



LAKE BOGORIA NATIONAL RESERVE

Management Plan, 2019 - 2029



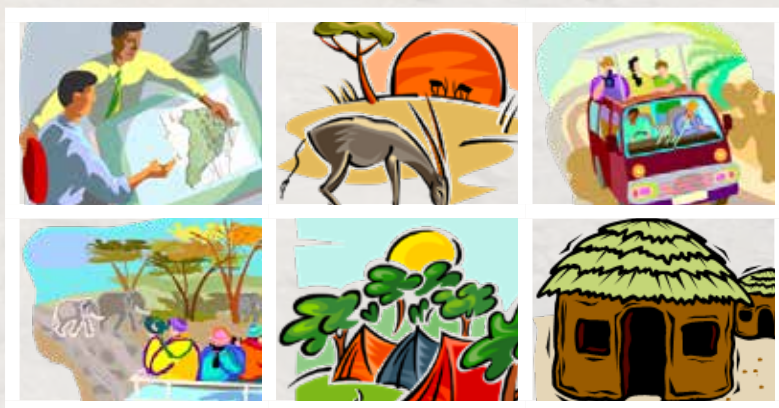




Lake Bogoria National Reserve Management Plan, 2019-2029

Planning carried out by
LBNR Managers
LBNR Stakeholders
&
Kenya Wildlife Service
In accordance with the

PROTECTED AREAS PLANNING FRAMEWORK



ACKNOWLEDGMENTS



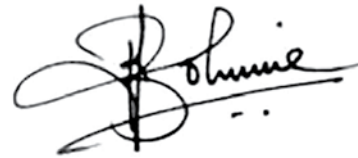
This General Management Plan has been developed through a participatory planning process involving a cross-section of Lake Bogoria National Reserve (LBNR) stakeholders, under the coordination of a Core Planning Team comprising representatives from: LBNR management, Baringo County Government (BCG), Endorois Welfare Council (EWC), and Kenya Wildlife Service (KWS).

Funding for the planning process was provided by KWS through the GEF-funded and UNEP implemented project titled “Developing the Microbial Biotechnology Industry from Kenya’s Soda Lakes in line with the Nagoya Protocol”. The project is implemented jointly by KWS, University of Nairobi, Kenya Industrial Research and Development Institute, Moi University, Rivatex East Africa Limited, Jomo Kenyatta University of Agriculture and Technology, Dudutech, BCG, and local communities within the soda lakes area. The BCG and KWS co-funded the planning process, while GIZ-Access and Benefit Sharing (ABS) Initiative, through EWC, funded the Bio-Cultural Protocol (BCP) and some of the community engagement processes.

Planning technical assistance was provided by KWS through its Biodiversity Planning and Environmental Assessment Department.



APPROVAL PAGE

<p>The Baringo County Government has approved the implementation of this Management Plan for Lake Bogoria National Reserve</p>			
			
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Date: 21 October 2020		Date: 21 October 2020	

EXECUTIVE SUMMARY

This 10-year (2019-2029) management plan for Lake Bogoria National Reserve has been developed in accordance with Section 44 and The Fifth Schedule of the Wildlife Conservation and Management Act, 2013. It is also based on KWS Protected Area Planning Framework (PAPF), the planning standard for preparing Protected Area (PA) management plans. In line with the PAPF, this plan has been developed in a highly participatory manner, incorporating and building on ideas from a broad cross-section of LBNR stakeholders.

To fulfill the Plan's functions, the LBNR plan structure has been developed to be as simple as possible, and as such, easily understood by stakeholders and implemented by LBNR management. The following points summarise the plan's main chapters:

- **Introduction.** This chapter introduces the PAPF planning process used to develop the plan, and describes the plan's functions, structure and stakeholder participation mechanisms.
- **Plan Foundations.** This chapter provides an introduction to the LBNR, its location, exceptional resource values, and major management issues of concern. It sets out the LBNR's Purpose Statement, which explains why the LBNR has been established as a protected area.
- **LBNR Zonation Scheme.** This chapter sets out areas of the LBNR where different types of land uses are permitted. The scheme also describes the management sectors that the LBNR is divided into to facilitate efficient and effective management.
- **The Four Management Programmes.** The main bulk of the plan is divided into four management programmes:
 - **Ecological Management Programme**
 - **Tourism Development and Management Programme**
 - **Community Partnership and Outreach Programme**
 - **Protected Area Operations Programme**

LBNR Purpose Statement

The purpose of the LBNR is:

To protect and conserve the scenic Lake Bogoria and its associated wildlife biodiversity, especially the rare and threatened species, and perpetuate the traditional livestock management systems that support conservation for the benefit of present and future generations

Exceptional Resource Values (ERVs)

The ERVs for the Lake Bogoria National Reserve and its ecosystem describe the area's natural resources and other features that offer outstanding benefits to local, national and international stakeholders. ERVs are critical to long-term maintenance of the area's socio-ecological characteristics. The ERVs are categorized as: Biodiversity, Scenic, Social, and Cultural (see table below).

LBNR's Exceptional Resource Values

<i>Category</i>	<i>Exceptional Resource Value</i>
Biodiversity	➤ Extraordinary soda lake ecosystem processes and trophic dynamics
	➤ Exceptionally diverse bird fauna, including rare and endangered species
	➤ World's largest congregations of lesser flamingos
	➤ Crucial flyway for bird migration
	➤ Diverse assemblage of mammals, including rare and endangered species
	➤ Vegetation mosaic
	➤ Extremophiles
Scenic	➤ Outstanding natural beauty
	➤ Exceptional geo-morphological features of the Great Rift Valley
Social	➤ UNESCO World Heritage Site
	➤ Ramsar Site
	➤ Important Bird Area
	➤ Water catchment
	➤ Livestock grazing area
Cultural	➤ Ethnic and cultural diversity
	➤ Endorois culture
	➤ Cultural and historical sites

Key Conservation Issues and Threats

The issues of concern at LBNR are:

Issue 1: Degradation of lake catchment areas, soil erosion and siltation

Issue 2: Use of water from upstream catchment areas and groundwater aquifers

Issue 3: Pollution and eutrophication

Issue 4: Small size and ecological isolation

Issue 5: Ecological change in other Rift Valley lakes

Issue 6: Invasive alien species

Issue 7: Livestock grazing pressure

Issue 8: Climate change

Issue 9: Infrastructure development

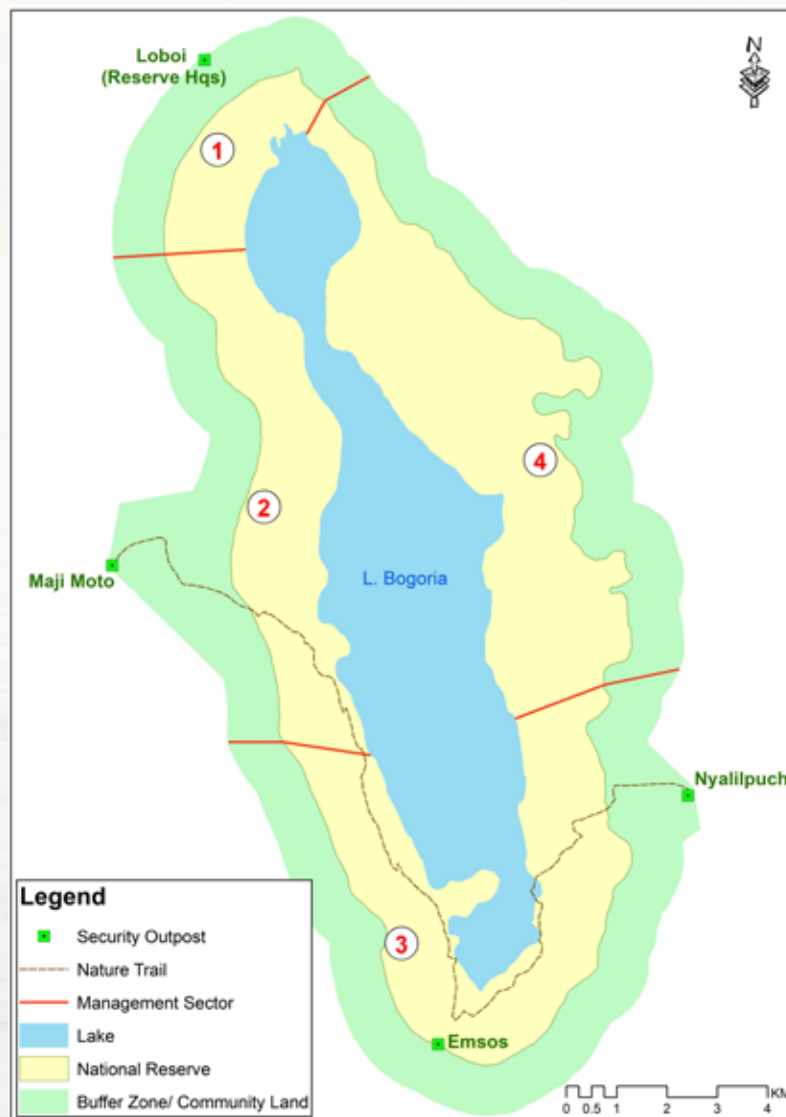
Issue 10: Oil and gas exploration and development, and mining

Issue 11: Lack of an effective benefit sharing mechanism on access and utilisation of genetic resources and traditional knowledge

LBNR Zoning Scheme

The LBNR zonation scheme provides a dual framework aimed at supporting management of the protected area and the regulation and promotion of multiple land uses across the area. To achieve this, the LBNR and its immediate adjacent area have been divided into seven land use zones and four management sectors. Each of the four management sectors is managed from a Sector Headquarter, which is delegated management authority over the sector concerned. Each visitor use zone will focus on providing a different type of tourism experience.

The LBNR has four management sectors aimed to increase management presence and infrastructure development and security across the entire LBNR. The location of the four sectors and their headquarters are shown in figure below.

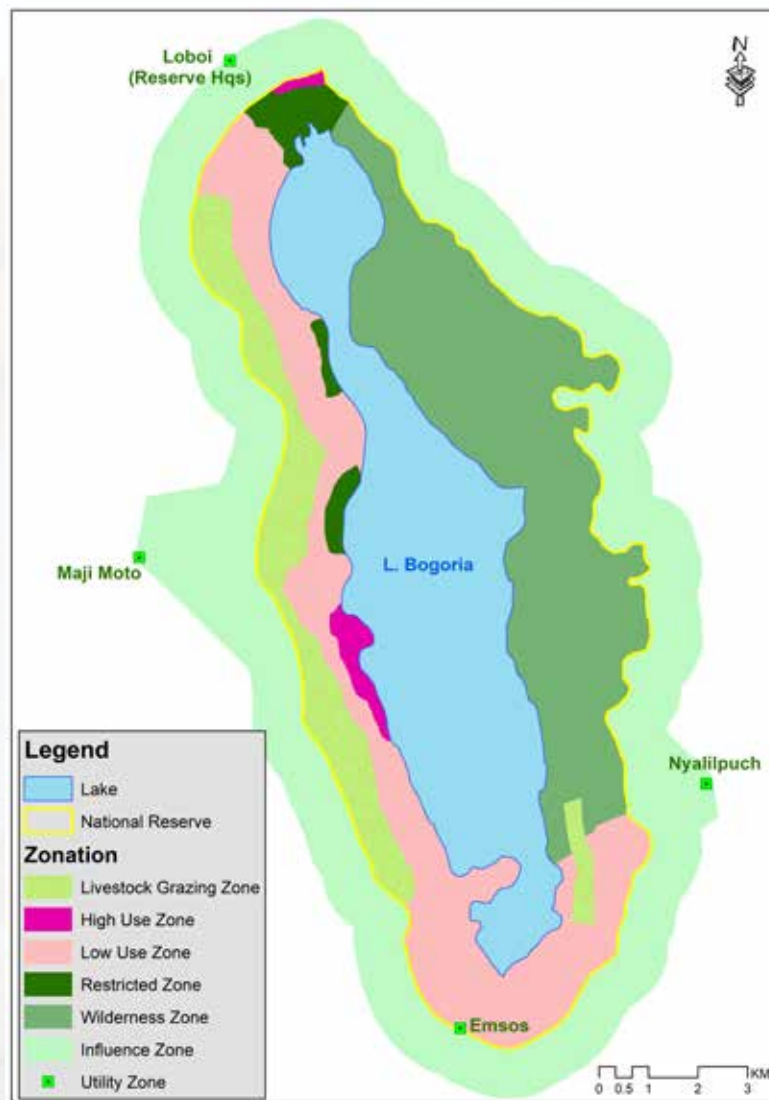


LBNR Management Sectors

The LBNR use zonation provides a framework aimed at the protection of environmentally sensitive areas and regulation and promotion of visitor use across the PA. In addition, it allows community livelihood activities that are compatible with conservation, such as livestock grazing and bee keeping.

To accommodate present and future land uses, LBNR has been divided into seven zones:

- **High Use Zone** chiefly focuses on the PA's high volume tourism product;
- **Restricted Zone** is established to protect environmentally sensitive areas, such lake shores and swamps, wildlife breeding areas, wildlife corridors, bird roosting, and nesting areas;
- **Livestock grazing zone** is established to provide areas for livestock grazing during extreme drought. Bee keeping is promoted in this zone;
- **Utility zone** is established to provide areas where park administration infrastructure such as offices and staff houses can be constructed; and
- Finally, an **influence zone** is established in the areas adjacent to the reserve for promotion of conservation-compatible activities.



LBNR Land Use Zoning

Management Programmes

The plan has four management programmes (Ecological, Tourism, Community, and Operations) which are briefly discussed below:

Ecological Management Programme

The purpose of the Ecological Management Programme is to ensure that *“ecological systems critical to sustenance of LBNR and its species of conservation concern are understood, restored and conserved”*. The management objectives that have been designed to achieve the programme purpose focus on improving management of important LBNR habitats; protecting forests and river systems in the greater LBNR landscape in collaboration with other stakeholders; and monitoring and understanding ecological trends and threats.

The priority actions that will be implemented under this programme are: conduct waterfowl census; establish status of large carnivores; develop a Greater Kudu Conservation Strategy; minimize impacts of livestock grazing; control invasive species; rehabilitate and restore critical habitat; provide alternative water sources; and conduct biannual animal census.

Tourism Development and Management Programme

The purpose of the Tourism Development and Management Programme is “to make LBNR an outstanding tourist destination offering premium visitor experience and variety while supporting conservation and local communities”. To achieve this purpose, the management objectives have been designed focusing on: diversifying tourism product in LBNR to give a variety of activities and experiences; improving visitor administration and management; intensifying and modernizing marketing of LBNR to give its unique features more considerable publicity and tourism value; exploiting and widening investment opportunities area coverage to endear the destination to more people and boost revenue generation; and developing and upgrading tourism-support infrastructures in LBNR to ease management, visitation and enjoyment.

The priority actions under this programme include: upgrade Hannington Trail; rehabilitate existing campsites and develop a few others; develop adventure tourism products like rock climbing, boating, walking safaris; develop a lakeshore boardwalk, viewing platform and bird hide; develop and equip Visitor Education Centre; introduce a tour bus; develop tourist accommodation facilities; install modern sanitation and washroom facilities at all the gates, hot springs and other visitor points; provide ample vehicle parking areas; and upgrade reserve entry gates.

Community Partnership and Outreach Programme

The purpose of the Community Partnership and Outreach Programme is to ensure that “Community support for conservation and participation in conservation-compatible land uses across the greater LBNR landscape is enhanced”. The management objectives that have been designed to achieve this purpose focus on: strengthening LBNR-community communication and collaboration mechanisms; reducing Human-Wildlife Conflict incidences; enhancing community benefits from the LBNR; promoting sustainable conservation-friendly land uses in the greater LBNR landscape; and improving community understanding and awareness of LBNR conservation.

The priority actions that will be implemented under this programme include: Revive the Joint Management Committee (JMC); strengthen collaboration between LBNR management and Endorois Community; devolve natural resource conservation and management to communities through the conservancy concept; coordinate activities of partners in the greater LBNR Landscape; work with KWS Problem Animal Management Unit; establish anti-venom banks; list wildlife incidents as emergencies; adopt and implement the Endorois Community bio-cultural protocol; provide the Endorois access to cultural and sacred sites in LBNR and adjacent areas; develop guidelines on access to genetic resources and associated knowledge and sharing of benefits arising from the utilisation of these resources; determine access to extractives and share of benefits arising; review and strengthen the existing benefit sharing mechanisms; lobby BCG for enhancement of the community grant; establish new wildlife conservancies and support existing ones; and operationalise Lobo Dry Land Environmental Education Centre.

Protected Area Operations Programme

The purpose of the PA Operations Programme is to ensure that “LBNR operational systems and structures are effectively and efficiently supporting the achievement of the reserve’s purpose and delivery of its management programmes”. The management objectives that have been designed to achieved this purpose focus on: formalizing and strengthening institutional collaborations; improving performance and motivation of LBNR staff; improving infrastructure, transport and communications to support PA management and tourism development; mobilising resources for effective management; and enhancing security of LBNR.

The priority actions that will be implemented under this programme include: establish a LBNR Joint Management Committee; collaborate with County Security Committees to control illegal encroachment and insecurity in LBNR; recruit more staff; train staff in relevant skills; construct, rehabilitate and maintain LBNR roads; construct, rehabilitate and maintain buildings; procure and maintain vehicles, plants and equipment; improve telecommunications; mark the Reserve boundary; provide utilities e.g. water, electricity and sanitation to offices and residential houses; carry out intense security patrols; and strengthen patrol outposts.

Plan Implementation, Monitoring and Evaluation

The management plan sets out activity plans for the first three years of plan implementation. These activity plans are designed to provide the basis for annual work planning by LBNR managers, and form the vital link between the management plan's 10-year objectives and actions and the day-to-day management activities in the PA. The plans also provide LBNR managers with a clear and consolidated summary of management activities to be carried out under each programme, who is responsible for implementing them, and when this should take place. After the first three years, a review will be carried out to assess the status of plan implementation and thereafter, a new three year activity plan will be prepared.

Monitoring and evaluation will be continuous throughout the plan period. The monitoring component will include:

- Evaluating the implementation of activities by evaluating progress reports, work plans; stakeholder involvement and participation;
- Monitor and evaluate the impact of management prescriptions;
- Monitor budget allocations, expenditure and accounting procedures;
- Monitor and evaluate the environmental status of the Lake and its catchment through use of ecological, social and economic indicators;
- Monitor and evaluate the responsiveness to the education and awareness initiatives; and
- Monitor and evaluate the extent of security activities in the reserve.

The responsibility of monitoring and evaluation lies with the JMC and the BCG.

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ACRONYMS

AEWA	African Eurasian Migratory Water bird Agreement
ASK	Agricultural Society of Kenya
BCG	Baringo County Government
BCP	Bio Cultural Protocol
CAP	Conservation Action Planning
CBO	Community Based Organisation
CEC	County Executive Committee
CFA	Community Forest Association
CIDP	County Integrated Development Plan
CPT	Core Planning Team
CSR	Corporate Social Responsibility
CTDMP	County Tourism Development and Management Policy
EMCA	Environmental Management and Coordination Act
ERV	Exceptional Resource Value
EWC	Endorois Welfare Council
FAO	Food and Agriculture Organization of the United Nations
HWC	Human Wildlife Conflict
IBA	Important Bird Area
JMC	Joint Management Committee
KCB	Kenya Commercial Bank
KEA	Key Ecological Attribute
KFS	Kenya Forest Service
KMD	Kenya Meteorological Department
KTB	Kenya Tourism Board
KWS	Kenya Wildlife Service
LBNR	Lake Bogoria National Reserve
MCA	Member of County Assembly
MOU	Memorandum of Understanding
NEMA	National Environment Management Authority
NGO	Non Governmental Organisation
NK	Nature Kenya
NLC	National Land Commission
NMK	National Museums of Kenya
OB	Occurrence Book
PA	Protected Area
PAC	Problem Animal Control
PAPF	Protected Areas Planning Framework
PIC	Prior Informed Consent
TNC	The Nature Conservancy
UNESCO	United Nations Educational Scientific and Cultural Organization
WCMA	Wildlife Conservation and Management Act
WRA	Water Resources Authority
WRUA	Water Resource Users Association
WWF	World Wide Fund for Nature



CHAPTER 1

INTRODUCTION



1.1 The Plan

This 10-year (2019-2029) management plan for Lake Bogoria National Reserve has been developed in accordance with Section 44 and The Fifth Schedule of the Wildlife Conservation and Management Act, 2013. It is also based on KWS Protected Area Planning Framework (PAPF), the planning standard for preparing PA management plans. In line with the PAPF, this plan has been developed in a highly participatory manner, incorporating and building on ideas from a broad cross-section of LBNR stakeholders.

Plan functions

PAPF-based plans are primarily designed to be a practical management tool supporting PA managers in carrying out their duties. They achieve this aim by providing strategic guidance on the goals towards which management is working, and a series of prescriptions and management actions that need to be implemented to achieve these aims. In line with this, the following points set out the key functions of the LBNR Management Plan.

The LBNR Management Plan (2019-2029) is designed to:

- ▶ **Vision:** Set out a common understanding between stakeholders of the purpose of the LBNR and its most important values, towards which all management action in the PA will be focused;
- ▶ **What:** Establish clear management objectives that are agreed by the LBNR stakeholders and managers and that, if achieved, will ensure the PA purpose will be fulfilled and exceptional values conserved;
- ▶ **How:** Provide clear and unambiguous guidance and a rationale for the specific management actions that PA Managers will need to implement over the 10-year timeframe of the plan to achieve the management objectives;
- ▶ **Where:** Define a mechanism for PA zoning to enable different types and intensities of use in different parts of the LBNR, thereby facilitating reconciliation of the LBNR's sometimes competing conservation and development objectives;
- ▶ **When:** Provide a detailed activity plan for the first three years of implementing the management plan, thereby establishing a crucial link between the plan's long-term management objectives and the annual operational planning and budgeting routinely carried out by PA Managers;
- ▶ **Who:** Provide a practical framework enabling the collaboration of PA managers and other institutions and stakeholders in implementing the plan; and
- ▶ **Rules:** Set out clear and unambiguous prescriptions and regulations on what can and cannot occur in different parts of the LBNR in order to achieve the PA's management objectives and fulfil its purpose.

The Plan is NOT designed to:

- ▶ Provide a comprehensive reference source for the LBNR, with detailed background information on the area's biodiversity, ecology, geology, soils, etc;
- ▶ Set out a detailed inventory of issues or problems impacting the LBNR, that are not directly addressed through the plan's management objectives and actions; and
- ▶ Provide detailed descriptions of the PAs management, administration, and national policies, unless they are relevant to the plan's management objectives and actions.

Plan structure

To fulfil the Plan's functions, the LBNR plan structure has been developed to be as simple as possible, and as such, easily understood by stakeholders and implemented by LBNR management. The following points summarise the plan's main chapters:

- ▶ **Introduction.** This chapter introduces the PAPF planning process used to develop the plan, and describes the plan's functions, structure and stakeholder participation mechanisms.
- ▶ **Plan Foundations.** This chapter provides an introduction to the LBNR, its location, exceptional resource values, and major management issues of concern. It sets out the LBNR's Purpose Statement, which explains why the LBNR has been established as a protected area.
- ▶ **LBNR Zonation Scheme.** This chapter sets out areas of the LBNR where different types of land uses are permitted. The scheme also describes the management sectors that the LBNR is divided into to facilitate efficient and effective management.
- ▶ **The Four Management Programmes.** The main bulk of the plan is divided into four management programmes:
 - **Ecological Management Programme**
 - **Tourism Development and Management Programme**
 - **Community Partnership and Outreach Programme**
 - **Protected Area Operations Programme**

Each programme includes a programme purpose statement, which sets out the overall goal to which management under this programme is working towards, and a strategy describing the overall management approach pursued through the programme. Each programme also contains management objectives that set out the goals that LBNR management aims to achieve, and a set of specific management actions to achieve these goals.

Each of the management programmes are completed by a **3-year Activity Plan**, which breaks down the individual management actions to be completed in the first three years of the plan implementation period into a series of tangible management activities, and sets out the timeframe for their implementation, allocates responsibility for their completion, and the "milestones" that management aims to achieve. These activity plans are designed to provide the basis for annual operational planning by LBNR managers and are a vital link between the management plan's 10-year outlook, and day-to-day management activities in the LBNR. It is intended that the 3-year Activity Plans will be rolled forward annually as part of the annual operational planning carried out by LBNR managers.

- ▶ The **plan monitoring** framework provides guidance to enable the assessment of the potential impacts, positive, and where appropriate negative, resulting from the implementation of each of the four management programmes. The framework sets out the desired impact of each programme's objectives, and any potential negative impacts that may occur. The framework also includes easily measurable and quantifiable indicators for assessing these impacts, and potential sources of the information required.

Participation in planning

The planning process involved a high degree of stakeholder participation in the development the management plan. The mechanisms used to involve stakeholders included: Core Planning Team meetings, Stakeholder Workshops, and Expert Working Groups, public participation meetings, stakeholder validation meeting, plan approval meetings (County Executive and County Assembly). The roles and functions of these mechanisms are elaborated in the following paragraphs:

- ▶ The LBNR **Core Planning Team** (CPT) provided overall guidance and oversight to the entire planning process. The CPT met four times throughout the plan development. Membership consisted of: LBNR managers; BCG staff; EWC staff; and KWS staff. Members of the team initially defined the scope and functions of the plan, and allocated roles and responsibilities for the plan's development. CPT members

then ensured that the plan's development progressed smoothly, which included: ensuring funding was available for planning events; collecting and collating information necessary for planning; organising and facilitating planning events; and writing up planning event outputs into the final management plan. CPT members also participated in all other planning mechanisms described below.

- ▶ **Several stakeholder meetings** were held during the plan's development: a stakeholder planning meeting near the beginning and stakeholder validation workshop near the end of the planning process. The initial meeting identified the exceptional resources of the LBNR; and conducted stakeholder and problem and opportunities analyses. The plan validation meetings provided the opportunity for stakeholders to review, comment on, and endorse the final contents of the management plan.
- ▶ **Public participation in plan development.** The draft plan was subjected to a public participation process in accordance with: Article 10(1)(c), 2(a) and 2(d) of the Constitution of Kenya, 2010; Sections 107(1)(a), 108 2(b), 109(1), 113 and 115 of the County Government Act 2012; and Section 44(2) of The Wildlife Conservation and Management Act, 2013.
- ▶ Four **Expert Working Groups** were formed during the plan's development, each responsible for developing one of the plan's four management programmes. Each working group refined the relevant management programme's purpose, strategy and objectives, and developed the subsidiary management actions necessary for achieving each objective. In addition, all working groups were involved in the development and review of the LBNR Zonation Scheme.

Annex 2 provides a detailed list of stakeholders who participated in the LBNR plan's development, and the specific activities that they participated in.



CHAPTER 2

PLAN FOUNDATIONS



2.1 Lake Bogoria National Reserve and its catchment

The plan area encompasses LBNR and its immediate environs. The Lake is the deepest alkaline lake in Kenya with numerous alkaline hot springs that contribute significant inflows into it. The Reserve comprises of the lake and the terrestrial portion with various vegetation types depending on soil types and terrain. Amongst these vegetation types are grasslands, thickets and woodlands. The woodlands form an important habitat for the Greater Kudu (*Tragelaphus strepsiceros*) and other mammals. The Reserve is rich in biodiversity and the lake is an important stopover point for the northern avian migrants. The area has high revenue potential in terms of tourism, socio-economic and cultural activities. It is located in close proximity to both central and northern tourist circuits in Kenya.

The immediate environs of the plan area have a low human population density and currently offer limited economic opportunities, which are largely, restricted to small-scale irrigation, livestock farming, and bee-keeping. The upper part of the catchment around Subukia has high agricultural potential with intense cultivation and high human population densities. The human activities in the catchment and the lake environs have adversely affected sustainable conservation and management in the plan area. Figure 1 shows the national setting of LBNR.

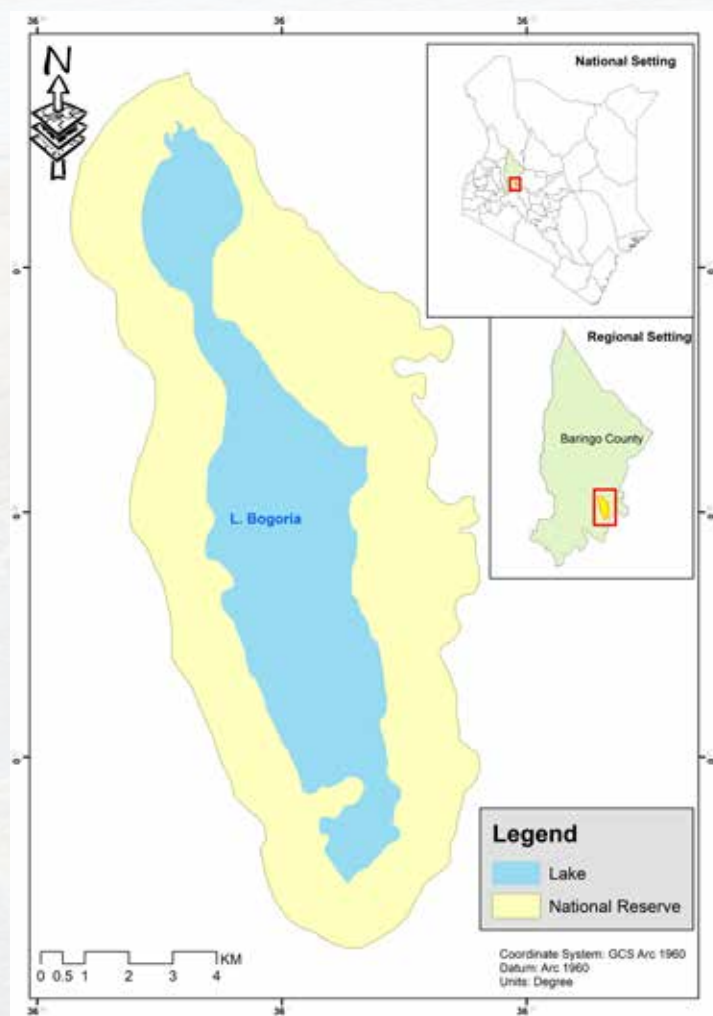


Figure 1: LBNR Regional Setting

Location: Lake Bogoria National Reserve, lies between 36° 4' and 36° 7' East and 0° 20' North and about 10km North of the Equator in Baringo County. The altitude ranges from 970 m at the lake shore to 1650 meters on Siracho escarpment. The Reserve lies close to the eastern wall of the Great Rift Valley and has its headquarters at Lobo Gate.

Legal status. Lake Bogoria National Reserve was gazetted as a wildlife protected area, vide legal notice number 270 of 01/11/1970; and its boundary is defined in boundary plan 216/26 which delineates a total area of 107 km².

Access. There are three access roads to the Reserve through four gates at Lobo, Maji Moto, Nyalilpuch and Emsos. The main access is along the Nakuru-Marigat road where, three kilometres before Marigat town is a junction to the right towards LBNR. The Lobo Gate which also serves as the Reserve headquarters is 20 km from this junction. An earth road that branches off to the right near Mogotio Shopping Centre, 36 Km from Nakuru town leads to the other two gates. Nyalilpuch outpost can be accessed through Solai-Kisanana Waseges road.

LBNR Purpose Statement

The LBNR purpose statement summarises the importance of the LBNR, clarifies the reasons for its existence, and provides the overall goal that LBNR managers are striving to achieve. It's divided into a primary LBNR purpose followed by a series of supplementary purposes that expand on and complement the primary purpose. Both primary and supplementary purposes have been defined by LBNR stakeholders.

The purpose of the LBNR is:

To protect and conserve the scenic Lake Bogoria and its associated wildlife biodiversity, especially the rare and threatened species, and perpetuate the traditional livestock management systems that support conservation for the benefit of present and future generations

Supplementary purposes of the LBNR are:

- ▶ ***Promote community socio-economic development;***
- ▶ ***Promote environmental education and awareness for effective stakeholders' participation;***
- ▶ ***To enable local community participation in planning, development and management of the plan area;***
- ▶ ***To preserve all sites of aesthetic, historical and cultural significance in the LBNR; and***
- ▶ ***To promote scientific research and education in order to guide sustainable management of natural resources in and around the LBNR.***

The development of the above Purpose Statement was based on the stakeholder identification of the LBNR's "Exceptional Resource Values" (ERVs). These ERVs are discussed and elaborated in the following section.

LBNR Exceptional Resource Values

The LBNR ERVs describe the area's key natural resources and other features that provide outstanding benefits to local, national and international stakeholders and that are especially important for maintaining the area's unique qualities, characteristics and ecology. The following sections describe the LBNR ERVs that have been prioritised by LBNR stakeholders, and their importance to the area. These sections have been set out according to the four categories of ERV identified: Biodiversity, Scenic, Social and Cultural (Table 1).

Biodiversity values

Extraordinary soda lake ecosystem processes and trophic dynamics

The lake is generally shallow and alkaline, with a relatively small catchment and no surface outlets. Straddling the equator at altitudes of around 1,500m, it is subject to high rates of evaporation and marked fluctuations in water levels. The alkaline lake waters support a prolific growth of blue green algae, the main food of the itinerant Rift Valley population of lesser flamingos. The alkaline Rift Valley lakes are among the world's most productive ecosystems and, although these harsh environments are relatively species-poor, they feed extraordinary numbers of birds. They provide important insights into our understanding of trophic dynamics and ecosystem processes¹.

Exceptionally diverse bird fauna, including rare and endangered species

The lake is internationally recognized as an Important Bird Area KE 045 and it is listed as a Ramsar Site No. 1097, on account of the numbers and diversity of birds, including many rare and endangered species. Records indicate as many as 370 species at Lake Bogoria. These include 13 globally-threatened and 8 regionally-threatened species².

World's largest congregations of lesser flamingos

The lake holds huge congregations of lesser flamingos that feed on the high production of blue-green algae. Such congregations are globally unique and constitute one of the world's most spectacular wildlife phenomena. The lake shore configuration and fresh-water points provide a favourable environment for these assemblages and at times more than 1.5 million flamingos can be counted. Lake Bogoria sometimes supports the highest population of greater flamingos in the Rift Valley alkaline lakes.

Crucial flyway for bird migration

The Great Rift Valley is of global significance as a migratory corridor for 500 million birds of 350 species which pass through the area en route between their summer breeding grounds in Eurasia and over-wintering sites in southern Africa. The lakes serve as over-wintering sites for large numbers of Palearctic waders as well as being an important stop-over for birds on passage.

Northern Masked Weaver

The Northern Masked Weaver is a species of bird in the Ploceidae family. It is found in the Democratic Republic of the Congo, Ethiopia, Kenya, and Sudan. In Kenya, the bird is restricted to Lake Baringo, the swamps to the North of Lake Bogoria, and Lake Turkana. This is a bird with a very limited distribution. It is gregarious, nesting in colonies of up to 100 pairs; typically, this is at the water's edge and is generally during or close to the rains.

Diverse assemblage of mammals, including threatened species

The area is rich in mammal wildlife species some of which classified as threatened species by IUCN and the WCMA, 2013. The Greater Kudu is classified as vulnerable under the Sixth Schedule of The WCMA, 2013, while lion, leopard, elephant, and hippopotamus, are classified as vulnerable by IUCN.

Vegetation mosaic

Within the reserve, biodiversity inventories have identified approximately 210 plant species belonging to 53 plant families in the reserve and neighbouring wetlands. Amongst these, are 38 species of *Graminae* and 15 of *Acanthaceae*. These species are distributed in six broad vegetation types. These are; riverine forests, wooded shrubland, shrubland thicket, shrubland, shrubland grassland, and swamps.

In the upper parts of the catchment, montane forests are found around Subukia, Ol Arabel, Mchongoi and Marmanet areas. These areas are the catchment for River Sandai/Waseges. There are other riverine forests along rivers courses, seasonal water flow channels and freshwater springs.

Outside LBNR and the forest areas the vegetation comprises of grasslands, shrublands, scrublands and woodlands. These vegetation types are associated with unconsolidated soils, rocky outcrops and riverine plains in the arid parts of the plan area. These are the community areas, which are communally grazed.

¹ Source: <https://naturalworldheritagesites.org/sites/kenya-lake-system-in-the-great-rift-valley/>

² BirdLife International (2016) Important Bird and Biodiversity Area factsheet: Lake Bogoria National Reserve. Downloaded from <http://www.birdlife.org>

Extremophiles

An extremophile is an organism that lives in hot conditions outside of normal range temperatures, such as under the hot springs and geysers found in Lake Bogoria. Soon after their discovery, the heat-stable enzymes of thermophiles proved to be very important to the field of biotechnology. For example, two thermophile species *Thermus aquaticus* and *Thermococcus litoralis* are used as sources of the enzyme DNA polymerase, for the polymerase chain reaction (PCR) in DNA fingerprinting. As thermophiles have become increasingly important in biotechnological research, the number of bio-prospecting groups searching for useful organic compounds in nature has dramatically increased as well. Consequently, concerns over preservation of biodiversity and natural resources as well as profiting research results have given way to benefits-sharing agreements, such as the Cooperative Research and Development Agreement between Yellowstone National Park and the Diversa Corporation, and Novozyme of Denmark and Kenya Wildlife Service.

Table 1: LBNR Exceptional Resource Values

Category	Exceptional Resource Value
Biodiversity	▶ Extraordinary soda lake ecosystem processes and trophic dynamics
	▶ Exceptionally diverse bird fauna, including rare and endangered species
	▶ World's largest congregations of lesser flamingos
	▶ Crucial flyway for bird migration
	▶ Diverse assemblage of mammals, including threatened species
	▶ Vegetation mosaic
	▶ Extremophiles
Scenic	▶ Outstanding natural beauty
	▶ Exceptional geo-morphological features of the Great Rift Valley
Social	▶ Livestock grazing area
	▶ The river systems
	▶ Wetlands
	▶ Water catchment
	▶ Important Bird Area, Ramsar Site, and UNESCO World Heritage Site listings
Cultural	▶ Endorois Culture
	▶ Cultural and historical sites

Scenic values

Outstanding natural beauty

The lake is of outstanding natural beauty. It is characterised by a steep shoreline and has a trough basin morphometry comprising of three semi-distinct but interconnected basins consisting of; the northern, central and southern basins. The southern basin, a relict volcanic crater is the deepest part (14 m), joined to the rest of the lake by a narrow isthmus.

Exceptional geo-morphological features of the Great Rift Valley

Africa's Great Rift Valley is one of the world's most distinctive geo-morphological features, cutting through the continent from the Red Sea to southern Mozambique along two parallel fault lines. The LBNR includes a representative sample of some of its main geo-morphological features, including the alkaline lake, parts of the rift escarpment, and a range of volcanic features and associated geothermal manifestations (geysers, fumaroles and hot springs).

Hot Springs, Geysers and springs. The hot springs have high temperatures and are highly mineralized and are sourced from shallow aquifers in contact with lava intrusions. The springs are found in three main clusters, Loburu, Chemurkeu and Mwanasis-Kibwu-Losaramat areas. The hot spring at the Loburu and Chemurkeu have a shallow aquifer with temperatures of about 100 °C, while the southern Mwanasis-Kibwu-Losaramat hot springs have a deeper lying aquifer with temperatures of about 170 °C. All the springs are alkaline with a pH above 8.0. There are numerous other smaller hot springs, geysers and fumaroles in the plan area.

Social values

Livestock grazing area

The LBNR is an important dry season grazing area for livestock from the local community. The Reserve management has zoned areas where the community can graze their livestock during extreme drought.

The river systems

The rivers and riverine ecosystems in this arid and semi-arid area are critical habitats and provide refuge for wildlife. The riverine ecosystems have distinct ecological characteristics that allow them to support wildlife, invertebrates and plant species that cannot thrive in the arid areas. The river system is a vital resource to the local community providing water and dry season grazing and irrigated agriculture.

Wetlands

Several swamps occur in the plan area and they differ in size, water chemistry, biota and hydrology. The Lobo swamp is the largest and constitutes a key ecosystem component in the plan area as a water reservoir for livestock, agriculture and domestic supply. Swamps along Sandai/Waseges River play an important role in nutrient removal, agrochemical retention and sediments filtration. There are also other numerous small marshes fed by fault related springs. The wetlands, especially those outside the reserve are important to the local communities for water and food production. The swamps are also rich in bird life.

Water catchment

Although outside the immediate jurisdiction of LBNR, LBNR management recognises the importance of conserving water catchment areas for both the LBNR's conservation and local community livelihoods.

Important Bird Area, Ramsar and UNESCO World Heritage Site listings

The reserve was declared a national reserve due to its richness in biodiversity, scenery and hydrological features and was listed as a Ramsar site No. 1097 in 2001, a UNESCO World Heritage Site in 2011³, and an IBA KE 045 in 2001.

Cultural values

The Endorois culture and historical sites

The Endorois is a distinct, historically pastoralist community that is almost solely dependent on livestock. Pastoralism consists of grazing animals in the lowlands around Lake Bogoria in the rainy season, and turning to Mochongi forest during the dry season. Lake Bogoria is the centre of the community's religious and traditional practices. The community's historical prayer sites, circumcision rituals, and other cultural ceremonies were performed around Lake Bogoria, based on the belief that all the departed Endorois, no matter where they are buried, live in Lake Bogoria.

