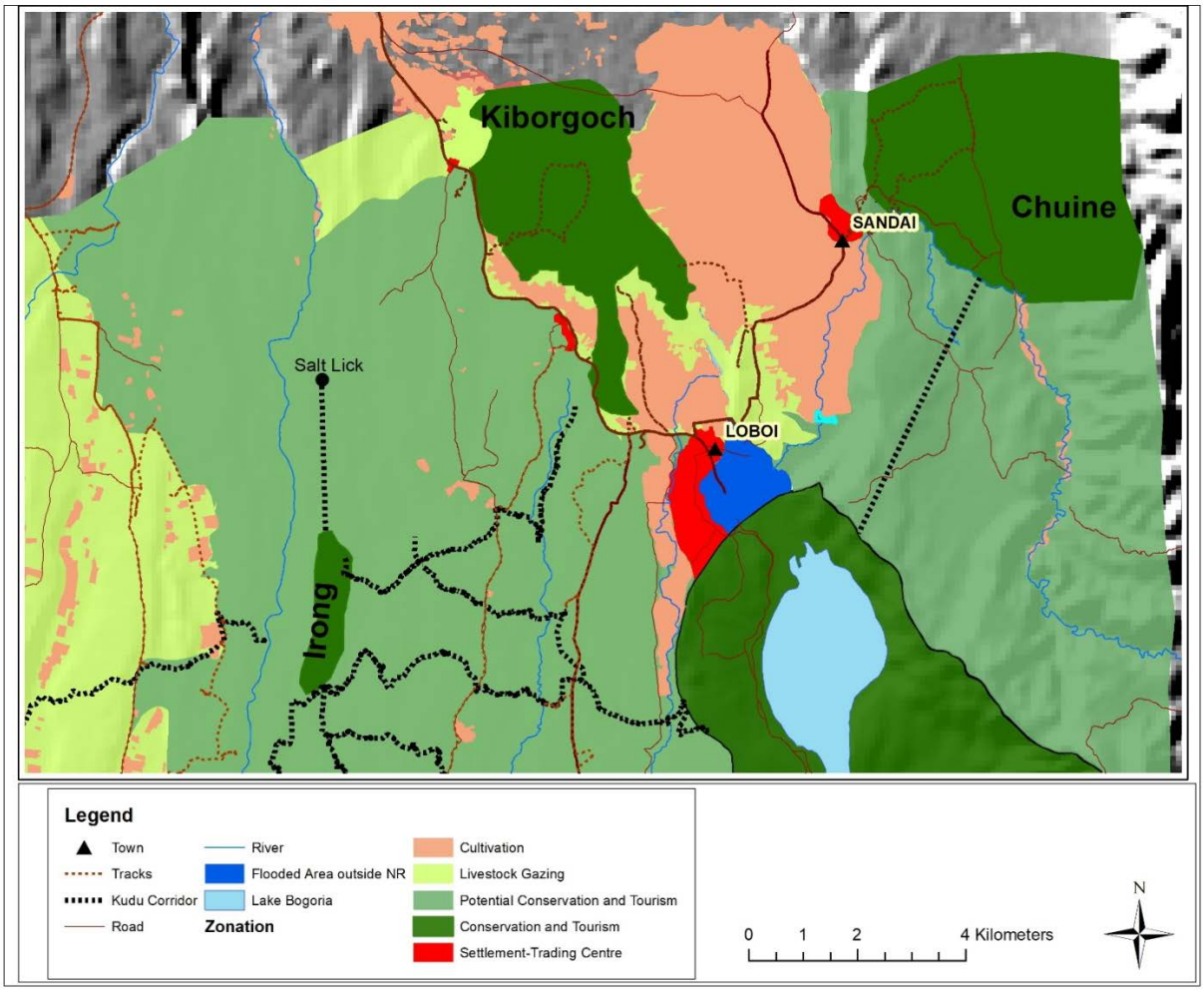


Figure 6. Proposed LBCL land Use Zoning

Table 9. LBCL Major Land Use Zones and Rules

Zone	Zone objective	Zone description	Advantages	Land use or activities allowed	Land use or activities not allowed
Cultivation	To support mixed farming (crop and livestock agriculture)	The zone covers areas under irrigated farming. Crop agriculture is the main land use but livestock (cattle, sheep and goats) are also kept and grazed in Kiborgoch Conservancy.	• Plenty of water for irrigation • High returns from maize seed farming	• Cultivation • livestock keeping • Settlement • Bee keeping • Fish farming	• Wildlife conservation, especially of problem animals
Livestock Grazing	• To provide areas for extensive livestock grazing	Covers the bushland area where agriculture is constrained by lack of water for irrigation, poor soils, and unfavorable terrain.	• Vast rangelands • Not suitable for crop cultivation • Facilitates wildlife dispersal	• livestock grazing • Settlement • Wildlife conservation • Bee keeping • Mining in mining sub-zones • Tourism	• Overgrazing • uncontrolled harvesting of trees • cultivation on fragile areas such as steep slopes and fragile areas e.g. swamps • Settlement on identified and marked wildlife corridors • Tourism accommodation facilities are not allowed unless the facility site and exclusive zone will be part of an existing or new conservancy
Conservation and tourism development	• To conserve wildlife biodiversity	• Covers the area under the three wildlife conservancies (Irong, Kiborgoch Chuine Wildlife Conservancies) and the wildlife corridors linking the conservancies with the LBNR	• Has fragile habitats (wetlands, riverine woodlands) • Has diverse wildlife species • Has critical wildlife corridors • Has cultural sites • Has warm water from nearby hot springs that can be developed into spas • Has viewing points • Protects a key wetland (Kiborgoch) • Raises the LBCLs conservation profile	• Conservation • Nature and culture-based tourism • Controlled livestock grazing • Controlled harvesting of papyrus reeds and medicinal plants • Bee keeping in designated areas • Research	• Cultivation • Encroachment on wetlands • Settlement • mining

THE LBCL LAND USE PLAN

Zone	Zone objective	Zone description	Advantages	Land use or activities allowed	Land use or activities not allowed
Settlement zone-Trading Centre	• To provide an area where nucleated settlement can be promoted	• The zone comprises the existing trading centres e.g. Sandai, Loboi, Kapkuikui, and Kaptombes, Majimoto	• Social infrastructure such as electricity and domestic water supply can be provided to many people	• Construction of houses • Kitchen gardens	• Livestock • Large farms

CHAPTER 4. PLAN IMPLEMENTATION

Governance structure

Successful implementation of this plan requires establishment a community led governance structure that brings together the LBCL community to collectively manage their land. A landscape wide community organization that coordinates natural resource management activities is lacking. This could be due to the current private land tenure system in the area which implies that land use decisions are mainly done at the individual level. Hence, it is difficult to address landscape-wide issues affecting natural resources such as land degradation if the community is not mobilized to address issues affecting it collectively.

This plan proposes establishment of a community plan implementation committee to coordinate the implementation of this land use plan. Membership of this committee will be drawn from the three conservancies and other coopted members. This committee will help the community to organize and implement Holistic Management in the conservation and tourism, and the livestock grazing zones.

However, the issue of land rights, sub-division and increasing human settlement in the area poses the most significant challenge to the implementation of collective management of land resources in the LBCL. The privatization of land in the area and increasing human settlement and current land use patterns may limit community members' willingness to unite and engage in communal management of land resources. However, the community could start with areas that are communally owned such as conservancies as demonstration models of Holistic Management, before rolling out the same to the rest of the landscape.

Community Action Plans

The three conservancies (Irong, Kiborgoch and Chuine Wildlife Conservancies) have developed 5-year community action plans that, if implemented, will ensure that land use issues in the LBCL will be adequately addressed (Tables 11, 12 & 13). The action plans provide proposed objectives and actions for each zone. For each action, responsible conservancy staff or officials as well as partners who could support its implementation are identified. In addition, the timeframe for each action is provided.

PLAN IMPLEMENTATION

Table 10. Irong Wildlife Conservancy 5-year Community Action Plan

	LAND USE ZONES, LAND USES, OBJECTIVES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
1	CONSERVATION AND TOURISM ZONE								
1.1	**Conservation**								
1.1.1	***Objective 1: Habitat protection and management enhanced***								
1.1.1.1	Legalize ownership of the conservancies by the communities						H	Chair Conservancy Board	EWC, BCCA, BCG, Local Administration, KWCA
1.1.1.2	Survey and mark the conservancy boundaries						M	Manager	"
1.1.1.3	Develop conservancy management plan						H	Chair Conservancy Board	BCCA, KWS. BCG, KWCA
1.1.1.4	Protect key wildlife corridors and dispersal areas in the zone						H	Manager	KWS, BCCA, BCG, KWCA
1.1.1.5	Protect key habitats including wetlands and Acacia woodlands						H	Manager	"
1.1.1.6	Control invasive species, and in particular the widespread "Mathenge" (*Prosopis julliflora)*						M	Manager	KFS, KEFRI, CABI-Africa, RECONCILE, BCG
1.1.1.7	Rehabilitate degraded areas						H	Manager	"
1.1.1.8	Promote conservation compatible land uses e.g., Bee keeping						H	Chair Conservancy Board	BCG, BCCA, KWCA
1.1.1.9	Establish and operationalize a LBCL plan implementation committee with other conservancies						H	Chair Conservancy Board	BCG, BCCA, KWCA
1.1.2	***Objective 2: Wildlife management improved***								
1.1.2.1	Develop and implement community-led human-wildlife coexistence protocols to address human-wildlife conflict						H	Chair Conservancy Board	KWS, BCG, BCCA, KWCA
1.1.2.2	Control wildlife poaching						M	Manager	KWS, BCG, BCCA, Local Administration, KWCA

	LAND USE ZONES, LAND USES, OBJECTIVES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
1.1.2.3	Develop a species management plan for the Baringo County flagship species, Greater Kudu						H	Chair Conservancy Board	BCG, KWS, UNDP, USAID, KWCA, BCCA
1.1.3	***Objective 3: Research and monitoring enhanced***								
1.1.3.1	Promote scientific research						M	Chair Conservancy Board	WRTI, KEFRI, NMK, BCG, NACOSTI, UNESCO
1.1.3.2	Implement a community scout-based monitoring system						H	Manager	KWS, BCG, BCCA, Local Administration, KWCA
1.2	**Tourism**								
1.2.1	***Objective 4: Tourism infrastructure developed***								
1.2.1.1	Develop a high quality and distinct tourism product in partnership with tourism investors						H	Chair Conservancy Board, Manager	BCCA, LBNR, SPA RESORT, KWS, NMK, BoK, BCG,
1.2.1.2	Establish tourism-support infrastructure e.g. roads, walking trails, camps, campsites, viewing points, and telecommunication network, signages						H	Chair Conservancy Board	"
1.2.2	***Objective 5: Tourism products diversified***								
1.2.2.1	Promote wilderness adventure activities, such as walking and horseback riding, rock climbing						M	Chair Conservancy Board	BCG, BCCA, KWCA, National goverment
1.2.3	***Objective 6: Visitor security improved***								
1.2.3.1	Enhance visitor security						H	Chair Conservancy Board	KWS, BCG, Local Administration
1.3	**Livestock grazing**								
1.3.1	***Objective 7: Livestock management improved***								
1.3.1.1	Adopt Holistic Management in the conservancies						M	Chair Conservancy Board	BCG, KWS, KWCA, BCCA, RECONCILE

PLAN IMPLEMENTATION

	LAND USE ZONES, LAND USES, OBJECTIVES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
1.3.1.2	Develop livestock grazing plans for the conservancies						M	Chair Conservancy Board	"
1.3.1.3	Designate livestock free areas around tourism facilities						L	Chair Conservancy Board	"
2	**LIVESTOCK GRAZING ZONE**								
2.1	**Livestock Grazing**								
2.1.1	***Objective 1: Livestock management improved***								
2.1.1.1	Promote communal livestock grazing to ensure that the rangeland remains open						M	Chair Conservancy Board	BCG, KWCA, BCCA, RECONCILE, Local Administration
2.1.1.2	Rehabilitate and restore livestock pastures						M	Chair Conservancy Board	"
2.1.1.3	Adopt Holistic Management to accelerate land rehabilitation						M	Chair Conservancy Board	BCG, KWCA, BCCA, RECONCILE, Local Administration
2.1.1.4	Establish a grazing committee and operationalize it						H	Chair Conservancy Board	BCG, BCCA, KWCA, Local Administration
2.1.2	***Objective 2: Livestock husbandry enhanced***								
2.1.2.1	Upgrade livestock breeds						H	Chair Conservancy Board	BCG, KARLO KVDA, BCCA
2.1.2.2	Control livestock pests and diseases						H	Chair Conservancy Board	"
2.1.2.3	Establish livestock infrastructure						H	Chair Conservancy Board	BCG
2.2	**Conservation**								
2.2.1	***Objective 3: Habitat protection and management improved***								
2.2.1.1	Identify, map and protect key wildlife corridors located within the zone						H	Chair Conservancy Board/Manager	BCG, KWS, BCCA
2.2.1.2	Protect key habitats especially watering points and salt licks						H	Chair Conservancy Board/Manager	"

	LAND USE ZONES, LAND USES, OBJECTIVES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
2.2.1.3	Implement soil conservation measures						H	Chair Conservancy Board	"
2.2.1.4	Promote conservation compatible land uses (e.g. Bee keeping)						H	Manager	"
2.2.2	***Objective 4: Wildlife management improved***								
2.2.2.1	Control human-wildlife conflict through innovative intervention measures e.g. installing predator proof Bomas						H	Chair Conservancy Board/ Manager	KWS, BCG, BCCA
2.2.2.2	Control poaching						H	Manager	KWS, BCG, BCCA, Local Administration
2.3	**Tourism**								
2.3.1	***Objective 5: Tourism products diversified***								
2.3.1.1	Promote wilderness adventure activities such as walking and horseback riding						M	Chair Conservancy Board, Manager	Spa Resort, BCG
2.3.1.2	Promote cultural tourism						H	Chair Conservancy Board	Spa Resort, BCG, BCCA, KWCA
2.3.1.3	Collaborate with local schools to develop accommodation for students and organized groups visiting the area						H	Chair Conservancy Board	Secondary schools, BCG, BCCA
3	**CULTIVATION ZONE**								
3.1	**Cultivation**								
3.1.1	***Objective 1: Irrigated farming improved***								
3.1.1.1	Promote high return crop agriculture						M	Chair Conservancy Board	BCG, KARLO, KEFRI
3.1.2	***Objective 2: Rain-fed farming improved***								
3.1.2.1	Adopt soil conservation measures						H	Chair Conservancy Board /Manager	BCG, BCCA
3.2	**Livestock grazing**								
3.2.1	***Objective 3: Livestock husbandry improved***								

PLAN IMPLEMENTATION

	LAND USE ZONES, LAND USES, OBJECTIVES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
3.2.1.1	Improve livestock breeds						H	Chair Conservancy Board	BCG, BCCA, RECONCILE
3.2.1.2	Promote livestock production through zero grazing						M	Chair Conservancy Board	BCG, BCCA
3.3	**Conservation**								
3.3.1	***Objective 4: Habitat protection improved***								
3.3.1.1	Protect key wildlife corridors from agricultural encroachment						H	Manager	KWS, BCG, BCCA
3.3.2	***Objective 5: Wildlife management improved***								
3.3.2.1	Protect crops and livestock from problem animals						H	Manager	KWS, BCG, Local Administration
3.3.2.2	Control poaching						H	Manager	"

Table 11. Kiborgoch Wildlife Conservancy 5-Year Community Action Plan

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
1	CONSERVATION AND TOURISM ZONE								
1.1	Conservation								
1.1.1	***Objective 1: Habitat protection and management enhanced***								
1.1.1.1	Legalize ownership of the conservancies by the communities						H	Secretary Conservancy Board	EWC, BCCA, BCG
1.1.1.2	Survey and mark the conservancy boundaries						H	Chair Conservancy Board	EWC, BCCA, BCG
1.1.1.3	Develop conservancy management plan						H	Manager	KWCA, KWS, UNDP, BCCA, BCG, EU, USAID
1.1.1.4	Protect key wildlife corridors and dispersal areas in the zone						L	Chair Conservancy Board	KWS, LBNR, KFS
1.1.1.5	Protect key habitats including wetlands and Acacia woodlands						H	Manager	"
1.1.1.6	Control invasive species, and in particular the widespread "Mathenge" (*Prosopis julliflora)*						L	Chair Conservancy Board	KFS, KEFRI, CABI-Africa
1.1.1.7	Rehabilitate degraded areas						H	Manager	KFS, KEFRI, KWS
1.1.1.8	Promote conservation compatible land uses e.g., Bee keeping						H	Chair Conservancy Board	BCG, KVDA, KARLO, BEE CARE
1.1.1.9	Establish and operationalize a LBCL plan implementation committee with other conservancies						H	Chair Conservancy Board	BCG, BCCA, KWCA
1.1.2	***Objective 2: Wildlife management improved***								
1.1.2.1	Develop and implement community-led human-wildlife coexistence protocols to address human-wildlife conflict						H	Manager	KWS, BCG, BCCA
1.1.2.2	Control wildlife poaching						H	Manager	KWS, BCG, KWCA, BCCA, Local Administration

PLAN IMPLEMENTATION

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
1.1.2.3	Develop a species management plan for the Baringo County flagship species, Greater Kudu						H	Chair Conservancy Board	KWS, BCG, KWCA, BCCA, Local Administration
1.1.3	***Objective 3: Research and monitoring enhanced***								
1.1.3.1	Promote scientific research						L	Manager	WRTI, KEFRI, NMK, BCG, NACOSTI
1.2	**Tourism**								
1.2.1	***Objective 4: Tourism infrastructure developed***								
1.2.1.1	Develop a high quality and distinct tourism product in partnership with tourism investors						H	Secretary Conservancy Board	KWS, BCG
1.2.1.2	Establish tourism-support infrastructure e.g. roads, walking trails, camps, campsites, viewing points, and telecommunication network						H	Chair Conservancy Board	BCG, BCCA, KWS
1.2.2	***Objective 5: Tourism products diversified***								
1.2.2.1	Promote wilderness adventure activities, such as walking and horseback riding						H	Manager	KWS, BCG, BCCA, KWCA, UNDP
1.2.3	***Objective 6: Visitor security improved***								
1.2.3.1	Enhance visitor security						H	Warden	KWS, BCG, Local Administration
1.3	**Livestock grazing**								
1.3.1	***Objective 7: Livestock management improved***								
1.3.1.1	Adopt Holistic Management in the conservancies						H	Manager	BCG, KWS, KWCA, BCCA,
1.3.1.2	Develop livestock grazing plans for the conservancies						L	Chair Conservancy Board	"
1.3.1.3	Designate livestock free areas around tourism facilities						L	Chair Conservancy Board	"
2	**LIVESTOCK GRAZING ZONE**								
2.1	**Livestock Grazing**								
2.1.1	***Objective 1: Livestock management***								

