Ministry of Tourism & Wildlife

REPUBLIC OF KENYA

WILDLIFE RESEARCH & TRAINING INSTITUTE

Discover Beyond

KENYA VISION 2030

National Wildlife Training Agenda 2024–2033

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Foreword

Hon. Rebecca Miano, E.G.H

Cabinet Secretary,
Ministry of Tourism and Wildlife

The Wildlife Sector plays an important role in support of Kenya's economic growth and development especially through nature-based tourism. According to the Tourism Sector Analysis Report (2022), tourism accounted for 10.4 percent of the national GDP and provided 5.5 percent of formal employment opportunities. Additionally, wildlife conservation provides numerous environmental goods and services critical for sustaining productive economic systems such as agriculture and manufacturing industry. Conservation education is therefore a key area of focus area for inculcating sustainable management practices and enhancing growth of the Sector.

The Government has enacted several laws and policies to support conservation education and training. The Constitution of Kenya 2010, Vision 2030, the National Wildlife Policy, Wildlife Conservation and Management Act of 2013, and the National Wildlife Strategy 2030, reiterate the Government's commitments to safeguard the natural resource base and build the capacity and competency of industry players especially the youth and local communities. Indeed, one of the aims of the Bottom-Up Economic Transformation Agenda (BETA) is to create jobs thus giving the impetus to equip Kenyans with requisite skills to tap into the wildlife economy for livelihood improvement. Building the knowledge and skill base further provides an avenue for exploring nature-based solutions that benefit climate, biodiversity, and livelihoods.

Despite the enactment of a comprehensive legal, policy, and regulatory framework and the immense socio-economic and bio-ecological significance of wildlife resources and habitats, the country lacks a comprehensive training agenda for the Wildlife Sector. The development of this National Training Agenda is therefore a step-change in the right direction. This agenda will inform the building of skills and capacities necessary to enhance the conservation and management of our vital natural capital. It will further provide r guidance to training and capacity building initiatives in the Sector.

I am happy to note that this agenda aligns well with the Government's development agenda, observes the Constitutional requirement for public participation, and implements the objectives of the Sustainable Development Goals. I pledge the support of my Ministry in implementation of this Training Agenda and ensuring that it is periodically reviewed to remain pertinent to the needs of the wildlife and related sectors in Kenya and for posterity.

Preface

Silvia Museiya, CBS

Principal Secretary,
State Department for Wildlife

The Institute's mandate of conducting and coordinating wildlife research and training in the country as stipulated in Section 50 of the WCMA, 2013, necessitates the development of a clear roadmap to guide training and capacity building initiatives in the Sector. This National Training Agenda is a synthesis of a sector-wide Training Needs Analysis (TNA) which examined the status of conservation training, identified skill gaps, and proposed measures to address the gaps. The agenda proposes broad objectives and key training areas for building a skilled workforce for the Sector.

The process of conducting the TNA and development of the National Wildlife Training Agenda was participatory to ensure the engagement of stakeholders at all levels. This allowed capturing of relevant information on training and capacity building initiatives in the Sector. This agenda provides focus and guides wildlife training to address the prevailing needs of wildlife conservation and management in the country.

The document presents eight broad thematic areas necessary to accomplish the training needs of the country: 1) wildlife and conservation area management; 2) environment and natural resources management; 3) fisheries and aquaculture; 4) tourism and hospitality; 5) wildlife utilisation and bioprospecting; 6) wildlife health, crime and forensics; 7) natural resources governance; and 8) nature financing solutions. The agenda further provides an overview of each thematic area and outlines training topics. The topics are aligned with the needs of the wildlife sector, having been contributed by stakeholders in the sector.

I acknowledge with gratitude the involvement of all relevant stakeholders during the process of developing this National Wildlife Training Agenda. These include government ministries, Kenya Wildlife Service, WRTI, tourism players, county governments, community and private wildlife conservancies, training institutions, institutions of higher learning, non-governmental organisations (NGOs), aquaculture practitioners, and conservancy associations, among others.

This demonstrates that by working together and forming effective partnerships, we can address the capacity and skills gaps in the wildlife sector in a synergistic manner. It is my hope that this agenda will be valuable in addressing the training needs of the wildlife industry. The State Department for Wildlife will support the implementation of this training agenda.

Message from the Board of the Institute

Dr. David Nkedianye

Chairperson
Board of The Institute

The National Wildlife Training Agenda has been developed through an intensive stakeholder engagement process and aligned to ensure the Institute delivers on its mandate. The agenda is designed to give focus to training to respond to the needs of wildlife and related sectors in the country for the next ten years. In developing the agenda, the Institute which is nested under the state department for wildlife took the lead role of developing a reference document for capacity building in the sector in line with its mandate. Specifically, it addresses the Institute's strategic goal of providing leadership in training and capacity building to support wildlife conservation and management.