The community has a totem system as the symbolic representation of wild animals. In Endorois community, each clan has a particular name bestowed to their women, a totemic animal and a totemic symbol marked on their livestock. This totems system prohibits sex and marriage between members of the same clan and it also serves as comprehensive framework wildlife protection.

³ Listed together with Lakes Nakuru and Elementaita as Kenya Lakes System in the Great Rift Valley UNESCO World Heritage Site,

Conservation Issues and Threats

Lake Bogoria is linked to its catchment through ecological, hydrological and socio-economic functions. Most of these linkages are intertwined and have cumulative impacts on the Lake and the reserve. Loss of vegetation cover by overgrazing leads to soil erosion, siltation of streams and wetlands, and land degradation. This creates a vicious cycle that leads to more environmental degradation and sets in motion other processes that magnify the initial impacts.

The deteriorating environmental conditions in the plan area threaten sustainable livelihoods, environmental integrity and the continuation of natural ecological processes. Negative environmental impacts are emanating from demographic changes, inappropriate land use types and trends, poor governance and policy failure and high poverty prevalence. High livestock densities of poor stock quality have accelerated environmental degradation in this semi-arid area. These factors have put the ever diminishing natural resource base under pressure from their multiple interactions that are manifested through deforestation, siltation, erosion, eutrophication, species loss, habitat degradation, loss of pasture and increase in poverty.

This management plan aims at reversing the environmental degradation to achieve sustainable conservation and secure the livelihoods of the local people. Although they are closely interlinked, environmental issues can be broadly categorized as those that emanate outside the national reserve and ultimately affect the national reserve and issues emanating within the reserve itself. The strategies developed for mitigation and management intervention in these two areas must have synergy if the goals and objectives of this plan are to be achieved.

The following issues represent specific threats to the ecology, conservation and values of the LBNR.

Issue 1: Degradation of lake catchment areas, soil erosion and siltation

The lake's catchment area is relatively small (1200 km²), and subject to rapid deforestation, over-grazing and expansion of agriculture. This, coupled with increased abstraction of surface and ground water, leads to declining and highly variable inflows into the lake. These land-use changes are resulting in increased soil erosion, run-off and siltation. In addition, there are localized erosion foci along livestock trails.

Issue 2: Use of water from upstream catchment areas and groundwater aquifers

Small irrigation dams have been constructed on rivers flowing into the lake and river flows have reduced substantially in recent years. Water source and drainage alteration through cement pond construction around springs and across streams has affected inflow into the lake. 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.

Issue 3: Pollution and eutrophication

Pollution of the lake's water is a problem, especially affecting inflows from the growing agricultural area. In the wider catchments, intensification of agriculture and increased use of fertilizers may be increasing the nutrient load of inflowing waters and could lead to eutrophication.

Issue 4: Small size and ecological isolation

The Reserve is quite small (107 km²). The terrestrial component of the reserve is not large enough to support viable populations of many species that would naturally occur in the area.

⁴ Source: <https://naturalworldheritagesites.org/sites/kenya-lake-system-in-the-great-rift-valley/>

Issue 5: Ecological change in other Rift Valley lakes

The lesser flamingos and other birds move great distances between the ten 'flamingo lakes' of the eastern Rift, and beyond, and so are vulnerable to ecological changes or pollution of any of the other lakes. There is already a major soda factory on Lake Magadi, and a similar development has been mooted for Lake Natron (which serves, critically, as the main breeding site for lesser flamingos).

Issue 6: Invasive alien species

The reserve is suffering a 'proliferation of invasive species', especially *Prosopis juliflora*, *Lantana camara*, *Solanum incanum*, and *Opuntia* spp

Issue 7: Livestock grazing pressure

There are concerns about livestock grazing where cattle and goats graze along the lakeshore habitats, causing increased rates of erosion, run-off and siltation, competition for forage with wildlife, and human-wildlife conflicts.

Issue 8: Climate change

Whilst the Kenya Lakes have demonstrated extreme resilience to fluctuations in climate and water levels, the possible future impacts of climate change are unpredictable.

Issue 9: Infrastructure development

A particular concern is that any misplaced power transmission lines could kill large birds on passage, as well as flamingos as they move between the lakes. Construction of new reserve roads after flooding of most of the existing roads, will lead to loss of habitat in the reserve.

Issue 10: Oil and gas exploration and development, and mining

Although there is no oil or gas exploration activity presently underway within the ecosystem, there have been major recent oil discoveries in other parts of the Rift Valley, including the Lake Turkana Basin, less than 200km to the north of Lake Bogoria. These finds are stimulating further exploration activity elsewhere in the Rift Valley, and Lake Bogoria is included within Tullow Oil's exploration concession.

Issue 11: Lack of an effective benefit sharing mechanism on access and utilisation of genetic resources and traditional knowledge

Wildlife crimes, and more so, misappropriation of biological resources commonly referred to as biopiracy is a setback to conservation and sustainable utilization of biodiversity. Various cases of biopiracy related to gene trade and biotrade have been cited to have occurred in Lake Bogoria and the environs. These include illegal smuggling of extremophiles, aloe gums, sandalwood for cosmetics, and snake venoms. An effective framework for access, utilization of genetic resources and traditional knowledge including share of resultant benefits is necessary for realization of the objective of this management plan.

CHAPTER 3

LBNR ZONATION SCHEME



3.1 Introduction

The LBNR zonation scheme provides a dual framework to support the management of the protected area and the regulation and promotion of multiple land uses across the area. To achieve this, the LBNR and its immediate adjacent area have been divided into seven land use zones and four management sectors. Each of the four management sectors is managed from a Sector Headquarter, which is delegated management authority over the sector concerned. Each visitor use zone will focus on providing a different type of tourism experience.

3.2 Management Sectors

The LBNR has four management sectors to increase management presence and infrastructure development and security across the entire LBNR. The sectors’ area of influence extends to community land, and indeed, some of the sector headquarters e.g. Majimoto are located outside the reserve boundary. In addition, one of the reserve-operated campsites is located outside the reserve near Nyalipuch outpost. The Warden of LBNR is the overall officer in charge of LBNR, while the sectors are overseen by junior wardens. The location of the four sectors and their headquarters are shown in Figure 2. Details of the management sector headquarters are set out in Table 2 below.

Table 2: LBNR Management Sectors and Administration Centres

Management sector	Headquarters
▶ One	▶ Lobo
▶ Two	▶ Majimoto
▶ Three	▶ Emsos
▶ Four	▶ Nyalipuch



Figure 2: LBNR Management Sectors

3.3 LBNR Land Use Zoning

The LBNR zonation scheme provides a framework aimed at the protection of environmentally-sensitive areas and the regulation and promotion of visitor use across the PA. In addition, it allows community livelihood activities that are compatible with conservation, such as livestock grazing and bee-keeping.

Land use zoning guiding principles

The land use zoning considerations include:

- Protection of critical habitats such as breeding, roosting and feeding sites and migratory corridors
- Separation of incompatible land uses
- Maintaining ecosystem connectivity
- Providing diverse types of tourism experience
- Providing for community livelihood activities (livestock and bee keeping) that are compatible with conservation

The present land uses in Lake Bogoria National Reserve include: wildlife conservation, tourism, livestock grazing, bee-keeping, product harvesting -medicinal plants, cultural rites, salt licks, and research and management infrastructure. Other forms of land uses that might be introduced in the future include: sports tourism, nature trails, airstrip, visitor centre and exploitation of natural resources.

To accommodate present and future land uses, LBNR has been divided into four zones:

- **High Use Zone** chiefly focuses on the PA's high volume tourism product
- **Low use zone** focuses on providing low volume tourism product. Attractions are few and infrastructure development is also low
- **Wilderness Zone** focuses on providing areas of solitude to visitors and adventure activities. Minimal infrastructure, if any, is provided
- **Restricted Zone** is established to protect environmentally sensitive areas such the lakeshore and swamps, wildlife breeding areas, wildlife corridors, and bird roosting and nesting areas
- **Livestock grazing zone** is established to provide areas for livestock grazing during extreme drought. Bee-keeping is promoted in this zone
- **Utility zone** is established to provide areas where park administration infrastructure such as offices and staff houses can be constructed.
- Finally, an **influence zone** is established in the areas adjacent to the reserve for promotion of conservation-compatible activities.

To facilitate implementation and understanding of the scheme, the number of zones has been kept to a minimum, and, wherever possible zone boundaries have been aligned with easily identifiable physical features on the ground (Figure 3). Table 3 give zone descriptions and activity and accommodation prescription.

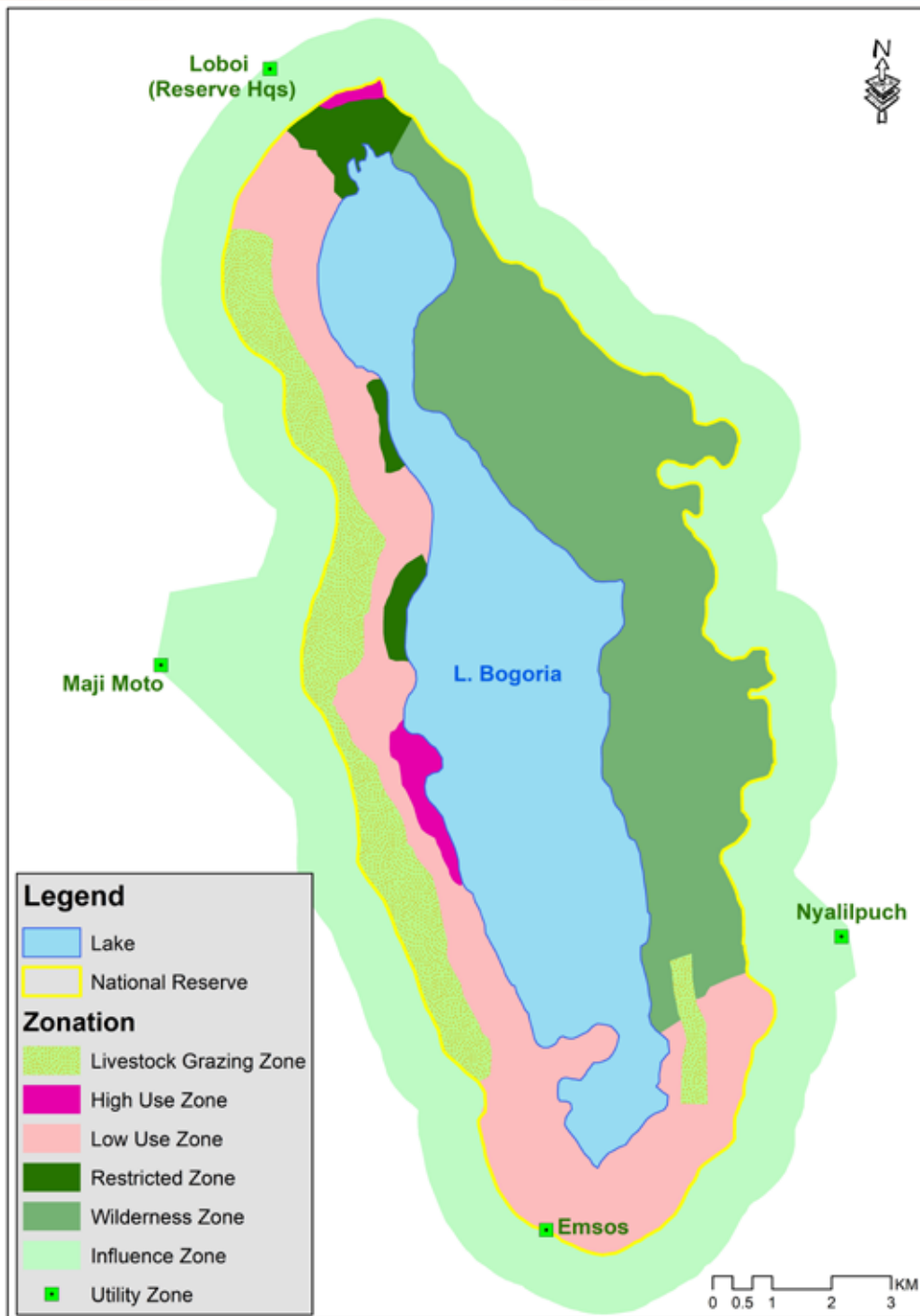
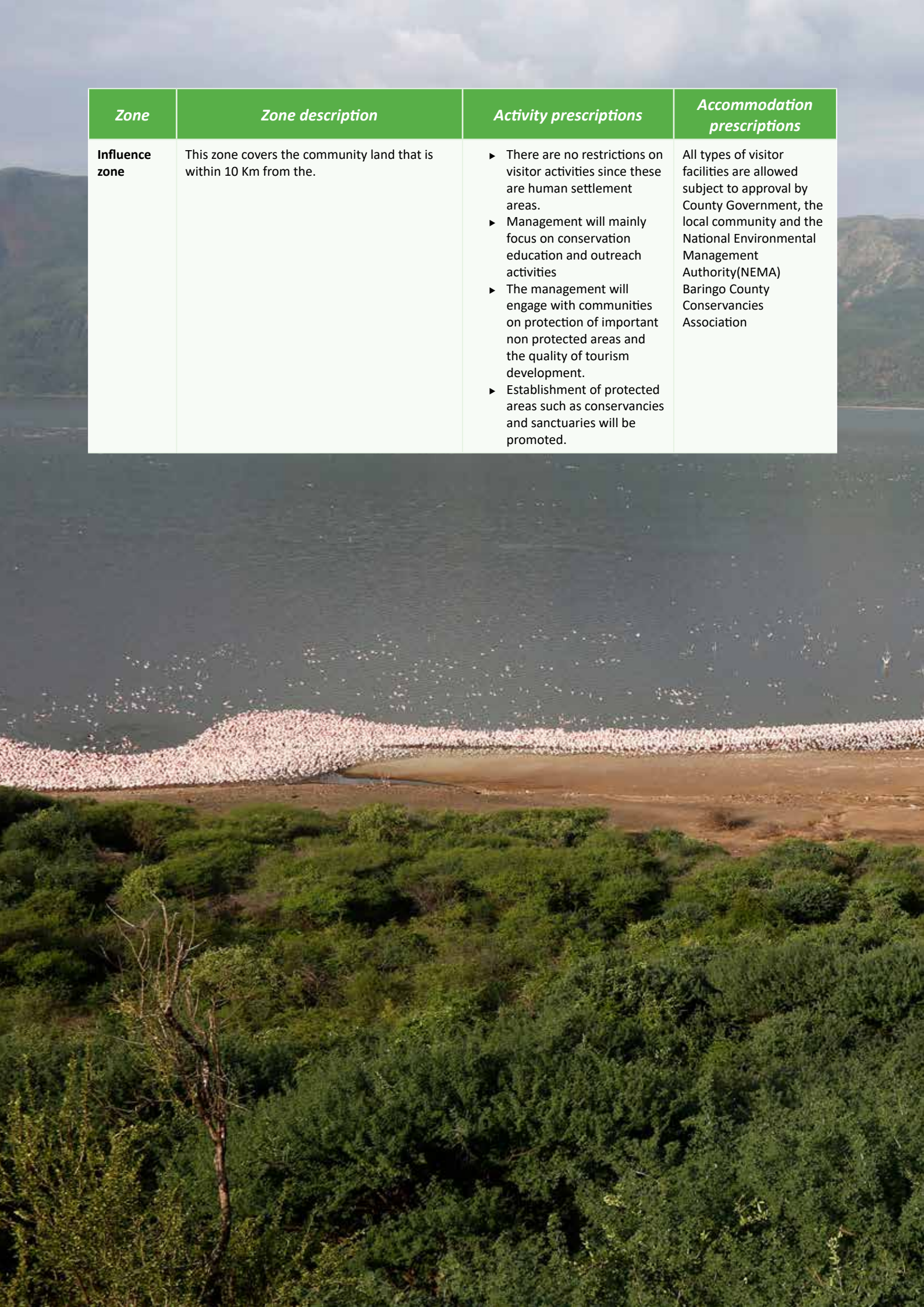


Figure 3: LBNR Land Use Zoning

Table 3: LBNR land Use Zone description and prescriptions

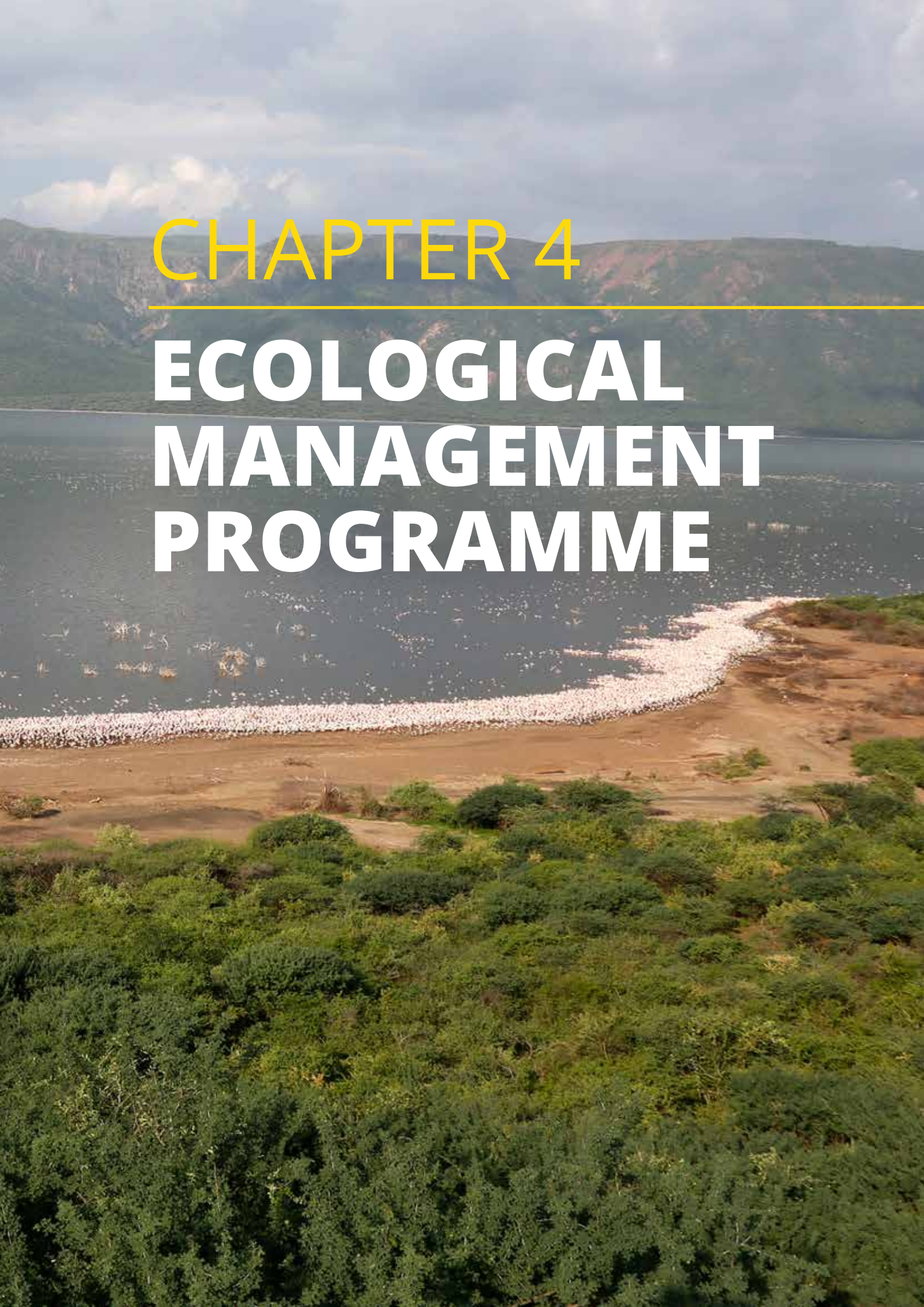
Zone	Zone description	Activity prescriptions	Accommodation prescriptions
Restricted Zone	<p>The Zone covers water bird breeding areas and riparian corridors sustained by seasonal rivers. It also includes roosting and vital ecological sites such as:</p> <ul style="list-style-type: none"> • Flamingo land sites • Flamingo roosting site at Sandai River inlet, hot springs, Koimogul, mouth of Fig Tree and Emsos rivers and Roburu Delta • Plover and Ostrich breeding sites at Nginie and Chebuluny • Fish eagle around Fig Tree Camp • Crown Crane around Acacia Island • Kudu breeding areas – e.g. Acacia Campsite, rock hyrax point • Klipspringer- Emsos river and Ng’orkuin • Springs – Sosiche, Chebuluny, Mogueun Springs (fresh water springs) <p>Salt licks – Roburu Delta, Nginie, Koitab-Sandai Mouth, Turkumakau</p>	<ul style="list-style-type: none"> ▶ Research and monitoring activities are allowed with authority from the reserve Warden. ▶ Access by visitors with authority from reserve Warden ▶ Signage will be installed to show restriction 	<p>No accommodation facilities are allowed in this zone</p>
High Use Zone	<ul style="list-style-type: none"> • Flamingo look out points at – Leburu Delta, Ng’orkuin, Sandai River Mouth • Hot Springs at Mawe Moto, Ruburu Delta and Fig Tree • Wildlife viewing areas – sunrise, Cheboloi, Nginie • Public Camp sites – Acacia, Fig Tree, Lobo 	<ul style="list-style-type: none"> • Viewing • Photography • Picnic • Resting/recreation • Filming • Research • Bird watching • Walking along nature trails – Trans Rift Trail <p>Cycling</p>	<p>Ecologes Tented camps Public campsites</p>
Low Use Zone	<p>The low use zone is found mainly in the Emsos and Maji Moto management sectors</p>	<ul style="list-style-type: none"> • Viewing • Photography • Picnic • Resting/recreation • Filming • Research • Bird watching • Walking along nature trails – Trans Rift Trail • Cycling 	<p>Permitted facilities include ecologies of maximum 30 bed capacity; self catering bands, public campsites; special campsites; Tented camps maximum 12 beds; Star beds.</p>
Wilderness Zone	<p>The wilderness zone is located in the Nyali puch management sector. It is characterised by lack of infrastructure. Areas include Siracho, Kabindaram, Karbilat</p>	<p>In this zone visitors have an opportunity to experience adventure, remoteness and solitude. Visitor activities are limited to:</p> <ul style="list-style-type: none"> ▶ Guided short walks ▶ Guided walking safaris ▶ Camel safaris ▶ Research tourism 	<p>Only special campsites are allowed in this zone.</p>
Livestock Grazing zone	<p>This zone is provided to allow livestock grazing during in LBNR extreme drought</p>	<ul style="list-style-type: none"> ▶ Livestock grazing ▶ Bee keeping ▶ Cultural rites 	<p>Access to these zones will be based on rules and regulations agreed upon by the community and reserve management</p>

<i>Zone</i>	<i>Zone description</i>	<i>Activity prescriptions</i>	<i>Accommodation prescriptions</i>
Influence zone	This zone covers the community land that is within 10 Km from the.	<ul style="list-style-type: none"> ▶ There are no restrictions on visitor activities since these are human settlement areas. ▶ Management will mainly focus on conservation education and outreach activities ▶ The management will engage with communities on protection of important non protected areas and the quality of tourism development. ▶ Establishment of protected areas such as conservancies and sanctuaries will be promoted. 	All types of visitor facilities are allowed subject to approval by County Government, the local community and the National Environmental Management Authority(NEMA) Baringo County Conservancies Association



CHAPTER 4

ECOLOGICAL MANAGEMENT PROGRAMME



4.1 Programme Purpose and Strategy

The purpose of the ecological management programme is to ensure that:

Ecological systems critical to sustenance of LBNR and its species of conservation concern are understood, restored and conserved

Threats to the ecology of LBNR (such as uncontrolled livestock grazing, invasive species and excessive abstraction of water in the Lake Begonia's catchment) are escalating, mainly as a result of increasing human population and intensifying agricultural land use in the areas around the LBNR and its catchment area. The LBNR Ecological Management Programme aims to address these threats among others, impacting on the most important ecological features and values of the LBNR ecosystem and thereby maintaining the ecological integrity of the LBNR ecosystem. The programme provides a guiding framework for the long-term ecological monitoring of the area that, if implemented, can be used to track management effectiveness in achieving the conservation objective at LBNR.

The following paragraphs set out the strategic principles designed to guide LBNR managers and stakeholders in the implementation of the Ecological Management Programme and the achievement of the Programme Purpose.

Guiding Principles

In implementing the LBNR's Ecological Management Programme, LBNR Management and stakeholders will strive to ensure that:

LBNR's habitats and wildlife are maintained and restored

Lack of active management in the past has led to proliferation of invasive species (*Prosopis Juliflora* and *Lantana camara*), which are now a serious threat in the reserve, especially around the main gate, Waseges River inlet, south of Loburu hot springs and Mawe Moto. Furthermore, the localization of herbivores, coupled with competition with livestock has resulted in overgrazing, increase in invader species and high incidences of livestock-wildlife disease transmission. Hence, under this management programme, attempts will be made to restore and manipulate some habitats to increase carrying capacity and diversity of wildlife to make the reserve ecologically stable. The LBNR management will work with KWS to translocate some animals like the Rothschild giraffe to boost the resident population. Invasive species will be controlled, livestock grazing policy implemented and adequate fresh water supplied to wildlife especially during the dry season.

Habitat connectivity with surrounding areas is maintained

Wildlife in the LBNR depends not only on the conservation of suitable habitats within the Reserve, but also on habitat connectivity with surrounding areas. As such, as part of efforts to re-establish and conserve natural population dynamics and processes, management activities under this programme will aim to perpetuate natural dispersal of animals into ecologically compatible areas outside the reserve.

The Wildlife Conservation and Management Act, 2013 requires use of ecosystem approach to improve habitat connectivity. Section 4 (c) states that "*wherever possible, conservation and management of wildlife will be encouraged using ecosystem approach*". Hence, under this programme, ecological linkages between the reserve and surrounding community land will be maintained. In particular, the Greater Kudu movement routes (figure 4) that connect the LBNR and nearby conservancies will be secured.

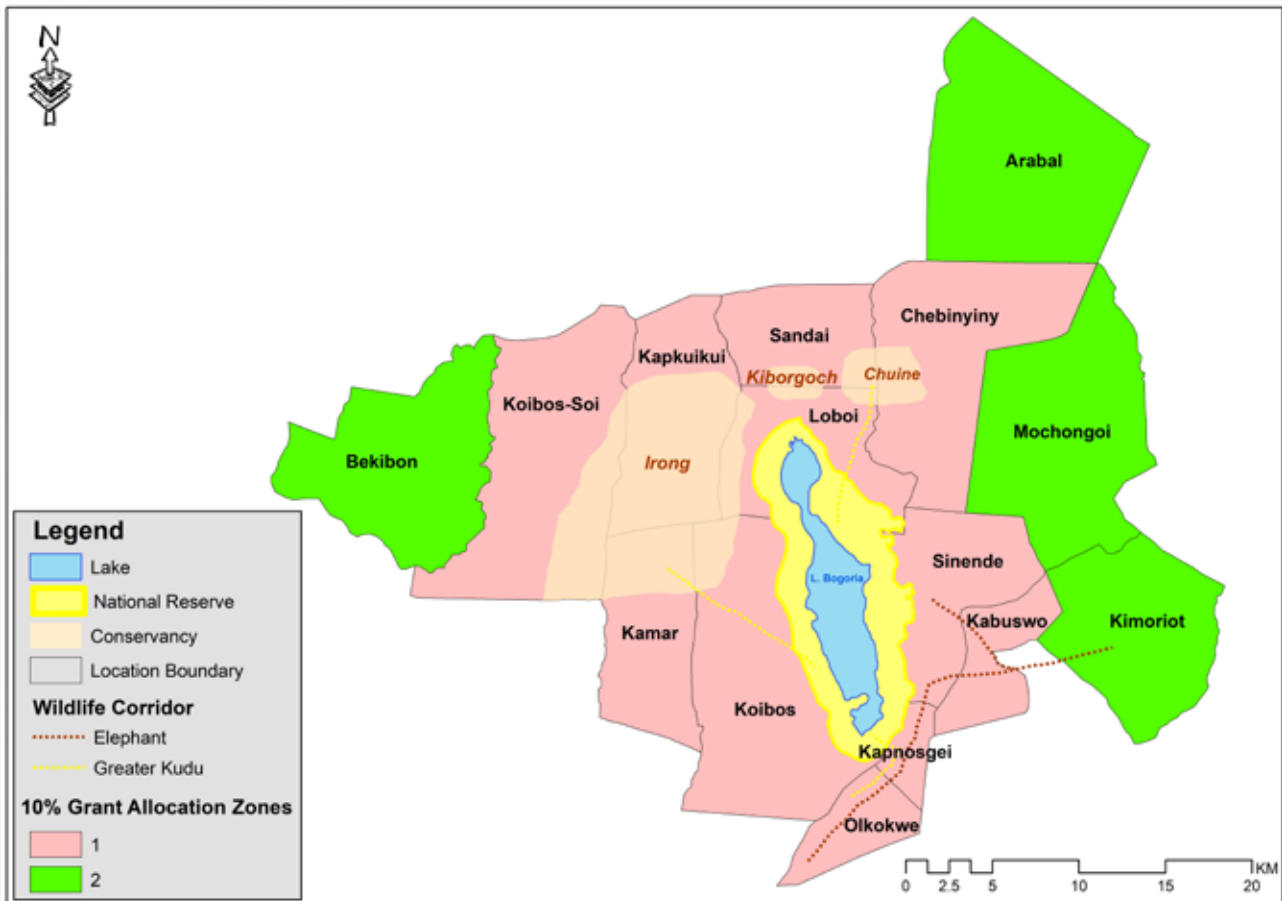


Figure 4: Greater Kudu and elephant movement corridors

The Lake Bogoria’s water catchment is conserved

A variety of habitats, especially the area’s riverine forest and permanent swamps, and wildlife species in the LBNR are dependent on water supplied by the rivers flowing into Lake Bogoria. However, land cover in the water catchment area has been extensively modified through various anthropogenic activities, especially agriculture and urbanisation, precipitating adverse environmental impacts with far reaching implications for the ecological integrity of LBNR.

Extensive deforestation in the upland forests has caused increased siltation and interfered with river flows and water profile. As such, management actions under this programme will seek to maintain the area’s natural hydrological cycles, and help ensure consistent and clean water supply to the LBNR where appropriate, in collaboration with other key stakeholders.

LBNR ecological trends and threats are monitored and understood

Given the high and increasing human pressures the LBNR is facing, there is need for a strong monitoring programme to document trends and status of LBNR’s ecology and threats. This ecological monitoring will be designed and implemented in such a way as to provide a firm foundation for adaptive management and for tracking management effectiveness.

In addition, the recent swelling of Lake Bogoria has affected water composition and feeding habitat for flamingos, and has flooded breeding areas for some bird species. This swelling needs to be well studied and understood to establish whether it is due to rainfall changes or degradation of the water catchment. There is also speculation that it could be linked to geothermal exploration. Whatever the cause, it has led to degradation of the key attraction of the reserve – the geysers, which are also habitats for extremely rare species of micro-fauna, some of which are susceptible to commercial exploitation.

The lake swelling has also affected flamingos which favour shallow habitat, since they are wading birds, and the fact that productivity of their main food source, the algae, is highest in shallow waters where there is optimum penetration of sunlight. Hence, deep waters negatively affect flamingos directly and also indirectly due to less food production. The swelling of the lake has further led to flooding of grasslands which are habitats for the cheetahs and Grant's gazelles.

4.2 Targeting ecological management action

The ecological management programme is developed in accordance with the Nature Conservancy's (TNC) Conservation Action Planning (CAP) process. The CAP methodology provides a mechanism for targeting ecological management, by identifying and developing an accurate definition and understanding of the PA's most important ecological features and their management needs, and the major threats to these features.

There are three main stages in applying the CAP methodology: the selection of conservation targets; the identification and ranking of threats to the conservation targets; and the development of management objectives and actions to address these threats as well as to enhance the conservation targets. These key stages and their application in the LBNR planning process are elaborated in the following sections.

Conservation targets

The first step of the CAP process is the definition of a small number (usually about eight) of conservation targets which represent the unique biodiversity contained within the protected area, as well as any ecological features that may require specific management actions (particularly endangered species or habitats). A comprehensive ecological definition and understanding of each of these targets is then achieved through the further identification of the "Key Ecological Attributes" (KEAs), which are the ecological parameters upon which long-term survival of each conservation target depends on. Common examples of KEAs include: essential habitat requirements of a particular species; keystone species for a specific habitat; or ecological connectivity requirements. The seven LBNR conservation targets, the rationale behind their selection, important subsidiary targets (i.e. other ecosystem components that share KEAs and threats with the conservation target concerned), and KEAs for each target are set out in Table 4.

Threats to conservation targets

The comprehensive definition of conservation targets and their KEAs enables the identification of the "threats" to these targets and attributes, and the subsequent prioritisation of these threats according to their significance. A threat is defined as any factor, resulting either directly or indirectly from human activities, which has the potential to destroy, degrade or impair a conservation target during the 10-year lifespan of the PA plan. Table 5 shows the priority threats impacting or likely to impact on the LBNR conservation targets and their KEAs.

Ecological Management Objectives and Actions

The identification and ranking of the threats to the LBNR's conservation targets and their KEAs provides the basis for the development of the Ecological Management Programme's management objectives and actions. Objectives have been developed to address the clusters of threats shown in Table 5. Four objectives have been developed addressing conservation of threatened and rare wildlife species (covering conservation targets including Greater Kudu, waterfowl and large carnivores); addressing crosscutting threats to the LBNR's terrestrial habitat (covering conservation targets: the lake system, grassland, thickets and woodland); addressing threats to targets selected beyond the LBNR boundary (covering conservation targets: River Systems and swamps); and addressing research and monitoring needs for all conservation targets. The four objectives developed for the LBNR Ecological Management Programme are:

- MO 1. Conservation status of the LBNR's threatened large mammals and birds enhanced**
- MO 2. Management of important LBNR habitats improved**
- MO 3. Forests and river systems in the greater LBNR landscape protected, in collaboration with other stakeholders**
- MO 4. Ecological trends and threats are monitored and understood**

These management objectives and their subsidiary management actions are described in detail in the sections below. Where appropriate, “*sub-objectives*” have been developed to provide a clearer and specific framework for actions. Under each management objective (or sub-objective) there is a brief description of the relevant management issues and opportunities, which provides the specific context and justification for the management actions.

The final section of the programme sets out a framework for the development of the LBNR Ecological Monitoring Plan, also based on the KEAs and threats identified through the TNC CAP.

Table 4: LBNR conservation targets

	Conservation target	Rationale for selection	Important subsidiary targets	Key ecological attributes
Species	Waterfowl	<ul style="list-style-type: none"> • LBNR Ramsar site • Waterfowl key attraction to reserve • Birds ecological indicators 	<ul style="list-style-type: none"> • Algae 	<ul style="list-style-type: none"> • Habitat size and quality (water and food)
	Greater Kudu	<ul style="list-style-type: none"> • Has conservation status • Unique species in Kenya • Target of poaching 	<ul style="list-style-type: none"> • Grant’s gazelle 	<ul style="list-style-type: none"> • Habitat size and quality (water and forage) • Population size, recruitment and structure • Genetic diversity and variability
	Large carnivores	<ul style="list-style-type: none"> • Carnivores sensitive to habitat changes • Targets of retaliatory attacks in human-wildlife conflict • Important tourism attractions 	<ul style="list-style-type: none"> • Leopard, • Cheetah, • Spotted and Stripped hyena • Diverse ungulates 	<ul style="list-style-type: none"> • Prey availability • Cover • Population size, recruitment and structure • Genetic diversity and variability
Habitats	Thickets and woodland	<ul style="list-style-type: none"> • Habitat for greater Kudu • Preferred bee keeping area 	<ul style="list-style-type: none"> • Large carnivores 	<ul style="list-style-type: none"> • Vegetation structure and composition
	Grassland	<ul style="list-style-type: none"> • Susceptible to overgrazing by livestock and wildlife • Key habitat for majority of animals • Affected by swelling of the lake • Affected by invasive shrubs 	<ul style="list-style-type: none"> • Diverse grazers 	<ul style="list-style-type: none"> • Extent of shrubland • Vegetation structure and composition
Systems	Lake system	<ul style="list-style-type: none"> • Habitat for water birds and unique micro biota • Host flamingos, key species and attraction • Indicator of catchment activities 	<ul style="list-style-type: none"> • Flamingos • Algae • The Lake’s riparian area 	<ul style="list-style-type: none"> • Water quantity and quality
	Forests, rivers and swamps systems	<ul style="list-style-type: none"> • Habitats for aquatic biodiversity • Source of water for lake Bogoria • Water source for livestock and local community 	<ul style="list-style-type: none"> • Diverse terrestrial birds • Hippopotamus 	<ul style="list-style-type: none"> • Water quantity and quality • Vegetation structure and composition

Table 5: Threats to LBNR Conservation Targets

TARGETS	Thickets and woodland Grassland	Grassland	Lake system	Forests, rivers and swamps systems	Waterfowl	Greater Kudu	Large Carnivores
THREATS							
Poaching						High	
Livestock grazing	High	Very High	Very High	High	Low	High	High
Fire	High	High				High	High
Invasive species	Low	Low		Low		Low	
Inbreeding						High	High
Ecto-parasites						Low	Low
Disease						High	High
Settlement in dispersal areas	High	High		Low			
Predation						High	
Charcoal burning and logging	High						
Human encroachment	High	High					
Bush encroachment		Low					
Destruction of catchment forest	High			High			
Conversion of riparian habitat				High			
Swamp drainage				High			
Use of agricultural chemicals			High	High			
Abstraction of water for irrigation				High	Low		
Visitor impacts			Low				

4.3 Management Objectives and Actions

Objective 1: Conservation status of the LBNR's threatened large mammals and birds enhanced

The desired future state of the LBNR is one where the three conservation target species are effectively managed and monitored, so as to ensure their long-term survival in the LBNR, and that of the co-occurring species and habitats. To achieve this desired state, a series of management actions have been developed under two sub-objectives relating to the species-level conservation targets selected for the LBNR: Waterfowl, Greater Kudu and Large Carnivores. These sub-objectives and their subsidiary management actions are set out in the following sections.

Sub-Objective 1.1 Birds are monitored to discern status and trends

This sub-objective has been developed to ensure better understanding of the population status and seasonal trends of the LBNR bird population. The lake is known to host a large population of lesser flamingos and other waterfowls. The management actions under this sub-objective have been developed to ensure that the waterfowl status and population dynamics are well understood. These actions are set out below.

Action 1.1.1: Conduct waterfowl census

LBNR management has been collaborating with Kenya Wildlife Service and other stakeholders in conducting biannual waterfowl counts. These counts are useful in helping understand the numbers and population trends of the waterfowl over time in Lake Bogoria. These counts are also useful for informed decision-making and fulfil Kenya's obligation under multilateral international agreements such as Ramsar, AEWA and CBD.

This waterfowl count will continue with emphasis on wet/dry transition periods. Technical personnel will be assisted by community members who will undergo training on counting and identification as a way of transmitting knowledge and improving relationship with communities. A database will be developed locally at the reserve to enable analysis of long term trends.

These waterfowl counts will be conducted in the lake and adjacent wetlands, and will be carried out by LBNR, NMK, KWS, communities, NK, local businesses and hotels, and other partners.

Action 1.1.2: Conduct Waterfowl health surveillance

Episodes of lesser flamingo mortalities have previously been recorded regularly in the Rift Valley alkaline lakes and have been attributed to several factors. The lesser flamingo health status will be monitored and used as a bio-indicator of the ecosystem's health. There is need to document causes of mortalities and impacts on numbers of waterfowl. Samples of dead birds during an episode of die-offs will be collected and taken for analysis at the KWS diagnostics lab. The numbers and location of dead birds in a die-off will be recorded. Samples will also be periodically collected from live birds for lab analysis as part of disease surveillance. Enforcement of pollution guidelines will be done and awareness creation among decision-makers and the local community carried out.

Action 1.1.3: Conduct studies on movement of birds

Monitoring of bird status will be done to understand their movements within the East African region and internationally.

This monitoring is highly technical and academic, and LBNR will work with competent stakeholders like NMK, KWS, and NEMA, etc. to carry it out. The reserve will have a right to access results of these monitoring activities.

Action 1.1.4: Build capacity for monitoring

Monitoring activities require heavy investments in resources and human capacity. LBNR will work with other stakeholders to mobilize necessary resources and also train the local community on basic skills like bird and mammal census. A training curriculum for the community and volunteers will be developed and implemented in conjunction with partners like NMK, KWS, hotels, and other partners.

Action 1.1.5: Create awareness on importance of preserving bird habitats

Bird habitats and behaviour are threatened by human impacts. Lack of awareness contributes to poaching, egg collection, poisoning and destruction of their habitats. Awareness can lead to appreciation of birds, leading to conservation and development of eco-friendly practices. There is need to raise awareness on the role of birds (pollination, seed dispersal, control of pests, as a tourist attraction, traditional weather forecast, education, as environmental indicators, early warning on dangerous animals and harsh weather) in the Lake Bogoria ecosystem.