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
	improved								
2.1.1.1	Promote communal livestock grazing to ensure that the rangeland remains open						L	Chair Conservancy Board	BCG, BCCA, KWCA, Local Administration
2.1.1.2	Rehabilitate and restore livestock pastures						M	Manager	"
2.1.1.3	Adopt Holistic Management to accelerate land rehabilitation						M	Manager	"
2.1.1.4	Establish a grazing committee and operationalize it						H	Chair Conservancy Board	BCG, BCCA, KWCA, Local Administration
2.1.2	***Objective 2: Livestock husbandry enhanced***								
2.1.2.1	Upgrade livestock breeds						M	Chair Conservancy Board	BCG, BCCA, KWCA, Local Administration
2.1.2.2	Control livestock pests and diseases						M	Chair Conservancy Board	"
2.1.2.3	Establish livestock infrastructure						L	Chair Conservancy Board	BCG
2.2	**Conservation**								
2.2.1	***Objective 3: Habitat protection and management improved***								
2.2.1.1	Identify, map and protect key wildlife corridors located within the zone						H	Manager	BCG, KWS, KWCA, UNDP
2.2.1.2	Protect key habitats especially watering points and salt licks						H	Manager	BCG, KWS, KFS, WRA, Local Administration
2.2.1.3	Implement soil conservation measures						M	Manager	"
2.2.1.4	Promote conservation compatible land uses (e.g. Bee keeping)						H	Manager	KVDA, BCG, KARLO, BEE CARE, UNDP, USAID
2.2.2	***Objective 4: Wildlife management improved***								
2.2.2.1	Control human-wildlife conflict through innovative intervention measures e.g. installing predator proof Bomas						H	Manager	KWS, UNDP, NRT, KFS, BCG
2.2.2.2	Control poaching						H	Warden	"

PLAN IMPLEMENTATION

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
2.3	**Tourism**								
2.3.1	***Objective 5: Tourism products diversified***								
2.3.1.1	Promote wilderness adventure activities such as walking and horseback riding						H	Manager	BCG, KWS, BCCA
2.3.1.2	Promote cultural tourism						H	Chair Conservancy Board	KTB, KWS, Spa Resort
2.3.1.3	Collaborate with local schools to develop accommodation for students and organized groups visiting the area						H	Chair Conservancy Board	Secondary schools, BCG, BCCA
3	**CULTIVATION ZONE**								
3.1	**Cultivation**								
3.1.1	***Objective 1: Irrigated farming improved***								
3.1.1.1	Promote high return crop agriculture						L	Manager	BCG, KARLO, UNDP, KENYA SEED
3.1.2	***Objective 2: Rain-fed farming improved***								
3.1.2.1	Adopt soil conservation measures						H	Manager	BCG, KARLO
3.2	**Livestock grazing**								
3.2.1	***Objective 3: Livestock husbandry improved***								
3.2.1.1	Improve livestock breeds						M	Chair Conservancy Board	BCG, KARLO
3.2.1.2	Promote livestock production through zero grazing						L	Manager	"
3.3	**Conservation**								
3.3.1	***Objective 4: Habitat protection improved***								
3.3.1.1	Protect key wildlife corridors from agricultural encroachment						H	Manager	KWS, BCG, UNDP
3.3.2	***Objective 5: Wildlife management improved***								
3.3.2.1	Protect crops and livestock from problem animals						H	Warden	KWS, BCG, KARLO
3.3.2.2	Control poaching						H	Warden	"

Table 12. Chuine Wildlife Conservancy 5-Year Community Action Plan

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
1	CONSERVATION AND TOURISM ZONE								
1.1	Conservation								
1.1.1	***Objective 1: Habitat protection and management enhanced***								
1.1.1.1	Legalize ownership of the conservancies by the communities						H	Chair Conservancy Board	EWC, BCCA, BCG
1.1.1.2	Survey and mark the conservancy boundaries						H	Chair Conservancy Board	EWC, BCCA, BCG
1.1.1.3	Develop conservancy management plan						H	Chair Conservancy Board	KWCA, KWS, UNDP, BCCA, BCG, EU, USAID
1.1.1.4	Protect key wildlife corridors and dispersal areas in the zone						H	Manager	KWS, LBNR, KFS
1.1.1.5	Protect key habitats including wetlands and Acacia woodlands						H	Manager	"
1.1.1.6	Control invasive species, and in particular the widespread "Mathenge" (*Prosopis julliflora)*						M	Manager	KFS, KEFRI, CABI-Africa
1.1.1.7	Rehabilitate degraded areas						H	Manager	KFS, KEFRI, KWS
1.1.1.8	Promote conservation compatible land uses e.g., Bee keeping						H	Chair Conservancy Board	BCG, KVDA, KARLO, BEE CARE
1.1.1.9	Establish and operationalize a LBCL plan implementation committee with other conservancies						H	Chair Conservancy Board	BCG, BCCA, KWCA
1.1.2	***Objective 2: Wildlife management improved***								
1.1.2.1	Develop and implement community-led human-wildlife coexistence protocols to address human-wildlife conflict						H	Chair Conservancy Board	KWS, BCG
1.1.2.2	Control wildlife poaching						H	Manager	KWS, BCG, Local Administration
1.1.2.3	Develop a species management plan for the Baringo County flagship species,						H	Chair Conservancy Board	BCG, KWS, UNDP, USAID, KWCA, BCCA

PLAN IMPLEMENTATION

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
	Greater Kudu								
1.1.3	***Objective 3: Research and monitoring enhanced***								
1.1.3.1	Promote scientific research						M	Chair Conservancy Board	WRTI, KEFRI, NMK, BCG, NACOSTI
1.2	**Tourism**								
1.2.1	***Objective 4: Tourism infrastructure developed***								
1.2.1.1	Develop a high quality and distinct tourism product in partnership with tourism investors						H	Chair Conservancy Board	KWS, TRA, BoK, BCG, BCG
1.2.1.2	Establish tourism-support infrastructure e.g. roads, walking trails, camps, campsites, viewing points, and telecommunication network						H	Chair Conservancy Board	BCG, UNDP, KWS, USAID, NEMA
1.2.2	***Objective 5: Tourism products diversified***								
1.2.2.1	Promote wilderness adventure activities, such as walking and horseback riding						M	Chair Conservancy Board	KTB, UNDP,
1.2.3	***Objective 6: Visitor security improved***								
1.2.3.1	Enhance visitor security						H	Chair Conservancy Board	KWS, BCG, Local Administration
1.3	**Livestock grazing**								
1.3.1	***Objective 7: Livestock management improved***								
1.3.1.1	Adopt Holistic Management in the conservancies						M	Chair Conservancy Board	BCG, KWS, KWCA, BCCA,
1.3.1.2	Develop livestock grazing plans for the conservancies						M	Chair Conservancy Board	BCG, BCCA, Local Community, Local Administration
1.3.1.3	Designate livestock free areas around tourism facilities						L	Chair Conservancy Board	"
2	**LIVESTOCK GRAZING ZONE**								
2.1	**Livestock Grazing**								
2.1.1	***Objective 1: Livestock management***								

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
	improved								
2.1.1.1	Promote communal livestock grazing to ensure that the rangeland remains open						H	Chair Conservancy Board	BCG, KWCA, UNDP, BCCA, Local Administration
2.1.1.2	Rehabilitate and restore livestock pastures						M	Manager	BCG, UNDP, BCCA
2.1.1.3	Adopt Holistic Management to accelerate land rehabilitation						H	Chair Conservancy Board	BCG, UNDP, USAID, KWCA, BCCA, NRT
2.1.1.4	Establish a grazing committee and operationalize it						H	Chair Conservancy Board	BCG, BCCA, KWCA, Local Administration
2.1.2	***Objective 2: Livestock husbandry enhanced***								
2.1.2.1	Upgrade livestock breeds						H	Chair Conservancy Board	BCG, KARLO, KVDA, UNDP, NRT
2.1.2.2	Control livestock pests and diseases						M	Chair Conservancy Board	BCG, KARLO, KVDA, UNDP, NRT
2.1.2.3	Establish livestock infrastructure						L	Chair Conservancy Board	BCG
2.2	**Conservation**								
2.2.1	***Objective 3: Habitat protection and management improved***								
2.2.1.1	Identify, map and protect key wildlife corridors located within the zone						H	Chair Conservancy Board	BCG, KWS, KWCA, UNDP
2.2.1.2	Protect key habitats especially watering points and salt licks						M	Manager	BCG, KWS, KFS, Local Administration
2.2.1.3	Implement soil conservation measures						H	Manager	BCG, KFS, KEFRI, UNDP
2.2.1.4	Promote conservation compatible land uses (e.g. Bee keeping)						H	Chair Conservancy Board	KVDA, BCG, KARLO, BEE CARE, UNDP, USAID, NRT
2.2.2	***Objective 4: Wildlife management improved***								
2.2.2.1	Control human-wildlife conflict through innovative intervention measures e.g. installing predator proof Bomas						H	Chair Conservancy Board	KWS, UNDP, NRT, KFS, BCG

PLAN IMPLEMENTATION

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
2.2.2.2	Control poaching						H	Chair Conservancy Board	"
2.3	**Tourism**								
2.3.1	***Objective 5: Tourism products diversified***								
2.3.1.1	Promote wilderness adventure activities such as walking and horseback riding						M	Chair Conservancy Board	KTB, KTFC, TF, UNDP, USAID, NRT
2.3.1.2	Promote cultural tourism						H	Chair Conservancy Board	KTB, BOK, NMK, MCHS, UNDP, USAID
2.3.1.3	Collaborate with local schools to develop accommodation for students and organized groups visiting the area						H	Chair Conservancy Board	Secondary schools, BCG, BCCA
3	**CULTIVATION ZONE**								
3.1	**Cultivation**								
3.1.1	***Objective 1: Irrigated farming improved***								
3.1.1.1	Promote high return crop agriculture						H	Chair Conservancy Board	BCG, KARLO, KENYA SEED
3.1.2	***Objective 2: Rain-fed farming improved***								
3.1.2.1	Adopt soil conservation measures						M	Manager	BCG, KARLO, KEFRI, UNDP
3.2	**Livestock grazing**								
3.2.1	***Objective 3: Livestock husbandry improved***								
3.2.1.1	Improve livestock breeds						H	Chair Conservancy Board	BCG, KARLO, UNDP, NRT, KVDA
3.2.1.2	Promote livestock production through zero grazing						H	Chair Conservancy Board	"
3.3	**Conservation**								

	LAND USE ZONES AND ACTIONS	TIMING					PRIORITY	RESPONSIBILITY	
		2021/22	2022/23	2023/24	2024/25	2025/26		Conservancy	Partners
3.3.1	***Objective 4: Habitat protection improved***								
3.3.1.1	Protect key wildlife corridors from agricultural encroachment						H	Chair Conservancy Board	KWS, BCG, NEMA, UNDP, USAID, NMK
3.3.2	***Objective 5: Wildlife management improved***								
3.3.2.1	Protect crops and livestock from problem animals						H	Chair Conservancy Board	KWS, BCG, Local Administration
3.3.2.2	Control poaching						H	Chair Conservancy Board	KWS, BCG, Local Administration, NRT

Key:

H=High-An action that is urgent and very important

M=Medium-An action that is urgent and important

L=Low-An action that is not urgent but important

ANNEXES

ANNEX1: DEVELOPMENT AND MARKETING OF TOURISM AND CAMPING BUSINESS IN IRONG WILDLIFE CONSERVANCY

Introduction

Irong Conservancy seeks support from partners and stakeholders to develop a tourism business. This business option has been arrived at from different consultative meetings with the community representatives. Among other business projects identified include honey production, wildlife farming and livestock production.

Tourism was chosen because of the following advantages:

- The conservancy is close to Lake Bogoria National Reserve which is a leading tourist destination
- The conservancy borders Lake Bogoria Spa Resort which draws many local and international visitors to the area
- The conservancy has several suitable campsites which have been identified
- Tourism has no legal restrictions and hitches
- There is a proposed air strip which will facilitate access to the general destination

Problem Statement

Irong Conservancy is a 61,450 ha conservancy in Baringo South sub country. It's a member of Lake Baringo County Conservancies Association whose members are mainly involved in subsistence farming and pastoralism. The area's increasing pressures on land and other natural resources threaten to undermine the long-term sustainability of community livelihoods.

To mitigate the negative impacts of unsustainable natural resource use on environmental stability and community well being, it is important for the communities to develop programs and projects that can boost economic welfare of the communities while also preserving the environment.

Tourism development has long been identified as a viable enterprise in community conservancies. It offers direct employment opportunities while opening opportunities for development of many other associated enterprises. The conservancy has already identified and mapped all the important features that would support tourism activities.

This proposal is a partnership between the communities and donors and partners to develop tourism as an economic foundation of the conservancy. It has two main objectives:

- To support development of infrastructure to tap the tourism potential in the conservancy; and
- To outline management and marketing programs to realize economic benefits.

In appreciation of the above, the Baringo County Government in its policy on wildlife and tourism states:

"The abovementioned attractions, though major, are just but a tip of the iceberg in terms of what Baringo has to offer, tourism-wise. Yet, with its immense potential, the tourism sub-sector is not only under developed but uncompetitive. Our tourism destinations; products and scenic features; the lakes; the game parks are enormous but under-utilized.

To reverse this, our department will invest in tapping the potential in ***eco-tourism, cultural tourism, sports tourism, safaris, business and conference tourism; and build on new products****. We shall implement facelifts in our national reserves and upgrade infrastructure and operationalize facilities within these areas, to improve visitor experiences.*

In recognition of the role of the private sector in tourism development, the department of tourism will not only embrace and enhance cooperation, but also partner with them and all stakeholders in charting a clear roadmap to drive tourism for the benefit of the people of Baringo."

This project therefore aims to develop eco-tourism in the Irong area in line with the Baringo County Wildlife and Tourism policy.

Product Analysis

General Product

Lake Baringo Conservancies' tourism product rides on the back of the destination product which is Lake Bogoria National Reserve. The Lake is a great attraction due to fascinating scenery and high aggregations of flamingos. It is sometimes referred to as "The healing place" because of the characteristic hot waters that are reputed to have a healing effect against many skin ailments. This hot water emanates from the hot springs, which indicate nearness of the molten rock to the earth's surface. The springs are closely associated with geysers that emit spectacularly hot steamy waters making the Lake both a unique and special destination for nature enthusiasts, students and researchers.

The Lake is also home to one of the largest populations of the lesser flamingoes and is now the only one in Kenya that hosts a significantly large population of the species. Few kilometres from Lake Bogoria is Lake Baringo, a fresh water lake which is reputed nationally as a birdwatchers paradise. Of Kenya's 1090 species of birds, 501 are found in Baringo County which is a huge percentage of representation. Of these are numerous rare species and unique birds.

The lake has several islands which add to its mystic and tourism value not to mention the large populations of hippos and crocodiles. Fishing in the lake is a popular cultural and economic activity which gave the main urban area on the lake its name as Kampi Samaki – meaning the centre of fishing.

Before the recent flooding of Rift Valley lakes, Lake Bogoria has traditionally been associated with leading and unique tourism investments, like Island Eco-lodges, which have continued to draw visitors from the rest of the country. Besides, the area has hosted an irrigation project drawing water from Pekerra River. In very hot landscape has given Baringo national fame as a source of juicy fruits like water melons and paw paws. This has made the area very popular with urban residents in the towns like Nakuru and Eldoret who have always made Baringo and Bogoria their preferred outing destination.

Tourism business in Baringo conservancies falls in this background. The general area is a prime tourist product, locally and internationally. The success of an individual tourism project largely depends on ability to develop a specific product within this general product.

Specific Product

Irong Conservancy proposes to constitute itself into a tourism destination on its own but which reaps the benefits of destination popularity and ace. That is to say it will both be a complementary and a competing destination to the other attractions in Lake Bogoria and Baringo Landscapes.

The conservancy has multiple features that will combine to make it a tourist attraction.

These include:

- Archeological sites and caves
- Panoramic viewpoints
- Scenic landscape
- Proximity to Lakes Bogoria and Baringo
- Unique vegetation and habitats
- Wildlife and rich birdlife

These features are all about the conservancy. However the tourism product will be packaged to incorporate other features outside the conservancy to make the product viable as a tourist attraction.

The Irong tourism product will therefore constitute:

- Bird watching, especially flamingos in Lake Bogoria
- Hot springs in Lake Bogoria
- Archeological sites in Irong Conservancy (Kaptombes)
- Camping in Irong Conservancy
- Picnic and walking at Irong Conservancy
- Rock Climbing in Irong Conservancy
- Natural Spa and Lodge and Lake Bogoria Spa Resort

Product Strategy

Product strategy is a guide on how to package a product special in the eyes of the customers. As already outlined, the Irong tourism product will be aligned with the main tourism circuit in the area and specialize in tapping the tourists who visit the destination by offering a niche product. In other words, Irong Conservancy will collaborate with the other attractions including other conservancies in promoting the general destination but compete on specifics to attract customers to the individual product.

This product strategy is discussed under marketing.

Market Analysis

Tourism in the conservancies has two main advantages. First, it is compatible with wildlife and conservation, unlike other land uses such as agriculture. Secondly, it has many and better multiplier effects: A recent study, "*Good Economics Makes Good Conservation"* by the World Bank compared tourism to other economic activities in the country. It revealed that a unit currency invested in tourism yields much more than competing investments. Also, that tourism triggers many more multipliers in allied industries like transport, agriculture, and accommodation.

Tourism is therefore a powerful tool for stimulating economic growth among the local communities in wildlife areas while also conserving wildlife and biodiversity. The tourist activities directly employ staff from the local communities and serve as markets for community products like cultural artifacts.

Conservancies also support national efforts at tourism diversification by offering avenues of investments in wildlife tourism outside the protected areas.

Challenges of Tourism Growth in Conservancies

Low visibility: Because it is relatively new and unconventional, the conservancy tourism product is not well packaged and marketed to the mainstream market, locally and internationally. Most tourism marketing is done by the government through national institutions like the Kenya Tourism Board and Kenya Wildlife Service. These have traditionally given more attention to conventional attractions, especially the coastal beaches and national parks.

Tourism in conservancies has been more private sector initiated, managed, and marketed, with leading conservancies relying mainly on the marketing efforts and connections of the individual investors in the international travel market. This leaves the low profiled conservancies out of visibility and consequently low tourism business.

The national tourism product remains wildlife. With Baringo area not featuring prominently as a region of the big 5, it has not attracted major investments due also to several other factors outlined below:

Few investments: Of the 160 conservancies in Kenya, only 69 of them have tourism investments, totaling about 142 tourism facilities. This means conservancy tourism in Kenya is just like the proverbial tip of the iceberg. It is barely exploited and only now that it's full potential is being appreciated by the communities and investors in the private sector. Part of the reason is the fact that conservancies in many areas have limited expertise to initiate meaningful enterprises. This also limits their ability to source and negotiate for profitable private-sector partnerships.

Poor Infrastructures and Security*:* There are many conservancies especially in the North Rift Valley, northern Kenya, and coastal regions located in very remote areas. They lie in some of the most scenic parts of the country and hence harbour immense potential for the development of adventure and wilderness tourism. But poor infrastructures, especially roads, hamper their access leading to low visitation.

Tourism also thrives where there is peace and security. The poor infrastructure in some of these locations is compounded by the stigma of insecurity as they neighbour areas that are beset with regular incidents of cattle rustling. Such areas naturally find it hard to attract visitors and attendant tourism investments.

Lake Baringo landscape has good road access and is one of the most scenic in Kenya with many factors working to its advantage. A robust business project should be able to overcome some of these challenges to establish profitable investments.