This first ever Training agenda presents the wildlife sector aspirations in terms of skills development. It embraces the principle of enhancing stakeholder engagement and adapts to emerging trends nationally, regionally and globally. It is our hope that the agenda will provide relevance to curricula and trainings geared towards capacity building in the sector.

I reiterate the sentiments of the stakeholders who expressed the desire to see the Institute perform the role of certifying Wildlife professionals through structured courses. I therefore implore you to support this agenda by implementing it.

Acknowledgements

Dr. Patrick Omondi, OGW

Director/ CEO, Wildlife Research and Training Institute

This Wildlife Sector Training Agenda sets the tone for wildlife training in Kenya. It is no mean feat considering that training in wildlife has been conducted by many players in silos and sometimes in a competitive spirit. This agenda fronts a coordinated and focused approach to capacity building in the sector and related fields.

On behalf of the Institute, I take this opportunity to thank the Cabinet Secretary of the Ministry of Tourism and Wildlife Hon. Dr. Alfred Mutua, EGH: The Principal Secretary State Department of Wildlife for policy guidance during the process of developing this agenda.

I wish to thank all the stakeholders and individuals who were key informants in the Training Needs Assessment which informed the development of this agenda, for their honest and insightful responses that helped bring out the skills gaps in the sector required to actualise wildlife conservation. I acknowledge the support and cooperation of the stakeholders during the consultative meetings and validation workshops which lend credence to the agenda. Special appreciation to the Board of the Institute who provided policy guidelines and the technical staff of the Institute for their immense contributions to the agenda items.

We express our gratitude to the consultant, Mr. Sam Weru, for his professional guidance throughout the process. We also extend our appreciation to the management and the dedicated technical team who worked tirelessly to review and finalise the document.

Lastly, I wish to recognise the professional contribution of Zaruri Ventures for the infographics and design of this document.

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List of Acronyms

ACC	African Conservation Centre
AET	Amboseli Ecosystem Trust
BETA	Bottom-up Economic Transformation Agenda
BLF	Big Life Foundation
DG	Director General
CoK	Constitution of Kenya
E-Com	Executive Committee
EIA	Environmental Impact Assessment
EIA&A	Environmental Impact Assessment and Audit
EMCA	Environmental Management and Coordination Act
ESIA	Environmental and Social Impact Assessment
GDP	Gross Domestic Product
GIS	Geographic Information System
GPS	Global Positioning System
HQ	Headquarter
HWC	Human–Wildlife Conflict
IFAW	International Fund for Animal Welfare
IT	Information Technology
KATO	Kenya Association of Tour Operators
KFS	Kenya Forest Service
KMFRI	Kenya Marine and Fisheries Research Institute
KPSGA	Kenya Professional Safari Guides Association
KSh	Kenya Shilling
KWCA	Kenya Wildlife Conservancies Association
KWS	Kenya Wildlife Service
KWT	Kenya Wildlife Trust
LEA	Law Enforcement Academy
M&E	Monitoring and Evaluation
MEA	Multilateral Environmental Agreement
MMGR	Maasai Mara Game Reserve
MMWCA	Maasai Mara Wildlife Conservancies Association
NCA	Natural Capital Accounting
NGO	Non-Governmental Organisation
NRM	Natural Resources Management
NRT	Northern Rangelands Trust
PES	Payment for Ecosystem Services
SCUBA	Self-Contained Underwater Breathing Apparatus
TNA	Training Needs Assessment
TTWCA	Taita Taveta Wildlife Conservancies Association
TVETA	Technical and Vocational Education and Training Authority
WCMA	Wildlife Conservation and Management Act
WRTI	Wildlife Research and Training Institute

01 Introduction

Wildlife resources and habitats are extremely important socio-economic and bio-ecological assets that provide direct and indirect benefits that support human well-being and a healthy planet. It is on this basis that the Constitution of Kenya (CoK) and the Wildlife Conservation and Management Act, 2013 (WCMA) both recognise these socio-economic benefits and advocate for sustainable exploitation and utilisation; protection, conservation, and management; and, equitable benefit sharing of wildlife and other natural resources.

Since independence, the wildlife sector has experienced major challenges driven by anthropogenic and environmental factors. These include habitat loss and degradation, loss of connectivity, climate change, human–wildlife conflicts, diseases and loss of genetic viability, poaching for trophies and bushmeat, infrastructural development, and human encroachment into wildlife areas, among others. This has led to significant wildlife population decline and ecological imbalances. During the same period, the wildlife sector has changed in terms of policy and legislative structures as well as wildlife conservation and management in major ecosystems and landscapes.