To implement this action, a study will be done to understand the status of bird habitats in the LBNR Ecosystem. Thereafter, awareness creation will be done on conservation needs of the birds at local and national level. Zonation and enforcement of relevant laws will also be done to minimise human disturbance (low flying aircraft, power lines and other developments). This action will be implemented by the Baringo County Government and at the national level by LBNR, KWS, NMK, NK, Conservation NGOs, CBOs, the community and schools.

Sub-Objective 1.2: Viable populations of mammal species of conservation and tourism concern established and maintained

This sub-objective has been developed to ensure that large mammals of conservation as well as tourism concern are conserved and their population status is understood. The sub-objective focuses on two conservation targets: the large carnivores and Greater Kudu, whose population is low in the reserve and requires intervention to maintain viable and self-sustaining populations in the area over the long-term.

The management actions developed to ensure viable populations of large carnivores and Greater Kudu are elaborated in the following sections.

Action 1.2.1: Establish status of large carnivores

Conservation of carnivores is important to ensure a sustainably-balanced ecological system. Carnivores are known to cause increased threat to humans and their livestock and therefore, it is important to understand their population dynamics.

To document the carnivore population status and trends, carnivore surveys will be conducted once a year. Global Positioning System (GPS) collars and other relevant tracking equipment will be procured and fitted on a few lions and leopards to understand their movements. Animals will be captured and immobilized by technical personnel to place the collars. Documentation and dissemination of information on carnivore numbers, movement and distribution will be done through organized forums with relevant stakeholders.

The carnivore survey will be done at the reserve and adjacent areas by LBNR, KWS, NMK and Universities.

Action 1.2.2: Develop a Greater Kudu Conservation strategy

Although the greater kudu is found in large numbers in most countries across Eastern and Southern Africa, it is not the case in Kenya, where the species is found in small isolated populations and also faces a poaching threat as it is seen as a source of meat. With increasing human population and settlements, habitat loss is of great concern.

Currently, there is no conservation and management strategy for greater kudus in Kenya. To enhance the conservation of this species, a conference will be organized within the first year of the plan implementation to initiate development of the Kudu management strategy. Following this conference, a greater kudu working group will be established. The working group will conduct four working group meetings within one year to develop a greater kudu conservation and management strategy. The strategy will be printed and disseminated at the reserve and adjacent areas by KWS, LBNR, NMK, and Universities.

Action 1.2.3: Establish Greater Kudu movement patterns

Greater kudu population and movement patterns within the LBNR are not well known. To conserve the species' population in LBNR Ecosystem from an informed point of view, a census will be conducted twice a year. In addition, critical habitats will be identified and mapped. This will be achieved through the following activities: procurement of GPS collars and other relevant tracking equipment; mobilisation of technical personnel, transport and equipment; mobilising animal capture equipment, drugs and supplies; and documenting and

disseminating information on greater kudu numbers, movement and distribution at the reserve and adjacent areas by LBNR, KWS, NMK and Universities.

Action 1.2.4: Create awareness on the Greater Kudu

Lack of awareness contributes to incidents of poaching and fragmentation of their habitats. Awareness can lead to appreciation of Greater Kudu leading to conservation and development of eco-friendly practices. The image of the Greater Kudu is the emblem of LBNR and BCG.

Raising awareness on the roles of Greater Kudu (tourism attraction, as a keystone species, and its cultural value and its conservation needs at the local and national level, and the enforcement of land use zoning prescriptions and relevant laws to minimise human disturbance will be done. Setting aside a Greater 'Kudu Day' to celebrate the species especially within the county will be done. During this special day, awareness creation materials will be distributed to the local community.

Objective 2: Management of important LBNR habitats improved

Social and environmental impacts on the reserve are minimizing its significance as a wetland of international importance and a stopover for migratory birds. Some of the impacts are caused by increasing lake levels, livestock grazing, tourism activities and invasive species.

The desired future state that this objective aims to achieve is one where the management of key habitats within the LBNR is improved so as to re-establish the area's natural vegetation composition and dynamics. This will lead to restoration of the area's natural wildlife species composition, and improve tourism game viewing in the LBNR. To achieve this state, several management actions have been developed that address the threats impacting on the three habitat-level conservation targets selected for the LBNR.

Action 2.1: Minimize impacts of livestock grazing

Studies indicate that unchecked livestock grazing can degrade wildlife habitat. To provide a better understanding of livestock grazing impacts in LBNR Ecosystem a study will be commissioned to understand utilization of natural resources (grass and browse); habitat degradation and competition between livestock and wildlife; and conflict over common resources.

To conduct this study, technical staff to undertake the study will be mobilized; study quadrants and transects will be established; a report with recommendations compiled; and habitat carrying capacity in the reserve will be determined. This information will inform the revision of the LBNR zoning and development of regulations to guide grazing within the reserve. In addition, LBNR management will strengthen and support existing grazing committees and develop a livestock grazing policy. This study will focus on the LBNR and it will be conducted by LBNR, the community, KWS and other relevant government and non-governmental agencies.

Action 2.2: Control invasive species

Lack of management interventions in the reserve has led to the proliferation of invasive species such as *Prosopis juliflora*. Invasive species pose a serious threat to the reserve, especially around the main gate, Waseges river inlet, South of Loburu hot springs and Mawe Moto. The impacts of invader plant species include: reduction of forage for animals; changes in habitat structure, quality and utilization by animals; reduction in overall biodiversity; poor animal condition due to toxins and diseases; and influence on animal species composition, distribution, home range sizes, recruitment and survival.

Under this management action steps will be taken to reduce the impacts of *Prosopis juliflora* and other invasive species on the ecosystem and to restore the invaded natural habitat. The following activities will be conducted to achieve the intended purpose of this management action: mapping invasive species coverage; initiate control programmes; establish collaboration with technical institutions on the control and management of invasive plants; support awareness programmes; and document and disseminate information on invasive species. These activities will be implemented within the reserve especially between reserve headquarters and northern shoreline, by LBNR, local community, KWS and KEFRI, among other stakeholders.

Action 2.3: Manage habitats for specific species

The national reserve has wild herbivores in direct competition with livestock grazed in the same grazing lands. This has resulted in confinement of wild herbivores to certain areas. The localization of these herbivores has led to overgrazing, increase in invader species, and high incidences of livestock-wildlife disease transmission. For sustainable management of the wild herbivores, the LBNR management will identify key habitats for grazers, browsers, mixed feeders, and establish the reserve species equilibrium based on their specific habitat requirements.

The following activities will be implemented under this action: identification and mapping territories of specific threatened wildlife species; identification, mapping and securing threatened wildlife migratory corridors and dispersal area. These activities will be carried out at the reserve and conservancies by LBNR, conservancies and KWS.

Action 2.4: Rehabilitate and restore critical habitats

The area of wetland/grassland towards the northern part of the reserve has been degraded. The wetland has been acting as a silt trap to the lake. River Waseges passes through Kesubo swamp before discharging its water to Lake Bogoria. However, currently the river has changed its course as a result of wetland degradation and all silt is being drained into the lake. Areas south of Loburu springs and Mawe Moto have also been lost due to a rise in the water level. The wetlands have reduced their ecological importance even after the water receded.

Through this action, rehabilitation of the Kesubo wetland to restore its ecological functions will be carried out. This activity will be implemented by LBNR conservancies, community and conservation NGOs.

Action 2.5: Establish the reserve's productivity

Currently, the reserve's productivity has not been established to determine the animal and plant dynamics; the high value plants for medicinal, grazing and browsing purposes, and phytoplankton and zooplankton density.

It is important to have an understanding of the protected area productivity. This will be done by conducting biomass assessments and carrying capacity studies for herbivores at the reserve and conservancies. These assessments will be conducted by LBNR, conservancies and KWS.

Objective 3: Forests and river systems in the Greater LBNR landscape protected, in collaboration with other stakeholders

The desired future state that this objective aims to achieve is one where the forests and river systems in the greater LBNR landscape, in particular those with which the LBNR is ecologically connected or dependent, are sustainably managed and conserved to ensure the continued conservation of the LBNR, and the unique assemblage of habitats and species it protects.

To achieve this desired state, a series of management actions have been developed under two sub-objectives that correspond to the two LBNR conservation targets located outside of the LBNR protected area network: the catchment Forests and rivers and swamps. These two sub-objectives and their subsidiary management actions are set out in the following sections. As these conservation targets are located beyond the LBNR and as such, outside the immediate jurisdiction of LBNR management, many of the actions focus on establishing or strengthening collaboration with other stakeholders.

Sub-Objective 3.1: Collaboration and support for the conservation of catchment forests strengthened

Land cover in the catchment forests has been extensively modified through various land use systems to meet human needs, precipitating severe adverse environmental impacts, with far-reaching ecological and socio-economic ramifications.

There has been extensive deforestation in the upland forests with consequences on downstream ecosystems and water availability. The main drivers for forest cover loss are: past excisions in Ol Arabel and Marmaret forests; widespread charcoal burning within the catchment especially Nyalilpuch, Olkokwe and Mugurin; cultivation in riparian areas in Subukia, Igwamiti and Lobo; and encroachment into gazetted forests, riverine forests and other fragile microhabitats. The impacts of forest cover loss include increased seasonality of Waseges River; loss of swamps and wetlands that depend on upper catchment recharge; siltation downstream at Sandai and Lobo; loss of biodiversity; flooding and displacement of settlements in the lowlands; and increased stream velocity leading to gully formation and drainage of Kesubo swamps.

In addition, livestock densities have increased beyond the land's carrying capacity, leading to overgrazing and change in grazing patterns. The cumulative effect is overgrazing, localised and sustained pressure on forage in the lower catchment and the environs of the reserve. These, and the changing lifestyles tending towards increased sedentarization, have led to soil erosion with sheet and gully formation; loss of soil fertility; sparse vegetation cover with topsoil exposure; reduced forage availability; increase in invader plant species; intensification of dust storms; flash flooding; increased poverty prevalence; increased pressure on fragile microhabitats; encroachment into swamps; prevalence of animal diseases; and human-wildlife conflict.

Overall, the consequences of human-induced changes in land cover in the plan area are: intensive soil erosion at Mugurin, Kisanana leading to siltation of River Lobo; loss of biodiversity outside and within the reserve; extensive land degradation in the entire plan area; deterioration and loss of water catchment value in Mochongoi and Bahati forests; loss of ecological value due to loss of water, disruption of nutrients recycling, seasonal flooding and loss of other water bodies as manifested by unusual flooding during the long rains; and loss of cultural and aesthetic values.

Further, challenges in the conservation of vegetation cover in the plan area include: maintenance of viable land cover types, while pressure for land and overstocking continues; protection and rehabilitation of degraded areas, which will soon after be considered as desirable grazing areas; lack of skilled personnel and financial resources to rehabilitate degraded areas; and diversification of livelihood options in a socioeconomic environment characterized by high poverty levels.

To address the habitat-related issues in the ecosystem, the following actions will be implemented.

Action 3.1.1: Protect and rehabilitate degraded catchment areas

Lack of land use plans at the local and national level has led to the degradation of water catchments, loss of wildlife habitats, water quality, and land productivity. There is need to improve water quality, river flows and habitats for wildlife. Hence, under this management action, degraded areas (due to overgrazing, deforestation, poor farming practices, soil erosion, abstraction, diversion, and embankments) will be identified and mapped, and rehabilitation programs initiated including afforestation and soil erosion control. Programmes that address better grazing and farming practices including water abstraction and sustainable water use will be initiated. Community involvement in these programs will be a central feature.

Rehabilitation will be undertaken in the reserve and adjacent areas and will be done by LBNR management in collaboration with KFS, CFAs, WRA, WRUAs, Ministry of Agriculture, KWS, NMK, NK, NGOs, and the local community.

Action 3.1.2: Establish baseline ecological conditions

Lake Bogoria depends on several rivers for recharge. The catchment areas for these rivers are important as their condition have a direct effect on the LBNR. The lack of baseline information on these crucial catchments puts the ecosystem services they provide at risk.

Through this action, technical personnel will conduct baseline surveys in the water catchment areas. The survey will be commissioned within the first year of plan implementation and will involve study on forest cover and land cover change over time, as well as the hydrological regimes of rivers. The surveys will be done at the reserve and catchment by LBNR in collaboration with KFS, WRA, KWS, NMK, NK, and the community.

Sub-Objective 3.2: Quantity and quality of water supplied to the LBNR maintained in collaboration with responsible agencies

The plan area is largely water-deficient, and the situation has been aggravated by human activities that have disrupted the hydrological regimes, affecting water quality and quantity. Cultivation along riverbanks and clearing of forests in the upper parts of the catchment has affected water percolation, springs and river flow regimes. There is a severe water shortage especially in the dry months between December and March, which directly affects LBNR wildlife and management.

Dwindling water resources further constrain water availability in the plan area due to deforestation in Marmanet, Ol Arabel, Mochongoi and West Mau Forests. This has led to declining water quality and conflicts on water rights and use with a large population of residents lacking adequate and safe drinking water. To mitigate these constraints and challenges, the following actions will be implemented.

Action 3.2.1: Minimise water resources use conflicts

Lake Bogoria National Reserve falls under Kabarnet Sub Region Water Resource Authority. The Authority has formed water users Associations in Lake Bogoria Catchment area known as Lake Bogoria Basin Water Resource Users' Association (LBBWRUA) and Loboikoitegan Water Resource Users' Association. The two associations have since helped in the conservation and protection of the Reserve's catchment areas. This action will be implemented to enhance coordination between the LBNR, WRA, and WRUAs and to regulate water use and ensure protection and conservation of water sources.

In doing this LBNR will convene joint meetings with WRUAs and conduct joint activities addressing riparian and catchment area issues. These activities will be implemented at the reserve and the sub-catchments. The implementing partners will be WRA, BCG, Water Trust Fund, small scale horticultural development projects and KFS.

Action 3.2.2: Provide alternative water sources

There is water deficit in the reserve during drought especially from December to March, which intensifies human-wildlife conflict. It is therefore critical to provide alternative watering points that can be used by wildlife.

Through this action rehabilitation of the three existing pan dams that are silted (at Koimogul, Kapchomus and Kongilel) will be done. Further the pans will be desilted periodically. Three pan dams (at Sesoché, Kapilat, Irong and Kipkunya) and water-troughs (at Acacia, Mawe Moto, Loburu, Kongilel, Chebuluny, Koimugul, Kabilat and Rabai) will be constructed. These supplementary watering points will be constructed at LBNR and the adjacent area by LBNR, BCG, NGOs, conservancies, and the local community.

Objective 4: Ecological trends and threats are monitored and understood

The future desired state is where ecological processes are clearly understood and data readily available to guide management.

Lake Bogoria National Reserve is endowed with a vast catchment area which requires a holistic management approach. The Reserve is surrounded by three conservancies which wildlife normally transverse through from time to time. Some of these conservancies are the breeding and feeding areas and refuge centres for wildlife.

Currently, there is no ecological monitoring programme that covers the LBNR ecosystem. An ecosystem wide ecological monitoring programme is important to document the status and trends of biodiversity in the reserve and catchment areas and to provide data for informed decision-making. This will ensure that conservation concepts are deeply rooted to the lowest level of community. The use of such information will help gain support on conservation matters through CSOs.

Many studies have been conducted on the reserve's ecology and wildlife. However, the results of most of these studies are not available to the management and there is a need to have a clear data base of trends

and threats facing the reserve. Water bird research and monitoring is carried out by NMK and their data is available upon request but is hardly sent back to the reserve. There is need for a comprehensive data repository at the reserve accessible to the manager to ease decision-making. The following actions will be initiated to correct this.

Action 4.1: Enhance climate monitoring

There is one automatic weather station at LBNR main gate being manned by the Kenya Meteorology Department (KMD) which collects data on rainfall, temperature, relative humidity, evaporation and wind speed. In addition, there are manual rain gauges at Nyalilpuch and Lobo gate within the reserve. Currently, there is inadequate coverage of weather monitoring stations within the reserve and its catchment. Therefore, there is need for installation of additional rain gauges at Majimoto, Emsos, adjacent conservancies and institutions in the catchment.

Through this action, 20 manual rain gauges (5 for reserve, 3 for conservancies, and 12 for institutions/catchment area) will be procured and installed. Training of staff and community monitors will be done. Technical personnel will be mobilized to assist in training, establishing and maintaining of the meteorological database. The area of coverage will be the reserve and catchment areas of the main rivers. LBNR will also work with the Kenya Meteorology Department to ease access to weather information data.

Action 4.2: Strengthen monitoring of lake and river levels

There is monitoring of lake and river levels by WRA and their data needs to be made available to management. However, monitoring equipment was submerged during the recent floods, thus there is a need to rehabilitate existing recording stations. Procurement of 3 gauge plates (for Fig Tree, Waseges and the lake centre), one river flow meter, and a diver (lake-level recorder) will be done and the equipment will be installed at specified sites. Technical personnel will be mobilized to install the equipment and train staff. A database on river and lake levels will be established by LBNR and staff training will be done on data interpretation and management.

Action 4.3: Monitor water quality

Understanding the status of water quality within the lake and its catchment is vital to inform actions like pollution control. Procurement of water quality monitoring equipment (multi-probe meter) and other sampling equipment such as boats and waders will be undertaken. Technical personnel will be mobilized and staff trained. Monthly water quality monitoring (physical-chemical parameters), and phytoplankton/zooplankton monitoring studies will be conducted. A database on water quality information will also be established and maintained at LBNR.

Action 4.4: Conduct biannual animal census

Biannual animal counts will be undertaken regularly to generate information on population dynamics and trends for management purposes. This will provide information on habitat utilization patterns, distribution and aid in security patrols and management of human-wildlife conflict.

Census counting blocks for mammals will be established. Mammal census will be conducted on a biannual basis (dry and wet season counts). Monitoring equipment such as binoculars, GPS, digital cameras and mammal guidebooks will be procured. Technical personnel, transport and equipment will be mobilized. The census results will be documented and information on wildlife numbers and distribution disseminated. The census will be conducted in the LBNR and adjacent conservancies by LBNR management, KWS, conservancies and the community.

Action 4.5: Establish a vegetation monitoring programme

Currently, vegetation monitoring is not carried out in the reserve. Hence, under this action a vegetation monitoring programme will be established in collaboration with partners. Vegetation monitoring transects and enclosures will be established and vegetation monitored regularly. A vegetation-monitoring programme will be developed in year one and carried during dry and wet periods.



CHAPTER 5

TOURISM DEVELOPMENT AND MANAGEMENT PROGRAMME



5.1 Programme Purpose and Strategy

The purpose of the Tourism Development and Management Programme is:

To make LBNR an outstanding tourist destination offering premium visitor experience and variety while supporting conservation and local communities

The goal of the Tourism Development and Management Programme in LBNR is to increase revenue generation through more visitation while preserving its national and international reputation for its unique geological features (e.g. hot springs) and animals species (e.g. flamingos and the Greater Kudu) for which it has a niche market in East Africa.

Lake Bogoria National Reserve is famous because of the Lake, which serves as a great attraction due to fascinating scenery and outstanding geological heritage as part of the Great Rift Valley. The lake is sometimes referred to as “The healing place” because of the natural hot waters that are reputed to have a healing effect against many skin ailments. This hot water emanates from the hot springs, which indicate the nearness of the molten rock to the earth’s surface. The springs are closely associated with geysers that emit spectacularly steamy waters, making the Lake both a unique and extraordinary destination for nature and leisure lovers.

Besides this geological uniqueness, the Lake is also home to one of the largest populations of the lesser flamingos and is now the only one in Kenya that hosts a significantly large population of the species after the flooding of Lake Nakuru several years ago. However, due to a combination of factors, tourism in LBNR remains low by national standards, notwithstanding the huge potential it has to leverage its market uniqueness.

For a long time, the Reserve was under the management of Baringo and Koibatek County Councils before the current dispensation that placed it under the Baringo County Government. This arrangement meant the reserve’s management was limited to protection of the boundary with little budget for the development of infrastructures, while tourism remained primarily demand-driven, especially from learning institutions that visit the unique geographical sceneries.

With the current set up of county governments, there is a need to maximize the potential of the reserve to attract more visitors and earn more revenue to the county government and local communities. For this to happen, there is a need for a radical change of policy mindset to recognize the importance of tourism as an economic pillar at the national and county level and the fact that tourism is a highly competitive business that requires aggressive marketing as well as development of corresponding support infrastructures and investments in line with Kenya’s Vision 2030 and the Sustainable Development Goals.

The Tourism Development and Management Programme of LBNR seeks to outline the road map that will guide development of tourism in the reserve by broadening the product base beyond the hot springs and the flamingos, marketing the reserve’s and especially the lake’s attractions to a greater audience to attract more visitors and also lay ground for better tourism by investing in better infrastructures and customer service.

Guiding principles

The guiding principles describe key national and county policy guidelines that inform the development of the Tourism Development & Management Programme in LBNR management plan. The policies include The National Tourism Blueprint 2030, Baringo County Integrated Development Plan (CIDP) and Baringo County Tourism Development and Management Policy (CTDMP).

In the implementation of the Tourism Development and Management Programme, BCG will strive to ensure that:

Tourism products are diversified

Product strategy guides what a destination offers to a visitor to realize optimum experience and strengthen customer loyalty and brand value. The CTDMP states that the Baringo County Government will support tourism product diversification and a route development strategy that spreads demand and/or promote the emergence of new products and/or improve access to existing ones. It further states that it recognizes that new product development must be linked to existing or emerging tourism plans.

For a long time, the tourism product in LBNR has been limited to a short drive into the reserve after the main gate to the hot springs area. The visitors then disembark to savour the site of the hot springs and geysers with limited other activities like nature walks or picnics. The road that goes around the lake has not been motorable for a long time, and this has significantly limited chances for wildlife viewing as well as the exploration of the magnificent scenery on the Western side of the lake.

This product limitation is a major constraint to the reserve's ability to generate revenue as it does not evolve into a strong national or regional brand that can attract many visitors. Lack of product variety also limits visitor experience while also failing to endear the park to a broader category of visitors.

The uniqueness of the hot springs is a popular reference point in geography lessons which makes the lake very popular with schools on study tours. However, this tends to create product fatigue, and the reserve can only retain market relevance by widening the product beyond just visiting to see the hot springs.

The reserve has a big challenge then to retain the student category of visitors while attracting other categories whose interests go beyond the hot springs. The remoteness of the reserve makes it very ideal for wilderness adventures like filming, mountain climbing, hiking and cycling safaris. Despite the reserve having a diversity of landscapes, camping is also hampered by a lack of infrastructures and insecurity and these will need to be addressed to make the reserve a competitive holiday destination.

The reserve's traditional closest competitor in terms of tourism has been Lake Nakuru National Park with which they share a close resemblance. The two lakes on the floor of the Rift Valley are saline lakes, which have always offered the best habitat for the flamingos. When both lakes have flamingos, there is little to attract visitors to Lake Bogoria besides the hot springs. The management of LBNR ought to exploit its comparative advantage over Lake Nakuru National Park by introducing tourism products that would be hard to introduce in a national park. These include hiking and cycling safaris, horse, mule and donkey riding, and rock climbing that would endear the destination to niche tourists who love adventure and exclusivity.

Tourism marketing is intensified and modernised

The CTDMP spells out that the Baringo County Government encourages effective marketing as a key to expanding tourism earnings. Currently, the county attends the Magical Kenya trade fair at KICC and Holidays Expo at the Sarit Centre. Outside these two positive initiatives, the reserve mostly relies on commercial marketing done by the only lodge in the vicinity, the Lake Bogoria Spa Resort. The rest of the marketing comes from Kenya Tourism Board while private safari operators market the reserve through safari package products for their clients.

However, there has not been an elaborate plan based at the reserve to market it as a destination in its own right, and this is a trend that must come to an end if the reserve will optimize its tourism potential. Therefore, under this management programme the marketing strategy will focus on giving guidelines on how the destination creates publicity about itself, and wins potential visitors to generate more income. The starting point is for the reserve to identify its unique selling points and package them into a marketing campaign and advantage. Secondly, the reserve should cease dependence on third-party goodwill and market itself to the tourism market directly. The reserve's management should also focus on the enhancement of the County's central Tourist information centre at the equator and linkage to all the other related facilities customer care centres, museums, and galleries.

Tourism-support infrastructure is developed and upgraded

LBNR has poor tourism-support infrastructure and this is a big limitation to the development of tourism in the destination. The reserve would conveniently connect to the Northern Kenya tourism circuit of Samburu and Mt. Kenya. However, there is no direct road linking the two, and the reserve is only accessible via Nakuru which makes it about 140 km off the circuit.

Tourism as a business is sensitive to distance because of fuel budget and also driving distances which both the drivers and the customers like to keep to a minimum. Hence, there is always a need for strong justification to visitors to drive off tangent to a destination outside the popular safari route. The LBNR needs to work extra hard to stamp itself on the itineraries of popular safaris. In this regard, under this management programme, infrastructure that support tourism product and marketing to ease access to the destination and improve visitor experience within the destination will be developed. A major infrastructure boost for LBNR would be:

- ▶ Opening up of the road that links the reserve with the Mountain circuit, Samburu, Isiolo, and the greater North Rift and Western Circuits which further opens into the Northern tourism circuit;
- ▶ Development and the opening up of the historic Trans Rift Trail that traverses the Reserve and beyond; and
- ▶ Accessing the Kenya Roads Board funding support for maintenance of classified roads reserve through the KWS as the legally appointed agency.

Tourism investments developed

The tourism policy in CTDMP states that the Baringo County Government encourages the establishment of tourism on communal land as an efficient means of involving communities in the tourism sector and thus for them to share in the benefits derived from tourism. It further states that *“Baringo County Government recognises that tourism offers significant opportunities for poverty alleviation in communal land areas. Due to barriers that block tourism investment, Baringo County Government will institute measures to ensure access to resources in order to ensure that the full potential for tourism development is realized”*.

Due to low investments in tourism facilities, the reserve relies on only one facility, the Lake Bogoria Spa, to offer accommodation. The nearest other facilities are in Lake Baringo which is several kilometres away. This shortage of accommodation has condemned the reserve into a “one day trip” destination which dramatically limits its ability to derive more income from its customers, especially given that there are few other activities on offer in which customers can spend beyond park entrance fees.

To spur tourism in the area, the reserve through county government will need to look into factors that curtail investments in tourism and seek to address them. These factors include insecurity and land tenure system that discourages long term leases. The county government will also need to look at the matter holistically to make Baringo investor-friendly by reviewing the regulatory framework (e.g. licensing) to make it easy to conduct business in Baringo.

There is therefore a need to initiate and support community-based eco-enterprise investments e.g., Trail camps, village stays, craft and cultural centres, within the environs of the Reserve and beyond. This can appropriately be implemented through partnerships and responsible tourism destination principles.

5.2 Management Objectives and Actions

The following sections describe the management objectives envisaged under the Tourism Development and Management Programme and describe the management actions needed to achieve them. Under each management objective, there is a brief description of the relevant management issues and opportunities justifying the listed actions.

The 3-Year Activity Plan for the Tourism Development and Management Programme, which details the activities, responsibilities, timeframe and milestones necessary for the delivery of each management action over a 3-year timeframe of this management plan is presented in Annex 1.

The management objectives (MO) are:

MO 1. Tourism product in LBNR is diversified to give a variety of activities and experience

MO 2. Visitor administration and management is improved

MO 3. Marketing of LBNR is intensified and modernized to give its unique features more considerable publicity and tourism value

MO 4. Investment opportunities are exploited and widened in area coverage to endear the destination to more people and boost revenue generation

MO 5. Tourism-support infrastructures in LBNR are developed and upgraded to ease management, visitation and enjoyment

These management objectives and corresponding actions are briefly described in the following sections.

Objective 1: Tourism product in LBNR is diversified to give a variety of activities and experience

The desired future state for LBNR is a tourism destination which is well known for its unique features, but which also offers visitors a wide variety of activities to make visitation here satisfying to the visitor and profitable to the reserve.

The limitation of product offering to the hot springs and flamingos has its drawbacks. First, with regards to flamingos, the lake shares the East African population of the birds with other lakes, notably Lakes Nakuru and Elementaita in Kenya and Lakes Manyara and Natron in Tanzania, the latter being the breeding ground. This means when there is significant population of flamingos in other lakes, most holidaymakers and tour operators who design itineraries leave out Lake Bogoria, especially because it is slightly off the safari circuit. The reserve, therefore, needs to come up with better products in the form of attractions and activities which can warrant marketing by tour operators and visitation by private holidaymakers, whether or not flamingos are there.

As regards, the hot springs, they are fascinating to watch as they are a geographical (and sometimes religious) mystery. They are therefore very popular with learning institutions and they tend to be associated with learning. This means a large portion of the domestic market shuns the destination because “they saw it while in school”. The challenge here is to widen up the offer for visitors so that hot springs become one of the many attractions and to make repeat visits worthwhile. Another challenge with hot springs as the main attraction is that its stature has been eroded considerably over the last few years when the lake level rose markedly, submerging the hot springs and weakening the geysers that are hardly seen forcefully ejecting steam as before.

This objective, therefore, is meant to widen the tourism product in LBNR to make it easy to market in the tourism sector and also ensure that visitor experience is high so that the destination attracts repeat visits to build loyalty and a greater customer base from which to draw sustainable tourism. To achieve this objective, the following actions will be implemented.

Action 1.1: Upgrade Hannington Trail

This action focuses on the development and upgrading of the historic Hannington Trail which is run down and poorly accessible. The trail offers a panoramic view of Lake Bogoria and the distant vistas of Lake Baringo, Marigat and Sacho hills. Opening up this trail and developing associated facilities like picnic benches, viewpoints, signages, and safety measures would make the Hannington Trail a popular hideout for nature lovers in search of adventure, meditation or family outings. It would also make photography in the reserve a popular activity, which will assist in self-marketing the destination.

In line with the above will be the development of the Hannington View Point, as well as the Nyalilpuch and Flamingo Lookout View Points. Development of the Hannington Trail will give way for walking safaris which have great potential due to the historical significance of the trail as the route used by great explorers such as Joseph Thomson, who used the trail on his way to the source of River Nile.

Action 1.2: Rehabilitate existing Campsites and develop a few others

Fig Tree Camp, Acacia Campsite, Loburu Delta campsite and all picnic sites have been flooded. Hence, to appeal to more adventure visitors, the reserve is urgently in need of serviceable campsites which can be public or private depending on demand. These campsites will require basic facilities especially solar lighting, reliable water sources and modern washrooms. As such, the *Acacia* and *Fig Tree* Campsites will be rehabilitated and a few more campsites established.

Action 1.3: Develop adventure tourism products like rock climbing, boating, walking safaris

To widen the scope of holiday activities, the reserve will explore and promote more wilderness and adventure safaris like rock climbing, boating and walking safaris.

Action 1.4: Develop cultural tourism programmes with the local community

There is great potential for cultural tourism which needs to be opened in conjunction with local communities by developing cultural tourism packages and linking them with reserve visits so that they are marketed together. There are two cultural centres in the reserve-adjacent areas Lobo Cultural Centre and Tugen Cultural Centre at Kapkuikui. These cultural centres need to be equipped with cultural artefacts. In addition, there is a need to draw a Memorandum of Understanding between BCG and Ushanga Initiative on the promotion of cultural tourism in the County. Further, BCG will organise and promote a cultural event that will be commemorated annually in Lake Bogoria NR.

Action 1.5: Restore hot springs (product flagship of the reserve) by protecting them from excessive flooding

The reserve's flagship resource is the hot springs, which as earlier indicated, have been submerged due to the recent flooding that affected many Rift Valley lakes. If this continues, it threatens the main attraction in the destination and could greatly undermine study tours that are centred on the geographical feature. Under this management action, BCG will explore possible ways of protecting the springs by shielding them from excessive flooding.

Action 1.6: Develop a lakeshore boardwalk, viewing platform and bird hide

To contain visitors from harassing the birds and also shield them from potential accidents at the hot springs, a board walk which ends up into a viewing platform or shed above the hot springs will be developed. And to facilitate waterfowl viewing from close range, bird hides will be developed at suitable waterfowl concentration sites. Figure 5 shows examples of a board walk and view shed.



Figure 5: Boardwalk and viewing shed-Lake Eilat Israel⁴

Action 1.7: Enhance and make visual informational and directional signages as per acceptable format and standards

Tourism is hampered by the inability of visitors to explore different sections of the reserve due to inadequate information on directions and relative distances from different points of interest like gates and viewpoints. A comprehensive signage system is useful in terms of assisting visitors to move around while they can also be used to remind visitors of important reserve regulations and cautionary information (For instance information on speed limits, condition of roads etc.). Hence this action will aim to provide adequate information through signages that will be strategically located in the reserve and its adjacent areas.

Objective 2: Visitor administration and management is improved

Regarding visitor administration and management, the desired future state for LBNR is where visitors experience good reception, efficient management and information dissemination while observing rules and regulations inside the reserve.

Currently there is weak regulation and management of visitors, especially during the peak seasons of the reserve like school holidays, when the reserve hosts many students, and also the festive seasons when many local people visit the reserve. Weak management has resulted into wanton littering within the reserve causing environmental pollution. Under this objective, therefore, reserve management will implement the following actions.

Action 2.1: Create more environmental awareness during visitor briefings to minimize pollution

To minimize pollution in the reserve, reserve management will create more environmental awareness during visitor briefings. In particular, they will be made aware of the government’s ban on the use of plastic bottles, straws and related products within all protected areas that was gazetted on 5th June 2019. Visitors will be requested to leave all banned plastic products at the entry gates. In addition, litter bins will be provided at strategic locations and visitors sensitized on their importance and use.

⁴ Photo courtesy of J. Kimaru, Warden LBNR

Action 2.2: Intensify patrols to enforce regulations

During the peak seasons, there is overconcentration of visitors at the main attraction, the hot springs, which poses safety risks. The reserve has indeed recorded cases of serious accidents at the site, with some resulting in fatalities. Congestion also leads to visitors defying reserve regulations and resorting to animal harassment, especially flamingos.

There has also been a problem with off-road driving which leads to vehicles getting stuck, thereby exerting more pressure on the reserve's management resources. To curb infringement of reserve rules, the reserve management will intensify patrols and introduce reasonable fines to deter off-road driving.

Action 2.3: Develop and equip visitor education Centre

Management of visitors is poor due to the lack of a good facility and medium for information dissemination, and also the lack of an office dedicated to visitor management and education. Under this action, therefore, besides the ongoing rehabilitation of the Lake Bogoria Environmental Dry land Education Centre at the reserve headquarters, the Centre will be equipped with relevant materials and information to educate and sensitize visitors. Introductory talks will also be held at the education centre. These measures will assist in decongesting the reserve during peak seasons by holding some groups at the education centre and keeping them informed and entertained before proceeding into the reserve.

Action 2.4: Adopt modern payment methods

Currently, the reserve can only receive payments at the point of entry. This is risky and inconveniencing to both the clients and the management as they are forced to handle cash money. Under this action, reserve management will immediately adopt modern technology in business transactions and become amenable to digital systems like M-PESA. Secondly, the reserve management will explore the possibility of prepaid ticket purchases from strategic locations like Nairobi or Mombasa and borrow lessons learned from other leading reserves like Maasai Mara and Samburu.

Objective 3: Marketing of LBNR is intensified and modernised to give its unique features greater publicity and tourism value

The desired future state regarding tourism marketing for LBNR is where the reserve's niche identity is well-marketed nationally and internationally to increase visitation and customer loyalty. Historically, the reserve has relied on its monopoly of the flagship product, the hot springs, as the sole marketing strategy, on the assumption that "everybody" knows the destination because of these hot springs and they will visit. Another marketing strategy that the reserve has relied upon is that of word-of-mouth, which is primarily used by tour operators who put Lake Bogoria on the itinerary for their clients. However, this is risky as tour operators exclude Bogoria when their clients can see flamingos in Lake Nakuru or Lake Elementaita.

There is a need for a complete change of mindset in marketing and an appreciation that tourism is highly competitive, and that destinations must compete for visitation and spending. This is what will determine the success of marketing campaigns and programmes. Consequently to enhance reserve marketing, the reserve management will implement the following actions:

Action 3.1: Set up a marketing office

Once the importance of marketing as a management activity is realized, there is a need to set up a marketing office as part of the reserve administration and set aside resources for marketing so that it ceases to be an afterthought of other management activities. This office will spearhead an aggressive marketing campaign and advise the management on important marketing events locally and internationally. The reserve will then schedule to participate in trade fairs like Karibu Fair in Tanzania, Indaba in South Africa, and World Travel Market in London etc.

Action 3.2: Modernise marketing methods

Even when marketing is done, the destination tends to rely mostly on traditional and old-school marketing tools like brochures, which are exceedingly overtaken by technology and consumer trends. There is therefore

need to modernize the marketing activities by developing a modern website with information on location, geography, wildlife and scenery attractions etc. This will be complemented by modern marketing tools like social media, which can update potential visitors and general readers on regular activities and changes like flamingo migrations, sightings of animals, and important functions, among others.

Action 3.3: Set up satellite offices in major towns

The reserve's marketing efforts are hampered by the lack of an easily accessible office where public and potential visitors can access information and even make bookings. The action proposed here is setting up a customer liaison office in Nairobi in the short-term and considering other catchment areas like Mombasa, Kisumu and Eldoret in the long-term.

Action 3.4: Introduce a tour bus

For Nakuru residents, the reserve will work with the County Government to introduce a tour bus that can take people on day trips to Lake Bogoria on weekends and public holidays. This will help the destination to market itself to the domestic market. To implement the tour bus project successfully, BCG will explore partnership with the private sector. Efforts will be made to make the bus tour both affordable and commercially viable.

Action 3.5: Increase publicity of unique features

Like all public institutions, the reserve has been poor in making a connection with its loyal customers and using them to publicise the destination. This can be done inexpensively by taking advantage of small themes and giving them publicity to attract public curiosity and attract customers. For instance, the reserve should take advantage of the fame of the hot springs' water as being of medicinal value. This should be given more prominence and used as a marketing tool. There is also the Equator near the reserve which can be used to emphasize the reserve's geographical uniqueness.

Action 3.6: Use vehicle stickers to market the reserve

To entrench the image of the reserve as a destination for adventure safaris, the management will explore production of vehicle stickers to give to all vehicles that visit the reserve. The stickers should market the reserve with a slogan like "I walked through Lake Bogoria National Reserve and it was fun" or "I have been to Lake Bogoria and loved it" among others.

Action 3.7: Annual marketing event

It is important to have an annual event that draws many customers while also giving publicity to the reserve. The action proposed here is the development of a rally across the reserve, preferably a cycling rally which is more environmentally friendly. The BCG can work with arrange an inter-county rally starting from Lake Baringo through Lake Bogoria National Reserve and ending in Nakuru. This will endear the concept to many participants and enhance chances of success. It will also help if it is tied to a humanitarian cause where part of the proceeds goes towards the cause.

Action 3.8: Prepare and disseminate reserve marketing materials e.g. brochures, maps, guide book, stickers and merchandise

Marketing is constrained by lack of tangible materials that the reserve management can use to attract potential visitors and also ones that can be used by tourism partners like tour operators who refer to materials in their offices when discussing safari options with clients. Having marketing materials disseminated in the industry will greatly increase the reserve's publicity and most likely lead to increased visitation.

Objective 4: Investment opportunities are exploited to endear the destination to more people and boost revenue generation

The desired state in respect to tourism investments in LBNR is a tourism destination where terms of leasing land for tourism investments are easy and predictable, and investors are assured of security for their properties and visitors.

Without investments in the tourism sector, the capacity of the destination to absorb long-staying visitors remains very constrained and so is the ability of the destination to increase revenue as it will remain a “one-day trip” for many visitors. And given the popularity of the reserve with student groups, it is very limiting when the area lacks decent accommodation for schools. Therefore the following actions will be implemented to improve the investment environment in the LBNR:

Action 4.1: Improve security in the general area

A major deterrent to investment is general insecurity in the area, especially due to regular reports and incidences of cattle rustling in the northern fringes of the reserve. The primary action, therefore, will be for the County Government to work with the National Government and other institutions like KWS to manage the problem of insecurity in the areas so that people feel safe in the destination and potential investors have confidence.

Action 4.2: Develop tourist accommodation facilities

The reserve and County Government will work closely with the private sector to encourage the development of tourism accommodation facilities like an eco-lodge and student hostels.

Action 4.3: Revise land leasing policies to make them predictable and friendly to potential investors

The other problem is the rigid and highly bureaucratic policies relating to land acquisition and leasing. This makes the destination unattractive to many potential investors who like predictable and stable policies. This is coupled with a general lack of positive relationships between County Governments and the business community due to a cumbersome regulatory framework for licensing and controlling business. The action proposed here is the revision of the business control framework to make investments easy and inexpensive, and strengthening the relationship between the county government and investors.