Land Tenure Uncertainty: Potential investors in all sectors seek long-term projects. Uncertainty in land tenure and leases scare away businesses, some of which have to borrow capital.

Lack of Management Capacity: Most communities lack technical knowledge in different fields that are required to make conservancy tourism successful. Hence, they are unable to initiate viable tourism enterprises on their own in spite of the conservancies having many natural resources and great potential.

Lack of Market Diversity: The development of tourism in the conservancies has so far targeted the upper market, with the majority of facilities taking a luxury and exclusive set up. These are also concentrated in the wildlife rich parts of Kenya since big wildlife remains the main tourist attraction.

This pattern has left out a huge market for budget tourism which is quite reliable also lucrative when well tapped. The conservancies in Baringo have a unique opportunity to develop non wildlife based tourism enterprises and tap a growing market.

Understanding Market Differentiation

In *Standing out From the Herd: An Economic Assessment of Tourism in Kenya 2019*, the World Bank study classifies tourism into 3 broad categories. Wildlife, premium wildlife and beach.

Premium wildlife is currently being offered outside the main national parks which are more oriented to the standard, general market. While premium wildlife safari is offered in exclusive set which only conservancies with flexible management regimes are able to offer. The report further notes that travelers in the premium wildlife sector spend twice as much per day than those in other segments of the market, mainly on accommodation, followed by food and beverage.

Table 13. Expenditure estimates in the three broad categories (World Bank, 2019)

Category	Expenditure Per Bed Night (USD)
Wildlife	180
Premium Wildlife	350
Beach	180

This is an important lesson to guide development of tourism in Baringo conservancies. The main compelling lessons here are:

- It is much easier to develop tourism product in the conservancies that have a more flexible management regime than a national park
- That wildlife tourism is a great product but which the Baringo conservancies do not have a comparative advantage
- That a better market strategy for Baringo Conservancies would be development of non wildlife tourism product

In the National Tourism Blueprint 2030, Kenya's tourism is classified into Core Experience and Secondary experience. Core experiences are the main drivers of tourism to Kenya, whilst the other experiences are secondary experiences that support the core experiences.

These experiences are summarised per tourism regions in the country as shown in table below:

Table 14. Tourism Experiences according to the tourism areas (GOK, 2017)

Core Tourism Experiences	
Experience	Region with the strongest offerings
Beach and Marine	Coast
African Safari	Maasai Mara and Amboseli
Wildlife	Rift Valley, Central and Western
Nature	Rift Valley, Western and Maasai Mara/Amboseli
Scenery	Central Rift, Central and Northern
Culture and Heritage	Nairobi, Coast, Maasai Mara/Amboseli, Rift Valley
City	Nairobi
Business Tourism	Nairobi, Mombasa
Secondary Tourism Experiences	
Adventure	Coast, Rift Valley, Central
Sports	Nairobi, Coast, Rift Valley, Central
Desert	Northern
Other	Nairobi, Western, Rift Valley

Lessons for Baringo Conservancies

Baringo has a good representation in the core tourism experience because it is strong on nature experience, scenery and culture. Irong Conservancy has hilly outcrops and lofty view points. There are also nature trails and archeological sites that make it perfectly situated to offer core tourism experience as per the national tourism blue print.

The adventure offering in the secondary experience is made possible by the conservancy setting as a suitable site for adventure safaris including rock climbing and mountain hiking. These will inform the marketing and packaging of Irong tourism product.

Tourism Investment Attractiveness in Different Areas

An Area Tourism Investment Attractiveness Assessment done for National Tourism Blue Print 2030 sought to analyse attractiveness of different parts of Kenya to tourism investments based on the following criteria:

- Current supply size (variety of available tourism product)
- Current tourism demand levels
- Recent investment activity
- Access to primary tourist markets
- Likely size of future investment projects (large better than small)
- Potential demand levels
- Infrastructure availability (removal of hindrances to investment)
- Extent of packaging/intervention required to attract investment
- Governmental (national, county& local) support for tourism

The results are summarized in the table below:

Table 15. Tourism Area Investment Attractiveness for Broad Tourism Regions (GOK, 2017)

Criteria	Nairobi	Coast	Central	Rift Valley	Western	Maasai Mara and Amboseli	Northern
Current supply (size and variety)	5	5	3	4	2	5	1
Current demand levels	5	3	4	4	2	5	1
Current investment activity	4	2	2	3	3	3	1
Access to market	5	4	3	3	3	3	1
Size of future projects	5	5	4	4	4	3	1
Potential demand	4	4	4	4	4	4	2
Infrastructure availability	4	3	4	4	3	2	1
Packaging / intervention required	4	4	3	3	3	4	2
Government support for tourism	4	4	3	3	3	3	1
TOTAL	40	34	30	32	27	32	11
Percentage	89%	76%	69%	71%	60%	71%	24%

Key to the Scores:
5 = excellent
4 = very good
3 = good
2 = average
1 = poor

Key to Percentage Attractiveness:
80+% = Prime investment areas (Already with significant investment opportunities)
60-79% = Existing and upcoming areas (Has many investment opportunities)
50-60% = Suitable for long term investments and requiring some intervention (Average investment opportunities)
30-50% = Suitable for long term investment focus and requiring significant intervention (Limited investment opportunities)
0-29% = Impossible to sell areas (Currently no investment opportunities)

The above table shows the following about Rift Valley where Baringo landscape falls:

- It scores "very good" for current supply and current demand. Meaning it has good variety of attractions and also good demand
- It also scores "very good" for future investments, potential demand growth and also infrastructures
- For all the other factors, the destination scores "good."
- It scores 71% in total percentage attractiveness. This is the same score as Maasai Mara and Amboseli. This score is the second best, which is for areas with great potential

Although the study proposes a more detailed analysis by smaller areas, it is obvious that tourism is a viable land use available to the conservancies in Baringo.

Local Market Trends

The tourism market in Baringo is influenced by the following factors:

- It's a unique landscape with a saline and freshwater lakes next to each other, and
- Lake Bogoria has an added unique attraction because of hot geysers that are of great human and scientific interest, and high aggregations of flamingoes with no matching habitat

The above two factors makes Baringo a special destination for specialized visitors internationally and study tours locally and internationally. Any learning institution will always want to package Baringo in their school tours because of the many things that can be experienced and studied within just one destination.

With desertion of flamingos from Lake Nakuru, Lake Bogoria remains the only major habitat for the bird species in Kenya, with only a few hundred scattered in Lakes Elementaita, Naivasha, and Amboseli etc. But the beauty of the flamingos is in their large aggregations which only Lake Bogoria can provide at the moment.

This means Baringo as a tourist destination has a special place on the Kenyan map. The challenge is always how to harness this potential in form of profitable enterprises.

The other factors are:

- Fascinating landscape marked by Islands in Lake Baringo and the escarpment hills towards Kabarnet and Kerio Valley
- Hot semi arid climate and volcanic soils that supports unique vegetation communities that are suitable for honey production and also goat and sheep husbandry
- For a long time, Baringo has had the reputation of high quality honey and mutton

The above factors make Baringo an appealing tourist destination for adventure lovers and especially the domestic tourists from Nakuru and Eldoret Cities. Most domestic tourists are attracted to Baringo by landscape, the popular tasty mutton and honey. With further urban expansion and need for more adventure and experiences away from the big cities, Baringo will remain a leading destination for domestic tourists. The biggest challenge remains lack of investments to tap the growing market. Most visitors just make day trips to do shopping with little differentiation of the product through well thought out packages and offerings.

Competition

The expansion of domestic tourism has seen many investments and destinations coming up to compete for the urban population constantly looking for adventures outside the cities. For instance, many investments have sprung up around Lake Elementaita in form of hotels and tented camps. The lake borders Soysambu Conservancy which has been a market leader in specialized ecotourism.

Together with Lake Naivasha, the central rift region gives Baringo great competition in tourism services. As indicated below in marketing, tourism has two supply components: the primary attraction and the facilities that enhance enjoyment of that attraction. In most cases, heavy investments in the second component can overshadow the attraction, especially when combined with great hospitality. This explains why countries with low natural attractions draw many tourists compared to African countries with fascinating natural features and wildlife.
In Kenya, we have many destinations which also invest heavily in the second component making them leading tourist destinations. That is why Lakes

Elementaita and Naivasha attract many more visitors from Nakuru and Nairobi compared to Baringo, notwithstanding that Baringo has much better offering in the primary attractions.

There are also many projects coming up in Areas like Kerio Valley, Eldama Ravine, Njoro, Kabarnet etc. All these are driven by the growing financial ability of many Kenyans and the awareness of tourism industry. Hence there are many hotels and resorts developed to attract families and private travelers.

It follows that, while competition is real, a destination endowed with natural features and historically established reputation for quality products like honey and mutton can easily leverage on this advantage to win the competition. The most important thing is to have the understanding of the market dynamics and be able to package and market a business within that context.

Marketing and Sales

Introduction

Like in other industries, the tourist product is also sold in a market place. But tourism is unique in the fact that the product is generally immobile and some intermediary process is necessary to win consumers of the product.

This process needs to be very appealing persuasive as potential tourists need to build confidence. Often, they compare destination images before they travel and make extensive references from friends and relatives.

The development of a tourist product image in the eyes of tourists and making efforts to convince them to travel and sample the product constitutes marketing and sales. In this section we discuss how Irong Conservancy can lay out a successful marketing campaign.

The Tourism Product

The tourism product is composite in nature and includes both tangible and intangible aspects. Its production takes place simultaneously with consumption at the same physical place.

There are three distinct aspects of a tourism product:

Tourism experience - which comprises all that the tourists see, use and experience as part of their encounter

The place - is the tourist destination that serves as the point of consumption of certain components of tourism experience

Product components – refers to the individual products such as accommodation, attractions and souvenirs. Components have several categories:

- Physical environment of a tourist destination (the natural assets such as wildlife sanctuaries, beaches and climate; built assets, for instance, museums, monuments, airports and lodges);
- Services such as transport, tour-guidance, security and accommodation;
- Hospitality of the local people;
- Degree of freedom of choice by tourists, etc

This means a tourist is an integral part of the production process since the final product cannot be achieved without the consumer travelling to the point of production and converting the services into individual experiences. The appeal of a product to a tourist depends upon the value added to the basic resource through management and packaging.

Tour Packages

Historically, tour operators have determined the itinerary, content, timing and maximum size of package tours. They make contracts in advance with airlines, hotels, transporters and destination management institutions like KWS, Museums, and conservancies. Travel agencies and tour operators therefore remain very pivotal in tourism business even in this age when so much information has gone to the internet making it easy for tourists to work directly with product suppliers.

For an area to be a successful tourist destination, it is important to borrow heavily from the packaging principles of tour operators. This will give a better insight into how the destination compares with the main tourist circuits and also seek to work together to include the destination in the marketing programs.

Mass tourism

Refers to large-scale packaging of standardized tour services at fixed prices for sale to a mass clientele. Mass tourism is characterized by:

- Mass replication of identical units. E.g. group camping, where economies of scale is the main motivation;
- Undifferentiated clientele, where all visitors must take interest in one attraction;
- Program standardization and rigidity

Free Independent Travel

Unlike mass market, the following characteristics apply to individual travelers who arrange their own programs:

- The program is flexible in time, attractions and even prices
- Economies of scale does not determine the viability of the packages. Hence, individual families, small groups can manage. Hence suitable for special travelers like researchers and scholars;
- Production is driven by the requirements of consumers. Hence can lead to more satisfaction;
- The package is marketed to individuals within different needs, incomes, time constraints and travel interests.

From the conservancy point of view, all business may be good business. However, it's important to have a clear understanding of these two product categories in order to carry out a focused marketing campaign. Needless to say the two categories require different marketing approaches

Success factor

For successful marketing and sales of tourism enterprise, it's important to have a deeper understanding of the two main sides of the business. There are Demand and Supply sides.

Demand side

The demand can be due to:

Motivations - which arise from the urge to fulfill certain needs, be they physical or physiological, cultural, social and fantasy. Reasons for travels are very many and varied. They may include recuperation and regeneration, compensation and social integration, escape, communication, broadening the mind, freedom and self-determination, self-realization and happiness. There are also social influences that condition the decision to travel and these may include the family or societal group, social class, surrounding culture and the workplace.
Advertising creates an attractive image of a destination by emphasizing its attributes that can satisfy any of these motivations.

Expectations - One expectation is the perceived likelihood that a consumer choice will be followed by a particular outcome. Expectations are, therefore, desires or wishes of consumers, i.e., what they feel a service provider should offer rather than would offer.

Perceptions - Perception is the basis upon which customers make comparisons between their expectations and the ultimate performance of a service. Perception is conditioned by:

- Past experiences
- Preferences and hearsay or word of mouth.

Perception affects the way consumers behave and in most cases perceptions are not based on reality but on interpretations of reality. However, perceptions may be accurate or inaccurate.

Supply Side

The supply side has three important factors:

- **The attractions and hospitality** – these are the main resources that a destination offers. Attraction is mostly natural, while hospitality is the services given to the visitor who visits the attraction. Both are important and complement each other.

- **Facilities and infrastructures** - are developed to make it possible for the consumption of these resources. These could be campsites, restaurants, lodges etc and are all important in determining the economic value of the tourism program as well as the experience of the customer and popularity of the destination.

- **Travel experience** - is the tourism industry's product since, unlike other industries, it is the consumer who travels and not the product. The tourist product is produced by resources and facilities created at a destination. It is usually sold as a package for tourists to perceive and experience in the market place. The importance of understanding the supply component is based on the fact that this is what a destination can successfully manipulate to make a successful tourism enterprise project. The focus of this sales and marketing plan is to discuss how this supply component can be packaged to boost tourism in Irong conservancy

Branding and Differentiation

From the above background, the most important task for Irong Conservancy will be to understand its product in terms what it is supplying to the tourism market. This is already well understood as camping and visitation of the conservancy to sample different attractions. The next step is development of the facilities that will make it possible to harness or exploit the resource. This will be discussed

under operations and administration of the project. Once the product is well understood and infrastructures are in place, the conservancy will brand the product so that it can stand out from the main Baringo destination. The branding involves separating Irong Conservancy as unique location where people can see:

- Lofty hills with majestic views of the landscape
- Special archeological site with cultural and historical significance to the local communities
- Special camping grounds with essential facilities like washrooms, bathrooms, cooking stands, security etc
- Nature trails to enhance nature experience and adventure
- Rocky outcrops for lovers of rock climbing and related adventures

The most important thing in branding will be to determine what is special in Irong that visitors can get which they cannot get in Lake Bogoria or Baringo or other places within the area.

Marketing Irong Conservancy Tourism

After branding the conservancy product, the next step is to create visibility and presence in marketing platforms. Since the conservancy is tapping on the main destination tourism, visibility will be created by developing strategic signage along the Nakuru - Marigat highway. The signage will be large enough attract attention with appealing graphics that will draw attention of travelers. If budget allows, a billboard can be erected in major towns like Nakuru and Eldoret.

It will be important to have website. The website should devote a whole section to tourism and should highlight the main attractions and also pictures of visitors already enjoying the facilities. This website will be managed by Irong Conservancy and also linked with larger websites like BCCA, KWCA and BCG. Further awareness will be created through close working relationship with tourism operators in through their associations like Kenya Association of Tour Operators (KATO), Nakuru Tourism Forum, Kenya Association of Travel Agents (KATA) etc. With time, many potential visitors will take individual interest in Irong conservancy and will seek to pay a visit when they visit the Baringo destination

Operations and Administration

The operations of the project will be discussed with the conservancy manager to draw a structure that will enable administration of different functions. This is the guiding structure which will be strengthened depending on the scale of the project and availability of resources:

Conservancy manager
- Marketing Irong Conservancy
- Supervising tourism manager
- Receiving customer feedback from clients and from the manager

Tourism manager
- Marketing
- Bookings
- Receiving payment and issuing receipts
- Supervision of facilities
- Maintenance of facilities
- Receiving of feedback from customers

Tourism manager may have staff under them such as:

- Cleaners
- Cooks

Action Plan

The action plan captures the main activities and budgets that will be required to start off the project as per the stakeholder discussions and cost estimates. The conservancy may need to develop focused project proposals and detailed budgets for specific activities. The actions and activities are summarized in table 16.

Table 16. Irong tourism business action plan and budget estimates

Action	Resources	Output	Estimated Budget
Objective 1 - Develop a fund raising proposal to develop the tourism product			
Activity 1.1: Collaborate with BCCA to identify potential donors	Staff time	Minutes of meetings	
Activity 1.2: Write and submit a project proposal	Staff time	Written proposal	200,000
Objective 2 – Map and develop the facilities			
Activity 2.1: identify all attractions in the conservancy and map them	Staff time Mapping costs	Tourism map	200,000
Activity 2.2: develop view points and install picnic benches at archeological site	Staff time Materials costs and labour costs	Upgraded view points and archeological site viewing area	400,000
Activity 2.3: Develop facilities – camping ground, tents, beds, washroom, showers etc at: Kaptombes Campsite Sirimta Campsite Kebene Tarkwen Campsite Emsos Campsite	Staff time External contractors costs	Upgraded campsites	Washrooms 1,600,000 Cottages 4.200.000 Lightings 1,500,000 Water supply 1,000,000
Activity 2.4: Develop steps and mark out the nature trails	Staff time Contractors costs	Upgraded nature trail	200,000
Objective 3 – Develop interpretation and signage in the conservancy			
Activity 3.1: Research and document the history and culture behind the archeology site	Staff time Research costs e.g. allowances for field activity talking to elders	Compiled literature on archeology site	300,000
Activity 3.2: Produce leaflets on Irong Conservancy attractions and a map	Staff time Publication costs	leaflets	300,000
Activity 3.3: Install signage	Staff time	Signage	150,000

Action	Resources	Output	Estimated Budget
at the entrance and the campsites	Contractors cost		
Objective 4 – Develop marketing materials and program			
Activity 4.1: develop and host website for the conservancy	Staff time Domain registration and web design consultation	Uploaded website	100,000
Activity 4.2: make highway signage for Irong conservancy	Staff time Signage contractor costs	Highway signs and bill boards	120,000
Activity 4.3: work with BCCA and KWCA to have the tourism product at Irong marketed to special audience	Staff time	Conservancy name with more prominence	
Activity 4.4: work with tourism sector to broadcast the offerings at Irong Conservancy	Staff time	Brand prominence	300,000
Activity 4.5: Conduct targeted marketing using different media and exhibitions for 5 years	Staff time Marketing budget	Tourism growth Income growth	900,000 per year
Objective 5 – Recruit staff and conduct training			
Activity 5.1: identify staff to carry out reservations, receive cash payments, maintain campsites, conduct guiding and interpretation	Staff time Recruitment costs e.g. advertising	Job descriptions Advertisements for vacancies	100,000
Activity 5.2: identify a training consultant to conduct training for the staff on customer service, email correspondence, booking and reservation skills, records keeping etc.	Consultant costs Logistical costs e.g. transport, venue, meals etc	Training report	300,000
Activity 5.3: recruit permanent staff and give contracts to casual staff. The following staff: • 1 manager • 5 campsite administrators • 3 security staff/rangers • 1 accountant • 3 cleaners • 10 tour guides • 1 marketing officer • 10 kitchen staff • 1 diver 5 house keepers	Staff time Staff salaries	Employment contracts Deployed staff	7,716,000 per year
Objective 6 – Construct and Equip Conservancy Office			
Activity 6.1: design conservancy office and associated facilities e.g. washrooms, reception and guest waiting area	Staff time	Work designs	100,000

ANNEXES

Action	Resources	Output	Estimated Budget
Activity 6.2: seek suitable contractor	Staff time Contractor fees	Constructed offices	800,000
Activity 6.3: conduct maintenance of offices	Staff time Maintenance and repair costs	Maintained offices in good condition	120,000 per year
Total Budget Estimate	• **Construction and training = 11,470,000** • **Marketing expenditure = 900,000 per year** **Staff costs = 7,716,000 per year**		

Risk and Mitigation

Risk refers to uncertainties and pitfalls to be borne in mind during development and operations of the project. The possible risks are summarized in table 17.