Given the importance of Kenya's wildlife resources, the sector is very dynamic, with rapid changes occurring especially in the 21st century. The sector has grown and expanded from an initial focus on government-driven conservation activities in national parks and game reserves to a rapid rise of community and private-driven conservation activities. Despite this growth, the focus of wildlife management in Kenya has been on protectionism with a large proportion of resources channeled to security operations in the national parks, game reserves, and other wildlife conservation areas in the country. This has caused the perception that wildlife management is all about securing wildlife, which has limited the availability of resources for the development and application of scientific management principles in wildlife management including training and capacity-building initiatives.

In response, several tertiary educational institutions including universities and colleges offer various training programmes aimed at developing skilled wildlife managers in Kenya. However, the programmes are developed at the institutional level with each institution developing their programmes based on assessment of the perceived needs of the wildlife industry. This piecemeal and disjointed approach causes a mismatch between the wildlife training programmes and the needs of the industry. It is therefore imperative that a National Wildlife Training Agenda is developed to streamline capacity building that is responsive to the needs of the sector.

Recognising the key role that the Wildlife Research and Training Institute (WRTI) plays in providing leadership for setting the national wildlife training needs as granted under the WCMA, the Institute has taken the initiative to spearhead the development of this National Wildlife Training Agenda. The agenda is intended to provide focus on wildlife training to address the prevailing needs of wildlife conservation and management in the country. The agenda is also in line with the national policy guidelines including the Wildlife Policy 2020, the National Wildlife Strategy 2030, and the recently launched blueprint for tourism recovery entitled "A new vision for Kenya's tourism sector 2020–2024".

These policy documents emphasize the important role of training and capacity-building initiatives in leapfrogging the wildlife sector to a major driver of socio-economic growth and development. In particular, Section 5.4 of Kenya's Wildlife Policy 2020 provides for investment in the development of expertise in wildlife conservation and management, strengthening the development of wildlife conservation education and public awareness, promoting the use of indigenous knowledge in the conservation and management of wildlife resources, and the development of a framework for engaging volunteers and senior citizens in wildlife conservation and management.

Further, the vision of the Institute ***"A globally competitive Wildlife Research and Training Institute"*** as well as the mission, ***"To conduct and coordinate wildlife research and training through innovation, knowledge and technology transfer for sustainable wildlife conservation and management"*** are both anchored by the pillars of partnerships, innovation, coordination and sustainability. The Institute's mandate and training functions are therefore anchored in policy and legislation as well as the strategic plan 2022–2027.

02 Thematic Training Areas

The agenda identifies eight broad thematic areas that are interdependent and necessary to accomplish the training needs of the country. These are: (a) wildlife and conservation area management; (b) environment and natural resources management; (c) fisheries and aquaculture; (d) wildlife health, crime, and forensics; (e) natural resources leadership and governance; (f) wildlife utilisation and bioprospecting; (g) tourism and hospitality; and (g) nature financing solutions. The thematic areas were determined through a participatory process that started with a National Training Needs Assessment of the wildlife and related sectors that culminated in the formulation of this National Wildlife Training Agenda. For each thematic area, there is a description of the objective(s) and broad priority training areas. This agenda will facilitate the development and implementation of a market-driven training regime, including modules and curricula to facilitate the development of learning programmes. It will be implemented through strategic partnership and stakeholder collaboration to ensure it meets its objectives.

2.1 Wildlife and Conservation Area Management

Overview

Wildlife conservation and management in Kenya is not a recent endeavour, but rather an activity that has existed since the 1940s. Formal conservation and management of wildlife in Kenya was introduced by settlers in the 20th century. After gaining independence in 1963, the Government of Kenya continued the legacy of its colonial masters by retaining game reserves or converting conservation areas into fully protected national parks, as a means of income generation for the central government and those with political influence. It was not until 2010 that Kenya constitutionally recognised wildlife conservation as a form of land use, thus heralding the proliferation of community and private sanctuaries. In the subsequent years, Kenya has made great strides in response to changing paradigm shifts in wildlife conservation. Examples include the formulation and review of the Wildlife Conservation and Management Act 2013, the redefining of consumptive wildlife utilisation, the establishment of the Kenya Wildlife Service (KWS) to manage wildlife and its habitats, the Wildlife Research and Training Institute (WRTI) to coordinate and undertake wildlife research and training to inform management of the same, and the formation of Kenya Wildlife Conservancies Alliance (KWCA), an association of conservancies hosting wildlife.