Action 4.4: Target specific potential investors for niche market tourism and give incentives that can attract/appeal to their markets

The BCG must make a deliberate decision to attract investors in tourism to the LBNR. The starting point is working on a good relationship with the tourism industry in general while trying to target specific operators interested in local operations and investments. This rapport will create investor confidence and will interest them to explore unique markets outside the mainstream tourism markets and products.

Action 4.5: Develop an investment catalogue

There is also inadequate information regarding the opportunities of investments in the reserve and the area in general. The action proposed here is the development of an investment catalogue that can be disseminated to the wider business community locally and internationally outlining the enormous investment potential of the area in regard to tourism. Further, BCG will explore possibility of an investor conference to create awareness on investment opportunities related to tourism and allied businesses.

Action 4.6: Manage effects of negative politics to attract investors from different backgrounds who stand to add economic value to the area.

Investment in the area is also said to be affected by negative politics which limit potential investors to a select circle of people because of tribal, political and similar narrow considerations. The County Government will have to manage negative politics to attract investments from the right people irrespective of their political or ethnic backgrounds.

Objective 5: Tourism support infrastructures in LBNR are developed and upgraded to ease management, visitation and enjoyment

The desired state regarding infrastructures in LBNR is of a destination with modern and standard tourism support infrastructures to maximize visitor experience. To achieve this objective, the following actions will be implemented.

Action 5.1: Install modern sanitation and washroom facilities at all the gates, hot springs and other visitor points

A major challenge facing the reserve is having to host so many visitors when it lacks enough and standard washrooms and sanitation facilities. This is a headache to the management, which has to bear with confusion and unhappy visitors, but also constraints on visitor experience as many people are put off by the lack of standard washrooms or even clean water to wash their hands when eating. The foremost action under this management objective is the development of modern sanitation and washroom facilities at all the gates, hot springs and other visitor points.

Action 5.2: Maintain the main viewing circuit

The enjoyment of the reserve is further constrained by poor access to large sections away from the hot springs due to the poor state of the road, whose sections were submerged when the lake experienced flooding. This also limits product diversification as other activities in the reserve cannot be exploited when a huge part of it is not accessible. The action proposed here is opening of the main road circuit and setting of a budget for maintenance to ensure that that road remains serviceable throughout the year.

Action 5.3: Provide ample vehicle parking areas

Another infrastructural limitation is the lack of ample and well-delineated and marked parking at the gates and the hot springs. This makes it cumbersome to manage large groups of visitors and dilutes the customer experience. The action proposed here is development and expansion of the parking space at the main gate and also at the hot springs.

Action 5.4: Upgrade reserve entry gates

There are two gates, the Emsos and Maji Moto, which lack basic facilities and standards. These two will be upgraded.

Action 5.5: Enhance visitor safety and security

Together with the operations programme, the tourism development and management programme will endeavour to enhance security of visitors by investing in the following:

- Security Outposts for rangers (mobile)
- Ranger equipment/patrol gear (radio communication, binoculars etc)
- Routine and special training of the Rangers and general staff
- Patrol/maintenance/rescue vehicles or equipment specifically attached to the reserve to enhance service to the visitors (e.g. graders, water bowsers, dozer, tractor, vehicles)



CHAPTER 6

COMMUNITY PARTNERSHIP & OUTREACH PROGRAMME



6.1 Programme Purpose and Strategy

The purpose of the Community Partnership and Outreach Programme is to ensure that:

Effective and sustainable Incentives and benefits from the natural resources that promotes communities support for conservation and participation in conservation-compatible land uses across the greater LBNR landscape is enhanced

The reserve was a community grazing area before 1970s when it was made a wildlife conservation area. Livestock grazing has, however, continued within the reserve, resulting in competition for pastures, diseases transmission, poaching and other forms of human-wildlife conflict. Grazing is especially severe during the dry season as the reserve is regarded by the community as a “grass bank.” Currently, there is a grazing committee which regulates the livestock grazing in the reserve but it needs to be strengthened to effectively enforce grazing rules.

The Community Partnership & Outreach Programme will implement a comprehensive set of activities aimed at mitigating the negative impacts of the increasingly interconnected relationships between the LBNR and the communities that live around it, and capitalising on opportunities where both conservation goals and community livelihood needs and aspirations can be reconciled. As set out in the purpose statement above, the programme focuses on enhancing community participation in the management of LBNR resources to ensure their sustainability as well as improve community livelihoods.

Guiding principles

In implementing the LBNR’s Community Partnership and Outreach Programme, LBNR Management will strive to ensure that:

Communities can express their concerns, ideas and opinions

Effective communication between LBNR managers and local communities is essential to enable both parties to raise common problems and work towards shared goals. Without such two-way communication, it will be difficult to ensure community support for conservation, as minor issues are likely to escalate into serious problems, and LBNR management activities may not be optimally targeted towards community needs. As such, activities under this programme will aim to further develop and strengthen LBNR management communication and collaboration mechanisms with local communities. This is in line with article 69 (d) of the Kenya Constitution 2010, that states that the state shall “encourage public participation in the management, protection and conservation of the environment” and the World Heritage Committee resolution number 10 of June 2015 on Lake Bogoria which urged “*State parties to ensure the equitable and effective participation of the indigenous peoples (IPs) in the management of world heritage sites within indigenous peoples lands and territories and support indigenous peoples own initiatives to develop administration and management systems*”.

The LBNR is having a positive impact on the lives of adjacent communities

LBNR adjacent communities bear many of the direct and indirect costs of wildlife conservation, both through human-wildlife conflicts and the loss of access to land and natural resources at the reserve which they see as their own land. If these costs are not offset, their support, which is necessary for the continued survival of the LBNR, will be weak or unavailable and conservation efforts may not be sustainable. As such and in line with the Cabinet Memo (Baringo County Government Policy on Benefit Sharing) that directs that 10% of revenue from LBNR in every financial year is allocated to community development projects, activities under this programme will aim to mitigate the costs of wildlife conservation incurred by the reserve-adjacent communities, and increase the direct benefits communities receive from the LBNR.

One of the most practical ways of giving direct benefits to communities neighbouring the LBNR is to provide employment to the local community. The LBNR already provides a variety of such opportunities for both skilled and unskilled casual labourers, and this programme will continue to give preference to the local people

when new opportunities arise, e.g., maintenance of fences, roads, buildings or compounds, so that as large a number of people as possible from the local communities benefit from employment opportunities in the area.

Communities and other stakeholders are aware of the LBNR's values and importance

According to Baringo CIDP, section 4.1.2.3 on Natural Environment, Baringo County Government will create environmental awareness through public education and sensitisation. In line with this action, activities under this programme will improve the scope, content and structure of LBNR conservation education programme, and focus partnership activities in community areas where support for conservation is poor, or where there are critical conservation issues that need to be addressed.

There is a need for more awareness on values of the reserve, and specifically awareness on conventions that have been ratified by the state. For instance, it is important for the majority of the community members to be aware of the value of World Heritage and RAMSAR conventions both of which LBNR is listed under. Also, they need to understand the Convention on Biological Diversity (CBD) and its two Protocols, Cartagena Protocol on biosafety and the Nagoya Protocol on access and equitable share of benefits arising from utilization of genetic resources and traditional knowledge.

There is collaboration between reserve management and other stakeholders in strengthening Community-Based Natural Resource Management

Many of the threats to the ecology and natural resources in the LBNR stem from community land uses and practises way beyond the reserve boundary. The scale and intensity of these impacts are increasing and, although outside the direct mandate of the reserve management, these issues cannot be left unaddressed. Activities under this programme therefore will pursue partnerships and collaborations with other institutions and organisations (such as CBOs and NGOs) to address issues of mutual concern outside of the reserve.

The programme is sensitive to gender and marginalised community members

The Baringo CIDP, Section 4.3.4.15, states that "*gender analysis should always be included in the planning and implementation of all development processes.*" Hence, activities under this programme will seek to ensure participation and empowerment of all members of the community including women, children and the marginalised.

Different strata of the communities adjacent to the LBNR utilise natural resources in different ways. Marginalised community members may have specific issues relating to the LBNR conservation and natural resource use that other community members may not be aware of. Special attention should be paid during project implementation to ensure that projects respond to the needs and issues of all community members, not just those that are most visible or vocal.

Communities have the capacity to manage land and natural resources sustainably

Increasing pressures on land and other natural resources outside the LBNR undermines both the ecology of the LBNR, and the long-term sustainability of community livelihoods. As such, activities under this programme will aim to mitigate the negative impacts of unsustainable natural resource use on reserve biodiversity and community wellbeing, by improving the capacity of communities to sustainability manage land and conservation activities outside protected areas.

These guiding principles are intended to guide the development and implementation of the five management objectives that have been designed to achieve the Programme Purpose. These objectives are:

- MO 1. LBNR-community communication and collaboration mechanisms strengthened**
- MO 2. Human-wildlife conflict incidences reduced**
- MO 3. Community benefits from the LBNR enhanced**
- MO 4. Sustainable conservation-friendly land uses promoted in the greater LBNR landscape**
- MO 5. Community understanding and awareness of LBNR conservation improved**

6.2 Management Objectives and Actions

Objective 1: LBNR-community communication and collaboration mechanisms strengthened

The future desired state of LBNR and its adjacent areas is where there is regular consultation between reserve management, the community, and other key stakeholders, and where the Lake Bogoria National Reserve Joint Management Committee is active and effective. This objective has therefore been developed to bring about the desired future state where collaboration between LBNR, Endorois community, BCG and all other LBNR stakeholders including NGOs, research institutions and Government institutions is strengthened. In order to achieve this objective, a number of actions will be implemented which include:

Action 1.1: Revive the Joint Management Committee (JMC)

The JMC offers a forum where communities living adjacent to the LBNR can directly participate in making management decisions regarding management and development of LBNR. Hence under this management action, the JMC will be revived. The membership of the committee will be as agreed during the public participation forums on this management plan. Comprehensive terms of reference for this committee will be prepared detailing aspects like frequency and conduct of meetings. Once formed, the committee will develop protocols on budget approvals, conflict resolution, collaboration with partners, fundraising etc. It will also be tasked with taking disciplinary action against errant members, advising on reserve administrative issues, research regulation and approval of facility developments in the reserve.

Action 1.2: Strengthen collaboration between LBNR management and Endorois Community

Endorois community is the only community bordering the reserve. The area used to be their ancestral home before the reserve was established. The African Commission decision on restitution of Lake Bogoria National Reserve provides that the community can graze their livestock in the reserve, especially during drought seasons. Furthermore, the Endorois have a wealth of traditional knowledge based on their past management of the reserve that can be harnessed in management. As such, to enhance inclusiveness, reserve management will ensure that the community participates in reserve management through their established traditional institutions.

There are no clear channels for the community to express their concerns or get feedback from relevant County departments. Hence, BCG will strengthen the capacity of the Endorois Welfare Council (EWC) and establish clear roles and terms of engagement with the institution.

Action 1.3: Incorporate indigenous knowledge In LBNR management

The indigenous community has a wealth of information on land use practices in and around the reserve. Hence, BCG, through the reserve management will tap into this knowledge during the reserve planning and management processes. It will also create awareness among the Endorois community to harness their conservation knowledge and thereby gain support for LBNR.

Action 1.4: Devolve natural resource conservation and management to communities through the conservancy concept

Community conservancies can be important tools for the BCG to take development to the grassroots communities as well as engaging the local people in sound natural resources management. BCG will work with these conservancies to address various issues pertaining to conservation and management of natural resources.

Action 1.5 Partner with other conservation stakeholders

There is a need for LBNR to partner with other institutions around the reserve that are working in the conservation, tourism and socio-cultural sectors in Baringo County to avoid duplication of efforts. As such, reserve management will actively engage the Endorois community and various research institutions in conducting research on biodiversity and cultural issues. It will also partner with the Ministry of Agriculture and Livestock in promoting conservation-friendly farming methods around the reserve and partner with

Kenya Forest Service and Kenya Wildlife Service in protection and restoring degraded habitats.

Action 1.6: Coordinate activities of partners in the greater LBNR Landscape

A number of NGOs operate in and around the LBNR with little or no coordination. There is therefore a need for coordination of these entities to minimize duplication of efforts and gain maximally from the NGO-funded projects.

Besides NGOs, there are research institutions conducting various activities around LBNR (e.g. WWF, NRT, Nature Kenya and universities), but there is no clear framework to coordinate their activities. Besides, their research has no clear dissemination mechanisms; hence does not contribute to LBNR management decision-making.

Reserve management, in collaboration with the revived JMC, will work closely with BCG to coordinate the activities of the NGOs and other institutions working in the area. Towards this, JMC will inventory projects being implemented by partners working in the LBNR and adjacent areas. It will thereafter form a stakeholder platform where these partners can be meeting to discuss progress and disseminate information.

Objective 2: Human-Wildlife conflict incidences reduced

The future desired state at LBNR-adjacent area is where there is minimal Human-Wildlife Conflict (HWC) to reduce losses to the community and improve overall reserve-community relations.

However, HWC is currently rampant and is manifested in the form of property destruction by wildlife, crop destruction by baboons, zebras, porcupines, wild pig, and more recently elephants. The situation has been complicated by human encroachment on wildlife habitats and competition between livestock and wildlife for pasture and water. Inadequate fuel wood and water resources further aggravate the situation. The conflict is further manifested in form of bush-meat poaching and encroachment on wildlife corridors. The main conflict hotspots include the areas close to the rivers such as River Waseges, Molo River, Emsos River and Lobo River. Livestock grazing in the reserve also results in conflicts.

As the human population around the Reserve continues to increase, settlements expand and land use intensifies, there is certain to be a corresponding increase in human-wildlife conflicts in the coming years. This calls for concerted efforts between KWS and LBNR management to address the HWC in the LBNR-adjacent areas.

The management actions that have been designed to achieve this objective are set out in the following sections.

Action 2.1: Implement innovative methods of HWC management

To minimize conflicts between farmers and wildlife, farmers will be encouraged to use tried, tested and effective methods of repelling elephants such as beehives, and planting repellent crops such as pepper. Further, techniques to scare wildlife away from inhabited areas will be adopted.

Action 2.2: Work with KWS Problem Animal Management Unit

There are KWS rangers stationed at the reserve who work closely with reserve management to address HWC. To improve response time to problem animals, LBNR management will work closely with KWS to ensure that conflict cases are reported and acted on promptly. This will require improvement of telecommunication among the community, KWS and LBNR. Mechanisms will be established to enable local communities to alert KWS on HWC incidents. Further, mobile Problem Animal Control (PAC) response teams will be used during seasons when HWC incidents are high. KWS will solicit the services of gazetted honorary wardens in problem animal management activities. It will also train reserve rangers in basic Problem Animal Control methods.

Action 2.3: Establish anti-venom banks and rapid response mechanisms

Poisonous snakes are a major cause of deaths and disability and currently, snake-related injury is no longer compensated by the national government. Consequently, to avert deaths and severe disabilities caused by

poisonous snakes, the Baringo County Government will work closely with KWS and the Ministry of Health to avail relevant anti-venom at health centres like Maji Moto, Emsos, Lobo, Radat, Nyimbei and Ol Kokwe. Baringo County Government, KWS and relevant stakeholders will develop appropriate strategies for snake management and control within these areas, ranging from rapid response mechanisms, anti-venom research and treatment, outreach programs, among others.

Action 2.4: List wildlife incidents as emergencies

Currently, wildlife incidences are not treated like legitimate emergencies that should warrant priority when reported. However, invasion of farms by animals like elephants that can cause death and injury, and massive destruction of crops should be listed as emergencies in the BCG list. This will ensure timely mobilization of resources to drive such animals out of human inhabited areas.

Action 2.5: Use indigenous knowledge to address Human-wildlife conflicts

There is a lack of information on HWC hotspots as well as lack of temporal and spatial data on movements of problem animals. This leads to reactive responses as opposed to proactive strategies. Under this action, indigenous knowledge will be utilized to understand and manage human-wildlife interactions. This knowledge is unique across different landscapes and its usage in natural resource management is very important in understanding the relationships between people and the natural systems that surround them. This action aims at gathering such information and properly documenting it so that it can be applied in the management of HWC in LBNR and adjacent areas.

Action 2.6: Create awareness among the community on problem animal management

There is a general lack of awareness on animal behaviour and low capacity in addressing PAC issues. There is also a lack of awareness especially among community members on HWC mitigation measures. Currently the PAC rangers and County Warden sensitise community members on problem animals during PAC activities and also during community barazas. However, limited resources have hampered HWC community sensitization activities. As such, BCG will prioritise budget allocation for awareness creation and work closely with KWS to ensure that the community is adequately sensitised on HWC mitigation and avoidance measures.

Objective 3: Community benefits from the LBNR and adjacent areas enhanced

The future desired state at the reserve and its ecosystem is where communities receive optimum benefits from existence of the reserve. This objective therefore focuses on improving community benefits from the use and exploitation of the natural resources in the LBNR ecosystem. Optimized benefits will be realized by effective engagement of LBNR and stakeholders through established community structures. Effective community governance structures will provide legal clarity and certainty that lead to clear procedures and decision-making process. The community platform will be provided through the Endorois Bio-Cultural Community Protocol that has been developed to give effect on the community decision making process and grant of user rights including roles and responsibilities in resource governance and share of resultant benefits on utilization of natural resources and associated intangible knowledge. To achieve this objective the following actions will be implemented.

Action 3.1: Adopt and implement the Endorois Community bio-cultural protocol

The Endorois community has developed its bio-cultural protocol. The BCP specifies how the community will engage with LBNR management and other external actors such as governments, companies, academia and other interested parties on access and utilization of natural resources in the Lake Bogoria area and thereby reap economic benefits. Hence, under this action the Endorois BCP will be formally adopted by the community as the basis for engaging with external actors for the grant of community user rights such as the prior informed consent on access and utilization of the natural resources and the intangible cultural heritage including participation in resources management.

Action 3.2: Provide the Endorois access to cultural and sacred sites in LBNR and adjacent areas

The Endorois have established sacred places used by the community to perform religious and traditional

rituals. Access to some of the sites is exclusive to a certain community social strata (gender and age) and there are those open to all community members. The known sacred sites that the community require access to are the landmass around Mochongoi forest, along river Waseges, along Tandar River, Molok River, Perkerra River, Lake Bogoria itself, Ngelecha ridges and Siracho hills. These cultural sites are used on a weekly or monthly basis for small local festivals and on an annual basis for cultural festivals involving Endorois.

To facilitate the access, the community and Baringo County Government will map the sites and develop a calendar and bylaws that define the period when access is open, who is given access, activities permitted, and for what length of time the access is allowed. Providing access to cultural sites is in line with Article 12 of UN Declaration on the Rights of Indigenous People on religious practices, and Article 31 on maintenance and protection of traditional knowledge and technologies.

Action 3.3: Develop guidelines on access to genetic resources and associated knowledge and sharing of benefits arising from utilisation these resources

There are no clear institutional arrangements or governance structures for natural resources utilisation in the LBNR ecosystem. As such, there have been reports of both local and international researchers carrying out research on various aspects without having the county or community's consent. There is therefore need to spell out the roles and responsibilities for granting rights on access to genetic resources and access to associated knowledge, including intangible cultural heritage and determining the share of benefits arising from this utilisation.

The Endorois will be involved in the grant of user rights as community resource providers within LBNR through a Prior Informed Consent. This will ensure full participation of local communities as per the law as well as protect and preserve their interests while ensuring that they benefit from the access and utilization of natural resources within their localities. The Prior Informed Consent (PIC) will clearly spells out the mode and terms of engagement with the community including a clear understanding of the purpose, methodology, and intended outcomes of the proposed project, including potential risks, compliance and enforcement, utilization and possible benefits both monetary and non-monetary commercialization options. This PIC is in addition to other research permits that may have been acquired.

The Endorois community through the LBNR management will develop guidelines that provide for controlled access to resources, clearly spelling out how such contracts on access are entered, the terms and operational procedures. This will be done in accordance with national and county laws and policies.

Action 3.4: Determine access to extractives and share of benefits arising

The LBNR and its adjacent areas are endowed with geothermal resources and minerals like rubies. Exploitation of these resources can go a long way in improving the livelihood of the local community. However, if the extraction is not done in a sustainable way, these activities can result in environmental degradation that can have serious impacts on the health and livelihoods of the community.

As such, LBNR management will work with other relevant government agencies to ensure that the community is fully involved in decision making during project design and operation. This will be done through development of guidelines that will spell out the central role of communities in the project decision making process. The guidelines will also include how benefits will be determined including royalties and Corporate Social Responsibility (CSR) benefits will be distributed. However, these local level guidelines will be developed in accordance with relevant natural resource management laws.

Action 3.5: Regulate filming and photography

Filming and photography of indigenous peoples including their resources without their consent is a common practice all over the world. This action aims at providing a mechanism to protect the Endorois community's privacy and their rights. Through implementation of this action the Endorois community will give consent to what is filmed, photographed, how such material is used and they will also gain in monetary or non-monetary terms from such projects or activities. In streamlining filming and photography, the provisions of the Films and Stage Plays Act, Cap 222 will be put into consideration in addition to any other requirements that will be

agreed between the community and BCG and will be in line with Baringo County Finance Act and relevant national laws.

Permission will be sought from the Endorois people who will be filmed or photographed before publication or dissemination of these recordings or photographs. Their right to refuse should be respected. The proponents will enter into a Prior Informed Consent (PIC) with the Endorois Community before any filming.

Action 3.6: Build community and stakeholder capacity on resource management

Effective and sustainable management of the LBNR resource is dependent on the ability of the indigenous and local community and relevant stakeholders' understanding of the importance of LBNR and their obligations in resource management. In the current LBNR resource management structure there is recognition that the resource is shared with the community and the community gets a 10% (based on the BCG Cabinet Memo) of the revenues arising from gate entry fees. However, capacity building is required for all interested and affected by LBNR resources on the expected roles and obligations to ensure sustainable management of the resource. While implementing this action, special emphasis will be made to address capacity needs and priorities of women as required in Article 22 of the Nagoya Protocol. Capacity building will also aim at empowering the indigenous people and relevant stakeholders on access and benefit sharing, fairness and equity in negotiating mutually agreed terms. The capacities will range from infrastructure and skills. The focus will be at the communities' biocultural centre and its links to LBNR. The community's capacities to negotiate for Prior informed consent process will be enhanced.

The BCG and the indigenous peoples through the Endorois Welfare Council will develop a funding proposal for capacity building, identify the existing gaps/needs for capacity building and conduct the training.

Action 3.7: Implement community livelihood projects

Although LBNR is an important national and global resource, its conservation is largely influenced by the activities happening in the local scenes within the LBNR ecosystem. Majorly there is a negative community attitude towards conservation. This impedes the implementation of CSR projects and their subsequent success. There is support from stakeholders, including the Baringo County Government, to engage the community and change its attitude towards conservation.

Hence, identification and prioritisation of community projects will be carried out through a participatory process and projects implemented by BCG based on community priorities. Participatory Monitoring and evaluation of the implemented projects will be done and feedback mechanisms established. The arising benefits through CSR projects by those accessing and utilizing the natural resources in LBNR will also promote local community buy-in to conserve natural resources.

Action 3.8: Review and strengthen the existing benefit sharing mechanisms

BCG has established a LBNR grant committee for the sole purpose of sharing revenue accruing from tourism activities in LBNR as well other revenue accruing from genetrade and biotrade e.g. the Novozyme case. Currently, the 10% grant has focussed on revenue from tourism whereas there are other benefits that can be derived from resources in the area. Hence, under this action the scope and mandate of the grant committee will be expanded to include rights and responsibilities over other identified benefits.

There is a need to have clear legal clarity and certainty on the entity and functions of the grant committee in line with relevant laws and policies. Towards this, LBNR management will work with the BCG in liaison with KWS to review the current grant policy to ensure that it conforms to relevant laws such as The Constitution of Kenya, WCMA, 2013, EMCA etc. In particular, the grant policy will be reviewed to ensure that the policy explicitly states what proportion is allocated to community livelihoods and conservation.

Action 3.9: Lobby BCG for enhancement of the community grant

The BCG community grant covers 15 administrative locations around LBNR and its environs based on a policy which was developed by BCG. The grant is administered by a committee composed of a Reserve Warden, 2 members of EWC, Ward administrator, one MCA (on rotational basis), local administration, and a representative each of the following groups: youth, women, opinion leaders, faith based organizations, and

People Living With Disability (PLWD) representatives.

The grant is distributed to the community as follows: 60% bursaries, 35% for community livelihoods/conservation and 5% for administration.

The desired future is where the committee composition will remain as currently constituted. The tenure of office of the committee shall be three years with members serving for a maximum of two terms. The 10% grant will also be increased to 15% per annum during the plan period. The grant will be apportioned as follows: 60% for bursaries, 30% for community livelihood, community awareness and promote conservancies, and 10% for grant administration. Then it will be distributed in priority 1 locations (Loboi Sandai, Chebinyiny and KapKukui), (Koibos, Kamar and Koibos Soi), (Ol Kokwe, Sinende, Kapnosgei and Kabuswo) and priority two Comprised of Bekibon, Mochongoi Kimoriot and Arabal Respectively. BCG and Community will develop the policy on disbursement ratios to every location.

The 10% park management and wildlife conservation grant will cater for the following:

- ▶ Provision of water and vet services for wildlife in the reserve
- ▶ Routine maintenance of road network within the Reserve
- ▶ Routine maintenance of radio communication
- ▶ Routine maintenance of existing toilets within the reserve
- ▶ Routine maintenance of picnics sites and campsites
- ▶ Visitor security monitoring
- ▶ Routine management of problem animal control and vet services to Kudu and Ostrich
- ▶ Annual census of large mammals and waterfowls
- ▶ Marketing the reserve at both national and international exhibitions

Figure 6 shows how the 10% is distributed to the administrative locations surrounding the reserve. The locations that are close to the reserve (Zone 1) receive more benefits than those that are further away (Zone 2). In addition, Figure 7 shows revenue flows from the reserve to the community.

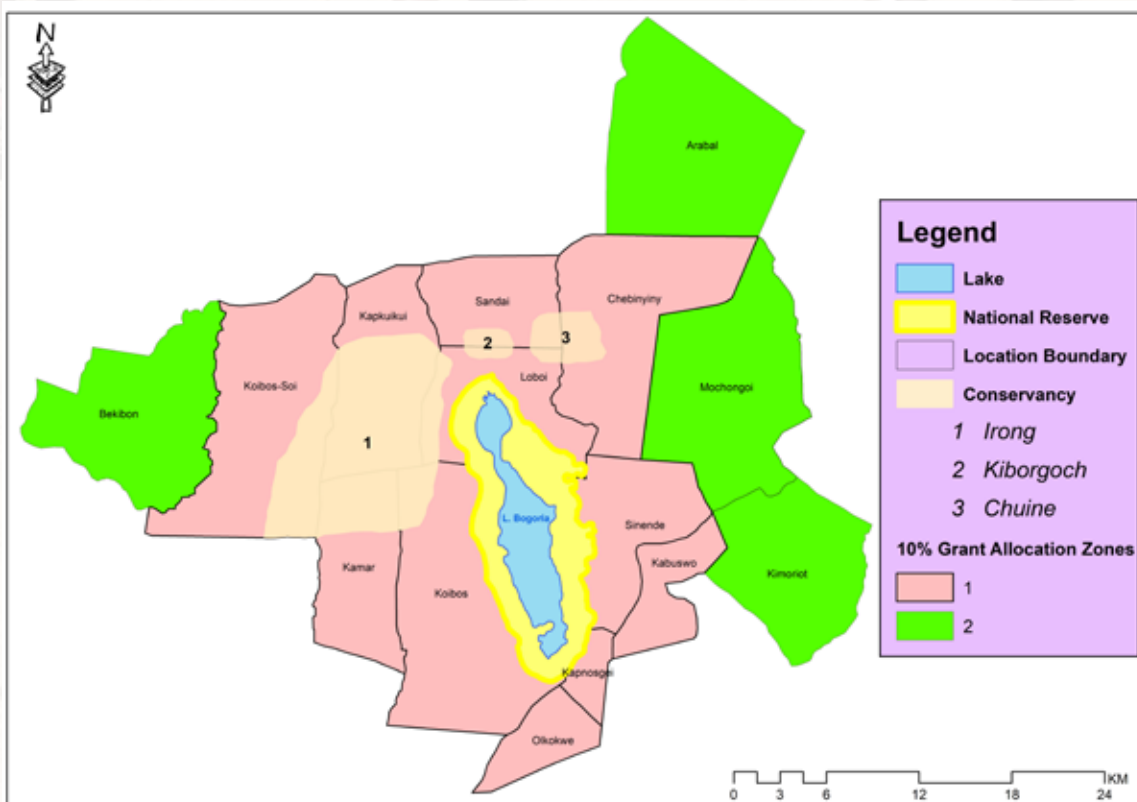


Figure 6: Allocation of the 10% grant to communities neighbouring the LBNR

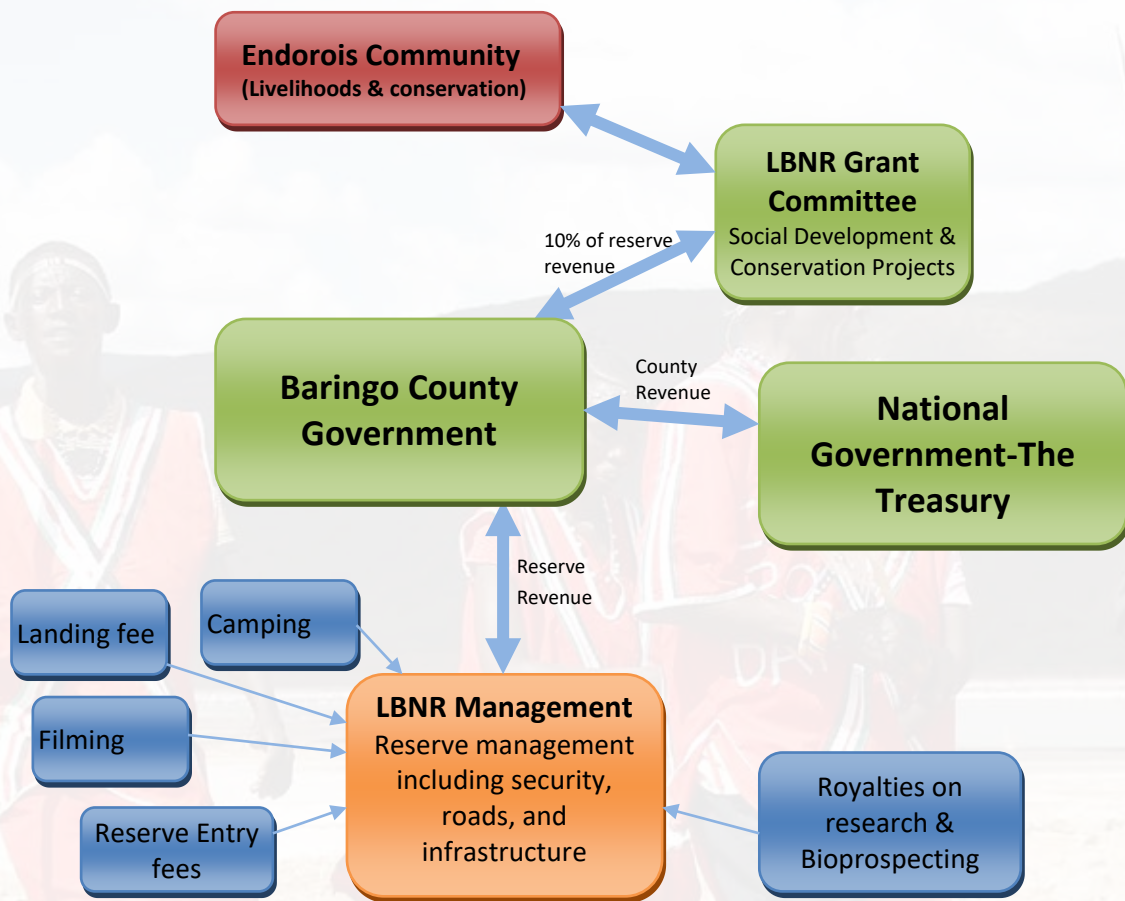


Figure 7: Institutional model showing monetary benefit sharing

Objective 4: Sustainable conservation-friendly land uses promoted in the greater LBNR landscape

The desired future state is one where land uses that are both sustainable and compatible with conservation are practised in community areas adjacent to the LBNR. The population of the community at LBNR-adjacent areas, like elsewhere in the country, has grown rapidly over recent years. The population increase, coupled with the fact that most community members are dependent on natural resources in the LBNR area for their livelihood, has led to changes in lifestyle influencing land use patterns, where agricultural activities and sedentary pastoralism are practised in fragile habitats such as wetlands. Further, conservation-incompatible land uses, in particular settled agriculture, are gradually eroding wildlife dispersal areas that are important to some of the LBNR’s large mammal species e.g. the Greater Kudu. Localized extinction of pasture species through seed bank depletion, localized degradation through gully formation and exposure of bedrock, siltation of water channels and swamps, pronounced stream seasonality, pollution of water bodies by agrochemicals, domestic waste, and farming on steep slopes leading to soil erosion are other factors causing land degradation in the LBNR-adjacent areas. Also, due to loss of dry season pasture in swamps and wetlands and a general reduction in pasture availability for livestock outside the reserve there is prolonged grazing in the reserve. The interplay of these factors has set in motion a vicious cycle leading to escalating poverty levels and unsustainable livelihoods. Challenges in addressing issues revolving around agriculture and livestock are: a cultural system that glorifies high livestock numbers rather than quality; institutionalizing appropriate land husbandry practices in a populace where land tilling is a recently acquired practice; and instilling a sense of individual land ownership where ownership was previously communal.

Land tenure and land use systems in the plan area have undergone extensive changes in historical and recent times. The land has changed from nomadic pastoralism, to communal sedentary grazing and currently, individual holding. This has led to catchment destruction resulting in drying up of rivers and encroachment of riparian areas; deforestation; and subdivision of land leading to unsustainable livelihood.

In addressing the issue of land ownership, the following challenges need to be met: cultural change to cope with emerging issues relating to land; goodwill in implementation of relevant legislation that safeguards the environment such as river bank, wetland and spring protection.

The management actions that have been designed to counter these environmental degradation issues in the reserve-adjacent areas are discussed in the following sections.

Action 4.1: Establish new wildlife conservancies and support existing ones

Currently, there are three existing conservancies, Kiborgoch, Irong and Chuine. The community has offered their land, and it has an interest in setting it up four community wildlife conservancies to expand space for wildlife and ease pressure on LBNR. The proposed conservancies are Sinende, Emsos and Koibos.

More community members should be encouraged to set aside their land for wildlife conservancies; this will not only create space for wildlife but also create space for grazing cattle. To achieve this, BCG, in liaison with KWS, will support the existing conservancies by carrying out capacity-building to empower conservancies’ managers and the community scouts with resources and trainings to enhance proper management of the conservancies. In order to do this, BCG will:

- ▶ identify training needs;
- ▶ train the staff in areas such as governance, management and security;
- ▶ carry out community sensitization in people/group dynamics;
- ▶ establish conflict resolution committees;
- ▶ train communities on conflict resolution and conflict management;
- ▶ hold meetings to address conservancy management and other general challenges; and
- ▶ conduct exchange programmes to benchmark on conflict resolution, management and other management practices.

At the same time, BCG will offer technical and financial support to new and upcoming conservancies. In order to do this, BCG will:

- ▶ engage and support the community to establish conservancies and wildlife utilization programs;
- ▶ conduct an inventory of the conservancies around LBNR;
- ▶ identify the new and upcoming conservancies; and
- ▶ identify their needs and challenges and offer technical or financial help accordingly.

Table 6 shows the existing and proposed wildlife conservancies in LBNR-adjacent areas.

Table 6; Community Conservancies around Lake Bogoria

<i>Conservancies</i>	<i>Location</i>	<i>Ward</i>	<i>Status</i>
Kiborgoch	Baringo South	Mochongoi	Mapping Fencing
Irong	Baringo South/ Mogotio	Mochongoi-Emining	Community exposure to other conservancies -signage’s completed
Chuine	Baringo South	Mochongoi	Community exposure to other conservancies -signage’s completed
Arabel/ Mukutani	Baringo South	Mochongoi	Proposed Conservancy and Corridor
Sinende	Mogotio	Kisanana	Proposed
Koibos Hill	Mogotio	Emining	Proposed

Action 4.2: Identify and map ecotourism resources in community areas

Involving local communities in wildlife tourism can be a strong incentive for the community to support conservation outside the protected areas. Aside from direct employment, tourism also offers opportunities for the development of enterprises that supply inputs to the tourism trade. Income can also be earned through leasing access to land if the custodianship of the land is bestowed on the community.

This action will therefore seek to assist communities in identifying and mapping all potential ecotourism opportunities outside the protected area. These include wildlife concentration areas, areas with plants of medicinal, scientific or cultural significance, hills and escarpments that provide vantage points for scenic viewing, picnicking and sundowners, and potential cultural villages. Sites that have potential for the development of tourist accommodation facilities, such as eco-lodges and tented campsites will also be identified. This information will be used by BCG and local stakeholders to raise the interest of tour operators on the tourism opportunities in areas adjacent to the LBNR.

Action 4.3: Support community tourism initiatives

Currently, the community tourism initiatives are not getting support from either BCG, LBNR, KWS or KTB to implement the community tourism initiatives. Some of the initiatives include cultural tourism, home-stays and eco-lodges, traditional artefacts and beads, campsites, and community conservancies to create employment for women and youth. There is a need to link these community tourism initiatives to the LBNR tourism circuit. This will assist the community tourism projects in getting market as part of the same destination with the reserve.

In order to achieve this, BCG, in collaboration with EWC, will build the capacity of the community members undertaking the tourism initiatives by training them and supporting them with technical and financial help, and marketing their products.

BCG will build the necessary infrastructure to support the community initiatives, such as game viewing tracks, and other essential infrastructure to ease access. The communities will be supported to develop visitor accommodation facilities on community conservancies and also trained in other management activities like advertising investment opportunities, developing lease agreements and contracts, and ensuring compliance with environmental regulations. BCG will support the establishment of tourist road circuits linking the conservancies and LBNR. BCG will also support the diversification of tourism activities to include community enterprises- e.g. Home stays, Ecolodges, camping, cultural villages, and cultural events.

Action 4.4: Market Cultural Centres

There are two cultural centres around LBNR. These are the Tugen and Endorois community cultural centres. The Tugen Cultural Centre displays traditional homesteads built in Tugen architectural design, and old stools used by elders. The centre offers traditional dances and dishes on request. There is a viewpoint about 15 Km from the Reserve along Marigat–Lobo road that offers a panoramic view of the area including the Kiborgoch Swamp.

The Endorois community is operating a cultural centre with support from stakeholders. Members of the centre also earn income from the cultural dances that they offer to visitors. However, only a handful of visitors are received at the centre. The Endorois Community Cultural Centre is located near the Reserve head office and similarly has traditional artefacts and resident traditional dancers' troupes. In addition, there are several curio shops along the main road leading to the reserve, offering locally made handcrafts, papyrus mats and other artefacts. These include Chelaba Women Group curio shop located opposite Lake Bogoria Spa Resort.

BCG will strive to ensure that the communities are benefiting from cultural centres and curio shops through, linking cultural centres to LBNR tourism circuit, promoting and helping market Tugen and Endorois cultural centres, building capacity on management of the cultural centres and curio shops and conducting exchange programs for communities to learn from established areas like Maasai Mara and Samburu.

Action 4.5: Organise cultural events to promote cultural tourism

Since it is anticipated that tourism volume will increase during the plan implementation period, cultural activities of the communities living in the LBNR-adjacent area will be promoted to attract visitors. In addition, cultural events, and especially the Endorois Cultural Festival, will be organised in collaboration with the communities and tourism stakeholders to show visitors the rich culture of the LBNR communities. Other events which will aim at reaching out to tourists and create awareness on natural resources in the area will also be organised. These will include sport tournaments that will involve the community and tour operators in the LBNR area.

Action 4.6: Promote wildlife farming as a form of land use

The Wildlife Act allows controlled utilization of wildlife in private farms. This is to encourage community members to benefit from wildlife in their farms hence promoting a change of attitude towards wildlife. The previous plan proposes that small-scale wildlife farming ventures be promoted, including guinea fowl, ostrich, tortoise, butterfly, aloe, and sandalwood farming, among others.

Hence under this action, BCG will work with KWS to promote guinea fowl, ostrich, tortoise and aloe farming in the LBNR adjacent areas.

Action 4.7: Promote beekeeping

If well-managed, conservation-linked activities such as beekeeping can be a viable alternative source of income for the local community adjacent to the LBNR. However, such ventures often fail due to the 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. Through this action, community members will be trained in production of high quality bee products, and efforts will be made to link beekeepers with established dealers in bee products. Further, to promote beekeeping, community beekeeping zones will be designated in the LBNR where organised groups will be allowed to place beehives. One of the challenges has been exporting standardized products from a sustainable source. The local communities will be supported to establish ethical standards for sustainable production, products and marketing for both local and international consumer preferences.