Table 17. Possible Risks and Mitigations

Type of Risk	Possible Circumstances	Mitigations
Business Orientation Risk	Conservancy staff and leaders may have resistance to market-oriented operations that characterize the tourism business. Hence may dislike private sector-oriented work culture and attitudes	• Conducting sensitization programs
Resource Risk	Successful project development relies on primary capital to develop the facilities that make possible to harness the potential in the attractions	• Writing proposals to willing donors
Project Design Risk	The conception of the product and how it is experienced by customers may fail to attract many customers to make the project commercially viable	• Involve a professional in designing the project
Donor Dependency Risk	The project relies on getting a donor to inject funding to develop the product which is supposed to self propel commercially.	• Aggressive marketing and operations to ensure internal revenue generation
Market Risk	The project presupposes no major changes in tourism market, especially domestic tourism market	• Collecting constant feedback from customers inside and outside the conservancy to track change in customer tastes • Exchange visits for staff to other destinations and continuous training
Force Majeure Risk	This is where negative events or changes happen that beyond the projections and control of anybody The COVID-19 global pandemic was a good example. It has disrupted tourism which has, in turn, disrupted operations and incomes in conservancies The rise in water levels in Lakes Baringo and Bogoria was also beyond control of anybody and pose tourism risk	• Positive attitude and always working towards better results with the available resources

ANNEX 2: DEVELOPMENT AND MARKETING OF CULTURAL VILLAGE TOURISM BUSINESS IN KIBORGOCH WILDLIFE CONSERVANCY

Introduction

Kiborgoch Conservancy seeks support from partners and stakeholders to develop tourism business. This business option has been arrived at from different consultative meetings with the community representatives.

In a 2019 workshop the following projects were identified:

- Reed making due to availability of swamps
- Opportunity for research
- Proposed air strip which will boost tourism upon completion
- Irrigation to support crop production as an alternative livelihood

In a further consultative workshop, the conservancy opted to develop a cultural village tourism business.

It was found most suitable because:

- proximity to the road makes it easy to tap the destination market
- It is opposite the Lake Bogoria Spa and Resort which is a major tourist attraction
- The location is safe for visitors
- The area does not flood as it is on a mini plateau
- There are other tourism attractions in the conservancy, mainly scenery and wild animals

Problem Statement

Kiborgoch Wildlife Conservancy is a 2880 ha conservancy in Baringo Central, Sub County. It's a member of Lake Baringo Community Conservancies Association whose members are mainly involved in subsistence farming and livestock keeping. The area neighbours Lake Bogoria National Reserve and has a diversity of habitats ranging from dryland to wetlands and rocky cliffs.

Increasing pressures on land and other natural resources threaten to undermine the long-term sustainability of community livelihoods. To mitigate the negative impacts of unsustainable natural resource use on environmental stability and community well being, it is important for the communities to develop programs and projects that can boost economic welfare of the communities while also preserving the environment.

Tourism development has long been identified as a viable enterprise in community conservancies. It offers direct employment opportunities while opening opportunities for development of many other associated enterprises.

The conservancy has already identified and mapped all the important features that would support tourism activities.

This proposal is a partnership between the communities and donors and partners to develop tourism as an economic foundation of the conservancy. It has two main objectives:

- Support development of infrastructure to tap the tourism potential in the conservancy
- To outline management and marketing program to realize economic benefits

In appreciation of the above, the Baringo County Government in its policy on wildlife and tourism states:

"The above mentioned attractions, though major, are just but a tip of the iceberg in terms of what Baringo has to offer, tourism-wise. Yet, with its immense potential, the tourism sub-sector is not only under developed but uncompetitive. Our tourism destinations; products and scenic features; the lakes; the game parks are enormous but under-utilized. To reverse this, our department will invest in tapping the potential in eco-tourism, cultural tourism, sports tourism, safaris, business and conference tourism; and build on new products. We shall implement facelifts in our national reserves and upgrade infrastructure and operationalize facilities within these areas, to improve visitor experiences. In recognition of the role of the private sector in tourism development, the department of tourism will not only embrace and enhance cooperation, but also partner with them and all stakeholders in charting a clear roadmap to drive tourism for the benefit of the people of Baringo."

This project therefore aims to develop eco-tourism in the Kiborgoch area in line with the Baringo County Wildlife and Tourism policy.

Product Analysis

General Product

Lake Baringo Conservancies' tourism product rides on the back of the destination product which is Lake Bogoria National Reserve. The Lake is a great attraction due to fascinating scenery and high aggregations of flamingos. It is sometimes referred to as "The healing place" because of the characteristic hot waters that are reputed to have healing effect against many skin ailments. This hot water emanates from the hot springs, which indicate nearness of the molten rock to the earth's surface. The springs are closely associated with geysers that emit spectacularly hot steamy waters making the Lake both a unique and special destination by nature enthusiasts, students and researchers.

The Lake is also home to one of the largest populations of the lesser flamingoes and is now the only one in Kenya that hosts a significantly large population of the species. Few kilometres from Lake Bogoria is Lake Baringo, a fresh water lake which is reputed nationally as a birdwatchers paradise. Of Kenya's 1090 species of birds, 501 are found in Baringo County which is a huge percentage of representation. Of these are numerous rare species and unique birds. The lake has several islands which add to its mystic and tourism value not to mention the large populations of hippos and crocodiles. Fishing in the lake is a popular cultural and economic activity which gave the main urban area on the lake its name as Kampi Samaki – meaning the centre of fishing.

Before the recent flooding of Rift Valley lakes, Lake Bogoria has traditionally been associated with leading and unique tourism investments, like Island Eco-lodges, which have continued to draw visitors from the rest of the country.

Besides, the area has hosted an irrigation project drawing water from Pekerra River. In very hot landscape has given Baringo national fame as a source of juicy fruits like water melons and paw paws. This has made the area very popular with urban residents in the towns like Nakuru and Eldoret who have always made Baringo and Bogoria their preferred outing destination.

Tourism business in Baringo conservancies falls in this background. The general area is a prime tourist product, locally and internationally. The success of an individual tourism project largely depends on ability to develop a specific product within this general product.

Specific Product

Kiborgoch Wildlife Conservancy proposes to constitute itself into a tourism destination on its own but which reaps the benefits of destination popularity and ace. That is it will both be a complementary and a competing destination to the other attractions in Lake Bogoria and Baringo Landscapes.

The conservancy has multiple features that will combine to make it a tourist attraction.
These include:

- Natural hot spas
- Panoramic viewpoints
- Scenic landscape
- Proximity to Lake Bogoria and Baringo
- Unique vegetation and habitats
- Wildlife and rich birdlife

These features are all about the conservancy. However, the tourism product will be packaged to incorporate other features outside the conservancy to make the product viable as a tourist attraction.

The specific tourism product for Kiborgoch will be:

- Cultural centre which offers:

  - Natural hot spas – fee charged for using the spas
  - Cultural exhibitions and museum
  - Cultural dances
  - Reed making and sales
  - Cultural centre leased for events like weddings and birthdays

- Bird watching, especially flamingos in Lake Bogoria and Kiborgoch Swamp
- Hot springs in Lake Bogoria
- Natural Spa and campsites and Lake Bogoria Spa Resort

Product Strategy

Product strategy is a guide on how to package a product special in the eyes of the customers. As already outlined, the Kiborgoch tourism product will be aligned with the main tourism circuit in the area and specialize in tapping the tourists who visit the destination by offering a niche product. In other words, the Conservancy will collaborate with the other attractions including other conservancies in promoting the general destination but compete on specifics to attract customers to the individual product.

This product strategy is discussed under marketing.

Market Analysis

Tourism in the conservancies has two main advantages:

First, it is compatible with wildlife and conservation, unlike other land uses such as agriculture.

Secondly, it has many and better multiplier effects: A recent study, "Good Economics Makes Good Conservation" by the World Bank compared tourism to other economic activities in the country. It revealed that a unit currency invested in tourism yields much more than competing investments. Also, that tourism triggers many more multipliers in allied industries like transport, agriculture, and accommodation.

Tourism is therefore a powerful tool for stimulating economic growth among the local communities in wildlife areas while also conserving wildlife and biodiversity. The tourist activities directly employ staff from the local communities and serve as markets for community products like cultural artifacts.

Conservancies also support national efforts at tourism diversification by offering avenues of investments in wildlife tourism outside the protected areas.

Challenges of Tourism Growth in Conservancies

Low visibility: Because it is relatively new and unconventional, the conservancy tourism product is not well packaged and marketed to the mainstream market, locally and internationally.

Most tourism marketing is done by the government through national institutions like the Kenya Tourism Board and Kenya Wildlife Service. These have traditionally given more attention to conventional attractions, especially the coastal beaches and national parks.

Tourism in conservancies has been more private sector initiated, managed, and marketed, with leading conservancies relying mainly on the marketing efforts and connections of the individual investors in the international travel market.

This leaves the low profiled conservancies out of visibility and consequently low tourism business.

The national tourism product remains wildlife. With Baringo area not featuring prominently as a region of the big 5, it has not attracted major investments due also to several other factors outlined below

Few investments: Of the 160 conservancies in Kenya, only 69 of them have tourism investments, totaling about 142 tourism facilities. This means conservancy tourism is in Kenya is just like the proverbial tip of the iceberg. It is barely exploited and only now that it's full potential is being appreciated by the communities and investors in the private sector.
Part of the reasons is the fact that conservancies in many areas have limited expertise to initiate meaningful enterprises. This also limits their ability to source and negotiate for profitable private-sector partnerships.

Poor Infrastructures and Security: There are many conservancies especially in the North Rift Valley, northern Kenya, and coastal regions located in very remote areas. They lie in some of the most scenic parts of the country and hence harbour immense potential for the development of adventure and wilderness

tourism. But poor infrastructures, especially roads, hamper their access leading to low visitation.

Tourism also thrives where there is peace and security. The poor infrastructure in some of these locations is compounded by the stigma of insecurity as they neighbour areas that are beset with regular incidents of cattle rustling. Such areas naturally find it hard to attract visitors and attendant tourism investments.

Lake Baringo landscape has good road access and is one of the most scenic in Kenya with many factors working to its advantage. A robust business project should be able to overcome some of these challenges to establish profitable investments.

Land Tenure Uncertainty: Potential investors in all sectors seek long-term projects. Uncertainty in land tenure and leases scare away businesses, some of which have to borrow capital.

Lack of Management Capacity: Most communities lack technical knowledge in different fields that are required to make conservancy tourism successful. Hence they are unable to initiate viable tourism enterprises on their own in spite of the conservancies having many natural resources and great potential.

Lack of Market Diversity: The development of tourism in the conservancies has so far targeted the upper market, with the majority of facilities taking a luxury and exclusive set up. These are also concentrated in the wildlife rich parts of Kenya since big wildlife remains the main tourist attraction.

This pattern has left out a huge market for budget tourism which is quite reliable also lucrative when well tapped. The conservancies in Baringo have a unique opportunity to develop non wildlife based tourism enterprises and tap a growing market.

Understanding Market Differentiation

In *Standing out From the Herd: An Economic Assessment of Tourism in Kenya 2019*, the World Bank study classifies tourism into 3 broad categories. Wildlife, premium wildlife and beach.

Premium wildlife is currently being offered outside the main national parks which are more oriented to the standard, general market. While premium wildlife safari is offered in exclusive set which only conservancies with flexible management regimes are able to offer.

The report further notes that travelers in the premium wildlife sector spend twice as much per day than those in other segments of the market, mainly on accommodation, followed by food and beverage.

Table 18. Expenditure estimates in the three broad categories (World Bank, 2019)

Category	Expenditure Per Bed Night (USD)
Wildlife	180
Premium Wildlife	350
Beach	180

This is an important lesson to guide development of tourism in Baringo conservancies. The main compelling lessons here are:

- It is much easier to develop tourism product in the conservancies that have a more flexible management regime than a national park
- That wildlife tourism is a great product but which the Baringo conservancies do not have a comparative advantage
- That a better market strategy for Baringo Conservancies would be development of non wildlife tourism product

In the National Tourism Blueprint 2030, Kenya's tourism is classified into Core Experience and Secondary experience. Core experiences are the main drivers of tourism to Kenya, whilst the other experiences are secondary experiences that support the core experiences

.

These experiences are summarised per tourism regions in the country as shown in table below:

Table 19. Tourism Experiences according to the tourism areas (GOK, 2017)

Core Tourism Experiences	
Experience	Region with the strongest offerings
Beach and Marine	Coast
African Safari	Maasai Mara and Amboseli
Wildlife	Rift Valley, Central and Western
Nature	Rift Valley, Western and Maasai Mara/Amboseli
Scenery	Central Rift, Central and Northern
Culture and Heritage	Nairobi, Coast, Maasai Mara/Amboseli, Rift Valley
City	Nairobi
Business Tourism	Nairobi, Mombasa
Secondary Tourism Experiences	
Adventure	Coast, Rift Valley, Central
Sports	Nairobi, Coast, Rift Valley, Central
Desert	Northern
Other	Nairobi, Western, Rift Valley

Lessons for Baringo Conservancies

Baringo has a good representation in the core tourism experience because it is strong on nature experience, scenery and culture. Kiborgoch Conservancy plans to offer cultural experience in its cultural village product making it perfectly situated to offer core tourism experience as per the national tourism blue print.

The adventure offering in the secondary experience is made possible by the conservancy setting as a suitable site for adventure safaris including rock climbing and mountain hiking. These will inform the marketing and packaging of the tourism product.

Tourism Investment Attractiveness in Different Areas

An Area Tourism Investment Attractiveness Assessment done for National Tourism Blue Print 2030 sought to analyse attractiveness of different parts of Kenya to tourism investments based on the following criteria:

- Current supply size (variety of available tourism product)
- Current tourism demand levels
- Recent investment activity
- Access to primary tourist markets
- Likely size of future investment projects (large better than small)
- Potential demand levels
- Infrastructure availability (removal of hindrances to investment)
- Extent of packaging/intervention required to attract investment
- Governmental (national, county& local) support for tourism

The results are summarized in the table below:

Table 20. Tourism Area Investment Attractiveness for Broad Tourism Regions

(GOK, 2017)

Criteria	Nairobi	Coast	Central	Rift Valley	Western	Maasai Mara and Amboseli	Northern
Current supply (size and variety)	5	5	3	4	2	5	1
Current demand levels	5	3	4	4	2	5	1
Current investment activity	4	2	2	3	3	3	1
Access to market	5	4	3	3	3	3	1
Size of future projects	5	5	4	4	4	3	1
Potential demand	4	4	4	4	4	4	2
Infrastructure availability	4	3	4	4	3	2	1
Packaging / intervention required	4	4	3	3	3	4	2
Government support for tourism	4	4	3	3	3	3	1
TOTAL	40	34	30	32	27	32	11
%	89%	76%	69%	71%	60%	71%	24%

Key to the Scores:

5 = excellent
4 = very good
3 = good
2 = average
1 = poor

Key to Percentage Attractiveness:

80+% = Prime investment areas (Already with significant investment opportunities)
60-79% = Existing and upcoming areas (Has many investment opportunities)

50-60% = Suitable for long term investments and requiring some intervention (Average investment opportunities)
30-50% = Suitable for long term investment focus and requiring significant intervention (Limited investment opportunities)
0-29% = Impossible to sell areas (Currently no investment opportunities)

The above table shows the following about Rift Valley where Baringo landscape falls:

- It scores "very good" for current supply and current demand. Meaning it has good variety of attractions and also good demand
- It also scores "very good" for future investments, potential demand growth and also infrastructures
- For all the other factors, the destination scores "good."
- It scores 71% in total percentage attractiveness. This is the same score as Maasai Mara and Amboseli. This score is the second best, which is for areas with great potential

Although the study proposes a more detailed analysis by smaller areas, it is obvious that tourism is a viable land use available to the conservancies in Baringo.

Local Market Trends

The tourism market in Baringo is influenced by the following factors:

- It's a unique landscape with a saline and freshwater lakes next to each other
- Lake Bogoria has an added unique because of:
  - Hot geysers that are of great human and scientific interest
  - High aggregations of flamingoes with no matching habitat

The above two factors makes Baringo a special destination for specialized visitors internationally and study tours locally and internationally. Any learning institution will always want to package Baringo in their school tours because of the many things that can be experienced and studied within just one destination.

With desertion of flamingos from Lake Nakuru, Lake Bogoria remains the only major habitat for the bird species in Kenya, with only a few hundred scattered in Lakes Elementaita, Naivasha, and Amboseli etc. But the beauty of the flamingos is in their large aggregations which only Lake Bogoria can provide at the moment.

This means Baringo as a tourist destination has a special place on the Kenyan map. The challenge is always how to harness this potential in form of profitable enterprises. The other factors are:

- Fascinating landscape marked by Islands in Lake Baringo and the escarpment hills towards Kabarnet and Kerio Valley
- Hot semi arid climate and volcanic soils that supports unique vegetation communities that are suitable for honey production and also goat and sheep husbandry
- For a long time, Baringo has had the reputation of high quality honey and mutton

The above factors make Baringo an appealing tourist destination for adventure lovers and especially the domestic tourists from Nakuru and Eldoret Cities. Most domestic tourists are attracted to Baringo by landscape, the popular tasty mutton and honey.
With further urban expansion and need for more adventure and experiences away from the big cities, Baringo will remain a leading destination for domestic

tourists. The biggest challenge remains lack of investments to tap the growing market. Most visitors just make day trips to do shopping with little differentiation of the product through well thought out packages and offerings.

Competition

The expansion of domestic tourism has seen many investments and destinations coming up to compete for the urban population constantly looking for adventures outside the cities. For instance, many investments have sprung up around Lake Elementaita in form of hotels and tented camps. The lake borders Soysambu Conservancy which has been a market leader in specialized ecotourism.

Together with Lake Naivasha, the central rift region gives Baringo great competition in tourism services.

As indicated below in marketing, tourism has two supply components:

- The primary attraction and
- The facilities that enhance enjoyment of that attraction

In most cases, heavy investments in the second component can overshadow the attraction, especially when combined with great hospitality. This explains why countries with low natural attractions draw many tourists compared to African countries with fascinating natural features and wildlife.

In Kenya, we have many destinations which also invest heavily in the second component making them leading tourist destinations. That is why Lakes Elementaita and Naivasha attract many more visitors from Nakuru and Nairobi compared to Baringo, notwithstanding that Baringo has much better offering in the primary attractions.