Kenya stands as one of the richest and most diverse countries globally, boasting an impressive array of wildlife. With over 1,100 bird species and more than 350 mammal species, including a

significant number of endemic varieties, it offers a unique habitat. Additionally, Kenya is home to various other unique wild species such as insects, freshwater fish, reptiles, and mollusks.

Moreover, Kenya boasts a remarkable diversity of ecosystems, spanning from mountains, forests, and rangelands to arid lands, croplands, urban areas, and marine, coastal, and inland waters. These ecosystems play a pivotal role in providing essential environmental goods and services vital to the livelihoods of Kenyans and various productive sectors of our economy. These services include the provision of clean air and water, fertile soils for crop and livestock production, habitat, carbon dioxide sequestration, soil erosion control, and fostering social cohesion and cultural identity, among other invaluable contributions.

However, Kenya's wildlife and their habitats continue to face severe threats, such as species loss and declining wildlife populations, poaching and illegal trade, habitat loss and degradation, land use changes, human–wildlife conflict, climate change, uncontrolled development, bio-piracy, conflicting laws and policies, scattered scientific data and information which needs collation to guide policy formulation and management.

To enhance the conservation of wildlife resources, the country has established 24 national terrestrial parks, 31 terrestrial national reserves, 4 marine parks and 6 marine reserves, 257 natural forest reserves, 5 national wildlife sanctuaries, 79 community conservancies, 25 group conservancies, and 46 private conservancies. All these conservation areas are managed under the Wildlife Act (WCMA, 2013) and the Environmental Management and Coordination (Amendment), Act, 2015 (EMCA 2015) amongst other legislations.

To ensure effective management of the conservation areas, there is an urgent need to enhance the skill and knowledge capacity in wildlife conservation and management. This thematic area considers the emerging challenges in wildlife conservation and management, community wildlife management, human-wildlife co-existence and socio-economics, wildlife and related laws and policies, and research and monitoring.

Objectives

The primary objectives of this thematic area are:

i. To apply the skills, knowledge, and aptitudes to conserve, manage, and protect wildlife and other natural resources at local, ecosystem and landscape scales;

ii. To equip the conservation practitioners with competencies required to manage human–wildlife interactions for enhanced co-existence and socio-economic development;

iii. To equip the conservation practitioners with competencies to manage disasters in wildlife conservation;

iv. To equip the conservation practitioners with competencies in research and monitoring techniques and approaches; and

v. To enhance understanding of wildlife related policies, laws, regulations and conventions.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. Natural history and ecology of wildlife (including terrestrial and aquatic ecosystems)

ii. Plant taxonomy, ecology and ethnobotany

iii. Wildlife behaviour

iv. History of wildlife conservation

v. Wildlife management techniques

vi. Protected area management (management plans, ecosystem plans)

vii. Wildlife habitat planning and management (rangelands, aquatic systems, montane, savannah, etc)

viii. Social dimension of wildlife conservation and management

ix. Human–wildlife interactions and conflicts resolutions

x. Disaster preparedness and management

xi. Ecological monitoring and data management

xii. Application of modern science and technology in wildlife management and protection

xiii. Transboundary issues of wildlife management

xiv. Wildlife policies, laws and conventions

2.2 Environment and Natural Resource Management

Overview

Natural resource management entails managing how people and natural landscapes interact. It brings together natural heritage management, land use planning, water management, biodiversity conservation, and, the future sustainability of industries like agriculture, mining, tourism, and forestry. Kenya's striking landscapes and seascapes form an interconnected network of natural habitats abundant in resources that are essential for ecosystem goods and services, crucial for people's livelihoods and sustainable development. These natural resources serve as fundamental life support systems, offering consumptive and public-good services alike. Ecological processes play a vital role in maintaining soil productivity, nutrient recycling, air and water purification, and regulating climatic cycles.

Proper management of natural resources entails addressing key socio-economic and environmental challenges to secure the ecosystems and their services. However, increasing human population and poverty exert pressure on the natural resources leading to a decline in their capacity to provide the much-needed goods and services. The result is a decline in species numbers and environmental health, and unmet basic needs of food, shelter, clothing and education, etc. The main threats to biodiversity are habitat loss, pollution, overexploitation, invasive species, and climate change, among others. Further, all these factors undermine sustainable development. To address this, urgent and intentional measures must be taken to create an understanding of the balance between wise use and management of natural resources.

Traditional conservation training typically emphasizes only one part of systematic decision-making (i.e., the science), at the expense of preparing conservation practitioners with critical skills in values-setting, working with decision-makers and stakeholders, as well as effective problem framing. Given this, focused capacity building will strengthen the bottom-up management approach that will aid in better governance and decision-making processes benefiting the natural environment and local communities.