Action 4.8: Build entrepreneurship capacity among the local community

The community living adjacent to the LBNR lacks entrepreneurial skills to exploit opportunities available in the tourism and conservation sectors. Because of this handicap, it will be difficult for them to participate fully in the conservation-compatible income generation projects that will be promoted and supported under this objective. There is therefore need to impart entrepreneurial skills among community members to enable them to initiate and operate businesses successfully. Training will be tailor-made with special focus put on the type of businesses that community groups would like to engage in, and will be targeted at those groups that are being supported in the development of income-generating activities through this objective.

Action 4.9: Support communities in preparation of proposals to seek donor-funding

It is necessary to think about the sustainability of community projects during their design and implementation to ensure they can outlive donor support. A very effective way of mobilising funds to support maintenance of community projects is through the development of project proposals targeting specific donor funds. The LBNR management will assist the communities in preparing and marketing funding proposals to potential donor agencies with an aim of generating funds for maintaining the community projects.

Objective 5: Community understanding and awareness of LBNR's conservation importance improved

The future desired state at LBNR is where community and visitor understanding and awareness of LBNR conservation is improved. Conservation Education is of paramount importance in the management of natural resources in the present world as population is on the rise and newer strategies to sustainably utilise natural resources are being explored.

In the LBNR ecosystem, new wildlife-related challenges have emerged. For instance, elephants have been migrating from Laikipia to Baringo due to the destruction of Marmanet forest, posing new facets of human-wildlife conflict. Security issues emanating from North Rift have also caused displacement of people towards Lake Bogoria, hence worsening the population pressure on the reserve.

This objective is aimed at improving the knowledge of the general public about conservation issues and how the same issues can be tackled. It also seeks to increase the support for conservation through enhancement of the community outreach strategies. Below are some of the actions to be implemented to achieve this objective.

Action 5.1: Operationalise Lobo Dry Land Environmental Education Centre

The Lobo Educational Centre is located next to Lobo Gate. It is used in promoting sustainable use of natural resources through awareness creation among the local community, schools and visitors to the Reserve. It offers the following services:

- Lectures on Lake Bogoria ecosystem to visitors, schools and other groups
- Video and slide shows on wildlife and environment
- Environmental lessons and training on environmental themes such as conservation of wildlife, wetlands, soil and water conservation, Lake Bogoria ecosystem, agro-forestry, among others.

The Education Centre is currently under renovation after which it will be equipped with education materials and kitchen ware. Further, an officer in charge of education/interpretation will be deployed to the Education Centre to manage the Centre's operations.

Action 5.2: Develop a conservation education strategy

To have a structured and effective way of creating awareness among the community, there is a need to develop a conservation education strategy that addresses the needs of different social groups in the community. Hence, the reserve management will liaise with the County Government and other stakeholders to develop a community conservation education strategy. The strategy will clearly identify the community groups to be targeted, the conservation messages relevant to each group, and tools for disseminating information to communities. It will also identify the conservation education partners that reserve management will work with to deliver the strategy. The community will be sensitized on available options regarding wildlife utilisation and other benefits in an effort to promote harmonious co-existence with wildlife.

Action 5.3: Develop conservation education materials

The reserve lacks easily accessible information on wildlife ecology and its staff is not sufficiently-trained in the field of wildlife education. There is also the lack of a conservation education strategy in this area, as well as a shortage of funds and equipment to carry out conservation education. As such, under this action, information on wildlife ecology will be collected, collated and disseminated through brochures, videos etc. An officer will also be designated to plan and carry out education awareness tasks in schools, churches and other public gatherings. Procurement of conservation education equipment will also be done.

Action 5.4: Establish a Community outreach programme targeting key sectors of the community

Despite efforts, to reassure the local community that the reserve is community land held in trust for them by the BCG, minimal success has been achieved in gaining broad community support for the LBNR. This is attested to by the encroachment on the reserve by local communities.

To create awareness on the LBNR's biodiversity and gain support for the LBNR from the local community, an outreach programme will be established. Programme activities will involve giving environmental talks and video shows at local schools and trading centres. Reserve interpretation materials that can bring out the importance of diverse resource values of the LBNR to the local community will be developed and disseminated at community outreach activities. These interpretation materials will focus on themes that illustrate the uniqueness of the natural and cultural resource values of the LBNR and the messages will target various age

groups in the community. Further, to create a generation of Kenyans who want to preserve wildlife for its own sake and not exclusively for economic benefits, positive, wildlife-related experiences such as visits to protected areas are a top priority. Hence, the outreach programme will focus on sensitizing schools in the LBNR adjacent areas to form wildlife and environmental clubs. Such clubs will be allowed to enter the reserve at discounted fees.

Action 5.5: Establish a program of protected area study tours for the local community

Tours of the reserve organised for local communities are an effective tool to increase awareness on natural resources found in the protected area. Most community members, because of poverty, do not appreciate conservation, as they are unable to visit the reserve and hence are not familiar with the biodiversity therein. In an effort to increase conservation awareness and bring about positive community attitudes towards wildlife conservation among the local community, BCG will work with private transport providers to offer subsidised tours within the LBNR. The aim of this action will be to generate interest and appreciation of conservation among the local community and as a result, win public support for wildlife conservation in the LBNR.

Action 5.6: Promote the LBNR through the mass media, Internet, and organising and participating in both local and international conservation awareness events

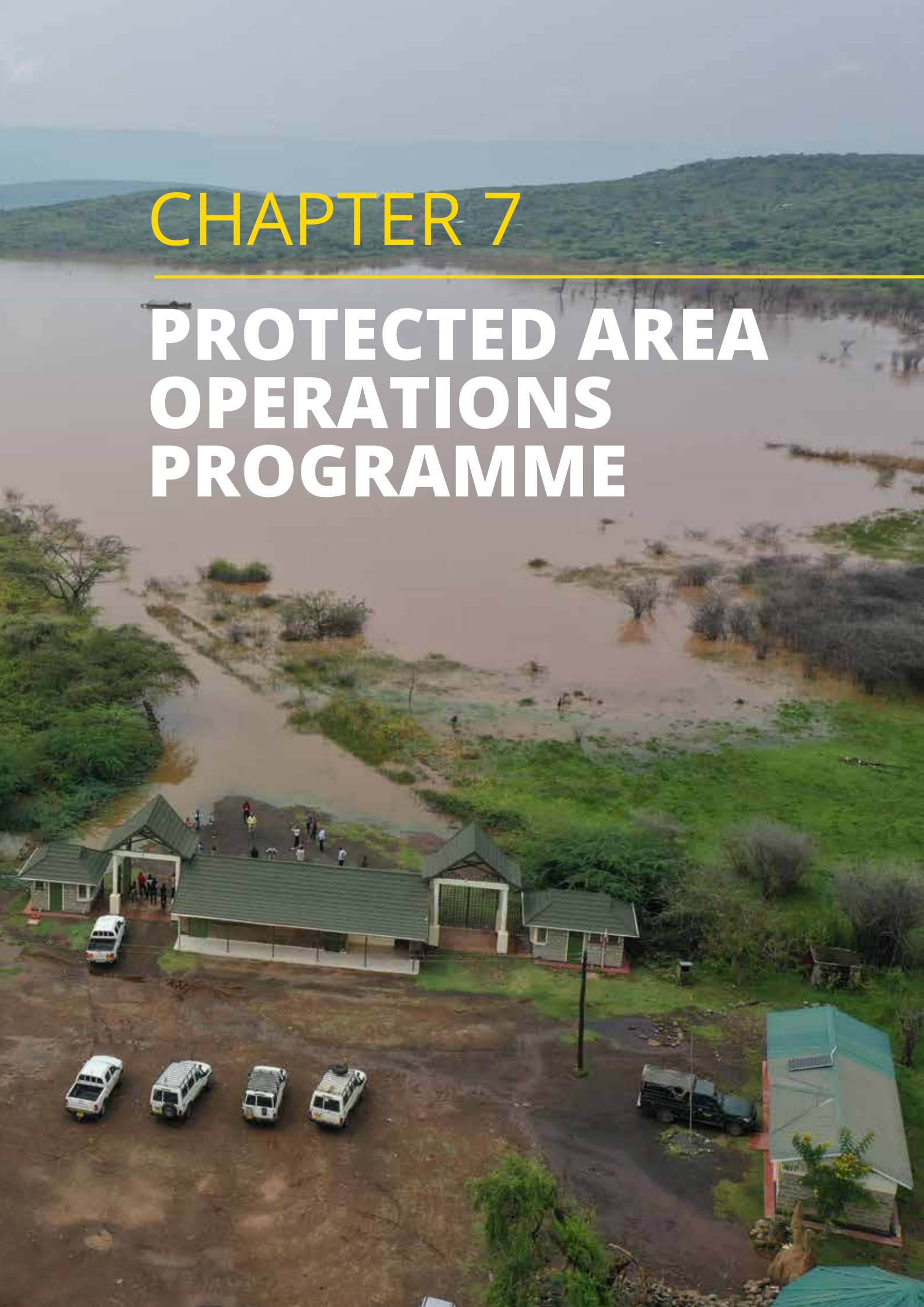
The mass media (radio, television and the press) can play an important role in conveying conservation education messages to the community. Special radio and TV programmes will therefore be designed and aired through radio and TV stations that can be received in the LBNR-adjacent area. Efforts will also be made to prepare articles on the LBNR and publish them in the local dailies. It is expected that this strategy will increase the variety of audiences that are educated on conservation issues within the LBNR, and further enhance appreciation of the reserve.

In addition, LBNR community and education staff will participate in local as well as international events such as the World Environment Day, World Wildlife Day, World Wetlands Day, and Agricultural Society of Kenya (ASK) shows, among others. During these events, the community will be enlightened on the unique LBNR natural resources, and issues and challenges facing their conservation.



CHAPTER 7

PROTECTED AREA OPERATIONS PROGRAMME



7.1 Programme Purpose and Strategy

The purpose of the PA Operations Programme is to ensure:

LBNR operational systems and structures are effectively and efficiently supporting the achievement of the reserve's purpose, and delivery of its management programmes

Each of this management plan's four programmes establishes a set of management objectives that LBNR management will be aiming to achieve over the 10-year implementation period of this plan. This includes a number of key projects, including: construction and rehabilitation of tourism-support infrastructure; measures to improve relations with the Endorois Community and to improve their economic wellbeing; and actions to ensure that threats to biodiversity are mitigated. All of this will take place in an environment where the human population in the reserve-adjacent area is increasing, leading to increased pressure on the reserve from livestock grazing. Also threats emanating from outside the reserve, such as excessive water abstraction from rivers and swamps or deforestation in LBNR catchment areas, are likely to intensify and impact negatively on the ecological integrity of the LBNR.

As such, the PA operations will have to be greatly strengthened to ensure that they are supporting the entirety of the plan's implementation. This programme therefore focuses on addressing this through a number of objectives that have been developed to achieve the purpose set out above. These objectives include measures to: strengthen institutional collaborations; improve performance and motivation of LBNR staff; improve infrastructure, transport and communications to support PA management and tourism development; provide resource requirements for effective LBNR management; and enhance security of LBNR.

Guiding Principles

In implementing the LBNR's Protected Area Operations Programme, LBNR Management will strive to ensure that:

Modernised management systems are provided

Good communications and access throughout the LBNR remain essential to diversification of the tourism product, dispersion of tourism investments, and tourist use across the Reserve. As such, this programme will emphasise the continuing improvement of communication systems in support of management activities as well as cooperation between LBNR management and other stakeholders, such as tourism industry partners. In addition, improvements in infrastructure across the area will be planned and targeted to provide maximum support for the effective management of the LBNR, and to support tourism development across the greater LBNR landscape.

LBNR management is working with others to achieve set objectives

Active involvement of stakeholders in reserve planning and management is critical as stakeholders can help the reserve management in addressing management issues of interest to them. Stakeholders could offer technical assistance on ecological research and monitoring; resource mobilization; improving community relations; and conservation education and outreach. Hence, under this programme, innovative management mechanisms will be designed and piloted which will lay emphasis on the reserve concentrating on its core functions and outsourcing noncore ones like research which can be done by KWS and marketing which can better done by KTB. In addition, there is a need to strengthen collaborations with key law enforcement and government agencies in the wider LBNR landscape, who are able to support the LBNR security's efforts to protect natural resources.

LBNR has sufficient and well-allocated management resources

Underpinning every management action designed to achieve each of the management objectives outlined in this management plan, and thus achieves the desired future condition of the LBNR, is the staff that will be responsible for implementing the plan. These staff not only requires conducive working conditions and facilities, but also the necessary equipment and training to carry out their duties. As discussed above, the scope of work set out in the plan's four programmes is an ambitious undertaking, and will require increases in both the levels of human resources available in the LBNR, and in the financial resources required to support the implementation of the management actions set out in this plan. As such, this programme will aim to ensure that LBNR human resources are of sufficient number and efficiently allocated in order to implement this plan's management actions, and that the financial resources required to deliver the plan's management actions are made available.

These strategic principles are intended to guide the implementation of the Programme's five management objectives that, when taken together, achieve the Programme Purpose. These five objectives are:

MO 1. Institutional collaborations formalised and strengthened

MO 2. Performance and motivation of LBNR staff improved

MO 3. Infrastructure, transport and communications to support PA management and tourism development improved

MO 4. Resources for effective management mobilised and used efficiently

MO 5. Security of LBNR enhanced

The following sections describe these management objectives and provide an outline of the management actions needed to achieve them. Under each management objective there is a brief description of the relevant management issues and opportunities, which provides the specific context and justification for the management actions.

7.2 Management Objectives and Actions

Objective 1: Institutional collaborations formalised and strengthened

The future desired state at LBNR is where there is close collaboration between BCG and other stakeholders whose activities affect the management of the LBNR. Threats to LBNR stem from resource use by the local community both within Baringo County and beyond to highlands of Subukia in Nakuru County. The scale and intensity of the impacts of natural resource use is increasing, with more and more people turning to agriculture lands that were originally forest and riparian lands are being cleared. There is also increasing interest in the Lake Bogoria genetic resources by both local and international players. As such, activities under this objective will pursue partnerships and collaborations with other institutions and organizations such as National Government Agencies, Nakuru County Government, Endorois Welfare Council (EWC) and Non-Governmental Organizations (NGOs) to address issues that are of mutual concern in and outside the LBNR.

The development and strengthening of stakeholders collaborations for LBNR is paramount towards the attainment of the overall purpose of this management plan. Operational collaboration with key stakeholders in decision making, communication and implementation of activities within and around the LBNR is also vital. As such to ensure a safe and secure environment for conservation, visitors and tourism investments in the area, this programme will strengthen collaboration with key stakeholders.

This objective has been designed to ensure synergy in conservation and protection of natural resources in LBNR and its adjacent areas. In order to achieve this objective, the actions below will be implemented.

Action 1.1: Establish a LBNR Joint Management Committee

Collaboration between LBNR stakeholders who operate within the LBNR (such as EWC, researchers, tourism industry players) and LBNR management is a key aspect of effective management. The importance of such collaboration is likely to increase as tourism and bioprospecting potential in LBNR is expected to increase

during the lifespan of this plan. The LBNR management planning process has greatly benefited from the input of different stakeholders, particularly in the development of management programmes and consequently stakeholders will also be involved in plan implementation. Hence, a LBNR Joint Management Committee (JMC) will be established comprising of key stakeholders in the LBNR. These will include BCG (Chief Officer and Warden), 3 MCAs, 3 Community members, 1 EWC, 10% Community Grant KWS, KFS and tourism professionals operating in the area among others. The role of this committee will be to promote and market the LBNR in line with the management actions specified in the Tourism Management Programme, mobilize funds to implement management actions specified in this management plan, and to monitor plan implementation. This JMC will be a forum for internal stakeholders and LBNR managers to raise issues of mutual concern, share relevant information and fund raise to support implementation of critical management issues.

In particular, the JMC will be responsible for overseeing implementation of the 3-year activity plans as well as the compliance with management prescriptions for each zone. The LBNR Warden will be Secretary to the Committee, and the roles of Chairman and Treasurer will be taken by the members that will be jointly elected by the committee members. The LBNR Warden will also be the convener of the JMC meetings, which will be held quarterly. To manage any funds raised by the Committee in support of LBNR conservation and management, a separate accounts vote will be established within the BCG accounting system, and funds deposited in this vote will be applied at the discretion of the JMC in consultation with the LBNR Warden.

Action 1.2: Work with other institutions to realise Reserve objectives

Currently there are several institutions with significant presence at the Reserve and surrounding areas. For instance, KWS plays a central role in human-wildlife conflict, security, wildlife management and research. The local community also plays a key part in issues like security, wildlife management, information and intelligence gathering. There are also a host of NGOs that carry out specialised roles. For instance, WWF has been involved in research and documentation, GEF in capacity building and funding research activities such as biodiversity conservation, land degradation and climate change mitigation, FAO in capacity building, training and environmental conservation, while National Museums of Kenya, reconciling with community conservancies, and Nature Kenya in carrying out research and monitoring. There are also learning institutions that are involved in research and training.

Some of these agencies have specific capacities and competencies which can be harnessed to enhance reserve management. As such, LBNR management will formalise these collaborations through MOUs that specify the issues that a stakeholder is addressing in the LBNR ecosystem and the expected outputs. The MOUs will also explicitly state the obligations of each party (i.e. LBNR and collaborating agency).

Action 1.3: Collaborate with County Security Committees to control illegal encroachment and insecurity in LBNR

Livestock overstocking and agricultural expansion has displaced wildlife from LBNR. During periods of prolonged drought events there is encroachment in the LBNR by herders from areas beyond the 10km buffer. Subsistence poaching of greater kudu during years of rainfall stress has put pressure on this flagship species. This poaching has seen the species population fluctuate from about 900 individuals in 2016 to about 400 individuals in 2017 as shown by ground counts that are conducted quarterly by the LBNR management. LBNR alone does not have the capacity to rid the reserve of this encroachment because some people are not willing to leave. Hence, there is a need for joint effort by different institutions including the national and local governments to address poaching and encroachment issues, among others.

To address the problem of illegal activities that affect resource conservation, LBNR management will collaborate with the County Security Committee to resolve security related issues inside and outside the reserve.

Objective 2: Performance and motivation of LBNR staff improved

The future desired state of the LBNR in regards to staff and personnel is where there is adequate skilled and motivated workforce to facilitate conservation and management of the Reserve.

Currently, LBNR is experiencing staff shortage while budget allocation, work tools and equipment for different activities in this plan are inadequate, leading to low delivery. In addition, staff housing is low quality as the houses are old and in dire need of repair and upgrade. There is also shortage of modern offices which hampers efficiency and service delivery.

Other problems facing the LBNR include: lack of adequate management and administrative support infrastructure, and poor provision of staff welfare services, amenities and facilities.

Under this objective, therefore, BCG will endeavour to address staff issues by implementing actions outlined in the following sections.

Action 2.1: Recruit more staff

The reserve has 52 staff deployed in different departments like security, administration, customer care, revenue clerks, tour guides, campsite attendants, and education officers. All staff report to the senior warden – who reports to the Director Tourism and Wildlife.

Currently LBNR is facing staff deficit in some cadres. For instance, there is no Senior Warden, which burdens the only park warden at the reserve with all the responsibility. Typically, this task requires two wardens, one for operations and the other to handle community issues.

There is no tourism officer despite the Reserve being highly visited and being high revenue-generating. There is a gap in handling of tourism issues such as marketing and public relations between staff, community and the tourists. The revenue clerks are also not adequate, as there are only 13 against a desired staffing level of 21. There is no senior sergeant to supervise the rangers, which again overburdens the park warden especially on park operations. There is only one sergeant, and two more are needed to be in charge of the outposts. There is also a need for more rangers. Currently there are 6 rangers against the desired 24.

There is no education officer despite having a new and well-equipped education centre, hence the need for an officer to handle student lectures, researchers and other education matters. Currently there are only four tour guides, who are not able to cover all clients' requirements. Two more are needed to meet the current demand since there are clients with specific interests such as ornithology; hence the need for adequate and well-trained tour guides to offer the services effectively.

There is no researcher at the Reserve. Currently the reserve is using the county wetlands officer to handle ecological matters and other research issues. A researcher and a research assistant are required.

Currently there is no engineer and the reserve depends on the engineers from the BCG headquarters but who are hard to get since they are involved in larger projects in the wider county. There is therefore a need for an engineer to oversee development matters at the reserve.

There are two drivers currently, who are attached to the two vehicles currently available. Two or more vehicles are in the process of procurement to handle administration and security operations issues. Hence there is a need for additional drivers.

On the other hand, the management of the reserve is unable to accomplish urgent tasks that depend on casual labour due to bureaucratic process of hiring casuals. Hence there is need for BCG to come up with a standard operating procedure for hiring casual workers, which should be approved by the county government to eliminate confusion and guess work.

Under this action the BCG will develop criteria for staff recruitment; advertise the vacancies through public service board; conduct the short listing; conduct interviews; and select and post staff accordingly.

Action 2.2: Train staff in relevant staff skills

The number of global clients at the Reserve is increasing and this calls for trained customer care staffs that are multilingual. Inability of the staff to communicate in foreign languages hinders their effectiveness in handling some guests which in turn leads to low customer satisfaction, especially when customers may experience a problem that calls for assistance.

As such, customer care staff will be trained on the leading foreign languages especially Chinese, French, Spanish and German. This will be done through carrying out a survey on visitation to determine the language of frequent visitors, developing a criterion for training by either employing a teacher to train the staff or registering the staff to language training colleges.

There is a need for BCG to establish training needs assessment to get to know areas and departments that need strengthening. This will be compared against the skills inventory among the staff in order to establish which staffs need training and in what areas. This will provide a basis for resource allocation in capacity building and development.

Currently there is a gap in customer handling due to lack of customer care skills among the staff. There is also a gap in emergency response and scientific data collection due to lack of relevant training for the relevant staff. There is also need for training in basic business skills like accounting to ensure professional management of revenue.

The management skills capacities of senior staff also need to be enhanced. As such, there is need to carry out training of staff in the relevant skills. This will be achieved through; carrying out a training need assessment, training the staff in the identified areas e.g. customer care, first aid, GIS, environmental impact assessment and other skills relevant for their duties, carrying out training among the senior staff in Government senior management courses and Strategic Leadership Development Course.

Action 2.3: Improve staff welfare and motivation

Good staff welfare policies improve work performance and productivity by making the staff happy employees and happy citizens. It is therefore an essential part of employment policy which should be encouraged at the reserve.

To develop an effective staff welfare programme, a staff survey will be conducted to understand their needs and expectations to be followed by identification of key areas of building skills.

Currently there are inadequate social amenities for the staff. For instance, there is no staff canteen or mess, and no team building activities. The outposts lack social amenities such as an entertainment centre and basic requirements such as clean water. There are also no water harvesting systems in place.

As such, the staff will be provided with social amenities such as TV and DSTV, and team building activities. To provide water, 10 000-litre tanks will be provided to every station and water harvesting systems will be installed.

Objective 3: Infrastructure to support LBNR management and tourism development improved

The future desired state that this objective aims to achieve is having a well-maintained road network (well-designed and maintained), staff housing, gates, accommodation and other tourism facilities like view points and recreation sites. Provision of conservation facilities and management services is important in supporting tourism activities and increasing the number of tourists to the LBNR. Currently, infrastructure, and especially roads, in the LBNR are in poor condition. This can be attributed to the Reserve not getting adequate budgetary allocation from the county government. But since the Reserve is the leading source of revenue for Baringo County, there is a need for more funds to be allocated to the reserve for development and maintenance in order to keep this revenue stream flowing.

In addition, the reserve faces a wide range of challenges such as: poor residential accommodation for Reserve staff; poor telecommunication network; inadequate and outdated communication radios; lack of necessary utilities such as clean water supply in some stations; and other problems including lack of water for wildlife during drought season; siltation of dams in the reserve; and no clear reserve boundary thereby leading to encroachment.

As such, this objective has been designed to ensure that adequate administrative and tourism infrastructure is developed and maintained in the LBNR. The management actions that will be implemented to achieve this objective are elaborated in the following sections.

Action 3.1: Construct, rehabilitate and maintain LBNR roads

This action seeks to improve tourist roads within the LBNR to a level generally accessible with two-wheel drive vehicles, and open areas around the reserve for basic patrol access. The road network at LBNR is poor while the Great Rift walking trail (Hannington trail) is also in a poor state.

The main road is in a bad state leading to vehicles getting stuck in the mud when it rains, and vehicles breaking down in rocky areas, and as such, this road will be improved and maintained. In addition, one other road will be constructed from Emsos gate to Kapicha Viewpoint. Currently, the Kapicha viewpoint is only accessible by the nature trail. The other option to access Kapicha Viewpoint is through Kisanana road which is outside the reserve and is very far and the reserve has no control on its maintenance or security. The proposed road will therefore start from Emsos gate through Emsos Centre-Kipteweret-Tinosiek-Ol Kokwe, to Kapicha (Kipswerere). Lobo-Fig Tree-Koimugul-Waseges river road will need to be constructed and a bridge installed at Waseges river since the previous road network was submerged in the recent rise in lake levels. There is a high concentration of wildlife around this area ranging from buffaloes, kudu, klipspringers, Grant's gazelles and Thomson gazelles, hence the need to improve the road for accessibility by tourists.

In addition to this, the Emsos-Fig Tree road will be improved. This road is in a poor state, yet Fig Tree is a destination every tourist wants to reach due to its scenic beauty and there is a potential for the development of an ecolodge. There is a need to improve the state of the road from earth to murrum.

All the other existing roads will be maintained by regularly murruming to avoid potholes. In addition there is a need to maintain and beautify the Hannington trail to attract more visitors.

Action 3.2: Construct, rehabilitate and maintain buildings

Currently, there is a shortage of houses at LBNR, with available ones being old and decrepit and very expensive to maintain. New houses should be built in all stations. There are only 8 blocks that house 52 staff, leaving a gap of 17 houses.

The staff, especially the uniformed ones, require to be housed within the reserve due to security issues. The offices also are in a dilapidated state and some stations lack offices and are using temporally structures as office.

As such 17 more houses will be constructed, offices will be upgraded and new ones constructed where they are lacking. The old houses will also be renovated to modern status.

Action 3.3: Procure and maintain vehicles, plants and equipment

Alongside the construction and upgrading of the various management facilities necessary for effective management of the LBNR, additional office, research, and communication equipment is needed to facilitate effective management.

Currently the LBNR has to rely on contractors for the provision of some essential heavy plant, which has the potential of seriously delaying civil works. As such, steps will be taken to procure heavy plant to develop and maintain the road network and other essential services.

There is also a heavy burden on the only two vehicles and one motor bike available at LBNR. This is hardly enough. To alleviate vehicle shortage, two more vehicles, motor bikes, and a patrol boat will be procured. A tractor and a water bowser will also be procured to facilitate water supply water to people and wildlife.

Currently there is inadequate office equipment. For instance, there are no laptops, cameras, GPS, and binoculars that are needed to support reserve administration activities. Hence, under this action, an assessment of critical tools and equipment needed by staff will be carried out and based tools procured based on this assessment.

Action 3.4: Improve telecommunications

Currently LBNR has a poor radio communication system, with inadequate and outdated radios. Most radios used at the reserve are old models not in conformity with the current radio systems hence locking the reserve out from communicating with partners such as KWS.

The Reserve also experiences poor communication network hence, some of the outposts cannot communicate with others or the reserve headquarter directly and have to go through other outposts that have no physical obstruction. Hence, security teams undertaking patrols are not able to communicate with each other and share security information especially during emergencies, posing a major security threat.

In addition, the Reserve's communication with the County Government headquarters is through emails and telephone. These need to be enhanced and modernised to make them reliable.

The Reserve has a web page which is currently under the larger County Government website. An independent reserve website, which can be managed and updated by a Reserve staff, would be ideal.

Therefore, in order to improve the efficiency of the LBNR operations the following activities will be implemented:

Action 3.5: Construct and maintain other essential infrastructure

There is a lack of proper signage in and outside the reserve. Currently most of the signage have been dilapidated and are not in their original positions as most of them have fallen off.

This has led to visitors getting lost inside the reserve and taking long to get to their destinations. Lack of/or fallen signage has led to accidents especially at the hot springs when visitors step on sinking ground around hot springs leading to burns. There is also no signage outside the reserve to direct visitors especially at Mogotio-Emsos road which is the shortest road to access the reserve from Nakuru. As such, informational and directional signage will be installed as appropriate.

The previous airstrip has been rendered unusable by the flooding menace and a new airstrip is proposed at Kipkunyeyi.

In addition, wild fires that emanate from the reserve's adjacent areas can be devastating to the reserve. Hence, fire towers will be installed and they will be used to monitor fires especially during the dry season.

Action 3.6: Mark the Reserve boundary

There is no clear boundary marking of the Reserve on the ground and there are no beacons indicating the extent of the Reserve. This has resulted to encroachment into the Reserve leading to conflicts between the Reserve management and the community and has escalated human-wildlife conflict. The efforts that have been made by the County Government, KWS, and NLC have been hindered by budget constraints.

To achieve this action, the BCG will clearly mark the Reserve boundaries and install beacons for easy reference.

Action 3.7: Provide utilities e.g. water, electricity and sanitation to offices and residential houses

For optimum productivity, it is important that the Reserve staff have all the necessary utilities both for work and for their comfort. Some staff houses lack piped Water particularly in the outposts. Several efforts have been made to ensure adequate water distribution from a water bowser, however, this supply is expensive and unsustainable. In addition the Reserve experiences inadequate water for wildlife during drought seasons. This has led to wildlife moving far from the reserve to look for water, reducing the attractiveness of the reserve to visitors. This also exposes the wildlife to poaching and has also led to increase in human-wildlife conflict.

Lake Bogoria is a salty water lake which is not fit for consumption by wildlife. The nearest source of fresh water for wildlife in the reserve is a small stream at fig tree camp site, 30km away. This area is predator infested because it is forested; hence wildlife tends to move outside to open areas which are safe. Lack of water has led to wildlife deaths in the past, especially when they are prevented by the community from accessing the water outside the reserve.

Currently there are three dams in the reserve namely; Koimugul, Kongilel and Mawe Moto. Only Mawe Moto is functioning as the others are silted. More dams are needed in Sosiche, Kongele, Turkwetenden, Kipkunya and Koimugul.

In relation to electricity, some outposts are not connected to electricity thus inhibiting effective implementation of security measures.

To address these challenges, the LBNR management will seek to: construct water pans within the reserve, desilt Koimugul and Kongilel dam and put in place mechanisms to prevent further siltation, put up mechanisms to prevent siltation at the Mawe Moto dam, and construct water trough at strategic positions around the reserve.

Objective 4: Resources for effective management mobilised and used efficiently

The future desired state of LBNR is one where resources required for effective management of the area are available, all revenue due to LBNR is collected, expenditure is controlled and adheres to approved work plans, the procurement of goods and services is expedited, and supplementary funding is solicited from funding agencies to support conservation projects in the LBNR. Under this objective, ways of controlling expenditures and enhancing revenue are elaborated in the following management actions. These focus on the routine preparation of LBNR budgets based on this plan, expediting procurement of goods and services at the LBNR, establishing an efficient financial management system, and preparing project proposals for funding.

Action 4.1: Prepare recurrent budget based on the LBNR management plan

The benefits of a Protected Area Management plan can only be realized if the plan is implemented. Since the LBNR planning process has integrated international best practice for planning, including stakeholder participation, the BCG should follow through and ensure that stakeholders are involved in plan implementation. The main reason for lack of plan implementation is the lack of policies or mechanisms to guide plan implementation and monitoring. Hence, even though previous plans for the Reserve have been in place in the past, managers were not obliged to use them.

It is therefore important that a clear plan implementation process, which links the management plan to the annual work plans and budgets and has support from the top echelons of BCG, is adopted. To ensure that the LBNR management plan is implemented, therefore, annual work plans will be based on the management actions and activities outlined in this management plan. The CEC-Tourism, Chief officer and SW-LBNR will be responsible for ensuring that the annual work plans and budgets are in line with the management plan. LBNR management will in addition liaise with the CEC-Tourism for timely disbursement of funds and in monitoring plan implementation. Further to this, implementation of the management plan will be one of the key factors to be considered while assessing staff performance at the LBNR.

At the moment the Reserve is allocated inadequate budget. This can be attributed to the fact that there is lack of cooperation or partnership between Reserve operation team and the County budget team. Hence one institution ends up assuming that the other will cater for certain budgets and does not budget for the same.

At the same time, the County Budget team does not prioritize conservation during budgeting hence it ends up allocating an inadequate budget. As such, there is need to enhance cooperation between LBNR Management and BCG to enhance budget allocation for conservation.

Action 4.2: Establish a financial management system

Presently it is difficult to retrieve historical financial information concerning LBNR revenues and expenditure, as most of the data is not computerised. In addition, the computerized data is not stored in a format that can facilitate quick analysis to generate information for planning. To organize finance data for easy retrieval and manipulation, a financial management system will be established at LBNR. Both current and historical financial data will be captured and stored to facilitate monitoring of revenue and expenditure trends. In addition to revenue and expenditure data, the database will include annual work plans and budgets for both BCG as well as donor-funded projects.

A County Revenue Collection System called *zizi* from KCB is in use at the reserve. The Reserve has an operation account to which the Reserve Warden, an Accountant and 1 person from the BCG headquarters are the signatories. Revenue is collected from the 3 gates – the main gate-Loboi, Emsos and Maji Moto. To ensure that the revenue collection system is not limited to a few staff, additional staff will be trained in use of *zizi*.

Action 4.3: Prepare project proposals for funding

To ensure that stakeholders continue to contribute to the conservation activities at the LBNR, management will work closely with CEC-Tourism and EWC to develop funding proposals targeting potential donors. These proposals will mainly target non-core reserve activities like community projects. However, to enhance knowledge of environmental resources at the LBNR, research proposals will also be prepared in collaboration with academic institutions of higher learning, and funding sought from conservation stakeholders.

Objective 5: Security of LBNR enhanced

The future desired state this objective aims to achieve is one where security operations have been revamped to effectively address challenges posed by livestock incursion, bush meat poaching and general insecurity in the LBNR, as well as in adjacent areas.

Towards this, three management actions have been defined which are developing an LBNR security database, establishing and equipping existing patrol outposts, and carrying out intense ground patrols. The actions are elaborated below.

Action 5.1: Carry out intense security patrols

The main offences committed within the LBNR are illegal livestock grazing, bush meat poaching, and collection of gemstones. Although significant advances have been made in securing the reserve, significant challenges remain, especially regarding livestock incursions while insecurity incidents have been reported in the area. This is particularly important because unless security can be assured, protection of natural resources will suffer and tourism will not expand.

Curbing illegal activities over the entire reserve is paramount and will be intensified during the implementation period of this plan as the management will intensify security patrols to cover all areas of the reserve. Patrol teams will be equipped with necessary equipment such as binoculars, GPS, digital cameras, night visions for night patrols and First Aid kits. Camping tents will also be availed to support patrol teams. Joint LBNR–KWS patrols will also be strengthened to ensure that the entire area is effectively covered.

Action 5.2: Establish a LBNR security database

A security database is essential in order to monitor and evaluate the effectiveness of the overall security strategy at the LBNR, and to inform timely changes to the strategy if appropriate. Information from the

database can be used to support planning of security operations and patrols, and help identify the optimal location of new security outposts.

Currently, LBNR management maintains the Occurrence Book (OB) as the primary security database. There is a need to collate all security data in a central LBNR digital database to enhance fast processing of information for improved and effective decision making.

As such, in order to enhance security operations, a comprehensive security database for the LBNR will be developed through this action. Key elements of this database will be details on patrols carried out per month (such as patrol route, observations made, and action taken in case of observed illegal activity), details on arrests and action taken, and intelligence information on wildlife-related crimes.

The database will be linked to a Geographic Information System (GIS) to facilitate display and output of information in the form of maps. This will enable the identification of areas where security issues are most pressing, and the revision of LBNR security operations.

To implement this action a computer will be procured and an office area where it will be located identified. In addition two rangers will be trained on database management and the two will also be required to undertake regular updates of the database.

Action 5.3 Strengthen patrol outposts

LBNR currently has four functional ranger outposts. These outposts lack some basic facilities and equipment for the staff to function effectively. Although all outposts have radio communication sets, apart from Hot Springs, all outposts lack essential tools such as binoculars, cameras, night vision and GPS (Table 7).

Each outpost will be assigned a patrol sector and it will be optimally staffed and provided with basic equipment such as binoculars, GPS, digital cameras, night visions and where necessary, a vehicle or motorbikes to facilitate ground patrols.

LBNR management will promote use of modern technology in conducting security activities. To this end, rangers will be trained on a regular basis on new technologies (SMART, Cyber tracker and WILD) including the use of smart phones to record security related incidents.

Table 7: Facilities and key equipment at LBNR security outposts

No.	Outpost	No./type of Houses	Housing conditions	Patrol Vehicle	Radio VHF/HF	Binoculars	Fly sheet	GPS	Rain Gauge
1	Nyalilpuch	1	Bad	0	1	0	0	0	1
2	Emsos	4 permanent and 4 temporary	Need renovation	1 Motorbike	1	1	1	0	1
3	Maji Moto	4	Need renovation	0	1	0	0	0	1
4	Hot springs	1 Temporary	6 houses or Unihuts are urgently required	0	0	0	0	0	0
5	Koimugul – security surveillance	Needed to be established	Requires 6 house or uni huts	0	1	1	0	0	0



CHAPTER 8

PLAN IMPLEMENTATION, MONITORING AND EVALUATION



8.1 Three-year activity plans

The management plan sets out activity plans for the first three years of plan implementation. These activity plans are designed to provide the basis for annual work planning by LBNR managers, and form the vital link between the management plan's 10-year objectives and actions and the day-to-day management activities in the PA. The plans also provide LBNR managers with a clear and consolidated summary of management activities to be carried out under each programme, who is responsible for implementing them, and when this should take place (Annex 1).

After the first three years, a review will be carried out to assess the status of plan implementation and thereafter a new three year activity plan will be prepared.

8.2 Plan monitoring and evaluation

Monitoring and evaluation will be continuous throughout the plan period. The monitoring component will include:

- ▶ Evaluating the implementation of activities by evaluating progress reports, work plans, stakeholder involvement and participation.
- ▶ Monitor and evaluate the impact of management prescriptions.
- ▶ Monitor budget allocations, expenditure and accounting procedures.
- ▶ Monitor and evaluate the environmental status of the Lake and its catchment through use of ecological, social and economic indicators.
- ▶ Monitor and evaluate the responsiveness to the education and awareness initiatives.
- ▶ Monitor and evaluate the extent of security activities in the reserve.

The responsibility of monitoring and evaluation lies with the JMC and the BCG.

ANNEXES

Annex 1: Three Year Activity Plans 2019 – 2022

The following pages set out the first 3-Year Activity Plans for the four Management Programmes. The activity plan details the activities, responsibilities, timeframes and estimated budget necessary for the delivery of each management action over the first 3-year timeframe of this management plan..

1. Ecological Management Programme

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Objective 1: Conservation status of the LBNR's threatened large mammals and birds enhanced																		
Sub-Objective 1.1: Birds are monitored to discern status and trends																		
Action 1.1.1: Strengthen waterfowl census																		
Activity 1.1.1.1: Conduct bi-annual waterfowl counts for Lake Bogoria and adjacent wetlands in collaboration with stakeholders	FONB/LBNR/KWS/ NK/NMJK/Hoteliers	X				X				X	X			X	X			1,500
Activity 1.1.1.2: Support training of community members in waterfowl counts	FONB/LBNR/KWS/ NK/NMJK/Hoteliers									X								600
Activity 1.1.1.3: Establish a waterfowl census database at LBNR	FONB/LBNR/KWS/ NK/NMJK/Hoteliers	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 1.1.2 Conduct Waterfowl health surveillance																		
Activity 1.1.2.1: Conduct surveillance of waterfowl health and report any signs of sickness or death to KWS	FONB/LBNR/KWS/ NK/NMJK									X								500
Activity 1.1.2.2: Support collection of samples from healthy, sick or dead waterfowl as part of disease surveillance	FONB/LBNR/KWS/ NK/NMJK/Hoteliers									X					X			400
Activity 1.1.2.3: Create awareness among decision makers and local community on the impacts of pollution on LBNR	LBNR/FONB	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	600
Action 1.1.3 Conduct studies on movement of birds																		
Activity 1.1.3.1: Liaise with the NMJK and other stakeholders in ringing migratory birds at LBNR	FONB/LBNR/KWS/ NK/NMJK									X						X		500
Activity 1.1.3.2: Collaborate with other bird ringers in monitoring recovery of bird rings from LBNR birds	FONB/LBNR/KWS/ NK/NMJK									X							X	500
Action 1.1.4 Build capacity for monitoring																		
Activity 1.1.4.1: Identify community members interested in participating in bird census	FONB/LBNR/KWS/ NK/NMJK	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)			
		FY 2019-20				FY 2020-21				FY 2021-22							
		1	2	3	4	1	2	3	4	1	2	3	4				
Activity 1.1.4.2: Train community members identified under activity 1.1.4.1 in identification of waterfowl and estimating population numbers.	FONB/LBNR/KWS/NK/NMK			X					X								500
Activity 1.1.4.3: Involved community members in the biannual waterfowl counts at LBNR	LBNR/FONB					X				X					X		600
Action 1.1.5 Create awareness in importance of preserving habitats																	
Activity 1.1.5.1: Conduct a study on the status of bird habitats in the LBNR ecosystem	LBNR/KWS/FONB				X					X						X	500
Activity 1.1.5.2: Give talks on the status and trends of bird habitats during outreach activities in the reserve-adjacent areas	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 1.1.5.3: Conduct Environmental Impact Assessment (EIA) on developments proposed in critical bird habitats and implement mitigation measures to minimise impacts of negative impacts	BCG/NEMA/KWS						X								X		200
Sub-Objective 1.2: Viable populations of mammal species of conservation and tourism concern established and maintained																	
Action 1.2.1 Establish status of large carnivores																	
Activity 1.2.1.1: Conduct annual carnivore census					X											X	800
Activity 1.2.1.2: Procure GPS collars and collar lions and leopards to discern their movement patterns and home ranges							X										400
Activity 1.2.1.3: Monitor collared carnivores	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 1.2.2: Develop a Greater Kudu Conservation strategy																	
Activity 1.2.2.1: Organise a Greater Kudu conservation workshop	KWS/LBNR						X									X	600
Activity 1.2.2.2: Compile a management strategy for Greater Kudu in the LBNR ecosystem	LBNR/KWS								X	X	X	X	X	X	X	X	800
Action 1.2.3: Establish Action 1. Greater Kudu movement patterns																	
Activity 1.2.3.1: Conduct biannual Greater Kudu census	LBNR							X							X		300
Activity 1.2.3.2: Identify and map critical habitats for Greater Kudu	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 1.2.3.3: Collar and track Greater Kudu to understand their movement patterns and home ranges	KWS/LBNR															X	500
Action 1.2.4 Create awareness on large carnivores and Greater Kudu.																	