There are also many projects coming up in Areas like Kerio Valley, Eldama Ravine, Njoro, Kabarnet etc. All these are driven by the growing financial ability of many Kenyans and the awareness of tourism industry. Hence there are many hotels and resorts developed to attract families and private travelers.

It follows that, while competition is real, a destination endowed with natural features and historically established reputation for quality products like honey and mutton can easily leverage on this advantage to win the competition. The most important thing is to have the understanding of the market dynamics and be able to package and market a business within that context

Marketing and Sales

Like in other industries, the tourist product is also sold in a market place. But tourism is unique in the fact that the product is generally immobile and some intermediary process is necessary to win consumers of the product.
This process needs to be very appealing persuasive as potential tourists need to build confidence. Often, they compare destination images before they travel and make extensive references from friends and relatives.

The development of a tourist product image in the eyes of tourists and making efforts to convince them to travel and sample the product constitutes marketing and sales. In this section we discuss how Kiborgoch Conservancy can lay out a successful marketing campaign.

The Tourism Product

The tourism product is composite in nature and includes both tangible and intangible aspects. Its production takes place simultaneously with consumption at the same physical place.
There are three distinct aspects of a tourism product:

Tourism experience - which comprises all that the tourists see, use and experience as part of their encounter

The place - is the tourist destination that serves as the point of consumption of certain components of tourism experience

Product components – refers to the individual products such as accommodation, attractions and souvenirs. Components have several categories:

- Physical environment of a tourist destination (the natural assets such as wildlife sanctuaries, beaches and climate; built assets, for instance, museums, monuments, airports and lodges);
- Services such as transport, tour-guidance, security and accommodation;
- Hospitality of the local people;
- Degree of freedom of choice by tourists, etc

This means a tourist is an integral part of the production process since the final product cannot be achieved without the consumer travelling to the point of production and converting the services into individual experiences.
The appeal of a product to a tourist depends upon the value added to the basic resource through management and packaging.

Tour Packages

Historically, tour operators have determined the itinerary, content, timing and maximum size of package tours. They make contracts in advance with airlines, hotels, transporters and destination management institutions like KWS, Museums, and conservancies.

Travel agencies and tour operators therefore remain very pivotal in tourism business even in this age when so much information has gone to the internet making it easy for tourists to work directly with product suppliers.

For an area to be a successful tourist destination, it is important to borrow heavily from the packaging principles of tour operators. This will give a better insight into how the destination compares with the main tourist circuits and also seek to work together to include the destination in the marketing programs.

Mass tourism
Refers to large-scale packaging of standardized tour services at fixed prices for sale to a mass clientele. Mass tourism is characterized by:
- Mass replication of identical units. Eg group camping, where economies of scale is the main motivation;
- Undifferentiated clientele, where all visitors must take interest in one attraction;
- Program standardization and rigidity

Free Independent Travel
Unlike mass market, the following characteristics apply to individual travelers who arrange their own programs:
- The program is flexible in time, attractions and even prices

- Economies of scale does not determine the viability of the packages. Hence, individual families, small groups can manage. Hence suitable for special travelers like researchers and scholars;
- Production is driven by the requirements of consumers. Hence can lead to more satisfaction;
- The package is marketed to individuals within different needs, incomes, time constraints and travel interests.

From the conservancy point of view, all business may be good business. However, its important to have a clear understanding of these two product categories in order to carry out a focused marketing campaign. Needless to say the two categories require different marketing approaches

Success factor

For successful marketing and sales of tourism enterprise, it's important to have a deeper understanding of the two main sides of the business. There are Demand and Supply sides.

Demand side

The demand can be due to:

Motivations - which arise from the urge to fulfill certain needs, be they physical or physiological, cultural, social and fantasy. Reasons for travel are very many and varied. They may include recuperation and regeneration, compensation and social integration, escape, communication, broadening the mind, freedom and self-determination, self-realization and happiness. There are also social influences that condition the decision to travel and these may include the family or societal group, social class, surrounding culture and the workplace.
Advertising creates an attractive image of a destination by emphasizing its attributes that can satisfy any of these motivations.

Expectations - One expectation is the perceived likelihood that a consumer choice will be followed by a particular outcome. Expectations are, therefore, desires or wishes of consumers, i.e., what they feel a service provider should offer rather than would offer.

Perceptions - Perception is the basis upon which customers make comparisons between their expectations and the ultimate performance of a service. Perception is conditioned by:

- Past experiences
- Preferences and hearsay or word of mouth.

Perception affects the way consumers behave and in most cases perceptions are not based on reality but on interpretations of reality. However, perceptions may be accurate or inaccurate.

Supply Side

The supply side has three important factors:

The attractions and hospitality – these are the main resources that a destination offers. Attraction is mostly natural, while hospitality is the services given to the visitor who visits the attraction. Both are important and complement each other.

Facilities and infrastructures - are developed to make it possible for the consumption of these resources. These could be campsites, restaurants, lodges etc and are all important in determining the economic value of the tourism program as well as the experience of the customer and popularity of the destination.

Travel experience - is the tourism industry's product since, unlike other industries, it is the consumer who travels and not the product. The tourist product is produced by resources and facilities created at a destination. It is usually sold as a package for tourists to perceive and experience in the market place.

The importance of understanding the supply component is based on the fact that this is what a destination can successfully manipulate to make a successful tourism enterprise project.
The focus of this sales and marketing plan is to discuss how this supply component can be packaged to boost tourism in Kiborgoch Conservancy

Branding and Differentiation

From the above background, the most important task for Kiborgoch Conservancy will be to understand its product in terms what it is supplying to the tourism market. This is already well understood as camping and visitation of the conservancy to sample different attractions. The next step is development of the facilities that will make it possible to harness or exploit the resource. This will be discussed under operations and administration of the project. Once the product is well understood and infrastructures are in place, the conservancy will brand the product so that it can stand out from the main Baringo destination. The branding involves separating Kiborgoch Conservancy as unique location where people can experience:

- Natural hot spas, which is quite unique and authentic
- Special cultural village with essential facilities like washrooms, bathrooms, cooking stands, security etc
- Nature trails to enhance nature experience and adventure around the cultural village and the conservancy in general
- Learning experience from the cultural village museum and library
- Purchase of baskets and appreciation of the weaving craft

The most important thing in branding will be to determine what is special in the conservancy that visitors can get which they cannot get in Lake Bogoria or Baringo or other places within the area.

Marketing the Conservancy Tourism

After branding the conservancy product, the next step is to create visibility and presence in marketing platforms. Since the conservancy is tapping on the main destination tourism, visibility will be created by developing strategic signage along the Nakuru - Marigat highway. The signage will be large enough attract attention with appealing graphics that will draw attention of travelers. If budget allows, a billboard can be erected in major towns like Nakuru and Eldoret.

It will be important to have website. The website should devote a whole section to tourism and should highlight the main attractions and also pictures of visitors already enjoying the facilities. This website will be managed by Kiborgoch Conservancy and also linked with larger websites like BCCA, KWCA and BCG. Further awareness will be created through close working relationship with tourism operators in through their associations like KATO, Nakuru Tourism Forum, KATA etc. With time, many potential visitors will take individual interest in the conservancy and will seek to pay a visit when they visit the Baringo destination

Operations and Administration

The operations of the project will be discussed with the conservancy manager to draw a structure that will enable administration of different functions. This is the guiding structure which will be strengthened depending on the scale of the project and availability of resources:

Conservancy manager

- Marketing Kiborgoch Conservancy
- Supervising tourism manager
- Receiving customer feedback from clients and from the manager

Tourism manager

- Marketing
- Bookings
- Receiving payment and issuing receipts
- Supervision of facilities
- Maintenance of facilities
- Receiving of feedback from customers

Tourism manager may have staff under them such as:

- Cleaners
- Cooks

Action Plan

The action plan captures the main activities and budgets that will be required to start off the project as per discussions with conservancy representatives. The conservancy may need to develop focused project proposals and detailed budgets specific activities. The actions and activities are summarized in table 22.

Table 21. Kiborgoch Conservancy Business Action Plan and Budget Estimate

Action	Resources	Output	Budget Estimates
Objective 1 - Develop a fund raising proposal to develop the tourism product			
Activity 1.1: Collaborate with BCCA to identify potential donors	Staff time	Minutes of meetings	
Activity 1.2: Write and submit a project proposal	Staff time	Written proposal	200,000
Objective 2 – Construct the cultural village and associated facilities			
Activity 2.1: identify all attractions in the conservancy and map them	Staff time Mapping costs	Tourism map	100,000
Activity 2.2: design and construct cultural village	Staff time Materials costs and labour costs	Upgraded view points and archeological site viewing area	5,000,000
Activity 2.3: procure facilities for the cultural village – camping ground, tents, beds, washroom, showers etc at Campsite 1 and Campsite 2	Staff time External contractors costs	Upgraded campsites	1,500,000
Activity 2.4: Develop complementary facilities for the cultural centre e.g. picnic benches, washrooms, campsite, shop, office	Staff time Contractors costs	Upgraded nature trail	1,000,000
Activity 2.5: design and construct an appropriate natural barrier to give the cultural village privacy from the road.	Staff time Contractors costs	Secluded cultural village	500,000
Objective 3 – Develop interpretation and signage in the conservancy			
Activity 3.1: Research and document the history and culture of the community to be	Staff time Research costs e.g.	Compiled literature on archeology site	400,000

Action	Resources	Output	Budget Estimates
sharing with visitors	allowances for field activity talking to elders		
Activity 3.2: Produce leaflets on Kiborgoch Conservancy attractions and a map	Staff time Publication costs	leaflets	300,000
Activity 3.3: Install signage at the entrance and other suitable locations	Staff time Contractors cost	Signage	200,000
Objective 4 – Develop marketing materials and program			
Activity 4.1: develop and host website for the conservancy	Staff time Domain registration and web design consultation	Uploaded website	100,000
Activity 4.2: make highway signage for Kiborgoch Conservancy	Staff time Signage contractor costs	Highway signs and bill boards	150,000
Activity 4.3: work with BCCA and KWCA to have the tourism product at Kiborgoch marketed to special audience	Staff time	Conservancy name with more prominence	
Activity 4.4: work with tourism sector to broadcast the offerings at Kiborgoch Conservancy	Staff time	Brand prominence	
Activity 4.5: Conduct targeted marketing using different media and exhibitions for 5 years	Staff time Marketing budget	Increase in number of visitors Revenue growth	650,000 per year
Objective 5 – Recruit staff and conduct training			
Activity 5.1: identify staff to carry out reservations, receive cash payments, maintain campsites, conduct guiding and interpretation	Staff time Recruitment costs e.g. advertising	Job descriptions Advertisements for vacancies	
Activity 5.2: identify a training consultant to conduct training for the staff on customer service, email correspondence, booking and reservation skills, records keeping etc.	Consultant costs Logistical costs e.g. transport, venue, meals etc	Training report	200,000
Activity 5.3: recruit permanent staff and give contracts to casual staff Staff needed: 1 manager 1 tourism officer 4 security 2 clerical/book keepers 3 guides 3 cleaners 3 housekeepers	Staff time Staff salaries	Employment contracts Deployed staff	3,400.000 per year
Total Cost Estimate		• **Construction and training = 9,650,000** • **Staff costs = 3,400,000 per year** • **Marketing expenditure = 650,000 per year**	

Possible Risks and Mitigations

The uncertainties and potential pitfalls in development of tourism in the conservancy are presented in table 23.

Table 22. Possible risks and mitigations

Type of Risk	Possible Circumstances	Mitigations
Business Orientation Risk	• Conservancy staff and leaders may have resistance to market-oriented operations that characterize the tourism business. Hence may dislike private sector oriented work culture and attitudes	• Conducting sensitization programs
Resource Risk	• Successful project development relies on primary capital to develop the facilities that make possible to harness the potential in the attractions	• Writing proposals to willing donors
Project Design Risk	• The conception of the product and how it is experienced by customers may fail to attract many customers to make the project commercially viable	• Involve a professional in designing the project
Donor Dependency Risk	• The project relies on getting a donor to inject funding to develop the product which is supposed to self propel commercially.	• Aggressive marketing and operations to ensure internal revenue generation
Market Risk	• The project presupposes no major changes in tourism market, especially domestic tourism market	• Collecting constant feedback from customers inside and outside the conservancy to track change in customer tastes • Exchange visits for staff to other destinations and continuous training
Force Majeure Risk	• This is where negative events or changes happen that beyond the projections and control of anybody • The COVID-19 global pandemic was a good example. It has disrupted tourism which has, in turn, disrupted operations and incomes in conservancies • The rise in water levels in Lakes Baringo and Bogoria was also beyond control of anybody and has posed serious tourism risk	• Positive attitude and always working towards better results with the available resources

Annex 3: Commercial Production, Branding and Marketing of Honey in Chuine Wildlife Conservancy

Introduction

Chuine Wildlife Conservancy is a member of Baringo Community Conservancies Association which has been seeking to generate income from its natural resources to support community livelihoods. From several consultative meetings and workshops with the members, many potential income generating projects have been identified which included:

- Wildlife utilization due to a vast land available for conservation
- Bee keeping due to popularity of local honey as of high quality
- Tourism due to availability of good sceneries and abundance of wild animals like ostriches and the Greater Kudu
- Mining for red ruby and diatomite
- Beadworks and papyrus weaving for women
- Research tourism due to its richness in biodiversity and breeding sites for Greater Kudu,

In a recent land use and business planning workshop, the conservancy stakeholders were asked to choose one project for commercial development. It is at this workshop that the members chose commercial production, packaging and marketing of honey as the preferred priority project.

Honey packaging was chosen because:

- The conservancy vegetation has plenty of the suitable species that produce high quality nectar
- The project poses less conflict with any other land use
- It is less expensive and not labour intensive
- A lot of space available for beekeeping
- It is currently one of the economic activities conducted by the community

This business proposal is being developed in this background. The objectives of the business plan is to:

i. Outline the process for bee-keeping and honey harvesting
ii. Discuss how the conservancy will carry out packaging and branding
iii. Discuss the marketing process to ensure the project attains commercial viability

Problem statement

Chuine Wildlife Conservancy is 1,805 ha in size with about 500 members who practice subsistence farming and pastoralism. The conservancy was set up in 2010 to protect the environment and natural resources and seek ways for exploit the natural resources sustainably for the benefit of the people.

Notwithstanding resource richness in the conservancy and the general area, the communities are still ravaged by low economic returns due to unprofitable farming and other businesses. There has been need to identify land use activities

and also commercial enterprises that can generate income to the communities while preserving ecological integrity and natural resources of the area.

Baringo is a major tourist destination with one of the attractions being honey. Many visitors to the area are drawn by the popularity of honey which is reputed for high quality and also said to have medicinal value. However, there is widespread concern that the resource does not benefit the local communities to the optimum because harvesting, packaging is poor and most of it ends up selling very cheaply to middle business people who repackage it elsewhere and make a tidy profit.

This matter has attracted concern at policy and government level. The government of Kenya has acknowledged that beekeeping greatly contributes to food security, poverty reduction, employment creation and income generation in arid and semi-arid rural areas. In its strategy for the development of apiculture and emerging livestock, GOK has identified honey production as one of the means by which people in ASAL areas can earn an income. This strategy aims to make communities in ASAL areas better adapt to climate change without damaging the environment they depend on to survive.

The main honey producing areas, and also those reputed to produce high quality honey, are Baringo, West Pokot, Mwingi Kitui, Tharaka, Western and Coastal Regions.

The Baringo County Government states in its on agriculture that:
"Apiculture Farmers will be empowered to major in the production of Baringo's organically certified and medicinal honey which is internationally acclaimed as it is produced from the Acacia tree (Vachellia tortilis) that covers Baringo landscape and provides the bees with unpolluted nectar for making truly organic honey."

In its community action plan, the current management plan for Lake Bogoria National Reserve states the following on bee keeping:

"If well managed, conservation linked activities such as beekeeping can be a viable alternative source of income for the local community adjacent to the reserve. However, such ventures often fail due to lack of know-how on production of bee products and lack of a ready market, which often leads to producers of bee products being exploited by middlemen. Community members should be trained in production of high quality bee products, and efforts made to link beekeepers with established dealers in bee products."

In a Baringo Honey Conference in 2014, the County Government of Baringo committed itself to profile bee keeping as a key sub-sector and assign field extension officers to educate bee keepers on how to modernise their hives.

The proposal for commercial honey project in Chuine Wildlife Conservancy is in the above policy context.

Product Analysis

My Dear Honey…

Honey is a nutritious, healthy and natural food produced by the bees. Its benefits go beyond its use as a sweetener as it contains several minerals, enzymes, vitamins and proteins that confer unique nutritious and organoleptic properties.

Honey can be mono-floral if one specific plant nectar and pollen content prevails in pre-defined percentages or poly-floral if it contains an unspecified mix of different nectars and pollens.

Due to environmental, geographical and climatic conditions honey may vary in pollen content and relative humidity. Honey is produced in all five continents and its consumption varies from country to country also due to cultural reasons and eating habits.

(Pollinators and Bees, 2019)

Background on Honey Product

About Honey

Honey is a sweet, viscous, golden colored liquid that is "manufactured" by different species of honeybees, such as *Apis mellifera*, from the nectar of flowers. It is stored in wax combs and used by the bees as a food source to feed both immature larval stages and adult bees during winter. Approximately 120 000 bees are required to produce 1 kg of honey and a single bee will produce only about a tablespoon of honey during its lifetime.

Honey is also the oldest sweetener known to humans and has been an eagerly sought commodity since prehistoric times. Primitive societies hunted for trees where bees stored honey so that they could obtain a supply of the precious sweetener. Eventually beekeeping or apiculture, the science and art of raising bees in artificial hives, where honey can easily be harvested evolved and today is a major agricultural industry.

Modern beekeeping not only provides a supply of a natural sweetener but, more important, makes large numbers of bees available when agricultural crops that depend on insect pollination for production of fruits, nuts and seed are in flower. This is an important agricultural industry because about one-third of the human diet is derived from insect pollinated plants and honeybees are responsible for 80 percent of the pollination.

Forms of Honey

Honey can come in a variety of forms. The most common is liquid honey that is extracted from the honeycomb by centrifugal force, gravity or straining. Liquid honey is the most convenient form of honey for cooking or baking and most honey is sold in this form. Creme or spun honey is brought to the market in a crystallized state. The crystallization is controlled so that, at room temperature, the honey can be spread like butter. In many parts of the world, creme honey is preferred to the liquid form. Comb honey is honey that comes as it is produced in the hive, in a honeybee's wax comb. The comb, as well as the honey, is edible. Cut comb honey is honey that has been packaged with chunks of the honeycomb.

Honey Composition and Medicinal Use

Honey mostly contains sugars (80-85%) that are easily absorbed by the body (good for young, old and sick). Bees collect nectar, the sugary secretion of flowers, add enzymes and reduce the water content to that of honey (good honey contains less than 19% water).

Hence, honey is a very good energy food, often used as a sweetener for food (cake, chapatti, bread etc.) and beverages. It is also reputed to have medicinal properties and different products are used to manage several ailments

Natural bee honey - Used in management of Coughs and as immunity boosting, healing skin injuries and improving skin conditions etc

Bee wax – Is used for a wide range of applications ranging from candle making for home use, industrial uses, medical and pharmaceutical utility. Its yellow in colour and melts at 63 degrees Celsius.

Bee Venom – Is used to manage high blood pressure, arthritis, blood clots, tumours, fibroids, skin conditions, asthma, etc and is said to increases CD 4 Count.

Propolis – Used as a natural anti-bacterial remedy from the bee hives. Anciently used for mummification of the Egyptian Pharaohs and is said to be effective for against ulcers, hemorrhoids and as immunity booster.

Other Honey Products

Related products of honey production are beeswax, bee pollen and royal jelly. Beeswax is sold as a by-product for candles, polishes and as an ingredient in cosmetics. Royal jelly, the secretion of the glands of worker bees, is the queen bee's sole source of nourishment and is promoted as a nutrient for human consumption and energy source. Bee pollen is in demand in Japan as an aphrodisiac.

Chuine Wildlife Conservancy Honey Product

The main product sold in Baringo is the raw honey, harvest from the hives. Most of this is done at a small scale and the packaging is also done informally just to get it to the market. Some organized groups have combined efforts and formed commercial projects which sell semi processed honey and also other products like wax, candles and lotions. Chuine Wildlife Conservancy proposes to set up a fully fledged commercial project with the ability and equipment to:

- Keep large honey colonies
- Harvest honey commercially
- Process the honey and store in hygienic conditions
- Brand the honey and honey products
- Set up sale outlets in strategic locations from the conservancy to major cities
- Set up a sales and marketing team or work with a private sector partner to make the project sustainable

The project will sell the following specific products:

- Branded Honey
- Branded honey products including bee wax for cosmetics and body cream, propolis, royal jelly, bee pollen, bee venom

- Commercial lease of bee hives to plantation agriculture can be explored as the project grows

Market Analysis

The ministry of livestock lists Baringo among the high potential areas in terms of honey production and quality. Anecdotal evidence and legend has it that Baringo "has the highest quality honey", which draws many visitors to Baringo and make many transit visitors to stop and buy the honey sold on the road sides.

There are numerous reports of unscrupulous traders who sell diluted honey and honey products but label them "Baringo" or lie to their customers that it is sourced from Baringo. This exploitation of Geographical Indication discussed under sales and marketing.

In 2014, Former Baringo County Governor Mr. Benjamin Cheboi lamented that Baringo County loses estimated Sh5 billion uncollected revenue annually from bee keeping due to lack of established tax collection mechanisms.

He further reported that over 10,000 tonnes of honey produced by 62% of the county's population end up in the hands of unscrupulous middle-men who take advantage of the untamed market.

Said the governor:

"We have 135,000 bee hives in the county but the challenge is that most of the bee keepers sell their honey to middle-men."
The above reports suggest that the honey market is just a tip of the iceberg

GOK estimates that Kenya produces about 11,000 metric tonnes of honey and 1-3 tonnes of beeswax annually. However it laments that is about 20% of country's potential.

"Thus productivity of honey is low, making Kenya unable to meet domestic and export demand" (GOK; Ministry of agriculture)

Honey Production

The government records estimate that there are 1,440,640 bee hives in Kenya owned differently by about 144,000 producers. But that these producers are mainly small scale and do it at subsistence scale. This means the actual potential is way unrealized at below 20% and that Kenya remains a NET importer of honey.

Although commercial honey production is fast taking root, production is mainly through indigenous means in the rural areas where most farmers use the traditional log, grass and bark hives. But due to their topology, background and design characteristics, traditional hives have been shown to be low yielding in terms of honey production which makes the unsuitable for commercial production. The average yield from traditional hives per season is a net of 3.5 Kgs which falls short of the standard average estimate of 5.6 Kgs per season.

Modern hives, the Kenya Top Bar Hive and the langstroth are slowly gaining ground although there have been some concerns regarding their designs and raw materials which negatively impact on colonization speeds and productivity. Harvesting techniques depend on the type of hives owned by the farmer.

Producers with indigenous hives harvest by cutting across and removing the central comb thus sometimes harvesting raw honey or honey mixed with larvae. Producers with modern langstroth carry the super box to a central harvesting station using a centrifuge machines.

Most honey producers do the harvesting themselves and production has been low and inefficient due to waste. In other cases, trained harvesters are invited to harvest the honey on behalf of the hive owners who are then paid in cash or buy off the honey from the hive.

For instance, there is a bulking agency that buys honey from a community group in Baringo Sh165 a kilo, which they combine with what they produce and sell to Baraka Agricultural College in Molo at Sh185 a kilo.

This is one of the market loopholes that prevent bee keepers from reaping optimum returns. However, many institutions have set up training programs working closely with bee keepers in different parts of the country. The trainings are provided by development partners and many conservancies in Kenya are now benefiting from training and general capacity building on honey production and marketing

Challenges of Bee Keeping

Despite the country's great potential in beekeeping, production is still low compared to local and international market (GOK). This because of a host of factors:

- **Lack of appropriate technologies**- leads to inefficiency and lack of commercial viability
- **Poor beekeeping practices** – as most bee keepers lack information on bee ecology and the environmental factors that influence bee colonization and honey production
- **Low uptake of improved technologies** – because most bee keepers lack education and capacity to appreciate advances in technology and information
- **Poor policy guidelines** - Both national and county governments have been slow in mainstreaming bee keeping as profitable land use. This has changed over the last few years with the government departments pledging support to the industry. However, resource mobilization to support bee keepers has been slow and most bee keepers rely on development agencies
- **Emerging pests and diseases** – due to use of pesticides in growing of crops most of which are poisoning the bees and also leading to low quality honey
- **Declining bee colonies** - due to climate change and general degradation of the environment. Bee keeping as a land use enterprise in a conservancy plays an important role in conservation of the rangelands
- **Low returns** – because many bee keepers have difficulties getting their honey from remote rural areas to urban-based buyers. Hence end up selling to middle persons or bulking agents who sell to the packaging companies and cooperative companies

Production Factors

In "Factors that affect bee keeping in Marigat," Kipruto lists the following factors as determinants of honey production:

- **Use of technology -** which refers to the type of hives used (traditional log hives, KTBH hives, langstroth hives) and the general equipment.

- **Institutional factors –** for instance, farmers groups have better access to credit facilities. It also refers to the type of markets and access to extension services and research and training from competent institutions or consultants
- **Social Factors –** because honey production has traditionally been a cultural activity with an age and gender variance. The age of the household head, gender, marital status, level of education and education have all been shown to determine success of the venture.
- **Economic Factors –** which refers to the land size under beekeeping, the land under crop production and that under natural forest cover. Also labour and capital costs and the price of raw and packaged honey in the market
- These factors should guide this honey production enterprise at Chuine Wildlife Conservancy. The project aims to manipulate and aggregate the factors of production by maximising on technology for production and harvesting, marketing and distribution to ensure it becomes profitable to the community

Honey Markets and Marketing

Historically honey was produced for subsistence only. That is for domestic and cultural purposes. But commercial production, packaging and marketing has grown rapidly with many communities and cooperative societies across the country leading the industry. Subsistence-led production was mainly because of the traditional background and history of beekeeping.

The honey market comprises of three main nodes:

- The local market (friends, neighbours and surrounding villages);
- Local and external bulking agents (middlemen, traditional liquor brewers, traders, nongovernmental organizations);
- Community co-operative societies. This is the most popular direct market as it offers better prices as compared to the local and external bulking agents.

The main market for the bulked honey in Kenya is the urban areas especially the big cities like Nairobi, Nakuru, Mombasa, Kisumu and Eldoret, where it is also used by food processing, liquor and pharmaceutical companies. Other main consumers of honey in urban areas include liquor brewing entities and pharmaceutical companies

Honey is also refined further and packed into containers for sale to domestic consumers as table honey. The bulking agents and farmer based co-operatives in turn market and sell the honey to processing companies and retail stores.

Market Dynamics and Price Differentials

The honey market is relatively stable with two main buyer categories that comprise the packaging companies and middlemen /bulking agents who sell directly to the consumers or try to do some low scale packaging. Co-operatives companies and packaging firms form the largest initial market for honey produced by individual bee keepers.

There is no price differential for different qualities of honey since the market has not graduated different standards and qualities. This means the producers are not motivated to enhance or maintain the quality of honey to the highest standards as it is assumed to be just "the same." There are efforts to enhance the quality of honey mostly by co-operatives and packaging companies which encourage beekeepers to engage the trained service providers to ensure that honey is harvested in the recommended practices. This system also enhances the flow of information and knowledge from the business service providers to the beekeepers thereby acts as a capacity building forum.

Consumption of honey and other hive products

Honey is the main beekeeping product. It is consumed widely across the country as a table food, for its medicinal qualities, preservative, or medicine. As a food, honey is consumed for its rich fructose, sucrose and glucose levels, making it a natural source of energy.

The high sugar levels and its ability to catalyze fermentation make honey a suitable raw material for brewing liquor hence it is also used for the industrial production of local beer. Its antioxidant properties make it ideal as a preservative in foods, including meat, poultry and pastry – this is mostly by large food processing companies.

Most consumers of honey are found in the large cities. Honey processing firms refine and pack it in different sized containers for resale mainly in 250, 500 and 1kg containers. Statistics from the Directorate of Livestock Production and the the National Bee Keeping Institute estimate average honey production in Kenya to be is 25,000 MTs/Annum from approximately 2 Million hives.

Much of the honey produced in Africa, according to the United Nations commodity trade data base, is sold in the United Arab Emirates, the world's richest honey market where it sells for up to Sh. 2,000 per kilogram compared to between Sh. 500-800 per kilogram locally.

The consumption of honey has grown especially among the urban consumers due to the increasing health awareness where many people are avoiding artificial sugars in preference for natural sugars like honey. It is also increasingly being used because of its medicinal properties.

This means the market for honey and honey products is stable and an enterprise based on honey branding and marketing will have a guaranteed market as long as:

- Branding is well inspired
- Harvesting and packaging is done at the highest level
- Modern technology is used to minimize waste and inefficiency in supply
- Marketing is done right to ensure consumers identify the honey and associate it with Baringo quality

Competition

Kenya remains a net importer of honey according to GOK data and that current honey production status is just around 20% of the national potential. This means beekeeping asn enterprise has a ready market in the country and also internationally. The competition for the product produced will not be due to lack of market but market preferences.

With growing demand for honey, supply has also increased and it has also increased in sophistication. Modern packaging is in vogue with competition going to the appearance and functionality of the containers.

The main areas reputed for honey quality and production are also competing among themselves. Most have resorted to branding their honey according to their location in a process of Geographical Indication (GI) discussed under sales and marketing.

Hence its common to see names like Kitui Honey, Makueni, Tharaka etc. The competition front open to Chuine Wildlife Conservancy with regard to its honey product will be about market placement through a well thought-out sales program. But, ranking as one of the leading sources of high quality honey, it stands a much better chance of withering the competition in the market subject to good branding and marketing.

Marketing and Sales

Production and marketing of honey as a "modern" consumer product has come from far and overcome many odds. These range from social perception, consumer attitudes and policy mainstreaming of beekeeping as a legitimate commercial activity.

For successful sales and marketing of a honey project, it is important to understand three main aspects:

- The historical perception and its evolution
- Branding and certification
- Understanding the end user and competition

These aspects are briefly discussed in the following section

Understanding Historical Perception

The Stigma that Beekeeping is "not modern"

There has been the historical stigma that beekeeping is an informal cultural activity mostly based on traditional hives. These hives are evidently low yielding and the income has not hitherto been huge enough to change the attitudes. Modern institutions like financial institutions lack sufficient confidence in the sub-sector and the beekeepers. The success of few enterprises in Kenya based on bee keeping and honey marketing is now building confidence across the board and the conservancy should take advantage of this.

Poor Beekeeping Administration

Most rural based enterprises engaged in honey production lack adequate resources to hire qualified and competent staff thus leaving their management in the hands of people who lack sufficient knowledge, training and skills. This brings in serious leadership, management issues and governance issues within the

business leading to low returns from the enterprise which further erodes many peoples' confidence in the business.

Inadequate institutional systems and structures

These include poor record keeping skills and practices, lack of well structured follow-up and internal controls. The end results are poor records of sales and market responses. A competent marketing and sales program must set up systems in place to ensure the enterprise derives optimum benefits from the operations

Lack of a Business Orientation to Beekeeping

The national cross-cutting approach to beekeeping so far has been more social than business oriented. This is demonstrated by:

- High dependence on traditional hives as a source of income
- Lack of records to illustrate performance (income, expenditure, profit/losses)
- Contentment in receiving minimal amounts of money by the primary harvesters
- Inclination of bee keepers to any income rather than profits

In setting up the enterprise at Chuine Wildlife Conservancy, there has to be the commercial drive which must be embraced by the sales and marketing team. It is being done as a business whose success parameters will be profits and growth

High-risk Perception of Beekeeping

Beekeeping is still perceived as an informal activity which is not modern enough. And because it is nature based, it is assumed to subject to vagaries of weather and market failures. This is because many people engaged in the activity also do it informally without proper record keeping and liaison with government agencies. Hence, it is perceived as too risky such that even lending institutions shun it.

The perception of honey production as a mere subsistence activity than commercial is changing as evidenced by several large firms involved in packaging and marketing. This is the direction the sales and marketing program at Chuine Wildlife Conservancy will take

Branding and Certification

Branding and geographical indication

Geographical Indications (GI) is a form of Intellectual Property right that can contribute greatly in adding value to honey market. GI is an acknowledgement and promotion of origin of honey produced in different regions. It identifies products as originating from a territory or region which has a reputation for quality or high standards of production and marketing. For this to be effective, the quality reputation must be almost excusive or associated to the geographical area.

This has worked in internationally with other consumer products like tea and wine. Spain, Italy and South Africa are especially adept at geographical indication of their wines to a point that geographical source becomes much more important than the name of the product.

In Kenya, GI is a relatively new and weak concept but the Kenya Industrial Property Institute (KIPI) has in the past piloted geographical indication of some products like tea, coffee, honey, horticulture, handicrafts and others. But the country lacks a fully operational regulatory framework for this and the guidelines for it are vague. But Kenya Trade Marks Act (Cap 506) allows for protection of

origin products using collective and certification marks and this should open the way for branding of honey from Chuine Wildlife Conservancy.

In branding the honey it is important to bring out Baringo origins to be prominently associated with the name. And since the name Baringo for the product name may be hard to get approval, the best strategy would be to adopt the conservancy name as the product name, then use Baringo prominently as a tagline.

Examples:
CHUINE WILDLIFE CONSERVANCY HONEY - "a product of Baringo"
CHUINE WILDLIFE CONSERVANCY – "Baringo's best honey"
CHUINE WILDLIFE CONSERVANCY HONEY – "Nature's gift from Baringo"

While drafting this business plan, I had a quick look at the honey shelf in my local supermarket in Nairobi. One of the leading brands with geographical identity was "MAKUENI HONEY" and "THARAKA HONEY."

From Baringo, our local store has a brand called SESIA with a tagline:
"100% pure natural from Baringo."

For geographical indication to work, the regulatory agencies must authenticate the products using the geographical names to hoodwink the customers when in actual fact what they sell is adulterated honey from other locations. This will require strong lobbying by all honey processors and beekeepers especially from the areas of Baringo, West Pokot and Makueni which have a geographical reputation to protect

Certification
Together with branding comes certification. This is given by the Kenya Bureau of Standards (Kebs) and is subject to quality of the honey being produced.
To qualify for certification and to compete in the market, it's important to have a deeper understanding of the quality factors in honey.

Understanding Quality

Nectar – Honey quality starts from the quality of nectar. The colour and flavour of honeys differ depending on the nectar source visited by the honeybees. The colour ranges from nearly colourless to dark brown and the flavour varies from delectably mild to distinctively bold, depending on where the honeybees worked.

The properties of ideal bee forage are the production of large amounts of honey. Flowers must not only produce large amounts of nectar but the nectar must be accessible and produced at the correct time of the year. Moreover, the honey should have a pleasing colour and flavour and be slow to crystallize.

Honey factors - Factors affecting quality of a honey product:

- Honey must be clean and clear - no dirt, dead bees, wax, and dust, splinters of wood or ashes.
- Honey must have a good taste. It should not be too smoky or have a fermented taste. Chemicals and insecticides can affect the smell and taste of honey.
- Honey must have a good smell. Harvesting old dark combs and brood combs can affect the smell and colour of the honey. Over smoking the combs can also affect its smell.
- Honey must have a good colour – this depends upon the nectar source and age of the combs. Usually dark honey has stronger flavour and light coloured honey a more delicate flavour.
- The Presence of pollen can make the honey appear muddy or cloudy but is in fact highly nutritious and good for the body.

Indicators for verification - A good honey production process should be able to verify the chemical composition and especially the main parameters used for certification as summarized below:

Table 23. Indicators for verification of honey

Verifiable Indicator	Acceptable level
Moisture content	Not more than 20%
Fructose and glucose content	Not less than 60g/100g
Sucrose content	Not more than 10g/100g for most trees and flowers except lavender which should not be more than 15g/100g
Water insoluble solids content	Not more than 0.5g/100g
Heavy metals	Not exceeding the maximum levels as per the Codex Alimentarius Commission (http://www.fao.org/fao-who-codexalimentarius/en/)
Pesticide residues and veterinary drugs	Not exceeding the maximum levels as per the Codex Alimentarius Commission

Understanding End User and Competition

Branding and customer appeal

Once the honey is branded and the geographical source is attached to the brand, the next step is to understand why customers buy products. It has been said many times that customers' purchase decisions are 80% emotions and perceptions and only 20% facts and science.

While it is good to demonstrate quality of the honey produced, the next step is to win over consumer's feelings and emotions by having an appealing brand appearance. The packaging of honey produced will require services of competent designers with vast experience in branding FMCG. Factor to consider include:

- Shape of the bottle
- Different bottle sizes
- The name used and how easy it is to pronounce it
- Doing research on the name and its meaning in different languages in Kenya to ensure it doesn't have connotations that may discourage use
- Visual appeal of the label

Most honey in the market started with aluminum cans which have now been replaced by plastic round bottles in 1kg, 500g and 250 gm. The round bottles are now competing with slender bottles due to ease of use as explained below.

User experience

We have had many cases of consumer products failing because their use is not convenient to the customers. There was evolution of yoghurt packaging which has bothered manufacturers for a long time because customers complain about spillage at the time and point of use. So many products have faced this dilemma and consumer wrath and is the reason the bottle shape for honey has also undergone great evolution from aluminum cans, glass bottle to the plastic sleek squeezable bottles.

The most user friendly bottle today is where a cap is removed and the bottle is squeezed to release the honey and the cap is replaced with minimal spillage. User experience must think several things:

- Ease of opening
- Potential of spillage when using and the inconvenience to customer or waste
- The hygiene of the opening and the cap once opened
- How to regulate the amount being used without spillage
- Use by children

Sales and Distribution

A well branded product is good. But it has not sold until the next hurdle is overcome. It has to be presented to the consumers at their convenience. This sales and distribution process will constitute a major activity for this enterprise and business plan.

The following are proposed as the consumer end points:

Conservancy shop – This will need to be located within the conservancy. The assumption is that the conservancy will be developing physical infrastructures including offices and entrance gate. The proposal recommends that a space is devoted as part of the offices for sale of conservancy merchandise which may later include t-shirts, caps, jackets and also handcrafts from the local community.