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Activity 1.2.4.1: Sensitize the community on the population status and importance of the Greater Kudu in the LBNR ecosystem	FONB/Conservancies/LBNR/10% grant	X	X	X	X	X	X	X	X	X	X	X	X	400
Activity 1.2.4.2: Initiate a Greater Kudu Day within the county										X				900
Objective 2: Important LBNR habitats managed and improved														
Action 2.1 Minimize Impacts of livestock grazing														
Activity 2.1.1: Conduct a study on the impacts of livestock grazing in the LBNR	Institution of higher learning	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 2.1.2 Conduct a study on habitat stocking levels in the LBNR		X	X	X	X	X	X	X	X	X	X	X	X	
Activity 2.1.3: Develop a livestock grazing policy for LBNR	LNBR/10% grant/JMC									X	X	X	X	200
Action 2.2 Control Invasive species														
Activity 2.2.1: Identifying and mapping invasive species	LBNR					X	X	X	X	X	X	X	X	
Activity 2.2.2: Remove invasive species	LBNR									X				500
Activity 2.2.3: Create awareness on invasive species among the local community	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.3 Manage habitats for specific species														
Activity 2.3.1: Identify critical habitats for key species in the LBNR										X				200
Activity 2.3.2: Map and secure critical wildlife migratory corridors and dispersal areas	Conservancies/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.4 Establish an ecological monitoring programme														
Action 2.4.1: Support the rehabilitation of Kesubo wetland	GEF/BCG					X	X	X	X	X	X	X	X	500
Action 2.4.2: Initiate soil erosion control measures in River Waseges catchment area	WRUA/BCG	X	X	X	X	X	X	X	X					3,000
Action 2.5 Rehabilitate and restore critical habitats														
Activity 2.5.1: Conduct biomass assessment studies	Institution of higher learning									X	X	X	X	200

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 2.5.2: Conduct habitat carrying capacity studies										X	X	X	X					
Objective 3: Forests and river systems in the greater LBNR landscape protected, in collaboration with other stakeholders																		
Sub-Objective 3.1: Collaboration and support for the conservation of catchment forests strengthened																		
Action 3.1.1 Protect and rehabilitate degraded catchment areas																		
Activity 3.1.1.1: Identify and map degraded areas	LBNR	X	X	X	X	X	X	X	X	X	X	X	X					
Activity 3.1.1.2: Promote soil erosion prevention measures in the catchment areas	LBNR					X	X	X	X	X	X	X	X					800
Activity 3.1.1.3: promote tree planting	LBNR					X				X								600
Action 3.1.2 Establish baseline ecological conditions																		
Sub-Objective 3.2: Quantity and quality of water supplied to the LBNR maintained in collaboration with responsible agencies																		
Action 3.2.1 Minimise water resources use conflicts																		
Activity 3.2.1.1: Hold regular meetings with water resource users and regulators	LBNR/WRUA	X				X	X	X	X	X	X	X	X					500
Activity 3.2.1.2: Support implementation of water allocation plans	LBNR/WRUA						X											500
Activity 3.2.1.3: Support river water monitoring activities	LBNR/WRUA									X	X	X	X					
Action 3.2.2 Provide alternative water sources																		
Activity 3.2.2.1: Desilt dams										X								1,500
Activity 3.2.2.2: Construct new dams														X				3,000
Activity 3.2.2.3: Construct water troughs																		1,000
Objective 4: LBNR ecological trends and threats are monitored and understood																		
Action 4.1 Enhance climate monitoring																		

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 4.1.1: Procure and install manual rain gauges	Kenya Met/BCG					X												800
Activity 4.1.2: Train staff and selected community members in rainfall data collection							X											200
Activity 4.1.3: Collect rainfall data on a daily basis								X	X	X	X	X	X					500
Action 4.2 Strengthen monitoring of lake and river levels																		
Activity 4.2.1: Procure lake and river level measuring equipment	WRA/LBNR						X											2,000
Activity 4.2.2: Install lake and river level measuring equipment at appropriate sites in collaboration with WRA	KWS/WRA/LBNR							X									X	
Activity 4.2.3: Train staff on collection, analysis and interpretation of lake and river level data	KWS/WRA/LBNR								X									
Activity 4.2.4: Establish a lake and river level database												X	X			X	X	
Action 4.3 Monitor water quality																		
Activity 4.3.1: Procure water quality monitoring equipment	KWS/LBNR									X	X	X	X			X	X	500
Activity 4.3.2: Procure a boat to facilitate water sampling	KWS/LBNR											X	X			X	X	400
Activity 4.3.3: Train staff in water quality monitoring	KWS/LBNR								X									300
Activity 4.3.4: Conduct monthly water sampling	KWS/LBNR										X	X	X			X	X	500
Activity 4.3.5: Establish a water quality database	KWS/LBNR												X			X	X	500
Action 4.4 Initiate annual animal census																		
Activity 4.4.1: Organise wildlife census planning meetings	KWS/LBNR						X											200
Activity 4.4.2: Procure equipment to support wildlife census	KWS/LBNR							X										200
Activity 4.4.3: Train staff in wildlife counting techniques	KWS/LBNR								X	X	X							200
Activity 4.4.4: Conduct biannual wildlife census in the reserve	KWS/LBNR								X								X	400

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Action 4.5 Initiate a vegetation monitoring programme																		
Activity 4.5.1: Establish vegetation monitoring transects in collaboration with stakeholders.	KWS/LBNR					X	X	X	X	X	X	X	X	X	X	X	X	
Activity 4.5.2: Establish vegetation monitoring enclosures.	KWS/LBNR						X	X	X	X	X	X	X	X	X	X	X	
Activity 4.5.3: Collect vegetation data regularly.	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

2. Tourism Development and Management Programme

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Objective 1: Tourism product in LBNR is diversified to give a variety of activities and experience														
Action 1.1 Upgrade Hannington Trail														
Activity 1.1.1: Clear vegetation along the trail	LBNR/GEF-SGP	X					X						X	600
Activity 1.1.2: Establish stopovers along the route	LBNR				X									100
Activity 1.1.3: Construct a view point at the Trail Head of Hannington Trail	BCG-Tourism/MCA Kisanana Ward			X										2000
Activity 1.1.4: Install informational, interpretive and directional signage along the trail	LBNR						X							200
Action 1.2 Rehabilitate existing Campsites and develop a few others														
Activity 1.2.1: Upgrade washrooms at existing campsites to modern standards	BCG-Tourism						X							2000
Activity 1.2.2: Supply water supply to the campsites	BCG-Tourism			X										500
Activity 1.2.3: Install solar power to all campsites	BCG-Tourism							X						300
Activity 1.2.4: Establish additional campsites at Ngorgoine, Sunrise and Sunset								X						1500
Action 1.3 Develop adventure tourism products like rock climbing, boating, walking safaris														
Activity 1.3.1: Identify suitable sites for rock climbing in collaboration with tourism stakeholders (Potential sites include Beberenoi and Kapicha)	LBNR											X		500
Activity 1.3.2: Establish boat excursions in the southern part of L. Bogoria (Emsos area)	LBNR												X	1000
Activity 1.3.3: Establish walking safari route along the lake shore from Emsos Hot spring to Lobo	LBNR						X					X		500
Action 1.4 Develop cultural tourism programmes with the local community														
Activity 1.4.1 Equip existing cultural centres, Endorois and Tugen cultural centre, with cultural artefacts	BCG-Culture/10% Community grant								X					1000

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)			
		FY 2019-20				FY 2020-21				FY 2021-22							
		1	2	3	4	1	2	3	4	1	2	3	4				
Activity 1.4.2 Draw MOU between BCG and Ushanga initiative	BCG-Tourism					X											200
Activity 1.4.3 Organise an annual cultural event for LBNR	BCG-Culture/EWC						X								X		2000
Action 1.5 Restoration of hot springs (product flagship of the reserve) by protecting them from excessive flooding																	
Activity 1.5.1: Partner with other interested stakeholders in conducting a study to establish the feasibility of reclaiming the hot springs	BCG-Tourism/KWS/ Ministry of Tourism/ Donor								X								1000
Action 1.6 Develop a lakeshore walkway																	
Activity 1.6.1: Construct a boardwalk and viewing platform at Loburu	LBNR/FONB						X										500
Activity 1.6.2: Construct a bird hide Ngorgoine, Ngine, and Old Gate	LBNR/FONB								X								500
Action 1.7 Enhance and make visual informational and directional signages as per acceptable format and standards																	
Activity 1.7.1: Rehabilitate and install new information and directional signages in the Reserve	BCG-Tourism					X											400
Activity 1.7.2: Install and maintain directional signages at all major road junctions and towns along the access roads to LBNR	BCG-Tourism					X											400
Objective 2. Visitor administration and management is improved																	
Action 2.1 Create more environmental awareness during visitor briefings to minimize pollution																	
Activity 2.1.1: Give talks on pollution to visitors before entering or leaving the park	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	500
Activity 2.1.2: Provide information on appropriate waste disposal in leaflets or signages	LBNR/BCG-Tourism									X						X	200
Activity 2.1.3: Provide litter bins at tourist stopover points	BCG-Environment															X	500
Activity 2.1.4: Enforce the ban on plastics in LBNR	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.2 Intensify patrols to enforce regulations																	
Activity 2.2.1: Introduce penalties for off-road driving	BCG-Treasure (Finance bill)								X								

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Activity 2.2.2: Intensify patrols to deter infringement of regulations	LBNR/KWS	X	X	X	X	X	X	X	X	X	X	X	X	1000
Action 2.3 Develop and equip visitor education Centre														
Activity 2.3.1: Equip the education centre with modern visual aids technology	BCG-Tourism				X									1000
Activity 2.3.2: Procure conservation education materials	BCG-Tourism					X					X			200
Activity 2.3.3 Give introductory talks to visitors at the Education Centre	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 2.3.4: Disseminate information on the do's and don'ts in the reserve to visitors	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.4 Adopt modern payment methods														
Activity 2.4.1: Liaise with the BCG Treasury, Finance and Economic Development department to establish a cashless revenue collection system	BCG-Treasury				X						X			200
Objective 3. Marketing of LBNR is intensified and modernised to give its unique features greater publicity and tourism value														
Action 3.1 Set up a marketing office														
Activity 3.1.1: Establish marketing office	BCG-Tourism						X							500
Action 3.2 Modernise marketing methods														
Activity 3.2.1: Use social media to market the ;reserve	BCG-ICT	X	X	X	X	X	X	X	X	X	X	X	X	500
Activity 3.2.2: Develop a website for the reserve	BCG-ICT				X				X				X	600
Action 3.3 Set up satellite offices in major towns														
Activity 3.3.1: Liaise with a tourism partner to set up a customer liaison desk in Nairobi	BCG-Tourism						X							500
Action 3.4 Introduce a tour bus														
Activity 3.4.1: Conduct a feasibility study on operating a tour bus in LBNR	BCG-Tourism				X									500

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 3.4.2: Identify a tour operator to partner in procurement and operation of a tour bus	BCG-Tourism/ Treasury					X												14000
Action 3.5 Increase publicity of unique features																		
Activity 3.5.1: Identify and map features of touristic interest	LBNR/KWS					X	X	X										500
Activity 3.5.2: Prepare interpretive information on identified features	LBNR							X	X									500
Activity 3.5.3: Disseminate information features of touristic interest to visitors	LBNR									X	X	X						500
Action 3.6 Use vehicle stickers to market the reserve																		
Activity 3.6.1: Produce vehicle stickers with messages on LBNR	BCG-Tourism					X					X					X		900
Activity 3.6.2: Disseminate stickers to visitors	LBNR/Stakeholders					X	X	X	X	X	X	X	X	X	X	X	X	300
Action 3.7 Annual marketing event																		
Activity 3.7.1: Identify an appropriate event for LBNR through a participatory process	LBNR					X												200
Activity 3.7.2: Organise the marketing event										X				X				1000
Action 3.8 Prepare and disseminate reserve marketing materials e.g. brochures, maps, guide book, stickers and merchandise																		
Activity 3.8.1: Collect information relevant to marketing of LBNR	BCG-Communication/ LBNR					X	X	X	X	X	X	X	X	X	X	X	X	400
Activity 3.8.2: Produce marketing collaterals	BCG-Tourism									X						X		600
Activity 3.8.3: Disseminate marketing collaterals at the entry gates						X	X	X	X	X	X	X	X	X	X	X	X	
Objective 4: Investment opportunities are exploited to endear the destination to more people and boost revenue generation																		
Action 4.1 Improve security in the general area																		

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)		
		FY 2019-20				FY 2020-21				FY 2021-22						
		1	2	3	4	1	2	3	4	1	2	3	4			
Activity 4.1.1: Share information on LBNR's security status with Kenya Police Service and KWS regularly	LBNR/KWS/Kenya police service			X	X	X	X	X	X	X	X	X	X	X	200	
Activity 4.1.2: Conduct joint patrols	LBNR/KWS/Kenya police service			X										X	600	
Action 4.2 Develop tourist accommodation facilities																
Activity 4.2.1: Identify suitable sites for development of accommodation facilities	NEMA/LBNR/BCG-Environment					X										500
Activity 4.2.2: Identify investors to develop the accommodation facilities	BCG-Tourism/Trade/Attorney						X									200
Action 4.3 Revise land leasing policies to make them predictable and friendly to potential investors																
Activity 4.3.1: Liaise with the BCG Attorney's Office to harmonise business regulatory framework to make it easy for investors	BCG-Tourism/Trade/Attorney												X			500
Activity 4.4 Target specific potential investors for niche market tourism and give incentives that can attract/appeal to their markets																
Activity 4.4.1: Identify niche tourism opportunities	LBNR/Spa hotel/Tour operators						X									300
Activity 4.4.2: Identify investors interested in specific tourism niches	BCG-Tourism /Trade						X									200
Activity 4.4.3: Support investors to develop new tourism products	BCG-Tourism								X							500
Action 4.5 Develop an investment catalogue.																
Activity 4.5.1: Inventory tourism opportunities	NOREB/BCG-Tourism							X	X	X						500
Activity 4.5.2: Hold and investment conference	BCGE-Tourism/Trade/Stakeholders/KWS/Ministry of Tourism								X						X	5000
Activity 4.5.3: Draw tourism development agreements with investors	BCGE-Tourism/Trade/Stakeholders							X								
Action 4.6 Manage effects of negative politics to attract investors from different backgrounds who stand to add economic value to the area.																
Activity 4.6.1: Ensure that award of tourism developments is carried out in line with the law	BCG-Tourism /LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Objective 5: Tourism support infrastructures in LBNR are developed and upgraded to ease management, visitation and enjoyment																		
Action 5.1 Install modern sanitation and washroom facilities at all the gates, hot springs and other visitor points																		
Activity 5.1.1: Renovate all visitor washrooms	BCG-Tourism													X				1000
Activity 5.1.2: Supply water to visitor washrooms	LBNR																	400
Action 5.2 Maintain the main viewing circuit																		
Activity 5.2.1: Murrum and provide drainages systems to the main road circuit	BCG-Tourism/ Treasury/ Infrastructure development													X				17000
Activity 5.2.2: Maintaining the roads through grading	BCG-Tourism/ Treasury/ Infrastructure development													X				9000
Action 5.3 Provide ample vehicle parking areas																		
Activity 5.3.1: Provide designated parking areas at key tourist stopovers	BCG-Tourism/ Treasury/ Infrastructure development/LBNR													X				1000
Activity 5.3.2: Increase parking capacity at Emsos, Lobo and Maji Moto entry gates and at Hot Springs	BCG-Tourism/ Treasury/ Infrastructure development																	2000
Action 5.4 Upgrade reserve entry gates																		
Activity 5.4.1: Construct modern gates at Maji Moto and Emsos gates	BCG-Tourism/ Treasury/ Infrastructure development																	8000
Action 5.5 Enhance visitor safety and security																		
		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

3. Community Partnership and Outreach Management Programme

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Objective 1: LBNR-community communication and collaboration mechanisms strengthened														
Action 1.1 Revive the Joint Management Committee (JMC)														
Activity 1.1.1 Hold a stakeholder's forum to create consensus on the composition and roles of the management committee	BCG-Tourism/Area MCAs/Office of the Governor/LBNR/KWS	X	X	X	X	X	X	X	X	X	X	X	X	1800
Activity 1.1.2 Develop a County policy to define the roles and powers of the Management Committee	BCG-Tourism/Area MCAs/Office of the Governor/LBNR/Attorney/KWS					X								500
Activity 1.1.3 Develop Terms of Reference and procedure of conducting Committee's business	BCG-Tourism					X								
Action 1.2 Strengthen collaboration between LBNR management and Endorois Community														
Activity 1.2.1: Organise capacity building training workshops for EWC	LNBR/10% community grant									X				600
Activity 1.2.2: Establish clear roles and terms of engagement with EWC	BCG- Tourism									X				400
Action 1.3 Incorporate indigenous knowledge In LBNR management														
Activity 1.3.1: Consult and involve the Endorois Community in plan review processes	BCG-Tourism													500
Activity 1.3.2: Involve Endorois Community in reserve management	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Action 1.4 Devolve natural resource conservation and management to communities through the conservancy concept														
Activity 1.4.1: Identify and map potential conservancies	LBNR/NRT/KWS/KWCA	X												
Activity 1.4.2: Register the conservancies	BCG-Tourism/KWS/KWCA					X								600
Activity 1.4.3: Support the communities in managing conservancies	BCG- Tourism	X	X	X	X	X	X	X	X	X	X	X	X	

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)	
		FY 2019-20				FY 2020-21				FY 2021-22					
		1	2	3	4	1	2	3	4	1	2	3	4		
Action 1.5: Partner with other conservation stakeholders															
Activity 1.5.1: Work with stakeholders to realise common goals	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 1.5.2: Draw MOUs with relevant stakeholders	BCG-Tourism/ Attorney								X						X
Action 1.6 Coordinate activities of partners in the greater LBNR Landscape															
Activity 1.6.1: Inventory of stakeholder projects	LBNR								X	X	X				
Activity 1.6.2: Form a stakeholder platform															
Activity 1.6.3: Create clear framework for coordination of activities															
Objective 2: Human-Wildlife conflict incidences reduced															
Action 2.1 Implement innovative methods of HWC management															
Activity 2.1.1: Develop and implement a clear human-wildlife conflict incident reporting, response and data management procedure	LBNR/KWS														
Activity 2.1.2: Identify suitable stakeholders and partner to enhance community access to a variety of methods to minimize human-wildlife conflict	LBNR														
Activity 2.1.3: Carry out education campaign to enhance adoption of the relevant methods to mitigate human-wildlife conflict	LBNR/10% community grant														
Action 2.2 Work with KWS Problem Animal Management Unit															
Activity 2.2.1: Liaise with KWS to strengthen the KWS Problem Animal Management Unit	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Activity 2.2.2: Expand the LBNR ranger unit focusing on human-wildlife conflict mitigation	BCG-Tourism														
Activity 2.2.3: Support conservancies to employ more Community rangers and to access training and equipment to support efforts to reduce human-wildlife conflict	LBNR/KWCA/NRT														
Activity 2.2.4: Establish a LBNR communication system linking all rangers in the catchment	KWS-Communication department/LBNR														

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)	
		FY 2019-20				FY 2020-21				FY 2021-22					
		1	2	3	4	1	2	3	4	1	2	3	4		
Action 2.3 Lobby BCG to establish anti-venom banks and rapid response mechanisms															
Activity 2.3.1 Implement an awareness campaign on methods to minimize snake bites	LBNR/BCG-Health	X	X	X	X	X	X	X	X	X	X	X	X	X	500
Activity 2.3.2 Supply Anti-venom to health centres adjacent to the reserve i.e. Lobo, Majimoto, Emos and Olkokwe	BCG-Health								X						1000
Action 2.4 Lobby BCG to recognise wildlife incidents as emergencies															
Activity 2.4.1: List HWC as an emergency that warrants quick response		X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.5 Use indigenous knowledge to address Human-wildlife conflicts															
Activity 2.5.1: Gather information and knowledge on HWC from local communities	LBNR/EWC							X						X	400
Activity 2.5.2: Apply local knowledge on HWC in designing appropriate mitigation measures	All stakeholders	X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.6 Create awareness among the community problem animal management															
Activity 2.6.1: Solicit for funds to support sensitisation of communities on HWC	LBNR/10% community grant/KWS													X	600
Activity 2.6.2: Sensitise communities on HWC avoidance techniques	BCG – Health	X	X	X	X	X	X	X	X	X	X	X	X	X	
Objective 3: Community benefits from the LBNR and adjacent areas enhanced															
Action 3.1 Adopt and implement the Endorois Community bio-cultural protocol															
Activity 3.1.1: Formally adopt the BCP as the basis for engaging with external actors	EWC/County ABS Committee									X					
Activity 3.1.2: Create awareness on the BCP	LBNR/EWC											X			500
Activity 3.1.3: Monitor BCP implementation	County ABS Committee												X		200
Action 3.2 Provide the Endorois access to cultural and sacred sites in LBNR and adjacent areas															
Activity 3.2.1: Map the cultural sites in LBNR	EWC /LBNR								X					X	200

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 3.2.2: Develop a calendar and bylaws to regulate access to the cultural sites	EWC/LBNR					X	X											200
Activity 3.2.3: Provide access based on bylaws under activity 3.2.2	JMC/EWC							X	X									
Activity 3.2.4: Monitor usage of the cultural sites	LBNR/EWC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 3.3 Develop guidelines on access to genetic resources and associated knowledge and sharing of benefits arising from utilisation these resources																		
Activity 3.3.1: Establish a taskforce to develop guidelines on access to genetic resources and associated knowledge and sharing of benefits arising from utilisation these resources	BCG-County ABS Committee					X					X							200
Activity 3.3.2: Facilitate the work of the guidelines taskforce established under activity 3.3.1 above	BCG- County ABS Committee											X						
Activity 3.3.3: Implement the guidelines developed under activity 3.3.2														X	X	X	X	500
Action 3.4 Determine access to extractives and share of benefits arising																		
Activity 3.4.1: Hold community consultative meetings to seek community input into guidelines on community participation in regulation of extractives and sharing of arising benefits	BCG-Tourism (ABS Committee /KWS/ EWC							X								X		400
Activity 3.4.2: Produce and disseminate guidelines developed through activity 3.4.1 above	BCG-Tourism (ABS Committee /KWS/ EWC								X								X	
Activity 3.4.3: Implement the guidelines produced under activity 3.4.2 above	BCG-Tourism (ABS Committee /KWS/ EWC														X			200
Action 3.5 Regulate filming and photography																		
Activity 3.5.1: Disseminate the Community's BCP to visitors	LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 3.5.2: Ensure that the Endorois community give their consent to any filming and photography of community members	LBNR															X		
Action 3.6 Build community and stakeholder capacity on resource management																		
Activity 3.6.1: Identify the existing gaps/needs for capacity building	LBNR/EWC					X	X											500

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 3.6.2: Prepare capacity building programmes tailored to the needs of different social groups	LBNR/EWC					X											X	
Activity 3.6.3: Develop a funding proposal to solicit funding for capacity building	LBNR/EWC								X									
Activity 3.6.4: Train community members on access and benefit sharing, fairness and equity in negotiating mutually agreed terms	LBNR/10% community grant												X	X	X	X		600
Action 3.7 Implement community livelihood projects																		
Activity 3.7.1: Identify community livelihood projects through a participatory process	LBNR/10% Community grant					X	X											
Activity 3.7.2: Support selected livelihood projects prioritized under activity 3.7.1 above	LBNR/10% Community grant								X									
Activity 3.2.3: Monitor and evaluate supported community livelihood projects	LBNR/10% Community grant															X		500
Action 3.8 Review and strengthen the existing benefit sharing mechanisms																		
Activity 3.8.1: Work with the BCG in liaison with KWS to review the current grant policy to ensure that it conforms with relevant laws	BCG- Tourism/Baringo County Assembly/ LBNR/10%Community grant												X					600
Activity 3.8.2: Sensitized community on proportion to be allocated to community livelihoods and conservation in light of reserve management costs	BCG- Tourism/Baringo County Assembly/ LBNR/10%Community grant											X	X	X				600
Action 3.9 Lobby BCG for enhancement of the community grant																		
Activity 3.9.1: Review community grant with an aim of increasing it from 10% to 15% per annum during the plan period	BCG-Tourism/Baringo County Assembly/ LBNR/10%Community grant											X						400
Activity 3.9.2: Develop a policy on disbursement ratios to every administrative location in the LBNR area.	BCG- Tourism/Baringo County Assembly/ LBNR/10%Community grant															X		600

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Objective 4: Sustainable conservation-friendly land uses promoted in the greater LBNR landscape																		
Action 4.1 Establish new wildlife conservancies and support existing ones																		
Activity 4.1.1: Identify training needs of conservancy staff	KWCA/BCCA/GEF/ BCG-Tourism/LNBR/ Chiefs					X												400
Activity 4.1.2: Train the staff in areas such as governance, management and security	KWCA/BCCA/GEF/ BCG-Tourism/LNBR/ Chiefs					X												300
Activity 4.1.3: Carry out community sensitization in people/group dynamics	KWCA/BCCA/GEF/ BCG-Tourism/LNBR								X									500
Activity 4.1.4: Establish conflict resolution committees	KWCA/BCCA/GEF/ BCG-Tourism/LNBR/ Chiefs					X												
Activity 4.1.5: Train communities on conflict resolution and conflict management	KWCA/BCCA/GEF/ BCG-Tourism/LNBR/ Chiefs								X									200
Activity 4.1.6: Hold meetings to address conservancy management and other general challenges	KWCA/BCCA/GEF/ BCG-Tourism/LNBR/ Chiefs					X							X					200
Activity 4.1.7: Organise exchange programmes to benchmark on conflict resolution, management and other management practices	KWCA/BCCA/GEF/ BCG-Tourism/LNBR/ Chiefs/ 10%community grant												X					1000
Activity 4.1.8: Support the community to establish conservancies and wildlife utilization programs	KWCA/BCCA/GEF/ BCG-Tourism /LNBR/Chiefs/KWS												X					400
Action 4.2 Identify and map ecotourism resources in community areas																		
Activity 4.2.1: Conduct a survey of potential tourist facility sites	BCG-Tourism								X									300
Activity 4.2.3: Prepare and prospectus and advertise identified tourism facility sites to tour operators	BCG-Tourism/ICT					X							X					600

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
<p>Action 4.3 Support community tourism initiatives</p> <p>Activity 4.3.1: Train community members in on operation of successful tourism development and management ventures</p> <p>Activity 4.3.2: Support communities to develop visitor facilities and other infrastructure in conservancies and visitor services</p>	<p>KWCA/BCCA/GEF/ BCG-Tourism /LNBR/KWS</p> <p>KWCA/BCCA/GEF/ BCG-Tourism /LNBR/Chiefs/KWS</p>																	500
<p>Action 4.4 Market Cultural Centres</p> <p>Activity 4.4.1: Promote cultural centres</p> <p>Activity 4.4.2: Build the capacity of community members in management of cultural centres and curio shops</p> <p>Activity 4.4.3: Organize study tours to areas with successful tourism ventures</p>	<p>KWCA/BCCA/GEF/ BCG-Tourism/Culture /LNBR/Chiefs/KWS</p> <p>KWCA/BCCA/GEF/ BCG-Tourism/Culture /LNBR/Chiefs/KWS</p> <p>KWCA/BCCA/GEF/ BCG-Tourism/Culture /LNBR/Chiefs/KWS</p>																	600
<p>Action 4.5 Organise cultural events to promote cultural tourism</p> <p>Activity 4.5.1: Organise the annual Endorois Cultural Festival</p> <p>Activity 4.5.2: Organise tourism related sporting activities</p>	<p>KWCA/BCCA/GEF/ BCG-Tourism /LNBR/Chiefs/KWS</p> <p>KWCA/BCCA/GEF/ BCG-Tourism /LNBR/Chiefs/KWS</p>																	900
<p>Action 4.6 Promote wildlife farming as a form of land use</p> <p>Activity 4.6.1: Identify potential wildlife farming enterprises</p>	<p>KWCA/BCCA/GEF/ BCG-Tourism /LNBR/Chiefs/KWS</p>																	200

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 4.6.2: Train community members in wildlife farming	KWCA/BCCA/GEF/ BCG-Tourism /LBNR/Chiefs/KWS								X									200
Activity 4.6.3: Support establishment of a model wildlife farm	KWCA/BCCA/GEF/ BCG-Tourism /LBNR/Chiefs/KWS												X					200
Action 4.7 Promote beekeeping																		
Activity 4.7.1: Train community members in production of high quality bee products	BCCA/BCG-Agriculture					X												200
Activity 4.7.2: Designate parts of the LBNR as bee keeping areas	LBNR					X	X	X	X	X	X	X	X	X	X	X	X	
Activity 4.7.3: Assist bee keepers to market bee products	Community Conservancies/LBNR/ BCG-Trade	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Action 4.8 Build entrepreneurship capacity among the local community																		300
Activity 4.8.1: Organise leadership training workshops for leaders of CBOs	GEF/SGP					X										X		500
Activity 4.8.2: Organise project management training workshops	CBOs /LBNR												X					400
Action 4.9 Support communities in preparation of proposals to seek donor-funding																		
Activity 4.9.1: Assist the community in preparing funding proposals	BCG-Tourism	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 4.9.2: Work with the community in marketing the funding proposals to potential donors	BCG-Tourism	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Objective 5: Community understanding and awareness of LBNR's conservation importance improved																		
Action 5.1 Operationalise Lobo Dry Land Environmental Education Centre																		
Activity 5.1.1: Equip the education centre with new audio visual equipment	BCG-Tourism					X												1000
Activity 5.1.2: Produce interpretive information materials in form of posters, pamphlets, leaflets	BCG-Tourism/ICT	X											X				X	1500
Activity 5.1.3: Equip the Kitchen with essential cooking ware	BCG-Tourism					X												400

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (Ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Activity 5.6.1: Participate in wildlife related radio talk shows	BCG-Office of the Governor, Tourism ,LBNR	X	X	X	X	X	X	X	X	X	X	X	X	500
Activity 5.6.2: Publish conservation articles on LBNR	BCG-Tourism							X						200
Activity 5.6.3: Participate in international events such as World Environment Day, World Wildlife Day, World Wetlands Day, and Agricultural Society of Kenya (ASK) shows	BCG-Tourism Treasury	X						X					X	1000

4. Protected Area Operations Management Programme

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Objective 1: Institutional collaborations formalised and strengthened																		
Action 1.1 Establish an LBNR Join management committee																		
Activity 1.1.1: Form a JMC	BCG- Tourism /MCAs around Lake Bogoria/ LBNR					X												200
Activity 1.1.2: Develop clear terms of reference for the JMC	BCG- Tourism / Attorney					X												100
Activity 1.1.3: Train JMC members in leadership and financial management	BCG- Tourism / Attorney						X	X	X									
Activity 1.1.4: Hold regular JMC meetings	BCG- Tourism / Attorney/LBNR									X						X		400
Action 1.2 Work with other institutions to realise Reserve objectives (e.g. Research, marketing, and monitoring)																		
Activity 1.2.1: Develop MOUs with collaborating institutions	BCG- Tourism / Attorney/LBNR									X	X							
Activity 1.2.2: Review of MOUs as appropriate	BCG- Tourism / Attorney/LBNR															X	X	
Action 1.3 Collaborate with County Security Committees to control illegal encroachment and insecurity in LBNR																		
Activity 1.3.1: Share information on illegal activities in the Reserve with the County Security Committee	LBNR/KWS/Police	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 1.3.2: Solicit for support from the County Security Committee to control illegal activities, such as encroachment on the reserve	Police/LBNR/KWS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	500
Objective 2: Performance and motivation of LBNR staff improved																		
Action 2.1 Recruit more staff																		

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Activity 2.1.1: Develop criteria for staff recruitment	HR/BCG Tourism/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 2.1.2: Advertise the vacancies through the public service board	HR/BCG Tourism/LBNR				X				X					
Activity 2.1.3: Conduct interviews, select suitable candidates and deploy selected staff	HR/BCG Tourism/LBNR						X						X	2,000
Activity 2.1.4: develop clear guidelines and procedures for recruitment and retention of casual labour	LBNR/HR/Tourism	X	X	X	X	X	X	X	X	X	X	X	X	
Action 2.2 Employ or train relevant staff in foreign languages skills														
Activity 2.2.1: Carry out a survey on visitation to determine the language of frequent visitors	LBNR/HR/Tourism				X									
Activity 2.2.2 Train customer care staff in the leading foreign languages	LBNR/HR/Tourism						X	X	X	X	X	X	X	1,000
Activity 2.2.3: Organise in-house training in provision of first aid, disaster preparedness, fire fighting	LBNR/HR/Tourism				X						X			600
Activity 2.2.4: Organise staff exchange visits to other parks/reserve/sanctuaries	LBNR/HR/Tourism						X						X	2,000
Action 2.3 Conduct staff training needs assessment														
Activity 2.3.1: Provide staff with recreation facilities	LBNR/HR/Tourism	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 2.3.2: Organise team building activities for staff	LBNR/HR/Tourism				X				X				X	600
Activity 2.3.3: Provide adequate domestic water to all staff	LBNR/HR/Tourism	X	X	X	X	X	X	X	X	X	X	X	X	
Objective 3: Infrastructure to support LBNR management and tourism development improved														
Action 3.1 Construct, rehabilitate and maintain LBNR roads														
Activity 3.1.1: Open the eastern part of the Lake Circuit from Sandai River through Koimugul to Figtree	BCG-Treasury/ Tourism/Infrastructure development/LBNR					X	X	X	X	X	X	X	X	30,000
Activity 3.1.2: Murrum Emsos-Fig Tree road	BCG-Treasury/ Tourism/Infrastructure development/LBNR				X				X				X	5,000

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)				
		FY 2019-20				FY 2020-21				FY 2021-22								
		1	2	3	4	1	2	3	4	1	2	3	4					
Activity 3.1.3: Construct the Lobo-Fig Tree-Koimugul-Waseges river road and install a bridge at Waseges river	BCG-Treasury/ Tourism/Infrastructure development/LBNR					X	X	X	X	X	X	X	X	X	X	X	X	10,000
Action 3.2 Construct, rehabilitate and maintain buildings																		
Activity 3.2.1: Rehabilitate staff houses at all the administrative stations	BCG-Housing/ Tourism/ LBNR					X	X	X	X	X	X	X	X	X	X	X	X	1,500
Activity 3.2.2: Construct new staff houses	BCG-Housing/ Tourism/ LBNR					X	X	X	X	X	X	X	X	X	X	X	X	5,000
Activity 3.2.3: Rehabilitate office buildings	BCG-Housing/ Tourism/ LBNR					X	X	X	X	X	X	X	X	X	X	X	X	1,500
Action 3.3 Procure and maintain vehicles, plants and equipment																		
Activity 3.3.1: Carry out routine maintenance of vehicles and plant	BCG-Tourism/Works/ Treasury					X	X	X	X	X	X	X	X	X	X	X	X	2,000
Activity 3.3.2: Procure vehicles and plant	BCG-Tourism/Works/ Treasury					X	X	X	X	X	X	X	X	X	X	X	X	10,000
Activity 3.3.3: Procure and maintain office equipment	BCG-Tourism/Works/ Treasury/ICT					X	X	X	X	X	X	X	X	X	X	X	X	2,000
Action 3.4 Improve telecommunications																		
Activity 3.4.1: Upgrade the radio network by installing a repeater to enhance communication	KWS/BCG-Tourism					X	X					X	X			X	X	600
Activity 3.4.2: Establish a link between County and KWS radio frequencies	KWS/BCG-Tourism					X						X					X	600
Activity 3.4.3: Upgrade radio communication systems	KWS/BCG-Tourism																	
Activity 3.4.4: Conduct an inventory on available radios and determine how many more are required	KWS/BCG-Tourism					X	X	X	X									
Activity 3.4.5: Procure modern base and hand held VHF radios	KWS/BCG-Tourism											X						1,500
Activity 3.4.6: Train radio operators on use and maintenance of the radios	KWS/BCG-Tourism											X	X	X	X	X	X	
Activity 3.4.7: Enhance radio communication to cover a wide area including Mogotio Information Centre and the proposed new gates, Lake Baringo Conservation Area, Lake Kamnarok National Reserve Lembus Forest, Community Conservancies and Baringo County HQS (in Kabarnet).	KWS/BCG-Tourism															X	X	600

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)		
		FY 2019-20				FY 2020-21				FY 2021-22						
		1	2	3	4	1	2	3	4	1	2	3	4			
Activity 3.4.8: Develop a reserve website	KWS/BCG-Tourism/ICT			X	X	X	X	X	X	X	X	X	X	X	X	1,000
Action 3.5 Construct and maintain other essential infrastructure e.g. gates, sign posts, fire towers, fire rating boards																
Activity 3.5.1: Install signage	BCG-Treasury/ Tourism/Infrastructure development/LBNR			X						X					X	1,200
Activity 3.5.2: Create and maintain firebreaks	BCG-Treasury/ Tourism/Infrastructure development/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 3.5.3: Install fire towers	BCG-Treasury/ Tourism/Infrastructure development/LBNR					X										300
Activity 3.5.4: Construct a new airstrip at Kipkunya	BCG-Treasury/ Tourism/Infrastructure development/LBNR								X							1,500
Action 3.6 Mark the Reserve boundary																
Activity 3.6.1: Clear vegetation along the reserve boundary	LBNR/KWS			X	X					X	X					500
Activity 3.6.2: Mark the boundary with beacons	BCG-Treasury/ Tourism/Lands/LBNR							X	X	X	X	X	X			1,500
Activity 3.6.3: Upgrade, where appropriate, the reserve boundary to firebreak standard	BCG-Treasury/ Tourism/Lands/LBNR					X	X	X	X	X	X	X	X	X	X	
Action 3.7 Provide utilities e.g. water, electricity and sanitation to offices and residential houses																
Activity 3.7.1: Construct water pans within the reserve	BCG-Treasury/ Tourism/Water/LBNR								X						X	3,000
Activity 3.7.2: Desilt Koimugul and Kongiel dams and put in place mechanisms to prevent further siltation	BCG-Treasury/ Tourism/Water/LBNR							X								1,000
Activity 3.7.3: Put up mechanisms to prevent siltation at the Mawe Moto dam	BCG-Treasury/ Tourism/Water/LBNR							X	X	X	X	X	X	X	X	500

Management Action and Activities	Responsibility	Timeframe												Estimated Budget (ksh'000)
		FY 2019-20				FY 2020-21				FY 2021-22				
		1	2	3	4	1	2	3	4	1	2	3	4	
Activity 5.2.1: Design a computer database to store and analyse security related information	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	200
Activity 5.2.2: procure a computer	KWS/LBNR													
Activity 5.2.3: Input and update data into security database	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 5.2.4: Identify security hotspots through analysis of security data	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	600
Activity 5.2.5: Train rangers on use the security database	KWS/LBNR				X				X				X	1,000
Action 5.3 Strengthen patrol outposts														
Activity 5.3.1: Identify equipment requirements for existing outposts	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 5.3.2: Procure equipment required at each outpost	KWS/LBNR				X				X				X	1,500
Activity 5.3.3: Prepare proposals and budget request for development of new outposts	KWS/LBNR								X				X	800
Activity 5.3.4: Include development of new outposts in appropriate work plans	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	
Activity 5.3.5: Procure a ranger-based patrol software and train rangers in its use	KWS/LBNR								X				X	1,000
Activity 5.3.6: Collection and analyse data collected during patrols to support LBNR management	KWS/LBNR	X	X	X	X	X	X	X	X	X	X	X	X	