Partner Hotels and restaurants – The conservancy will seek partnerships with strategic hotels in different parts of the country. The intention will be to either hire small convenient gift shops within these hotels and restaurants or supply the conservancy honey to them for sale in their own gift shops.

Supermarkets and convenient stores – For wider access to the consumers, it will be important to negotiate with several supermarkets and leading stores to supply them with the honey. The conservancy will start with local stores in close areas like Nakuru and Eldoret then move on to Nairobi, Mombasa and Kisumu which have bigger spending populations. And this does not need to have any pattern; the conservancy leaders and partners can assist introduction to any leading stores and consumer end points. This should also include the petrol stations, starting with the local ones to those in major highways.

Because of high competition, supplying a product to a store is not enough. The conservancy will need to create awareness by recruiting casual staff to create awareness in the stores which have been supplied. This can be done for a period of 6 months or one year depending on availability of resources.

Trade fairs – There are many trade fairs that are important platforms for dissemination of consumer information. The conservancy will partner with institutions like County Government of Baringo, BCCA/KWCA, KARI, Egerton University to keep a track of all trade fairs and events related to agriculture and general trade where there is chance to exhibit merchandise and create awareness on the conservancy and its honey product. Such forums include Agricultural shows in Kabarnet, Nakuru and Nairobi. There is also Bee keeping conferences, devolution conferences etc. The sales team will study the calendar of such events and focus on a few that the conservancy will concentrate on.

Online sales – The conservancy will be developing its own website to market its programs and activities to the rest of the world, especially to keep in touch with other conservancies and partners. The website will be used to receive inquiries and carry out awareness and education. A simple e-brochure will be developed which can be downloaded from the conservancy website to create consumer awareness on the honey and its products as well as the outlets it can found.

The conservancy will also seek liaisons with prominent online markets like JUMIA to market and sell the honey online to reach wider consumer base.

Project Operations and Training

Beekeeping at commercial scale is both exciting and with great economic prospects. But it also very delicate and requires thorough preparedness and institutional organization. Once the groundwork is done and resources are available, the conservancy will need to recruit a consultant to do the training and also offer regular extension work. The training program will cover all aspects of the project such as:

- **The Honeybee and Its Importance**
- Bee Biology and Behaviour
- The Importance of Beekeeping
- Pollination
- **Management of the Honeybee**
- Beekeeping Systems
- Beekeeping Equipment
- Making Beekeeping Equipment
- Apiary Management
- The Floral Calendar and Beekeeping
- Bee Stings and Management
- Hive Inspection
- Populating the Hive
- Catching a Swarm
- Transferring Bees
- Dividing and Uniting Colonies
- Feeding of Bees
- Bee Pests, Predators and Diseases
- Making Bio-Pesticides
- **Hive Products and Processing**
- Hive Products
- Quality Honey Harvesting
- Processing Honey
- Beeswax
- **Explanation of Common Beekeeping Terms**
- **Hygiene and Quality Maintenance**
- **Marketing Tips**

Different training consultants or extension firms may have different training modules and approaches. These are beyond the scope of this business plan.

Action Plan

The action plan is a summary of major activities that would be required to set up the business and their budget estimates as discussed by conservancy representatives. The conservancy may be required to develop more focused proposals or business plans targeting a particular item in the whole project.

The main actions and activities are summarized in table 25.

Table 24. Chuine Wildlife Conservancy Beekeeping Action Plan and Budget Estimate

ACTION	RESOURCES	OUTPUT	BUDGET ESTIMAT E (KSH.)
OBJECTIVE 1 - DEVELOP A SPECIFIC FUNDRAISING PROPOSAL TO RAISE FUNDS FOR THE BEEKEEPING PROJECT			
Activity 1.1: Collaborate with BCCA to identify potential donors	Staff time	Minutes of meetings	
Activity 1.2: Write and submit a project proposal	Staff time	Written proposal	300,000
OBJECTIVE 2 – CONSTRUCT PHYSICAL STRUCTURES FOR STORAGE, HONEY HARVESTING AND OFFICES			
Activity 2.1: recruit a beekeeping consultant to advise on nature and size of space needed and location of apiaries	Staff time Consultant fees	Consultant bids Consultant report and design	200,000
Activity 2.2: identify and recruit a contractor to construct the physical spaces	Staff time Contractors fees Materials costs	Constructed building with: Office Storage room Processing room	8,000,000
OBJECTIVE 3 – RECRUIT HONEY PRODUCTION AND PACKAGING TEAM			
Activity 3.1: identify the different roles or departments in the enterprise	Staff time Recruitment costs e.g. advertising	Business organogram	
Activity 3.2: identify staff profiles for respective departments	Staff time Consultant costs	Job descriptions	
Activity 3.3: recruit permanent staff and give contracts to casual staff Estimated staff needed: • 20 - Harvesting • 6 - Processing • 6 - Packaging • 1 - Supervisor • 5 - Security • 1 - Record keeping • 1 - Booking keeping/account • 4 – cleaners	Staff time Staff salaries	Employment contracts Deployed staff	895,000 per month = 10,740,000 per year
OBJECTIVE 4 – CONDUCT TRAINING ON BEEKEEPING AND HONEY HARVESTING AND STORAGE			
Activity 4.1: identify training consultant or institution	Staff time	Quotations from different trainers	
Activity 4.2: arrange the training venue and program	Staff time Consultant costs	Training report Knowledgeable staff	

Activity 4.3: conduct an exchange visit to a successful project site	Staff time Transport cost	Report on the exchange visit	564,000
OBJECTIVE 5 – PROCURE EQUIPMENT FOR BEEKEEPING AND HONEY HARVESTING			
Activity 5.1: identify the suppliers	Staff time	Bid reports	
Activity 5.2: work with consultant to determine number and locations for apiaries	Staff time Constant fees	Consultant design work	200,000
Activity 5.3: Procure and install apiaries at strategic location (see cost breakdown on table 25)	Staff time Procurement costs	Apiaries functioning	3,285,000
OBJECTIVE 6 – RECRUIT SALES TEAM AND DEVELOP SALES AND DISTRIBUTION PROGRAM			
Activity 6.1: Recruit the sales workforce Required staff: • 3 marketing 6 sales and distribution	Staff time Staff costs	Job descriptions Call for applications Appointment letters	195,000 per month
Activity 6.2: work with a consultant develop a brand name and image for the honey	Staff time Consultant costs	Approved brand and name	100,000
Activity 6.3: design packaging bottle for honey and shapes and packaging for other products	Staff time	Approved designs	100,000
Activity 6.4: Seek certification from Kenya Bureau of Standards	Staff time Certification costs	Certification stamp and licenses	200,000
Activity 6.4: identify distribution outlets and set budget to hire the identified spaces	Staff time	Sales program and proposal Hired outlets	600,000
OBJECTIVE 7 – CONDUCT REGULAR BOARD AND STAKEHOLDER MEETINGS TO REVIEW THE PROJECT			
Activity 7.1: Conduct meetings to review the project as follows: • 3 board meetings • 3 subcommittee meetings 2 stakeholder meetings	Staff time Board members time Meeting costs	Minutes of the meetings	200,000
OBJECTIVE 8- PROCURE VEHICLES AND PLANTS			
ITEM	**QUANTITY**	**PRICE PER UNIT(KSH)**	**TOTAL AMOUNT(KSH)**
Vehicles Land Rover Pick up Tractor	 1 1 1	 3M 2.2M 3M	 3,000,000 2,200,000 3,000,000
	Total		**8,200,000**
Total Budget Estimate	**Structures, Training and Equipment = Ksh. 12,549,000** **Staff costs =Ksh. 10,740,000 per year** **Vehicles =Ksh. 8,200,000**		

Table 25. Cost of apiary tools and equipment

ITEM	QUANTITY	PRICE PER UNIT (KSH)	TOTAL AMOUNT (KSH)
Hive Langstroth Kenya Top Bar Hive (KTBH) Bush Hive	 70 80 50	 6,000 5,000 7,000	 420,000 400,000 350,000
Honey Extractor Machine 3 frame manual		50,000	50,000
Harvesting Kit Bee Suit @ 4,000 Leather Gloves @ 1,000 Bee Brush @ 500 Hive Tool @ 500 Gumboots @ 1,200 Uncapping Fork @ 650	60 Kits	6,650	399,000
Honey Strainer Stainless Double Sieve	60	2,500	150,000
Bee Hive Stand	130	1,200	156,000
Stainless Smoker	50	4,000	200,000
Honey Press Machine	6	35,000	210,000
Warmer/ Pasteurizer Filtering/ Sieving tank Setting Tank Weighing Scale Refractor Meter	1 3 1 10 20	150,000 80,000 450,000 5,000 3,000	150,000 240,000 450,000 50,000 60,000
	Total		**3,285,000**

Risks and Mitigations

Risk in this context refers to uncertainties and potential pitfalls in the setting up of the commercial bee keeping enterprise in Chuine Wildlife Conservancy (Table 26).

Table 26. Possible risks and mitigation

TYPE OF RISK	POSSIBLE CIRCUMSTANCES	MITIGATIONS
Culture change risk	• Honey production remains a cultural practices in many places and communities may resist adoption of modern technology and market-oriented operations	• Conducting sensitization programs • Exposure programs for the communities
Resource outlay challenges	• The enterprise requires modern technology and infrastructures for harvesting and storage. Also training and marketing, all of which are pegged on initial capital outlay which may be challenging to raise	• Work with BCCA and KWCA to identify willing donors • Writing proposals to willing donors
Regulatory framework risk	• The government regulatory framework in beekeeping, packaging and branding of honey may change, causing unprecedented losses	• Legal consultation and working closely with institutions like BCCA, KWCA, to follow up on policy changes that affect conservancy enterprises
Project Design Risk	• The conception of the enterprise may miss important details and fail to resonate with the market. Critical issues include quality maintenance, branding, sales and distribution all of which must be done right for the project to succeed	• Involve qualified firms or consultants in every stage of designing the project
Donor dependency risk	• The project relies on getting a donor to inject funding to develop the product which is supposed to self propel commercially	• Aggressive marketing and operations to ensure internal revenue generation
Market sensitivity risk	• The market may face drastic changes in consumer tastes and preferences that may hinder effective penetration of conservancy products	• Working closely with market consultants to advise on every aspect of operations
Force Majeure Risk	• This is where negative events or changes happen that beyond the projections and control of anybody.	• Positive attitude and believe in success of the project

ANNEX 4: STAKEHOLDER PARTICIPATION IN PLANNING

List of participants at the Stakeholder Planning Workshop Held on 4th May 2021 at the Lake Bogoria National Reserve Headquarters

NAME	GENDER	ORGANIZATION	DESIGNATION	CONTACT	ID NO.
Charles Kiprop	M	Irong		0714250263	
Kiprono Lobolei	M	Kiborgoch	Vice Chairman	0711600050	
Raphael Kimosop	M	BCG Baringo		0723771887	22539397
Carolyne Mengich	F	SGP		0721888720	26314054
Joshua Komen	M	Irong		0724432748	10377991
Michael Mbelel	M	Chuine		0722527428	4536230
Jospeh Kipkurere	M	Chuine		0720407933	11379812
Samuel Kiptek	M	Irong	Vice Chairman	0724263495	7232564
Miriam Bogoria	F	Cheiwe		0710407398	4428776
Rodah Kangogo	F	Chuine	Member	0792163742	11843207
Raphael Seromei	M	Kiborgoch	Member	0727742733	2598229
Vicky Mbelel	F	Chuine	Warden	0717849477	29309421
Everline Chelimo	F	Irong	Committee	0716676364	13071499
Felistus Chemitei	F	Irong	Ranger	0720016107	35581924
Mary Chebii	F	Irong	Committee	0714854304	7899995
Augustine Koech	M	Irong	Ranger	0710710088	25819878
Wilson Rotich	M	Irong/ Reconcile F.O.	Manager/ Liaison officer	0723410481	22839253
Reuben M. Chebon	M	Irong	Secretary	0723466289	6343181
Susan Niki Jepkemoi	F	BCCA	Coordinator	0721481467	22920529
Sonkol Jemosop	F	Chuine Wildlife Conservancy	Treasurer	0706003143	23728250
Levi Kibet	M	BCCA	P. Assistant	0710796868	2779325
Margaret Tigamoi	F	Irong	Member	0723981929	11845032
Reuben Argot	M	Chuine Wildlife Conservancy	Community member	0716316894	4537642
Victor Kipngetung	M	Kiborgoch	Community member	0793784356	33809069
Kipchumba Kipteroi	M	Kiborgoch	Board member	0724393338	10744860
Raymond Kipkemei	M	Kiborgoch	Secretary	0727825638	20645708
Pauline Bogoria	F	Kiborgoch	Member	0712919891	11843199
Evaline Lorwai	F	Kiborgoch	Board member	0721540999	25222011
Raphael Kipsoi	M	Kiborgoch	V. Secretary	0724761467	24644970
Ivy Kibon	F	Kiborgoch	Treasurer	0715690362	27561776
Nicholas Rutto	M	Kiborgoch	Member	0722490104	10377702
Festus Kiptisha	M	O.O.P.	Chief	0713826240	21618496
James Kimaru	M	BCG	Warden	0722446262	20214082

List of participants at the Stakeholder Plan Validation Workshop Held on 28th May 2021 at the Lake Bogoria National Reserve Headquarters

NAME	GENDER	ORGANIZATION	DESIGNATION	ID. NO.	TELEPHONE NUMBER
	F	Kiborgoch Wildlife Conservancy	Member	25222011	0721540999
Kipchumba Kipteroi	M	Kiborgoch Wildlife Conservancy	Board member	10744860	0724393335
Raphael Kipsoi	M	Kiborgoch Wildlife Conservancy	Asst. Secretary	24644970	0724751967
Felistus Chemitei	F	Irong Wildlife Conservancy	Ranger Cons.	35581924	0720016107
Kiprono Lobolei	M	Kiborgoch Wildlife Conservancy	Vice Chair	22759917	071160010
Pauline Bogoria	F	Kiborgoch Wildlife Conservancy	Board member	11843197	0712919871
Sharon Kipterem	F		Student -Intern	38292265	079725754
Raymond Kipkemei	M	Kiborgoch Wildlife Conservancy	Secretary	20641708	0727820638
Victor Kipngetuny	M	Kiborgoch Wildlife Conservancy	Member	33809969	0793784356
Ivy Kibon	F	Kiborgoch Wildlife Conservancy	Treasurer		
Nicholas Rutto	M	Kiborgoch Wildlife Conservancy	Member		
Festus Kiptisha	M	O.O.P.	Chief	21618496	0713826240
Vicky Mbelel	F	Chuine Wildlife Conservancy	Warden	29309421	0717849477
Naomi Aengino	F	Student KWSTI	Student-Intern	37809512	0729760868
Joel Kibet	M	Chuine Wildlife Conservancy	Secretary	10081542	0720934842
Jackson Menotano	M	Chuine Wildlife Conservancy	Manager	22540925	0721358082
Enock Kipchumba	M	Student KWSTI	Student-Intern	37870195	0701480360
Reuben Chebon	M	Irong Wildlife Conservancy	Secretary	6343181	0723466289
Samwel Kiptek	M	Irong Wildlife Conservancy	Vice chair	7232567	0716809454
Evaline Chelimo	F	Irong Wildlife Conservancy	Committee	13071479	0716676364
James Kimaru	M	BCG	Warden	20214052	0722446262
Charles Kiprop	M	Irong Wildlife Conservancy	Committee	20232057	0714250268
Augustine Koech	M	Irong Wildlife Conservancy	Ranger	25819878	0710710088
Wilson Rotich	M	Irong Wildlife Conservancy	Manager	27839253	0723410481
Apollo Kariuki	M		Planning consultant	7155055	0722779293
Daniel Njaga	M		Consultant	5789548	0720950500
William K. Kimosop	M	BCG	Chief Warden	7400555	0720317760

ANNEX 5: STAKEHOLDER IDENTIFICATION AND CATEGORIZATION

BENEFICIARIES	IMPLEMENTERS	PARTNERS	POLICY MAKERS	OPPONENTS
• Community • Researchers • Visitors • County Government of Baringo (CGB) • KWS • Ministry of Tourism and wildlife	• Conservancies Management Committees	• BCCA • KWCA • FAO • KWS • NRT • IUCN • CGB • Reconcile • NMK • UNDP • WWF • Nature Kenya • USAID • KFS • UNESCO • Research Institutions • ICRAF • KARLO • KEFRI • GEF • NEMA • WRUAs • World Vision • WRA • KENTEC	• CGB • KWS • NEMA • Ministry of Agriculture, livestock and Fisheries • Ministry of Tourism and Wildlife	• Poachers • Land grabbers

Annex 6: Resource mapping in Chuine, Kiborgoch and Irong Wildlife Conservancies and surrounding areas

Resources in Chuine Wildlife Conservancy

RESOURCE	LOCATION
Water springs	Arusto Kurche
Water pan	Korongoro
Campsite	Kapteyo Kurumpop Chumo
Cultural site	Kurumpop Chumo
Air Vent	Chelumet
Mineral sites (Ruby)	Katum
Nature Walks	Mutaran
View points	Mutaran Lorige
Rangers base	Demonstration plot at Sanctuary
Apiary	Lepeelkoi
Rivers	Waseges
Canal	Kapleyo
Farmland	Kapleyo
Salt licks	Demonstration plot
Roads/ routes	Infrastructure
Gorge	Kurche cable car
Proposed investment area	Labelkoi
Escarpment (Scenery)	Lekiptak
Butterflies	Butterfly camp
Wild animals	Greater Kudu, Zebra, Buffalos, Klipspringer, Eland, Gazelle, Ostrich, Leopard, Dik Dik, Hare, Baboon, Monkey

ANNEXES

Resources in Kiborgoch Wildlife Conservancy

RESOURCES	NAME	LOCATION
Springs	Lorwai springs Chebulunye springs	
Water pans	Baskenik water pan	
Streams	Kapchepsoiyo	
Water canals	Kapkuikui tirion	
Salt licks	Lorwai salt lick Kutwe salt lick	
Grazing areas		Sandai, Kapkuikui & Loboi
Forest areas	Kapchereren	
Sand harvesting	Chepkornis stream Kapchepsoiyo stream	Kapkuikui Kaptombes
Aloe vera		Kapkuikui, Kaptombes & Sandai
View points	Barkiat Kutwe	
Cultural sites	Tirion cultural sites	
Hiking /nature walk	Kutwe hiking trail Barkiat Nature trail at Tirion gate	
Canopy walks	Kapchereren Baskeinik kapchebiliel	Kaptombes Sandai mbechot
Camp site	Baskeinik Ngenyin	
Infrastructural resources	Proposed ngenyin air strip	Kaptombes
Road network	Tirion –Oinabkoik Flamingo triangle –Loboi gate Loboi –Kapkuikui-Kaptombes- Marigat tarmac road	
Schools	Chelaba primary school Kapkuikui pry school Kaptombes primary school Tembererwee pry. School Tuiyono pry school Chepkotoyan pry school	Chalaba Kapkuikui Kaptombes Sandai Sandai Mbechot
Cattle dips	Loboi Kapkuikui sokoteiywo	Maji ndege Kapkuikui mbetchot
Churches	AIC Kapkuikui Catholic Kapkuikui AIC Chelaba AIC Maji ndege FGCK Kaptombes AIC Kaptombes AGC Tuiyono Catholic Chepkotoyan AIC Tebererwee AIC Chepkotoyan	Kapkuikui ,, Chelaba Maji ndege Kaptombes ,, Sandai Mbechot Sandai Mbechot
Police station	Loboi police post	Maji ndege
Abattoirs	Loboi slaughter house	Maji ndege
Hospitals	Kapkuikui dispensary Loboi dispensary	Kapkuikui Maji ndege
Urban centres	Sandai centre Loboi centre Kapkuikui market Katin market Kaptombes market	Sandai Maji ndege Kapkuikui Mbechot Kaptombes

Resources in Irong Wildlife Conservancy and surrounding areas

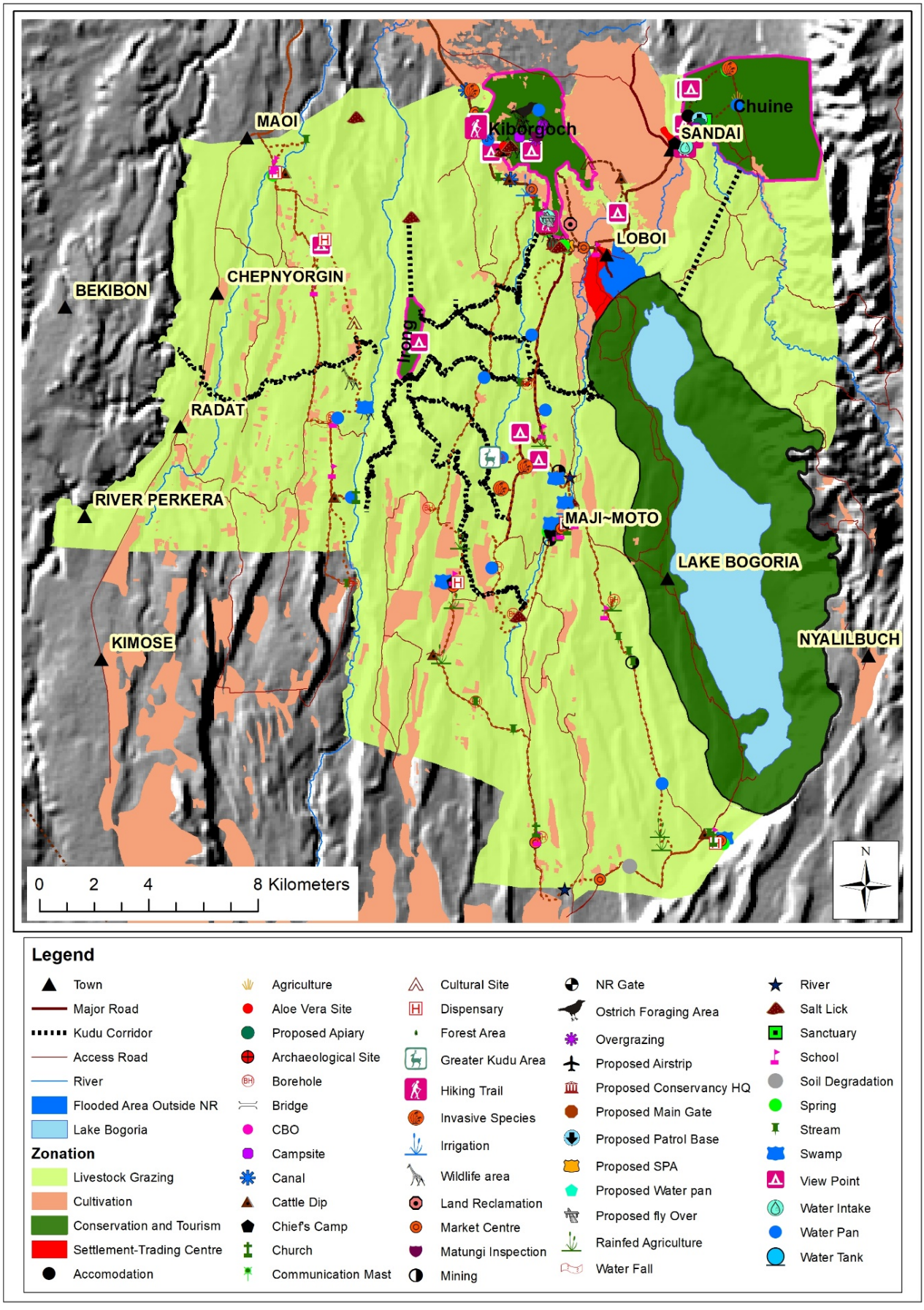
RESOURCES	NAME	LOCATION
Springs	Maji Moto	Kaibos
	Emsos	Kaibos
	Sukta	Kaibos Soi
	Njoraa	Loboi
	Sukutek	Loboi
	Lorwai	Loboi
	Ng'empo ware	Loboi
Dams	Cheule	Kapkuikui
	Kipchebii	Kapkuikui
	Mutaran	Kapkuikui
	Kaptombes	Kapkuikui
	Kiptek/Ngubelia	Loboi
	Chelaba	LoboiKapkuikui
	Tuwetye	Kapkuikui
	Chepkoimet	Loboi
	Susubitie, Sarakwa	Kaibos Soi
	Kapkomorwo	Kaibos Soi
	Molos, Kamar	Kamar
	Tabartap Chumo	Kamar
	Tingtingyon	Kamar
	Lengnane	Kamar
	Maji Nyekundu	Kamar
	Karekuu	Kaibos
	Kochabai/ Shewa	Kaibos
	Chepng'anyan/ Sosiche	Kaibos
	Kaptelin	Kaibos
Rivers	Molok	Kaibos Soi, Kapkuikui, Loboi
	Maji Moto	Kaibos
	Loboi	Loboi
	Emsos	Kaiboi
Streams	Chepkornis	Kaibos, Loboi
	Tuyobei	Kaibos
	Cheule	Kapkuikui
	Mokwo	Kamar
	Chebaran	Koibos Soi
	Krisiko	Koibos Soi
Swamps	Kamar	Kamar
	Chepsito	Kaibos
	Njoraa	Loboi
	Emsos	Kaibos
	Kapnorok	Koibos Sol
Boreholes	Kapkuikui, Tabarweche	Kapkuikui
	Chepkoimet	Loboi
	Kabarbaya/ Kapyemit	Kaibos
	Shewa/Sesoche	Kaibos
	Kamar, Molos	Kamar
	Kapkirioi, Lelnane	Kamar
	Maji Nyekundu	Kamar
	Tamon	Kamar
	Mutaran	Koibos soi
	Radad	Koibos soi
	Konoshoto	Koibos soi
	Lelen	Koibos soi
	Kaplelwo (2)	Koibos soi
	Molok (proposed)	Koibos soi
	Letoi (proposed)	Koibos soi

ANNEXES

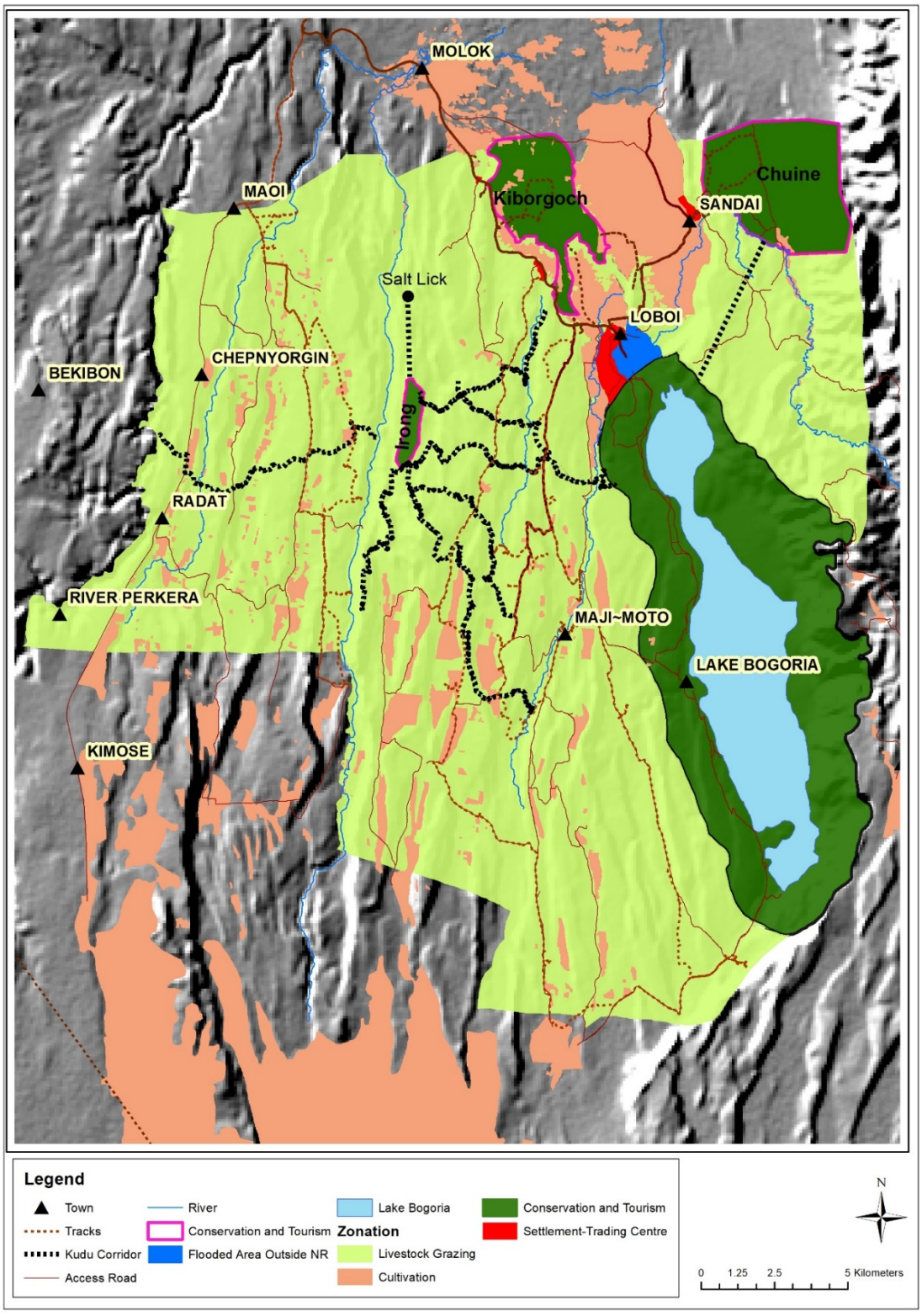
RESOURCES	NAME	LOCATION
	Chepnyorgin	Koibos soi
Wildlife (a) Greater Kudu	Lelbatai, Chesoromit, Kiptek	Koibos soi, Loboi
	Kapchebor	Kapkuikui
	Ajokoro	Kapkuikui
Salt Lick	Kipkaptoi	Koibos soi
	Sukutek	Loboi
	Chepsito	Kaibos
	Tamon	Kamar
Grazing Area **i) Wet season** **Dry season**	i) Around settlement areas. ii) Irong, Swamps, Kamuryang hills, Lelbetai, Chepsito Swamp, Kapnorok Swamp, Kamar Swamp,.	
Forest Areas	Irong Hill Lelbatai Hill	Kapkuikui Kaibos soi
Archaeological site	Irong Bogoria Archaeological Fortress	Kapkuikui
Mining Areas	Chemutung (quarry)	Koibos Soi
	Maji Moto (quarry)	Kaibos
	Kober	Kaibos
	Sosiche	Kaibos
	Kamar	Kamar
Agricultural Area **Rainfall**	Kabarbaya, Emsos, Koibos, Irong, Poi, Tabarweche, Kamar, Koibos soi, Lelen, Kapnorok, Sembel, Molok, Chepmorgin, Kaptelwo, Radad, Sarakwa	
Irrigation	Sukutek, Maji Moto, Emsos	Loboi Kaibos Kaibos
Geysers	Lokuru	Kaibos
Valleys	Leleni, Sembeli, Loboi, Tarbaweche,	
Cultural sites	Archaeological site, Kaptombes	
Waterfalls	Teren	Koibos Soi
Caves	Archaeological site, Kebene, Tarkwen	Kapkuikui
Hiking Trails, Nature walks	Koibos, archaeological site, Irong, Lelbatai	
Ecolodge	Netpond	
Camping sites	Archaeological site, Sirimta, Emsos	
Road networks	Kaptombes-Tabarweche Kaptombes-Poi Kapkuikui-Chepkoimet Maji Moto-Shewa-Kamar Kaplelwa-Lelen-Molok-Chemutung Molok-Irong	Irong Irong
Schools	Kapkuikui, Tabarweche ECD Kaplelwo, Lelen, Molok, Letoi, Chemuting, Radad, Chepngargin, Kenoshoto Maji Moto, Emsos, Kapuyami*, Sosiche, Shewa Polytechnic	Kapkuikui Koibos soi

RESOURCES	NAME	LOCATION
Churches	Kamar, Molos, Maji Nyekundu, Kapkuikui Catholic, AIC Kaptombes, AIC Maji Moto, FGCK,	
Urban Centers	Kapkuikui Maji Moto Kamar, Molos Radad Molok	
Livestock Infrastructure	Maoi slaughterhouse Chebaran cattle dips Sarakwa cattle dip Maji Moto, Emsos cattle dip Tingtingyon cattle dip Molos cattle dip	
Health Infrastructure	Maji Moto Emsos Kamar Molos Molok Radad Kapkuikui	
Security	Chief office Maji Moto Chief office Koibos soi- Radad Chief office Kamar	
Research Information	Lake Bogoria education centre	

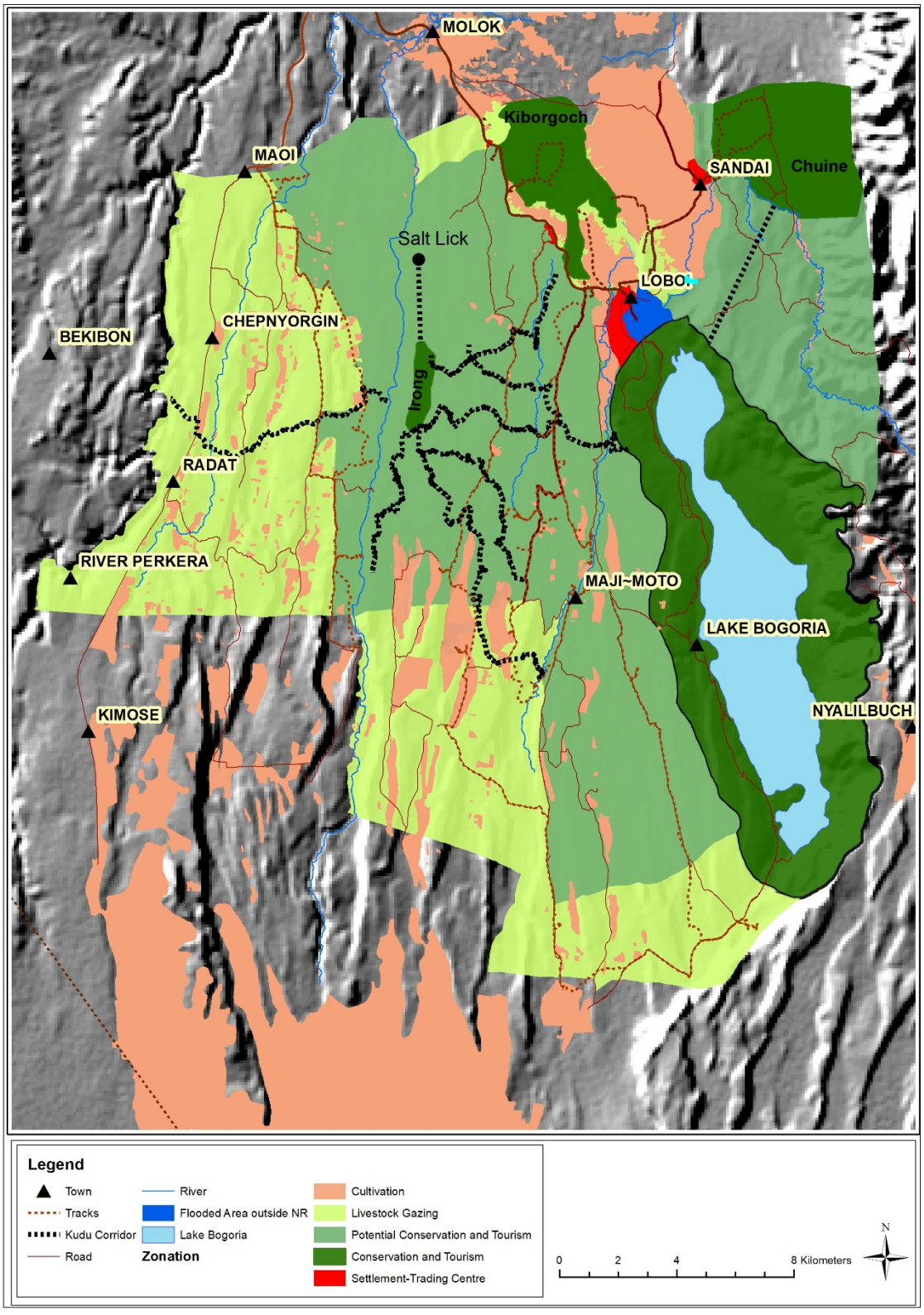
The Greater LBCL resource map



ANNEX 7: CURRENT LAND USE IN THE GREATER LBCL



ANNEX 8. PROPOSED LAND USE ZONING IN THE GREATER LBCL



ANNEX 9: LAKE BOGORIA NATIONAL RESERVE CHECKLIST OF MAMMALS

COMMON NAME	SCIENTIFIC NAME	REMARK
Greater kudu	*Tragelaphus strepsiceros*	Threatened
Cape buffalo	*Syncerus caffer*	Rarely seen
Impala	*Aepyceros melampus rendilis*	Common
Grants gazelle	*Gazella granti*	Common
Dikdik	*Rhynchotragus kirki*	Common
Klipspringer	*Oreotragus oreotragus*	Rare
Blue duiker	*Cephalophus caeruleus*	Rare
Yellow – backed duiker	*Cephalophus silvicultor*	Rare
Anubis baboon	*Papio anubis*	Common
Leopard	*Panthera pardus*	Very rare
Serval cat	*Felis (Leptailurus) serval*	Very rare
Wildcat	*Felis (Sylvestris) libyca*	Very rare
Common waterbuck	*Kobus ellipsiprymnus*	Rare
Wart hog	*Phacochoerus aethiopicus*	Common
Bush pig	*Potamochoerus porcus*	Common
Common jackal	*Canis aureus*	Common
Spotted hyena	*Crocuta crocuta*	Rare
Stripped hyena	*Hyaena hyaena*	Rare
Bat-eared fox	*Otocyon megalotis*	Rare
Burchell's zebra	*Equus (Hippotigris) burchelli*	Common
Patas monkey	*Erythrocebus patas*	Rare
Vervet monkey	*Cercopithecus pygerythrus*	Common
Cheetah	*Acinonyx jubatus*	Rare
Aardvark	*Orycteropus afer*	Rare

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