Annex 2: Stakeholder Participation in Planning

Name	Position/ Organisation	Stakeholder Plan Scoping Workshop	Core Planning Team Meetings	Plan Foundations Workshop	Ecology Working Group	Tourism Working Group	Community Working Group	Operations Working Group	Plan Validation	Plan Approval
Alice Bett	KWS	X	X	X	X					
Apollo Kariuki	KWS	X	X	X	X	X	X	X		
Benson Kisleku	BCG								X	
Bonface Kiptoo	ACC Interior	X								
Celestine Makuk	BCG								X	X
Christine Jepkemoi	Lake Bogoria	X								
Daniel Njaga	Menengai Holidays Ltd					X	X	X		
Dickson Ritan	KWS								X	
Dickson Too	KWS		X	X	X					
Dorah J. Sawe	BCG									X
Dr. Oliver Nasirwa	NMK				X					
Dr. Patrick Omondi	KWS			X						
Dr. Steve Omondi	Egerton University	X								
Emmanuel Kubai	BCG									
Evans Kandie	BCG	X	X	X	X	X	X	X	X	X
Evans Kasitet	EWC	X								
Faith Muchiri	KWS		X							
Fancy C. Kiprotich	EWC	X	X							
Festus Kiptisha	Chief, Lobo	X								
Francis C. Komen	BCG-County Secretary									X
Fredrick Kosgei	BCG								X	
Fridah Chelagat	BCG								X	
George Korir	Friends of nature	X								
Hon. Ameja Zelemoi	BCG									X
Hon. Clement A. Lamaring'oria	BCG-CEC Member									X

Name	Position/ Organisation	Stakeholder Plan Scoping Workshop	Core Planning Team Meetings	Plan Foundations Workshop	Ecology Working Group	Tourism Working Group	Community Working Group	Operations Working Group	Plan Validation	Plan Approval
Hon. David S. Chesire	BCG-CEC Member									X
Hon. Dr. Richard K. Rotich	BCG- CEC Member									X
Hon. Elijah Kipkoros	BCG- CEC Member									X
Hon. Enock Keston	BCG- CEC Member									X
Hon. Eunice Kakerel	BCG									X
Hon. Francisca Cheburet	BCG								X	X
H.E Hon. Jacob K. Chepkwony	BCG-Deputy Governor									X
Hon. Kibabar Paul	BCG								X	X
Hon. Kipruto Kimosop	BCG									X
Hon. Maria Losile	BCG									X
Hon. Mary C. Panga	BCG- CEC Member									X
Hon. Dr. Maureen J. Rotich	BCG- CEC Member								X	X
Hon. Musa Cheruiyot	BCG									X
Hon. Richard Rono	BCG									X
Hon. Scolah J. Kimeli	BCG- CEC Member			X	X					X
Hon. Silas K. Tochim	BCG								X	X
H.E. Hon. Stanley K. Kiptis	BCG-Governor									X
Hon. Thomas Ole Nong'onop	BCG-CEC Member									X
Jackline Mutwiri	KWS			X	X	X	X	X		
Jackson Kiplangat	EWC	X								
Jackson Komen	BCG	X								X
Jackson Mwangi	WRIMA	X								
Jacquiline Bubi	KWS	X								
James Chetalam	BCG	X								
James Kibowen	Chief, Kaposgei	X								
James Kimaru	BCG	X	X	X	X	X	X	X	X	X
Jane Wambugu	KWS	X								

Name	Position/ Organisation	Stakeholder Plan Scoping Workshop	Core Planning Team Meetings	Plan Foundations Workshop	Ecology Working Group	Tourism Working Group	Community Working Group	Operations Working Group	Plan Validation	Plan Approval
Jenipher Olang	KWS	X								
Jeremiah Kiprotich	Netbon Eco tourism Bogoria	X			X					
Joab Kiprop	Chief, Koibos	X								
John Kamarei	WRUA, Lobo	X								
John Kandie	Kiborgoch	X								
John Kiptum	CWCCC	X								
Joseph Edebe	KWS								X	
Josphine Mutiso	KWS								X	
Kavaka Mukonyi	KWS	X		X			X			
Kenneth Nashuu	KWS	X	X							
Kipebut T Henry										
Kiprotich Chesire	Sogomo SaTaKi	X								
Lydia Jamesunde	ACC interior	X								
Lydia Kisoyan	KWS			X						
Martha Nzisa	KWS		X	X	X	X	X	X		
Mengach Kangongi	Sogomo	X								
Mercy Kiplagat										X
Moses Kimeli	EWC	X								
Mr. Francis Komen	BCG									X
Paul Chepsoi	EWC	X	X	X						
Paul Kanyinge Sena	MRG	X								
Peter Lekeran	KWS								X	X
Priscillar Mutungi	KWS	X	X		X					
Prof. Francis Mulaa	University of Nairobi	X								
Raphael Kimosop	BCG	X	X							
Raphael Ngetich	Sogomo	X								
Rebecca Kochulem	Ruko conservancy	X								

Name	Position/ Organisation	Stakeholder Plan Scoping Workshop	Core Planning Team Meetings	Plan Foundations Workshop	Ecology Working Group	Tourism Working Group	Community Working Group	Operations Working Group	Plan Validation	Plan Approval
Rhoda Munga	BCG									
Richard Rutto	BCG								X	X
Rose Jeptoo	Natural Justice	X								
Royford Mbaka	KWS		X							
Samuel Marigat	EWC	X								
Samuel Ondeng	NEMA	X								
Simon Kandie	BCG		X							
Thomas Sakah	BCG	X								
Titus Amdany	BCG	X		X	X					
William Kimosop	BCG	X					X	X	X	X
Wilson Kipkazi	EWC		X				X		X	
Zopeyok Jonathan	BCG									X

Annex 3: Public Participation Meetings at Lobo, Maji Moto and Ol Kokwe

BARINGO COUNTY GOVERNMENT



OFFICE OF THE COUNTY EXECUTIVE MEMBER
DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES TOURISM AND
WILDLIFE MANAGEMENT

PUBLIC NOTICE

INVITATION OF MEMBERS OF THE PUBLIC (COMMUNITY
BORDERING LAKE BOGORIA NATIONAL RESERVE)
STAKEHOLDERS AND INTERESTED GROUPS /PARTIES TO
PUBLIC PARTICIPATION FORA FOR 2ND EDITION LAKE BOGORIA
NATIONAL RESERVE MANAGEMENT PLAN, 2019-2029.

In accordance with article 10(1)(c), 2(a) and (d) of the constitution of Kenya 2010, sections 107(1)(a), 108 2(b), 109 (1), 113 and 115 of the County Government Act 2012. and Section 44(2) of The Wildlife Conservation and Management Act 2013.

The County Government of Baringo invites members of the public(community bordering Lake Bogoria National Reserve) stakeholders and interested groups /parties to participate and give views including written submission on 2nd Edition of Lake Bogoria National Reserve Management Plan.

Written representations should be sent or be hand-delivered to the office Ward Administrators or the Warden Lake Bogoria National Reserve Lobo Main Office P. O Box 64, Marigat or *email:lakebogoriareserve@gmail.com* on or before 28/04/2019.

The public consultations shall be held on the dates and venue indicated below starting time 10.00am.

Sub County	Ward	Date	Venue
Baringo south	Mochongoi	24 /04/2019	Lobo Centre
Mogotio	Emining	25/04/2019	Majimoto centre
Mogotio	Kisanana	26/04/2019	Olkokwe Centre

All are invited and kindly observe time.

Hon. Scolar J. Kimeli

County Executive Committee Member

ENVIRONMENT, NATURAL RESOURCES, TOURISM AND WILDLIFE.

THIS PUBLIC NOTICE IS ALSO AVAILABLE IN BARINGO COUNTY GOVERNMENT WEBSITE(WWW.BARINGO.GO.

BARINGO COUNTY GOVERNMENT



Mwalimu plaza, 1st Floor
P.O. BOX 053-30400,
KABARNET.

DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES TOURISM AND WILDLIFE MANAGEMENT

DIVISION OF TOURISM AND WILDLIFE MANAGEMENT

LAKE BOGORIA NATIONAL RESERVE MANAGEMENT PLAN PUBLIC PARTICIPATION
VENUE: LOBOI -(LAKE BOGORIA DRY LAND EDUCATION CENTRE) **DATE :**25/04/2019

ATTENDANCE LIST

S/NO	NAME	DEPARTMENT	TELEPHONE
5.	John C. Kidogo	CO- Environment Tourism	0722403457
6.	Patrick L Kitilit	Director-Mining	0727897022
7.	William Kimosop	Chief Warden-Tourism/Wildlife	0702317760
8.	Titus Amdany	BCG Tourism	0721343808
9.	James Kimaru	County- Warden Lake Bogoria	0722446262
10.	David Tuwei	Treasury	0728816754
11.	Philip Nandwa	Environment	0720848953
12.	Raphael Kimosop	Wetland Officer	0723661887
13.	Moses Kimeli	Chairman Lake Bogoria 10%	0722615989
14.	Daniel C Kangongo	LBNR Liaison Officer	0725781878
15.	John K Kimosop	BCG Ward Admin-Mochongoi	0721828175
16.	Michael Chepkuto	Chief - Sandai	0723559865
17.	Festus Kiptisha	Chief – Lobo	0713826240
18.	Joseph Cherutich	Chief - Kapkuikui	0727715490
19.	Joseph Keitany	Kapkuikui (former Chief)	0729868943
20.	Benarnd K Chepkwony	LBNR Accounts	0721421617
21.	Maureen Barmasai	ASS Chief -Lobo	0727796674
22.	Samuel Kibii	Assistant Chief	0724267832
23.	Dennis K Rotich	OP Assistant Chief- Chelaba	0724224740
24.	Samuel Kiptek	Cllr. (Former)	0724263443
25.	Joseph Cherono	Former Assistant	0729961152
26.	Daniel Chelal	Members	0727798438
27.	Johema Kabato	Member	0725370532
28.	Charles Rotich	Member	0727303286
29.	Sammy Kibor	Member	0711167401

S/NO	NAME	DEPARTMENT	TELEPHONE
30.	Joel Kibet	Sandai	0720934842
31.	Moses Cheruiyot	Religious`	0720572147
32.	Jackson Chepkuto	Farmer	
33.	Jackson Borchigei	Farmer	
34.	Jimmy Karato	Farmer	0710553344
35.	David Rutto	Farmer	0715565188
36.	Zakayo Kurere	Farmer	
37.	Marthin Kurui	Tour guide	0722203877
38.	Alfred Chelimo	Farmer	0713406853
39.	Philip Cheriot	Farmer	0728146375
40.	Motoloi Symon	Farmer	0720919928
41.	Micah Chepkoroisi	Chairman- Kiborgoch Conservancy	0726675182
42.	Vincent Sibilo	Farmer	0724740140
43.	Joseph Chepyator	Farmer	0715573722
44.	Felix Kibarar	Farmer	0710710085
45.	Godfrey Kimeli	LCBO	0724494598
46.	Desmond Koech	Farmer	0720228911
47.	Felix Ngetich	Farmer	0711155156
48.	Jeremiah Kibarar	Loboi	0710407377
49.	John Mitei	Loboi	0717236330
50.	David Yator	Loboi	0724848669
51.	Chumaisi Koech	Loboi	
52.	Kibinei Kapyego	Loboi	
53.	Michael Yegon	Sandai	0728402875
54.	John Kurgat	Sandai	
55.	Susan Komen	Loboi	071155634
56.	Winnie Ngetich	Loboi	0705516461
57.	Josphine Kiproop	Loboi	0723907312
58.	Priscillah Korir	Loboi	0715783181
59.	Pauline Chelagat	LOboi	0718799748
60.	Margaret Talai	„	0700007449
61.	John Kandie	„	
62.	Jane Kiprotich	„	0728762431
63.	Purity Kandie	„	0715827021
64.	Musa Kiparar	„	
65.	Joseph Losiwa	Opinion leader	0726695291
66.	Alastin Kiproop	Loboi	0721675531
67.	Alex Cheserem	LBNR	0726067286
68.	Joseph Kimunyan	LBNR	0724911754
69.	Festus Cheruto	Loboi	0719721099
70.	Edwin Korir Sibilo	B/S	0724793667
71.	Rogers Motoloi	Lake Bogoria CBO member	0702317196
72.	Willis Keitany		0707497564

S/NO	NAME	DEPARTMENT	TELEPHONE
73.	Peter Chepyegon		0703581517
74.	Samati Dan		0729942519
75.	Vincent Kibet		0729942519
76.	John Bogoria		0720105570
77.	Timothy Barturo	Tourism	0716724134
78.	Patrick Kurere	Tourism	0720385096
79.	Jacob Cheburet	Chuine Conservancy	0723894860
80.	Bekinda Chepsai		0720817309
81.	Benadine Kochei	Irong Conservancy	07219347720
82.	Paul Toromo		
83.	Anderson Tuitoek		
84.	Joseph Kiptanui		
85.	Johnson Ngetich	Lake Bogoria CBO Member	0716424816
86.	Willy Chepsoi	Tourism	0729649564
87.	Dismas Kipchumba	B/S	0712575135
88.	James Tuitoek	B/S	0717240145
89.	Kirwek Kamuren	Lake Bogoria CBO	0707604864
90.	Julius Chesire	Tourism	0727312929
91.	Catherine Jerono	Tourism	0725572875
92.	Alex Rotich	Lake Bogoria CBO	0716923367
93.	Richard Kamuren	Lake Bogoria CBO	
94.	Johona Karato	Opinion	
95.	Charles Rotich	Elder	0727303286
96.	Sammy Kibon	Member	
97.	Kiplagat Cheboi	Member	0746145709
98.	Joseph Wendot	Member	0725984300
99.	Raphael Serote	Member	0727702733
100.	Mathayo Kipkemoi	LBNR	0726482633
101.	Fancy Kiprotich	Member	0711414558

BARINGO COUNTY GOVERNMENT



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DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES TOURISM AND WILDLIFE MANAGEMENT

DIVISION OF TOURISM AND WILDLIFE MANAGEMENT

LAKE BOGORIA NATIONAL RESERVE MANAGEMENT PLAN PUBLIC PARTICIPATION

VENUE: MAJI- MOTO (CHIEF'S OFFICE)

DATE :25/04/2019

ATTENDANCE LIST

S/NO	NAME	DEPARTMENT	TELEPHONE
102.	John C. Kidogo	Chief officer -Tourism and Wildlife	0722403457
103.	John Kisang	Chief Officer -Mining	0723405779
104.	William Kimosop	Chief Warden-Tourism/Wildlife	0720317760
105.	Patrick L Kitilit	Director Mining	0727897022
106.	Moses Kimeli	Chair-Lake Bogoria 10% grant	0722615989
107.	Raphael Kimosop	BCG Environment	0723661887
108.	Philip Nandwa	BCG Environment	0720848953
109.	Titus Amdany	BCG Tourism	0721343808
110.	James Kimaru	County Warden- Lake Bogoria	0722446262
111.	Paul Kipkoros	Chief Kamar	0721662567
112.	Joab Kiprop	Chief Koibos	0712178055
113.	Kibet Kobetbet	Assistant Chief Maji-Moto	0723810302
114.	Josephine Chepkuto	Assistant Chief Molos	0728213856
115.	Philemon Kapsabet	Assistant Chief Emsos	0720988699
116.	Daniel Kangogo	Community liaison officer	0725781878
117.	Mutei Francis	NIIMS	0721931217
118.	Vitalis Kiprotich	NIIMS	0707224488
119.	Boniface Kiprotich	NIIMS	0714423751
120.	Linah Korir	Community	0791948473
121.	Meshack Kemboi	Community	0712003188
122.	Miriam Kiptingilen	Community	0713483196
123.	Tarko Kokwelel	Community	
124.	Roseline Cherutich	Community	0702088270
125.	Soti Boit	Community	
126.	Soti Siwareng	Community	
127.	Wilfred Kewei	Community	0705252804

S/NO	NAME	DEPARTMENT	TELEPHONE
128.	Douglas Tikamoi	Community	0723524204
129.	Richard Keitany	Community	
130.	Peter Kandie	Community	07014216982
131.	Richard Kandie	Community	0712718744
132.	Kipngetch Amos	Community	0740104388
133.	Rael Kibutit	Community	
134.	Esther Kuru	Community	
135.	Florence Cheboiwo	Community	
136.	Stephen Chesire	Community	0702072033
137.	Daudi Koech	Community	0729977243
138.	Paul Kicheu	Community	0796010524
139.	Brian Eshiwani	Community	079624086
140.	Alex Cheserem	Community	0726062256
141.	Cherutich Kibet	Community	
142.	David Chemurgoi	Community	
143.	Paul Ngetich	Community	0712911411
144.	Charles Morok	Community	0718614043
145.	James Kipserem	Community	0710317571
146.	Richard Kibos	Community	0712270481
147.	Samuel Mursoi	Community	0726487556
148.	Elizabeth Koima	Community	0702670263
149.	Hellen Kemboi	Community	0705289937
150.	Christine Klbiwott	Community	0719271878
151.	Jelagat Jane	Community	0702271544
152.	Michael Yator	Community	0796160058
153.	Noah Tuitoek	Community	0741582507
154.	Thomas Kigen	Community	0718831389
155.	Daniel Chepkonga	Community	
156.	Anthony Kipkurui	Community	0722429141
157.	Joseph Tumuyan	Community	0722666267
158.	Geoffrey Tuitoek	Community	0715295414
159.	Simon K. Koech	Community	0712911493
160.	Beatrice Kiprotich	Community	0727419240
161.	Talai Chesang	Community	
162.	Cllr. Wilson Chesang	Former Cllr.	0740104389
163.	Ann Limo	Community	0721743573
164.	John Sangut	Community	0722660667
165.	Josphine Chebet	Community	0707759164
166.	Sote Kimalel	Community	
167.	Rebbeca Rerimoi	Community	0796267786
168.	Dorcas Mongwo	Community	0711406836
169.	Ann Sokelo	Community	
170.	Viola Koech	Community	0790189654
171.	Kipngetch Amos	Community	0740104388
172.	Jeremiah Konet	Community	0723362546

S/NO	NAME	DEPARTMENT	TELEPHONE
173.	Stanley Kipcheu	Community	0705014577
174.	Barnabas Kibet	Community	0714532208
175.	Enock Waseges	Community	0703686614
176.	Michael Lembus	Community	0702661485
177.	Jackson Chepyegon	Community	0713963228
178.	Kipkules Haron	Community	0723475461
179.	Maryline Cherutich	Community	0702908650
180.	Rael Kipsum	Community	0705147170
181.	Peter Chepyegon	Community	0703581517
182.	Wilson Kulios	Community	0700762945
183.	Joseph Achiwa	Community	0705207801
184.	Stephen Kipkurgat	Community	0715385455
185.	Cherutich Elvis	Community	0716196837
186.	Bizmark Korir	Community	07130977448
187.	Kimeli Evans	Community	0701575672
188.	Julius Ngetich	Community	0713815944
189.	Charles Tanui	Community	0725073729
190.	Charles Kiprop	Community	0798132335
191.	Collins Kirwa	Community	0704412501
192.	Bowen Isaac	Community	0720821491
193.	Sammy Kibet	Community	0756316317
194.	Korir Christopher	Community	0793824791
195.	Julia Kimuge	Community	0724377592
196.	Joseph S Kemboi	Community	0727652414
197.	Kimoi Keitany	Community	
198.	Benson Mutei	Community	0725155889
199.	Boit Alex	Community	0707310345
200.	Job Kiprop	Community	0796097851
201.	Jacob Chemitei	Community	0713483119
202.	Kipkoech A	Community	0717626957

BARINGO COUNTY GOVERNMENT



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DEPARTMENT OF ENVIRONMENT NATURAL RESOURCES TOURISM AND WILDLIFE MANAGEMENT

DIVISION OF TOURISM AND WILDLIFE MANAGEMENT

LAKE BOGORIA NATIONAL RESERVE MANAGEMENT PLAN PUBLIC PARTICIPATION

VENUE: OLKOKWE- DISPENSARY GROUND

DATE: 26/04/2019

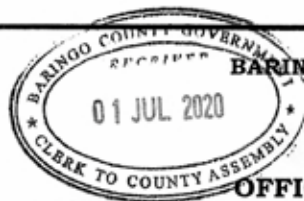
ATTENDANCE LIST

S/NO	NAME	DEPARTMENT	TELEPHONE
1.	John C Kidogo	Chief Officer - Environment	0722403457
2.	John Kisang	Chief Officer - Mining	0723405779
3.	Titus Amdany	BCG Tourism	0721343808
4.	James Kimaru	Warden BCG	0722446262
5.	Richard Tumeyo	Warden Admin - Kisanana	0715855296
6.	Raphael Kimosop	BCG Environment	0723661887
7.	Samuel K. Kabetto	Senior Chief Olkokwe	0720789185
8.	James Kibowen	Senior chief Lapnoskei	0726735003
9.	Samuel Kimalit	Senior Chief Kabusowo	0721793371
10.	Moses Kimeli	Chairman L. Bogoria grant 10%	0722615989
11.	John Cheserem	Assist. Chief Kabergei	0720447795
12.	Samuel Kibelion	Corp. L Bogoria	0723666350
13.	Richard Kimaiywa	Assistant Chief Olkokwe	0727936971
14.	Jonah Kifufu	Assist Chief Nyahururu	0723602564
15.	Simion Komen	Assist Chief Waseges	0720480808
16.	Daniel Kangogo	Community liaison officer	0725101875
17.	Jackson Kipkicho	Olkokwe	0700645240
18.	Festus K Komen	Olkokwe	0724685954
19.	Jk Chepeyeny	Olkokwe	0721346134
20.	Felix Kiploman	Olkokwe	0714410922
21.	Richard Chebon	Olkokwe	0727172681
22.	Benjamin Kimaiwa	Olkokwe	0700128479
23.	Joan Kiptui	Kapnosgei	0724981577
24.	Chesang Biliech	community	0724537109
25.	Wiliam Kandie	community	0724259073
26.	Sammy Chirchir	community	0718889586

S/NO	NAME	DEPARTMENT	TELEPHONE
27.	Regina T Karan	community	0705305585
28.	Timothy Chemjor	community	0708721024
29.	Milliam Cheruiyot	community	
30.	Kipchumba Morris	community	0714118812
31.	Edward Kipruto	community	0704204603
32.	Elijah Kimaiwa	community	0718724466
33.	Sharon Chirchir	community	0703916571
34.	Monyenche Gladys	community	0793546919
35.	Frankil	community	07929104111
36.	Stephen Cherutich	community	0716597143
37.	Denis K Chelelgo	community	0726914248
38.	Kiprop T Japheth	community	0712694792
39.	Daniel K Komen	community	0725449169
40.	Symon Kiprop	community	0792410210
41.	Kamuren Kibet	community	0725250849
42.	Komen Pius Yator	community	0729928913
43.	Hillary K Lorok	community	0715768485
44.	Daniel Kibet	community	0714074562
45.	Alex K Kiprop	community	0712241536
46.	Daniel Kurere	Community	0718889586
47.	Nancy Jerop Kurere	Community	0705305585
48.	Gilbert K Chumba	Community	0711523676
49.	Wilson Kiprop Morogo	Community	
50.	Francis Kelton	Community	0728953946
51.	Nickson Koech	Community	0729176288
52.	William Kibet	Community	0723669520
53.	Joseph Omarl	Community	0712019202
54.	Wendot Chepyego	Community	0714170869
55.	Evans Ndiritu	Community	0708727027
56.	Collins Kimutai	Community	0796949659
57.	Haron Kipkoech	Community	0712981288
58.	Moris Kibet	Community	0798082015
59.	Kevin Kibet	Community	0740513301
60.	Joseph Keitany	Community	0728398604
61.	Justine Kemboi	Community	0726434407
62.	Kipkurui Kipkemei	Community	0700753617
63.	David Kurgat	Community	0706622321
64.	Francis Kigen	Community	0722636148
65.	Sharon Chirchir	Community	0703916571
66.	John Cheserem	Community	
67.	Fredrick Kipkoech	Community	0706164052
68.	Sammy Kiprop	Community	0796870419
69.	Evans Changwony	Community	
70.	Sheila Changwony	Community	0705100735
71.	Lydia Kiptoo	Community	0715657619
72.	Tarkok Chebelieny	Community	0715732910

S/NO	NAME	DEPARTMENT	TELEPHONE
73.	Clara J Tarkok	Community	0796462383
74.	Jackson S Cherop	Community	0720146153
75.	Lonah Korir	Community	0759900351
76.	Pauline Koech	Community	0712162493
77.	Daniel K Yator	Community	0711504668
78.	Lydia Jemutai Chirchir	Community	0713708105
79.	Joel B Chirchir	Community	0727109961
80.	Nelion Cheburet	Community	0723486624
81.	Chemursoi Kangogo	community	
82.	David Kurgat Kigen	Community	0806622321
83.	Dominic Kiptoo	Community	0721535528
84.	Musa Tarus	Community	0705305587
85.	David Tuikung	Community	0703986221
86.	Bogoria Joseph	Community	0713458005
87.	David K Mengatich	Community	0722565356
88.	Daniel Chemwotei	Community	0727492699
89.	Daniel Kibomo	community	0713851954
90.	Joseph Langat	Community	0728469188
91.	Peter K Cheserem	community	0704825497
92.	Kiplagat Chepao	Community	0722115794
93.	Tuikong Angero	Community	0723072689
94.	Boniface Kmasir	Community	0713394435
95.	Tuitoek Kiprop	Community	0721922291
96.	Wesley Tumai	Community	0727349095
97.	Lauri Korir	Community	07220189913
98.	Benjamin Kimaiwa	Community	0707371005
99.	Hillary Kiyai	Community	0700196062
100.	Hillary Komen	Community	070064061
101.	Daniel Komen	Community	0728214032
102.	Bismarck Kiprop	Community	0792450291
103.	Linah Teriki	Community	0792730008
104.	Leah J Chepokech	Community	0728820291
105.	Julius Koech	community	0725749591
106.	Alice Rotich	Community	0703986219
107.	Grace Komen	Community	0720434478
108.	Alice Jesire	Community	0707600408
109.	Teriki Kertich	Community	
110.	Agnes Koech	Community	0725537274
111.	Sylvia Yator	Community	0704617302
112.	Samuel Komen	Community	0727267812
113.	William K Chemlua	Community	0727386587
114.	Julius Kimasir	Community	0711788494
115.	Joseph Korir	Community	0722675103
116.	Joel S Kertich	Community	0705084189
117.	Joseph Ndeke	Community	0710913780

Annex 4: Baringo County Executive Committee Plan Approval Meeting



BARINGO COUNTY GOVERNMENT



OFFICE OF THE GOVERNOR

EXTRACT OF THE MINUTES OF THE 15TH COUNTY EXECUTIVE COMMITTEE MEETING HELD ON 18TH JUNE, 2020 AT THE GOVERNOR'S BOARDROOM AT 2.00 P.M.

PRESENT:

- | | | | | |
|------------------------------------|---|------------------|---|-----------------|
| 1. H.E. Hon. Stanley K. Kiptis | - | Governor | - | Chairman |
| 2. H.E. Hon. Jacob K. Chepkwony | - | Deputy Governor | | |
| 3. Hon. Dr. Richard K. Rotich | - | Member | | |
| 4. Hon. Thomas Ole Nong'onop | - | Member | | |
| 5. Hon. Clement A. Lomaring'oria | - | Member | | |
| 6. Hon. Mary C. Panga | - | Member | | |
| 7. Hon. Dr. David Serگون Chesire | - | Member | | |
| 8. Hon. Elijah Kipkoros | - | Member | | |
| 9. Hon. Dr. Maureen Jemutai Rotich | - | Member | | |
| 10. Hon. Scolah J. Kimeli | - | Member | | |
| 11. Hon. Enock Keston | - | Member | | |
| 12. Mr. Francis C. Komen | - | County Secretary | | |

Apologies:

- | | | |
|------------------------|---|--------|
| Hon. Dr. Joel K. Koima | - | Member |
|------------------------|---|--------|

In Attendance:

- | | | |
|---------------|---|----------------|
| Dorah J. Sawe | - | Taking Minutes |
|---------------|---|----------------|


The meeting started with a word of prayer by Hon. Lomaringoria Clement at 4.30 p.m.

MINUTES	AGENDA	ACTION
MIN/CEC/01/06/2020	1. Opening Prayer 2. Preliminaries 3. Confirmation of previous minutes held on 17 th March, 2020 4. Matters Arising 5. Status of Project Implementation 6. Tourism – approval of Management Plan 7. Land requisition for Baringo Milk Plant 8. Status report on COVIC-19	

MINUTES	AGENDA	ACTION
<p>MIN/CEC/04/06/2020</p> <p>Reported that; -</p>	<p>Management Plan</p> <ul style="list-style-type: none"> ❖ It is required by World Bank ❖ It has a lot of advantages to the county and will enable the department earn more revenue and even acquire partnerships ❖ Requires Dykes and thus the need for the approval of the management plan to enable the department to seek partners to address the pertinent issues. ❖ The Committee for Tourism are already aware of its contents. ❖ It is a requirement for all conservancies to have a management plan, failure to which the National Government will be at liberty to take over the management of these conservancies. ❖ The soft copy of the management plan to be forwarded to all the CECs for further familiarization and comments (if any) ❖ The plan was therefore approved for submission to County Assembly for final approval as was proposed by Hon.Dr. Maureen Rotich and Seconded by Hon. Elijah Koros. 	<p></p> <p>CEC Tourism</p> <p>CS & CEC Tourism</p>

MINUTES	AGENDA	ACTION
	There being no other issues for deliberation, the meeting was closed with a word of prayer by Hon. Scolar J. Kimeli at 7.40 p.m.	

I certify that this is a true and correct extract of minutes of the **15th CEC Meeting** held on **29th June, 2020** at the Governor's Boardroom at **2.00 p.m.**



.....
Mr. Francis C. Komen,
COUNTY SECRETARY & SECRETARY CEC

COUNTY SECRETARY
 19 JUN 2020
 HARINGO COUNTY GOVERNMENT
 P.O. BOX 53 - 30400, KABARNET

.....
DATE

Annex 5: Baringo County Assembly Plan Approval Meeting Annex 6: Trees and shrubs of Lake Bogoria National Reserve and its environs

REPUBLIC OF KENYA
BARINGO COUNTY GOVERNMENT

info@baringocountyassembly.go.ke
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P. O BOX 159-30400
KABARNET

BARINGO COUNTY ASSEMBLY
OFFICE OF THE CLERK

Ref No: BCA/IMP/53 /VOL.1/35

28th September, 2020

The County Executive Committee Member
Department of Trade, Tourism and Cooperatives
Baringo County Government

Through,

The County Secretary
Baringo County Government

Dear Sir,

RE: REQUEST FOR THE IMPLEMENTATION OF THE ADOPTED REPORT BY HON. SYLAS TOCHIM, CHAIRPERSON, TRADE, TOURISM AND CO-OPERATIVES COMMITTEE ON LAKE BOGORIA NATIONAL RESERVE MANAGEMENT PLAN 2019-2029.

Kindly do find attached copies of Hansard and that of the adopted report on **Lake Bogoria National Reserve Management Plan 2019-2029**.

The Committee on implementation in accordance with **Article 183 (1a & 3) and 153 (4b)** of the Constitution of Kenya 2010 read together with **Standing Orders of Baringo County Assembly No. 194 (2 a, b & 3) and 187** respectively do ask for the implementation of all the recommendations contained in the report as envisaged in the said legislation and subsequently avail regular updates to the Committee, vis-a-vis the implementation status of the said report.

Kindly do find attached copies of Hansard and that of the adopted motion (Report) for your perusal and ease of reference.

Thank you.

CPA Richard K. Koech

Clerk of County Assembly



BARINGOCOUNTYASSEMBLY
THE HANSARD
SPECIAL SITTING

The House met on Monday 21st September 2020 at 3:50P.M

The Deputy Speaker (Hon. Chebotwo) in Chair

PRAYERS

MOTION

THE REPORT ON LAKE BOGORIA NATIONAL RESERVE MANAGEMENT PLAN 2019-2029

Report of the Trade, Tourism and Cooperatives committee on Lake Bogoria National Reserve Management Plan 2019-2029

Hon. Tochim: Thank you Mr. Speaker I move the following motion that this House adopts the report of the trade, tourism and cooperatives committee on Lake Bogoria National Reserve Management Plan 2019-2020.

Mr. Speaker Sir, Lake Bogoria National Reserve Management Plan 2019-2029 was laid on the table of the House on afternoon of Thursday, 1st September, 2020 at 2.30 p.m. upon being tabled. The Honorable Speaker Committed it to the Committee to consider and analyze it and subsequently present a report to the House for Consideration for approval.

Mr. Speaker the Members of the committee are as follows;

1. Hon. Sylas Tochim -Chairman
2. Hon. Eunice Kakerel-Vice -Chairperson
3. Hon. Francisca Cheburet -Member
4. Hon. Paul Kibarar -Member
5. Hon. Richard Rono -Member
6. Hon. Kipruto Kimosop -Member
7. Hon. Maria Losile -Member
8. Hon. Musa Cheruiyot -Member
9. Hon. Ameja Zelemoi -Member

Mandate of the committee;

- a) Investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations and estimates of the assigned sectors;
- b) Study the programme and policy objectives of the sector and the effectiveness of the implementation;
- c) Study and review all County legislation referred to it;



- d) Study, assess and analyse the relative success of the sector as measured by the results obtained as compared with their stated objectives;
- e) Investigate and inquire into all matters relating to the assigned sectors as they may deem necessary, and as may be referred to them by the house;
- f) To vet and report on all appointments where the constitution or any law requires the County Assembly to approve, except those understanding Order 190(committee on Appointment); and
- g) Make reports and recommendations to the house as often as possible, including recommendation of proposed legislation

Mr. Speaker, On behalf of the Committee Members, I wish to extend our sincere appreciation for the support accorded to the Committee by the office of the Speaker and the Office of the Clerk to ensure that the Committee delivers its mandate.

Mr. Speaker, I would like to thank the committee members of Tourism, Trade and Co-operatives for their input in coming up with the Report. Finally, Mr. Speaker Sir, it is now my pleasure, on behalf of the committee to present this report to the House for adoption.

Executive summary, Mr. Speaker, Lake Bogoria National Reserve Management plan 2019-2029 has been developed in accordance with Section 44 and the fifth schedule of the wildlife Conservation and Management Act 2013. It is also based on KWS protected area planning framework (PAPF), The planning standard for preparing PA management plans. In line with PAPF, this plan has been developed in a highly participatory manner, incorporating and building on ideas from a broad cross-section of Lake Bogoria National Reserve (LBNR) stakeholders.

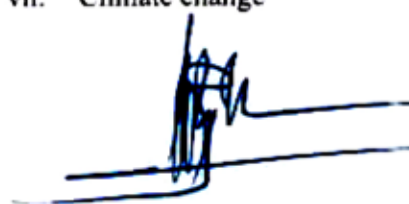

In order to fulfill the plan's functions, the LBNR Plan structure has been developed to be as simple as possible, and as such, easily understood by stakeholders and implemented by LBNR management.

Mr. Speaker Sir, the Committee received a memorandum from Endorois Welfare Council (EWC) with their input and considerations to be included in the LBNR Management Plan. EWC is one of the key stakeholders in the preparation of the LBNR Management Plan.

Mr., Speaker, LBNR is purposed to protect and conserve the scenic Lake Bogoria and its associated wildlife biodiversity, especially the rare and threatened species, and perpetuate the traditional livestock management systems that support conservation for the present and the future generations.

Key conservation issues and threats Mr. Speaker the following are issues of concern at LBNR.

- i. Degradation of Lake catchment areas, soil erosion and siltation
- ii. Use of water from upstream catchment areas and ground water aquifers
- iii. Pollution and eutrophication
- iv. Ecological change in other Rift Valley lakes
- v. Invasive alien species
- vi. Livestock grazing pressure
- vii. Climate change

viii. Infrastructure development

ix. Oil and gas exploration and development

Overview of the Lake Bogoria Management Plan 2019-2029; Mr. Speaker Sir, the committee noted that the management plan is quite detailed and after the committee went through the scrutiny of the whole document, i wish to give the Members a cursory overview of the document.

Mr. Speaker Sir, this is a very vital document in that it will go a long way not only to increase the revenue due to the County Government but also elevate the livelihood of the people living along Lake Bogoria National Reserve and its environs as well as putting mechanisms to protect and conserve the ecological system along Lake Bogoria.

Mr Speaker Sir, it is worth noting that the 5th Schedule to the Wildlife Conservation and Management Act, 2013 requires National Reserves previously managed by the defunct local authorities and presently by the County Governments to have management plans failure to which such management shall revert to the National Government. This is something that therefore obligates the County Government to develop and gazette management plans which will go a long way in also attracting investors and donors such as the World Bank and UNEP to further improve infrastructure, management and conservation of the ecological life in the reserve which will in turn attract more tourists both local and foreign.

Mr. Speaker Sir, the management plan further has Plan structure.

In order to fulfill the Plan's functions, the Lake Bogoria National Reserve has a plan structure developed to be as simple as possible, and as such, easily understood by stakeholders and implemented by Lake Bogoria National Reserve Management.

Mr. Speaker Sir, the management plan is largely comprised of the following

- a) Introduction; this chapter introduces the PAPF planning process used to develop the plan, and describes the plan's functions, structure and stakeholder participation mechanisms.
- b) Plan Foundations; this chapter provides an introduction to the LBNR, its location, exceptional resource values, and major management issues of concern. It sets out the LBNR's Purpose Statement, which explains why the LBNR has been established as a protected area.
- c) Lake Bogoria National Reserve Zonation Scheme, this chapter sets out areas of the LBNR where different types of land uses are permitted. The scheme also describes the management sectors that the Lake Bogoria National Reserve is divided into to facilitate efficient and effective management.
- d) The four management programmes; the main bulk of the plan is divided into four management programmes:
 - i. Ecological Management Program
 - ii. Tourism Development and Management Program
 - iii. Community Partnership and Outreach Program
 - iv. Protected Area Operations Program

Committee observations and findings; Mr. Speaker Sir, the committee in exercise due diligence in scrutinizing the management plan observed the following:




- I. That, adequate public participation was conducted within the Lake Bogoria National Reserve with regard to the development of the Lake Bogoria. It is worth noting that public participation is a constitutional provision Vide Article 196 of the Constitution, Section 87 of the County Government Act, 2012 as well as Baringo County Assembly Standing Order No. 124 that requires stakeholder consultations on issues touching on the public. Therefore the committee was satisfied that public participation was conducted in coming up with the management plan.
- II. That, there is a fundamental requirement that National Reserves in Kenya must have management plans so as the County Government is able to manage conserve the National Reserves failure to which the same shall revert to the management and conservation of the National Government and this would lead to loss of revenue and jobs benefitting the County directly.
- III. That,there is an urgent need to allocate resources to build infrastructure in the Lake Bogoria National Reserve due to the current surging of water levels in Lake Bogoria which has destroyed a lot of infrastructure within the game Reserve.
- IV. That,there's need to allocate more funds for better management and operations of the Reserve such as additional wardens and other critical personnel to effectively manage and conserve the National Reserve.
- V. That, the Committee considered the memorandum and scrutinized it thoroughly. The Committee further invited the Endorois Welfare Council and had a joint seating on 21st September, 2020 to consider their opinions, views, clarifications and suggestions on the LBNR Management Plan. The Committee had a lengthy deliberation with the delegation from the EWC. The Committee was in agreement with most of their views and adopted as part of the recommendations.

Committee recommendations; Mr. Speaker Sir, the committee proposes the following recommendations:

- I. That, this House adopt the a proposal from this committee that the funds ploughed back and ring fenced to the National Reserve and the residents around Lake Bogoria National Reserve be increased from 10% to 25% for management of the National reserve as well as for the benefit of the community with 15% going to the community grants and 10% for the management of the National Reserve.
- II. That, the Department proceeds and prepares management plans for other Reserves within the County.
- III. That, the County Government does allocate more resources to the Lake Bogoria National Reserve for more man power, marketing and infrastructural development and enhancement.
- IV. That, the Department of Treasury formulates a fund regulation towards management of the Community Grants for proper operationalization, accountability and transparency.
- V. That, Lake Bogoria Management Plan be reviewed after every three (3) years to put into account emerging issues and socio-economic and cultural dynamics.




- VI That, the collection of revenue be automated and technology be embraced for efficiency and improved performance. Automation will reduce cash handling and possible embezzlement.
- VII That, the LBNR Management Plan should explicitly show a marketing strategy to increase number of visitors hence enhanced revenue collection.
- VIII That, the Nagoya Protocol which Kenya is a signatory be domesticated to help implement the Bio-Cultural Protocol of the Endorois People
- IX That, the Department works closely with EWC in finalizing the preparation of the LBNR Management Plan.
- X That, this House adopts the Committee on Tourism, Trade and Co-operatives Report on Lake Bogoria Management Plan to enable gazettelement so as to ensure efficient management, conservation and even access to donors to increase the productivity of the Lake Bogoria National Reserve to the County Government and even to the community at large.

Conclusion: Mr. Speaker, it is my pleasant duty and privilege, on behalf of the Committee on Tourism, Trade and Co-operatives to move a motion for adoption of Lake Bogoria National Reserve Management Plan, 2019-2029 report

Mr. Speaker I want to put in to the attention of this House that Lake Bogoria National Reserve is one of the key sources of revenue for this County. It is one of the features that we have in this County as a County of great diversity; this is the place where we have visitors both local and international as tourists who come to see our place.

As by law and by directive by the laws of KWS and even UNESCO it is required that every national reserve must have a management plan otherwise it will be reverted back to national management and this will lead to loss of income due to the employment opportunities we are getting.

Mr. Speaker the committee and also the Executive have done their part of designing and putting down the policies of the management plan. Here we have partners who are keen to support in the drafting and the printing we also partnered with KWS who supported this initiative and you know very well the challenges we have been having due to the Covid pandemic, the issue of water rising because of climatic change and other reasons, the lake has been seriously affected that the gate which was built not long ago had not been commissioned has been submerged by water and the infrastructure which is going round the lake has also been submerged.

We also did not have tourists this year but it is important that we approve this management plan so that we get the target of meeting the requirement of the donor who has assisted in the process and the compilation of this report.

It is now my humble appeal to this House that we approve this plan so that we abide by the rules and we appreciate soldier on in approving tourism in our County.

Mr. Speaker sir it is now my pleasure to invite Hon. Kibarar to second the motion.

The Deputy Speaker (Hon. Cheboiwo): Yes Hon. Kibarar.

Hon. Kibarar: Thank you Mr. Speaker. I second the motion. As my chair has alluded and read the report this management plan as it has been ~~put~~ ^{put} here is a very important thing. Every game



reserve or a national park has to have it so that it manages and runs the affairs of that reserve and ours is not an exception.

In fact as a committee we want to start with this and later we shall go to other reserves and even game parks in our County and make sure that we are not left aside or the plan is not ready for all the reserves and game parks and it is reverted back to the national level

So it is our privilege as an Assembly that if we pass this thing we are going to another mile stone in making sure that we are within the law. So it has been highlighted that. In fact I am a Member of budget, among the main sources of revenue in our County is this Lake, we have started with this but we have Lake Baringo, Lake Kapnarok and others that we are going to go there too.

It is a major source so we do not want to lose it to the national level and we want it to remain to the County the way we have been given that is why we have come up with the report. It is a protection tool as we have been told there whereby we are going to conserve and protect even that lake in order to attract more tourists in future

It is also a source of livelihoods to our people, we find that the community finds something back at the end of it so it has been helping the community a lot. Before we brought this report to this House we had various meetings, we have listened to various stakeholders, we have got a memorandum from the Endorois welfare council and other stakeholders including donors and even other people who wish us well and we have incorporated their suggestions in this report.

I urge the Members to pass this report so that we are within the law as we have been told by our chairman. Thank you.

The Deputy Speaker (Hon. Cheboiwo): Thank you.

(Question proposed)

Hon. Members debate is now open. Yes Hon. Kibet.

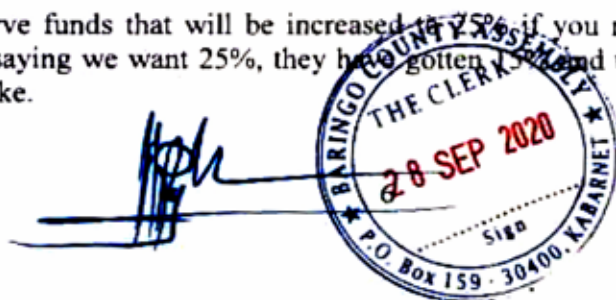
Hon. Kibet: Thank you Mr. Speaker. I support this motion. Mr. Speaker I also must declare my interest that I am in total support of this motion. This Endorois community Mr. Speaker sir for your information is also my community. I have a lot of sentimental value to attach to this.

Mr. Speaker sir the first thing that I saw in this letter is public participation that the community and Mr. Speaker the Constitution is very clear that Article 196 the County Government Act Section 87 2012, Baringo County Assembly Standing orders number 124, stakeholder consultation.

Mr. Speaker reading through this document I have even read the community letter here and they have been explicit, these are people who have even gone to an extent to the African Court and in pursuit of fairness and justice.

Mr. Speaker I want to agree with this motion I support this motion because for the first time we are seeing a very serious attempt by Government and by the law makers to support the community.

I have seen reserve funds that will be increased to 25% if you read through Mr. Speaker the community was saying we want 25%, they have gotten 10% and the management will get 10% to maintain the lake.



A handwritten signature in blue ink is written over a circular official stamp. The stamp contains the text: "BARINGO COUNTY ASSEMBLY", "THE CLERK", "28 SEP 2020", and "P.O. Box 159 - 30400, KABARNET". The word "Sign" is also visible at the bottom of the stamp.

Mr. Speaker the management is still the community that should not get lost because in the spirit of togetherness we expect 100% employment from that community Mr. Speaker this motion is addressing an issue to do with automation of revenue

Mr. Speaker for the community to get the 25% there must be proper collection of money and for the management to get the money so that they maintain there must be prudence in revenue collection.

Mr. Speaker I have also seen somewhere the Government is committing this motion is bringing out the idea that funds must be allocated, we will not rest till funds are allocated to Lake Bogoria. Mr. Speaker Baringo is scoring very low in revenue collection and if we don't take care we saw what happened in the Senate we were added another Kshs. 1.2 billion and all that money should go to revenue generation

Mr. Speaker, if we are going to continue with the trend of sharing and consuming without production we will fail and Lake Bogoria is one of our producers; it is one source of revenue for Baringo.

Mr. Speaker if you go to record in fact all the money that Baringo collects come from Lake Bogoria and it is very sad that our people have to go all the way to African Courts to achieve justice that they would have achieved here with the support of our Government

Mr. Speaker, we should say no to subjecting our people to suffering, we must support our people at all times. If our people had even room to manage their resources we will reduce the cry and ever since we developed the Ward Fund our people now have more knowledge about how funds are utilized and the same to Lake Bogoria let it be the best place to be

Mr. Speaker there is no reason why an individual can develop the best hotel in Lake Bogoria and the Government with the entire resources cannot develop even a single hotel Mr. Speaker. If we were to develop a good hotel in Lake Bogoria, thanks for what is happening that now we have a good road coming from Laikipia all the way to Marigat.

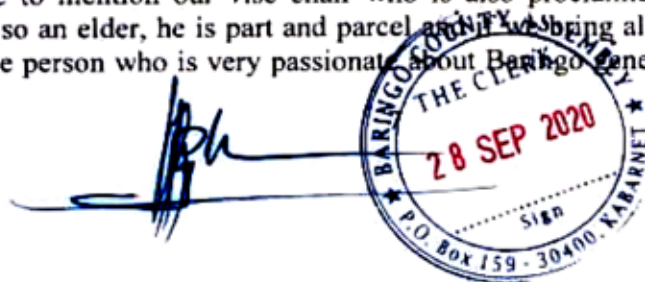
Mr. Speaker, the numbers of tourists will triple because they have been going all the way to Nakuru and coming back and tourists doesn't like that. Now they will be starting their journey from Nairobi they go to Mount Kenya circuit they come to Laikipia, they come to Bogoria and they go to the Western circuit and it will be a big business Mr. Speaker.

Mr. Speaker I urge that this motion should attract the highest level of attention from this House Mr. Speaker. The implementation committee should realize that this is not just like any other motion because it is the most important motion we can have in this House.

This is why Mr. Speaker... we are in recess and you called for a special sitting, there must be a reason why we came for this particular motion and the only way we can give it more reasons is by implementing it.

Mr. Speaker I congratulate our chair it is good that when you are a Leader good things come through you, good things happen during your leadership. This is going to be a legacy that the chairman of this time Hon. Tochim and we will not go without mentioning the able MCA of Mochongoi and the largest Endorois community.

I will not refuse to mention our vice chair who is also proclaimed Endorois... and also the Speaker, he is also an elder, he is part and parcel of the community. Bringing all this energies together, Mr. Speaker I am one person who is very passionate about Baringo generating revenue, if there will



A handwritten signature in blue ink is written over a circular official stamp. The stamp contains the text: "BARINGO COUNTY CLERK'S OFFICE" around the top edge, "28 SEP 2020" in the center, and "P.O. BOX 159 - 30400, KABARNET" around the bottom edge. There is also a small "SIGN" label at the bottom of the stamp.

be a committee that will be formed to generate revenue for Baringo let me be a Member so that we help Baringo Mr. Speaker.

There is no time that we will succeed without generating revenue, finally let us action this motion and support it a hundred percent and God will see what we have done today Thank you.

The Deputy Speaker (Hon. Cheboiwo): Thank you Hon. Kibet. Yes Hon. Kebut.

Hon. Kebut: Thank you Mr. Speaker. I support this motion and congratulate the committee for coming up with this report. Mr. Speaker the committee has made good recommendations but I only want to go through the recommendation number three that the Government allocates more resources to Lake Bogoria National Reserve for more man power, marketing and infrastructural development. Mr. Speaker I am the chair of finance and economic planning which revenue falls under the mandate of oversight of that committee and Mr. Speaker there is a day we visited Lake Bogoria and we realized that there is a lot of loop holes in revenue collection

Mr. Speaker the management is facing a lot of challenges, just to mention but a few, when we were there we realized that they did not have a vehicle to move around, the staff do not have furniture in their offices some of them are standing, they do not have motor bikes to assist those casuals employed by the community to do the cleaning and especially in the washrooms and there was something else I don't know if I can call it a toilet or a pit latrine.

It was in a pathetic state and upon inquiry the major complaint was that they don't have money to run operations, they only collect revenue and remit all of it to the treasury. Mr. Speaker this is our only source of revenue in fact what we are collecting in Lake Bogoria is almost three quarters of what we are getting in all the other sectors.

Mr. Speaker, I support so that we adopt this report and the implementation, I echo what the Hon. Member of Kabarnet Ward has said that it should be implemented immediately so that we can collect more revenue. Mr. Speaker there is a lot of privileges.

Mr. Speaker we spot checked some of the vehicles carrying the local tourists and unfortunately one of the buses was carrying over 45 passengers but they recorded 32 out of 45. The capacity of the vehicle is 45 and they recorded 32 and the vehicle itself had 52, so we need to take this seriously.

I think we need to cooperate with Tourism committee so that we can go deep in this sector otherwise we will not be looking so much in to the resources which we are getting from the National Government.

Mr. Speaker sir, Baringo is capable of generating revenue of over Kshs. 700 million look at what we are getting, Lake Bogoria itself is giving us around Kshs. 80 million and we are supposed to get even more like Kshs. 300 million.

Mr. Speaker the Government need to partner with the private sector so that they can lease part of it and private developers can come up with big hotels like what is happening in Maasai Mara and other areas so I support this report. Thank you.

The Deputy Speaker (Hon. Cheboiwo): Yes Hon. Elizabeth.

Hon. Elizabeth Kipsang: Thank you Mr. Speaker. I support the motion and congratulate the Chair for Tourism for bringing this very important document to this House. Mr. Speaker, tourism is a major economic activity in our County and in its recommendation number seven that we need to



get marketing strategies to increase the number of visitors which will enhance revenue collection

If you have a plan and you do not have marketing strategy even to get these visitors will be very hard. Mr. Speaker we need to have marketing strategy so that we can use the technology because nowadays technology is with us and if we have this good marketing strategies Mr. Speaker and we use our young people so that they can market Baringo to the entire world we shall be having many visitors.

Mr. Speaker when we went to Singapore the other time there is a very small place which is not even half an acre and Mr. Speaker they are getting millions of money so if we will utilize Lake Bogoria we will get enough revenue for our County Mr. Speaker.

Mr. Speaker point number 10, I urge Members to pass this report to enable gazatement, if we have a place like Lake Bogoria and it is not gazetted then even there are some people who can even come and encroach

So the gazatement is very important so that it can allow efficient management and also conservation and even access to donors and also to increase the productivity of Lake Bogoria. Mr. Speaker, if you go to a place like Kisumu they have brought in animals like lions and other wild animals and when you go for report writing we even pay so that we can get in to the game parks.

So we may also need some wild animals in Lake Bogoria so that it can increase revenue otherwise I support this motion and I wish it can be passed today and implemented tomorrow. Thank you.

The Deputy Speaker (Hon. Cheboiwo): Yes Hon. Aengwo.

Hon. Aengwo: Thank you. Mr. Speaker sir I also wish to add my voice to this report from the Tourism committee. I support this motion because for actual sense in Baringo if we can say what contributes to our revenue I think there are only two sectors which are livestock and tourism.

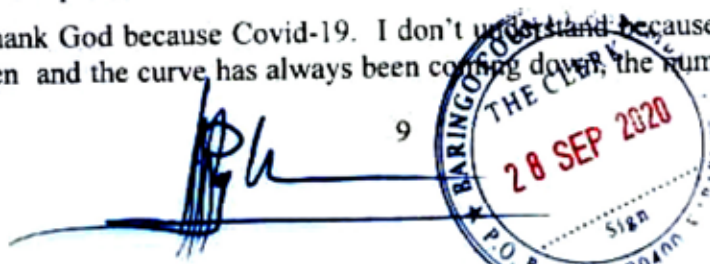
It is very unfortunate that we have turned a blind eye to especially the tourism sector we should have been putting a lot of money because it is an area that generates revenue. Therefore, this report or motion is timely because all along we have been struggling to allocate some budget to management of lake Bogoria national reserve but for this time round it is quite in order that it has a 10% of what is collected there to be ploughed back so that it can improve the structures and whatever is needed to uplift the reserve.

Mr. Speaker even what the chair finance and economic planning said about the state of the social amenities around there is actually true Mr. Speaker we need to improve it because Counties like Narokare very rich because of tourism, Mombasa are not doing anything else it is just tourism, the Coast Province is just tourism.

Mr. Speaker, the greatest part in Baringo is arid and some of those areas God were good to have given us lake Bogoria but it is unfortunate that we have not tapped the potential of lake Bogoria. I think this is high time that we really appreciate and tap this potential so that we can improve our livelihoods Mr. Speaker.

Mr. Speaker I thank God because Covid-19. I don't understand because since the time it came money was stolen and the curve has always been coming down, the number of cases reported is

9



down so I believe in the near future tourists will start coming in the locals and those ones from overseas. To wind up my support to this motion is that it is also shocking and I want to call upon this Assembly, Kabarnet hotel is closed up to today and it is just like the hotels we go to like the Sunset hotel in Kisumu, it is a Government institution just like Kabarnet here

Mr. Speaker sir we have to do something, I don't know whether it falls in the tourism department but we need to also put some money to our hotel here so that also other Counties when they are coming here for benchmarking and other businesses they enjoy and leave some money in our County.

You can imagine that was our heritage, the second president left for us but it is shocking that nobody is turning an eye to it. It has just been left, employees are laid d off, nobody cares what happens, I think they are very few that they cannot even stage a demonstration like the health workers. Mr. Speaker this is the time that we should say something also about the Kabarnet hotel.

Mr. Speaker Kabarnet hotel has to be running so that our County can also get revenue, it can be domesticated so that it should not be taken to the national, the County can run and manage it and we shall get revenue. Mr. Speaker how we collect revenue is what is finishing Baringo I don't know what is so difficult about automating the revenue collection.

Mr. Speaker I think going forward if we are not careful and we continue relying on the equitable share we are not going to go far, I also call upon our chair tourism that we should not only rely on Lake Bogoria we have even Lake Kapnarok reserve but it is not giving us anything what is there is only dazzling push and pull, at any time we have not gotten anything from that reserve plus many others. So that I don't tire and others want to contribute I want to stop by saying that I support this motion. Thank you.

The Deputy Speaker (Hon. Cheboiwo): Thank you Hon. Aengwo you have actually raised issues of revenue collection and it is your duty and the chair finance and tourism. Yes Hon. Kimosop.

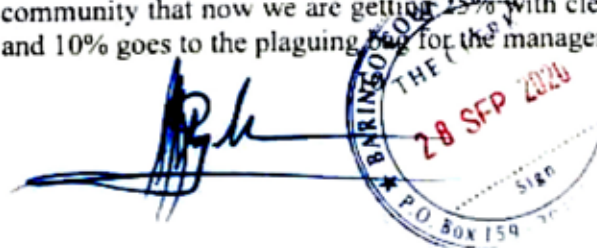
Hon. Kimosop: Thank you Mr. Speaker I support this report and from the onset I need to state that I am a Member of the committee and that I am one of the MCAs whose Wards cover Lake Bogoria, I and Hon. Kibarar and yourself Mr. Speaker. But fundamentally it is my Ward that is the major gate from this other side.

I appreciate the work of this committee and the technical team for the tireless work that they did to bring us this report and also appreciate the whole process that led us to where we are. The preparation of a management plan is a requirement as per the KWS Act and that we are actually almost late in getting the management plan. It is a requirement as per the law and also as per the national protocols all the way to UNESCO.

Mr. Speaker even as we discuss this one of Lake Bogoria we still need to insist that the executive need to move further and get a management plan for lake Baringo and a management plan for lake Kapnarok because it is a requirement of the law. Mr. Speaker the process was rigorous ...

The Deputy Speaker (Hon. Cheboiwo): Hon. Majority Leader can you do the necessary.

Hon. Kimosop: Mr. Speaker the process was rigorous but I need to state that the recommendation number one has been received wholeheartedly by us the community and the leadership of that community that now we are getting 25% with clear instructions that 15% goes to the community and 10% goes to the plugging 5% for the management of the lake.



Mr. Speaker I will say something about that, that it is important to note that which percentage are we talking about that will actually go back to the maintenance of the lake, it is very easy for us to get the money for the management of the lake but if we don't maintain the lake where we are sourcing the revenue from then we risk losing the revenue and even losing the lake.

There are occasions Mr. Speaker for example lack of water, lack of boreholes, you will see animals dying all over lake Bogoria because we spend all the resources to the extent that we do not remember that we have livestock in the parks and that it needs infrastructure and maintenance.

I am happy that we are plugging back 10% back to the community and this is the only point that I have stood here to say I am happy that we are getting 15% to the community and will be reviewed after three years to see if it will go back and the 10% is going for the management of the lake, I appreciate that.

Mr. Speaker because I was in the committee, the views that the chair raised represents the views of the committee. I think it is just prudent to allow Members to make the contributions but I think Mr. Speaker, listening to the contributions that Members have made one point that I need to state is if we can tap in to tourism actually tourism is a mine field, it is a gold that we in Baringo have actually not been able to potentially exploit it

Mr. Speaker when we went to Dubai, I think the chair finance was with me you will be surprised on how we were paying for virtually everything for us to watch. Manmade sceneries, tourism features like even the aquariums in the Dubai mall they have created an aquarium where there is a lot of water then they put some flying frogs and fish and that kind of thing and they are getting a lot of money because of that.


When we went for the dancing fountain to see how it is happening, they are getting a lot of money, even the way they have built a triangle and a rectangle building, for you to access it it is also a lot of money. In fact now that there is no longer oil in Dubai and the only source of income in Dubai is tourism.

So Mr. Speaker we have huge potential in fact everything in Baringo is a tourist attraction site from the way lake Bogoria is from your Ward Mr. Speaker a place called Mulkokwey up there Nyalilpuch if we could have a road going down and if we could even station our buses strategically in Nairobi, in Nakuru to ensure that people do not struggle to get transport, the only struggle to pay for transport that is available and they are able to be in Baringo and we give them option as a County that there is lake Bogoria or Lake Kapnarok so that it is one way trip with facilitation and we have avenues of where they can spend, I think that is an item that our Governor and those aspiring for Governorship and us as the leadership here need to think that we have tourism potential in Baringo.

Finally Mr. Speaker I am sincerely humbled I thank my colleagues who have spoken a head of me, I have listened to Hon. Elizabeth, Hon. Aengwo and Hon. Kibet , as a community we have been subjected to a lot of injustices, the Endorois community went through a lot, what led us to file a case in the African commission of human and people's rights was because of the challenges that we were going through and it is a big day for us today that we can listen to colleagues across Baringo.

You know the predecessor the equivalent of the MCA ~~was~~ when we were filing the case I African commission was the mayor of Kabaret that time, Hon. Chelagat if I am not wrong and those are names and the equivalent of Hon. Aengwo here was Bultut those time. Mr.

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Speaker those are names however much we respect them and we wish that they rest in peace but those were the times that there was a lot of intolerance in Baringo.

Some of the communities like the Endorois felt that they were marginalized, minority and they were to file cases all over, that is the case with Ilchamus community and now today listening to the MCA of Kabarnet the equivalent of that mayor may his soul rest in peace and the MCA Saiomo Kipsaraman the Bultut may his soul rest in peace, talk in favor of the Endorois community it is a great day and I thank you most sincerely colleagues. God bless you.

The Deputy Speaker (Hon. Cheboiwo): Yes Hon. Tarus.

Hon. Tarus: Thank you Mr. Speaker. I support this motion and the report of the committee of tourism. First I congratulate the chair who is my neighbor for the good work that they have done with the committee, on the recommendation number one where it envisages increasing the amount that is given to the community from 10% to 25% to benefit the community and 15% of that 25% to go to the community whereas 10% goes to the national reserve.

This is a very good gesture which will assist in developing that particular area. It is actually like plugging back what we received to that particular reserve. Mr. Speaker, if this is managed prudently then we will have good infrastructure, even the neighbor's and the people who live around the lake will get employment because more visitors will come in and even the community can be able to employ their own people the money that is ploughed back can also be able to employ more people and that will be a plus for our community.

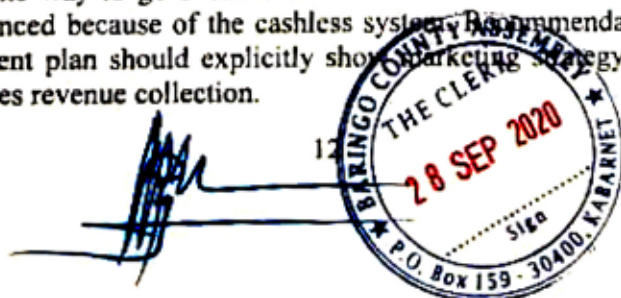
Mr. Speaker we also have number two, the department proceeds and prepares management plans for other reserves within the County. This particular report is for lake Bogoria but it has expanded to cover other national reserves like we have Kapnarok and others which maybe will be able to come up in future.

I think this report is catering for all the reserves that we have and the County Government does allocate more resources to Lake Bogoria national reserve, indeed it is very true that I joined the finance committee somewhere last year and we went round and if you look at the road that is used by the tourists you might think that that particular reserve does not bring revenue to the Baringo Government because it is neglected, it is like no one even knows that that road needs to be upgraded so that it can assist the tourists.

Mr. Speaker at one point we met some tourists, the local tourists from Nairobi who said that they had gone there that day but they would never come back reason being the nature of the road. But if we can have a management plan, we have more resources being channeled to that particular national reserve then better things will be on our way.

Mr. Speaker I want to move to number six, that collection of revenue be automated and technology be embraced for efficiency and improved performance, automation will reduce cash handling and possible embezzlement. Mr. Speaker while we were there as the committee for finance you will realize that the guys were using a motorbike to ferry millions of cash and it is only because we are in Baringo but had it been in other areas where people smell where the money is I believe bad things would have happened. But God forbid.

Mr. Speaker this is the way to go because embezzlement will not be there and also issues of security will be enhanced because of the cashless system. Recommendation number seven that the LBNR management plan should explicitly show marketing strategy to increase number of visitors hence enhances revenue collection.



This is a very important and fundamental recommendation because this will help to increase the number of tourists whether local or international tourists and this will make us to receive more money from the tourists and if this recommendations that is number one to number ten is implemented as it is and the soonest possible then we are likely to get more revenue from lake Bogoria, lake Baringo and also other reserves that we have Mr. Speaker.

Otherwise I support the motion fully and I urge that we pass this particular motion and in particular the implementation committee, Mr. Speaker we have been passing very nice motions, bills but they are gathering dust because nobody has signed them in to law for the sake of the bills, nobody has implemented the bills and motions, I don't know the reason why it is like this House is being taken for granted and we need to rise up to the occasion and make sure that what we pass because this will eventually assist our people, should be implemented fully. Thank you.

The Deputy Speaker (Hon. Cheboiwo): What is your point of concern Hon. Elizabeth.

Hon. Elizabeth Mr. Speaker my point of concern is that every Member has been talking about security and I did not see in the recommendation of the committee about maybe having a CCTV, a Member was saying a bus was having 45 passengers and they recorded 25 so if we can have a CCTV at the gate Mr. Speaker I think we will curb all these mischievous ways of this people.

The Deputy Speaker (Hon. Cheboiwo): Thank you Hon. Elizabeth for the clever way of putting other issues. Mover.

Hon. Tochim: Thank you Mr. Speaker sir. Before I make my final remarks I want to appreciate the question by Hon. Elizabeth Kipsang that the document should have captured the concern of a CCTV but really it should not capture everything but this is just but a guide of how the management plan should be but you will agree with me that the document has raised automated collection of revenue and part of this automation is including the modern way of CCTV.

Mr. Speaker CCTV will also encourage seriousness and being faithful to the work by the staff so I appreciate the idea of introducing CCTV is very important and I thank all the Members who have contributed to this motion and it is my wish that this is going to be approves and it is going to be an object or a guide or one which is to be emulated by other national reserves.

This is just a small step we have taken to improve our tourism sector and revenue collection Thank you for coming today because it is just the middle of our recess but I am really humbled by your coming and we have really deliberated and engaged on this motion and it is going to go many years, it is going to be historic that today we have approved the management plan in line with the guidelines of the national reserve and KWS together with the UNEP I very happy, thank you very much and I appreciate this debate that we have heard today. Thank you very much.

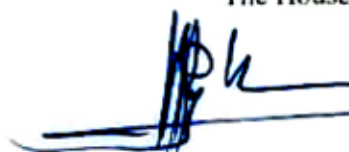
The Deputy Speaker (Hon. Cheboiwo): Members Having contributed to the motion and having followed up I now put the question.

(Question put and agreed to)

ADJOURN

Order Members. This House is Adjourned until any time notified or to the end of the recess.

The House will meet at 5.00 PM.

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Annex 6: Trees and shrubs of Lake Bogoria National Reserve and its environs

Scientific Name	Common Name	Local Name	Scientific Name	Common Name	Local Name
<i>Boscia angustifolia</i>		Linto	<i>Opuntia opuntia</i>	Prickly cactus	Matunchiate
<i>Acacia milliner</i>	Hook thorn	Ngorore	<i>Warbugia ugandensis</i>		Soke
<i>Grecian villas</i>		Mokuywe	<i>Grevia bicolor</i>		Sitewe
<i>Casaba farinose</i>		Imbirikwo	<i>Rrhus natalensis</i>	Red currant	Siriande
<i>Varies glomeration</i>		Chepkoriande	<i>Acacia tortilis</i>	Umbrella thorn	Sesia
<i>Acacia militia</i>	Egyptian thorn	Chepiywe	<i>Aloe secundiflora</i>	Aloe	Tangaretwe
<i>Acacia deficient</i>		Barsule	<i>Maema angolense</i>		Cheboskewe
<i>Cumbersome aculeate</i>		Kamsalawa	<i>Kigelia africana</i>	Sausage	Rotinwo
<i>Grecian tuna</i>		Toronwe	<i>Calotropis procera</i>	Elephant apple	Lopusakii
<i>Cappers trascularis</i>		Korobuywe	<i>Cordial ovalis</i>	cordia	Tembererwe
<i>Cumbersome hereroense</i>		Miskitwe	<i>Acalypha indica</i>		Walbeyon/ jepnondos
<i>Salvadora persica</i>	Toothbrush tree	Sokotoiwo	<i>Aclyrantha aspera</i>		Chesirim
<i>Balanites aegyptiaca</i>	Desert date	Ngoswe	<i>Alubulin spp.</i>		Kipnyali/ kiptulwa
<i>Acacia brevispica</i>	Wait-a-bit thorn	Gornista	<i>Boscia salicifolia</i>		Kurionde
<i>Casaba edulis</i>		Eidumeitolyon	<i>Cucumis spp</i>		Solopchesiny
<i>Alchornea fruticosa</i>		Lokurwe	<i>Euphorbia tirucalli</i>	Finger euphorbia	Kormotwo
<i>Cissus rotundifolia</i>		Rorowe	<i>Maerua triphylla</i>		Roson
<i>Berchemioa discolor</i>	Wild almond	Muchukwe	<i>Ludwigia spp.</i>		Chepchorusion
<i>Commiphora samharansis</i>		Kelepmoi	<i>Lycium europaeum</i>		Kipyambatia / kipnaget
<i>Euphorbia scartina</i>		Ele	<i>Gardenia ternifolia</i>		Kipbulwo
<i>Commiphora edulis</i>		Masian	<i>Albizia amara</i>		Kotutwo
<i>Croton dischogamus</i>		Kelelwe	<i>Commiphora africana</i>		Tolginy
<i>Sterculia stenocapa</i>		Mukoywo	<i>Acacia gerrardii</i>		Sibeldi
<i>Adenum venenata</i>		Sotoplekech	<i>Olea europaea</i>	Brown olive	Temtit
<i>Adenum obesum somalensis</i>		Simbalwe	<i>Pappea capensis</i>		Kibiriokwo
<i>Lannea triphylla</i>		Tabuye	<i>Solanum nigrum</i>		Sojonte

Scientific Name	Common Name	Local Name	Scientific Name	Common Name	Local Name
<i>Albizia anthelmintica</i>		Barmukunte	<i>Syzygium guineense/cordata</i>		Lomoiwo
<i>Terminalia brownie</i>		Koloswo	<i>Lanea fulua</i>		Lelit
<i>Asparagus africana</i>		Tobororwe	<i>Dodonaea angustifolia/viscosa</i>	hopbush	Tibilikwo
<i>Cumbersome molle</i>	Cumbersome	Chepchopoiwo	<i>Ocorea kenyesis</i>		Kipnaget
<i>Acacia senegalis</i>	Gum Arabic thorn	Chemange	<i>Tarchonanthus comphoratus</i>		Lelekwet
<i>Dichrostachy cinerea</i>		Tinet	<i>Carrisa edulis</i>	Legetetwet	
<i>Ziziphus macronata</i>	Buffalo thorn	Noiwet	<i>Pisticia aethopica</i>		tulda
<i>Euphorbia candlebrum</i>		Kunes	<i>Ficus thonningii</i>	Strangler fig	Simotwe
<i>Ormocarpum kenieuse</i>		Chemoyukobil	<i>Phyllanthus zepialis</i>		Ariab lakwa
<i>Acacia seyal</i>	White thorn	Lengne	<i>Crateva adansonii</i>		Kolewon
<i>Haplocoelum foliosum</i>		Kokonte	<i>Lantana camara</i>		Ketip
<i>Diospyros scabra</i>		Tuwetye	<i>Meyna tetraphyila</i>		Tilingwo
<i>Cissus quadrangularis</i>		Sungurtutwe	<i>Terminalia spinosa</i>		Tukuwemet
<i>Zanthoxylum chalybeum</i>	Knob wood	Kokchante	<i>Acacia drepanolobium</i>	Whistling thorn	Ngowe
<i>Maema subcordata</i>		Chepuswo	<i>Premna resinosa</i>		Britapta/kekech
<i>Maema decumbens</i>		Monogwo	<i>Arundinalia alpina</i>	Mountain bamboo	Tegande
<i>Acacia hockii</i>		Tilatilie	<i>Vanguemia madagascarensis</i>		Komolwe
<i>Tamarindus indica</i>	Tamarind	Orwe	<i>Ficus sycomorus</i>	Sycomore fig	Lokoywe

Annex 7: Lake Bogoria National Reserve checklist of mammals

Common name	Scientific name	Remark
Greater kudu	<i>Tragelaphus strepsiceros</i>	Threatened
Cape buffalo	<i>Syncerus caffer</i>	Rarely seen
Impala	<i>Aepyceros melampus rendilis</i>	Common
Grants gazelle	<i>Gazella granti</i>	Common
Dikdik	<i>Rhynchotragus kirki</i>	Common
Klipspringer	<i>Oreotragus oreotragus</i>	Rare
Blue duiker	<i>Cephalophus caeruleus</i>	Rare
Yellow – backed duiker	<i>Cephalophus silvicultor</i>	Rare

Common name	Scientific name	Remark
Anubis baboon	<i>Papio anubis</i>	Common
Leopard	<i>Panthera pardus</i>	Very rare
Serval cat	<i>Felis (Leptailurus) serval</i>	Very rare
Wildcat	<i>Felis (Sylvestris) libyca</i>	Very rare
Common waterbuck	<i>Kobus ellipsiprymnus</i>	Rare
Wart hog	<i>Phacochoerus aethiopicus</i>	Common
Bush pig	<i>Potamochoerus porcus</i>	Common
Common jackal	<i>Canis aureus</i>	Common
Spotted hyena	<i>Crocuta crocuta</i>	Rare
Stripped hyena	<i>Hyaena hyaena</i>	Rare
Bat-eared fox	<i>Otocyon megalotis</i>	Rare
Burchell's zebra	<i>Equus (Hippotigris) burchelli</i>	Common
Patas monkey	<i>Erythrocebus patas</i>	Rare
Vervet monkey	<i>Cercopithecus pygerythrus</i>	Common
Cheetah	<i>Acinonyx jubatus</i>	Rare
Aardvark	<i>Orycteropus afer</i>	Rare

Annex 8: Lake Bogoria National Reserve checklist of birds

Common Name	Scientific Name	Common Name	Scientific Name
Common Ostrich	<i>Struthio camelus</i>	Jackson's Francolin	<i>Francolinus jacksoni</i>
Little Grebe	<i>Tachibuptus ruficollis</i>	Crested Francolin	<i>Francolinus saphaena</i>
Black necked Grebe	<i>Podiceps nigricollis</i>	Black Crake	<i>Amaurornis flavirostris</i>
Great-white pelican	<i>Pelecanus onocrotalus</i>	Grey Crown Crane	<i>Balearica regulorum</i>
Cattle Egret	<i>bubulcus ibis</i>	Black-winged Stilt	<i>Himantopus himantopus</i>
Striaed/Green-backed Heron	<i>butorides striatu</i>	Pied Avocet	<i>Recurvirosta avosetta</i>
Little Egret	<i>Egretta garzeta</i>	Spur winged Lapwing	<i>Vanellus spinosus</i>
Gredy Heron	<i>Ardea cinerea</i>	Crowned Lapwing	<i>Vanellus coronatus</i>
Black-headed Heron	<i>Ardea malanocephala</i>	Black-headed lapwing	<i>Vanellus tectus</i>
Hamerkop	<i>scopus umbretta</i>	Kittlitz's plover	<i>Charadrius pecuarius</i>
Yellow-billed stork	<i>Mycteria ibis</i>	Three-banded plover	<i>Charadrius tricollaris</i>
Wooly-necked Stork	<i>Ciconia episcopus</i>	Common ringed plover	<i>Charadrius hiaticula</i>
Marabou stork	<i>Leptoptilos crumeniferus</i>	Lesser sandpiper	<i>Chandarius mongolus</i>
Sacred ibis	<i>Threskiornis aethiopicus</i>	Little Bee-eater	<i>Merops pasillius</i>
Hadada ibis	<i>Bostrychia hagedash</i>	Cinammon-chested Bee-eater	<i>Meros oreobates</i>
Glossy ibis	<i>Bostrychia falcinellus</i>	European Bee-eater	<i>Merops apiaster</i>
Greater flamingo	<i>Phoenicopterus rubber</i>	Madagascar Bee-eater	<i>Merops superilius</i>

Common Name	Scientific Name	Common Name	Scientific Name
Lesser flamingo	<i>Phoenicopterus minor</i>	Lilac breasted Roller	<i>Coraciass caudate</i>
Egyptian Goose	<i>Alopochen aegyptiacus</i>	Green Wood Hoopoe	<i>Phoeniculus purpureus</i>
Spur- winged goose	<i>Plectopterus gambensis</i>	African Hoopoe	<i>Upupa Africana</i>
Knob-billed duck	<i>Sarkidiornis melanotos</i>	Red- billed Hornbill	<i>Tockus erythrorhynchus</i>
White –faced Whistling Duck	<i>Dendrocygna viduata</i>	Von der Deckens Hornbill	<i>Tockus deckeni</i>
Cape Teal	<i>Anas capensis</i>	Jackson’s Hornbill	<i>Tockus jacksoni</i>
Yellow-billed Kite	<i>Milvus parasiticus</i>	African Grey Hornbill	<i>Tockus nasutus</i>
African fish eagle	<i>Haliaeetus vocifer</i>	Red-fronted Tinkerbird	<i>Pogoniulus pusillus</i>
African Harrier-Hawk	<i>Polyboroides typus</i>	Red-fronted Barbet	<i>Tricholaema diademata</i>
Augar buzzard	<i>Buteo augur</i>	Black throated Barbet	<i>Tricholaema melanocephala</i>
Common buzzard	<i>Buteo buteo</i>	White -headed Barbet	<i>Lybius leucocephalus</i>
Montangu’s Harrier	<i>Circus ranivorus</i>	d’Arnaud’s Barbet	<i>Trachyphonus darnaudii</i>
Dark Chanting Goshawk	<i>Melierax metabates</i>	Red and Yellow Barbet	<i>Trachyphonus erythrophalus</i>
Gabar Goshawk	<i>Micronisus gabar</i>	Lesser Honeyguide	<i>Indicator minor</i>
Tawny Eagle	<i>Aquila rapax</i>	Nubian Woodpecker	<i>Campethera nubica</i>
Steppe Eagle	<i>Aquila nipalensis orientalis</i>	Cardinal Woodpecker	<i>Dendropicos fuscescns</i>
Verreaux Eagle	<i>Aquila verreauxii</i>	Bearded Woodpecker	<i>Dendropicos namaquus</i>
Martial Eagle	<i>Polemaetus bellicosus</i>	Grey Woodpecker	<i>Dendropicos goertae</i>
Pygmy Falcon	<i>Polihierax semitorquatus</i>	Fischer’s Sparrow Lark	<i>Eremopterix leucopareia</i>
Peregrine Falcon	<i>Falco peregrinus</i>	Rock Martin	<i>Hirundo filigula</i>
Helmeted Guinea fowl	<i>Numida meleagris</i>	Plain Martin	<i>Riparia paludicola</i>
Red-rumped Swallow	<i>Hirundo fuligula</i>	Sand Martin	<i>Riparia riparia</i>
Lesser striped swallow	<i>Hirundo abyssinica</i>	African scops-owl	<i>Otus senegalensis</i>
Barn swallow	<i>Hirundo rustica</i>	Verreaux’s eagle-owl	<i>Bubo lacteus</i>
Wire-tailed swallow	<i>Hirundo smithii</i>	Pearl-spotted owlet	<i>Glaucidium perlatum</i>
African pied wagtail	<i>Motacilla lutea</i>	Little swift	<i>Apus affinis</i>
Common bulbul	<i>Pycnonotus barbatus</i>	White-rumped swift	<i>Apus caffer</i>
African thrush	<i>Turdus pelios</i>	Mottled swift	<i>Apus aequatorialis</i>
Isabelline wheatear	<i>Oenanthe pleschanka</i>	Nyanza swift	<i>Apus niansae</i>
Sported morning Thrush	<i>Cichladsa guttata</i>	Eurasian swift	<i>Apus apus</i>
Grey-baked camaroptera	<i>Camaptera brachyuran</i>	Speckled mousebird	<i>Colias striatus</i>
Southern black flycatcher	<i>Melaenornis pammelaina</i>	Blue-naped mouse bird	<i>Urocolias macrourus</i>
African grey flycatcher	<i>Bradornis microrhynchus</i>	Red-faced mouse bird	<i>Urocolias indicus</i>
Silverbird	<i>Empidornis semipartitus</i>	Grey-headed kingfisher	<i>Halcyon leucocephala</i>
Rufous chattering	<i>Turdoides rubiginosus</i>	Woodland kingfisher	<i>Halcyon senegalensis</i>
Northern pied babbler	<i>Turdoides hypoleucus</i>	Malachite kingfisher	<i>Alcedo cristata</i>

Common Name	Scientific Name	Common Name	Scientific Name
White-bellied tit	<i>Parus albiventris</i>	African pigmy kingfisher	<i>Ispidina picta</i>
Northern grey tit	<i>Parus thruppi</i>	Beautiful sunbird	<i>Cinnyris pulchella</i>
Red-throated tit	<i>Parus fringillinus</i>	Eastern violet-backed sunbird	<i>Anthreptes orientalis</i>
Ruff	<i>Philomanchus pugnax</i>	Common fiscal	<i>Lanius collaris</i>
Common sandpiper	<i>Actitis hypoleucos</i>	Long-tailed fiscal	<i>Lanius cabanisi</i>
Wood sandpiper	<i>Tringa glareola</i>	Grey-backed fiscal	<i>Lanius excubitoroides</i>
Green sandpiper	<i>Tringer ochropus</i>	Slate-coloured boubou	<i>Laniarius funebris</i>





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