Objectives

The primary objectives of this thematic area are:

i. To enhance knowledge and wise use of terrestrial and aquatic ecosystems goods and services sustainable management;

ii. To build capacity of conservation practitioners in environmental planning and management for sustainable conservation;

iii. To equip the conservation practitioners with competencies in research and ecological monitoring techniques;

iv. To empower natural resource conservationists to manage threats (natural and manmade) to natural resources and apply sustainable intervention measures;

v. To build competencies in ecosystem and landscape restoration;

vi. To empower natural resource conservationists to apply principles of climate science in conservation; and

vii. To enhance understanding of environmental policies, laws, regulations and conventions.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. Ecology of terrestrial and aquatic ecosystems (wetlands, fresh water, marine, forests, rangelands)
ii. Ecosystem goods and services (terrestrial and aquatic)
iii. Land use planning and management
iv. Natural resource use conflicts and their management
v. Participatory approaches to resource management
vi. Application of traditional/indigenous knowledge in natural resource management
vii. Rangelands management
viii. Invasive species management
ix. Environmental pollution and management
x. Application of technology in research and ecological monitoring and management
xi. Restoration ecology (degraded landscapes and ecosystems)
xii. Disaster preparedness and management
xiii. Climate change (impacts, adaptation, mitigation, resilience and vulnerability to climate change)
xiv. Occupational health and safety
xv. Environmental policies, laws, regulations and conventions

2.3 Fisheries and Aquaculture

Overview

Fisheries play crucial habitat, ecological, and economic roles that are essential for biodiversity survival and human utilisation of derived goods and services. These functions extend beyond mere sustenance to encompass vital contributions to wildlife species such as hippos, crocodiles, aquatic birds, marine species, and other wildlife. Integrating the values and requirements of the wildlife sector into fisheries and aquaculture is thus imperative for their sustainable management. This can be accomplished through intentional harnessing and management of fishery resources, ensuring a harmonious coexistence and preservation of biodiversity.

Over the last two decades, the fisheries and aquaculture sectors have been increasingly recognised for their essential contribution to global food security and nutrition. However, there is limited growth in capture fisheries. This decline is compensated for by the continued growth of aquaculture, albeit at a slower yearly rate in the last two years. Fisheries and aquaculture support the livelihoods of nearly half a billion people across the world. Kenya's inland and marine ecosystems are endowed with rich fisheries resources, which are of immense social and cultural value to the inland and coastal region inhabitants and the nation at large. Yet, although their environmental and cultural value is undeniable, the resources have massive economic potential.

Local consumption of aquatic foods has increased at an average annual rate of 3% from 1961 to 2019, a rate almost twice that of the annual Kenyan population growth for the same period, with annual per capita consumption reaching a record 4.7 kg/person/year compared to a continental average of 10 kg/person/year and a global average of 20 kg/person/year. This indicates that there is huge potential for harnessing fisheries and aquaculture sectors. Expanding the roles of fisheries resources and aquaculture requires scaling up transformative changes in policy, management, innovation, and investment to achieve sustainable, inclusive, and equitable global fisheries and aquaculture. For instance, the Blue Economy objectives in the context of Kenya prioritise the sustainable use of ocean resources for economic growth, livelihoods, jobs, and ocean ecosystem health.

The local and regional fisheries are at grave risk from human pressure including overexploitation, pollution, habitat change, diseases, fish genetics, post-harvest losses, and climate change, among others. These events have an impact on the seasonal patterns of fish availability and fishing activities and disrupt the livelihoods of local communities. In this regard, training that is designed to empower current Fisheries Officers or produce middle-level Fisheries Officers and Fish Gear Technicians who can effectively address fisheries at local and national levels is

necessary. This thematic area seeks to inculcate knowledge and skills necessary for sustainable utilisation and management of fisheries and aquaculture resources for conservation and socio-economic benefits.

Objectives

The primary objectives of this thematic area are:

i. To build competencies in capture fisheries management;

ii. To build competencies in culture fisheries management;

iii. To enhance skills in entrepreneurship in fisheries and value addition for socio-economic development and improved livelihoods;

iv. To enhance research in fisheries for improved food security and nutrition; and

v. To enhance understanding of fisheries policies, laws, regulations and conventions.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. Limnology

ii. Fish taxonomy and ecology

iii. Approaches to fisheries management

iv. Fish population dynamics and stock assessment

v. Participatory management of fisheries resources

vi. Recreational fisheries

vii. Design, production and management of fishing gears and vessels

viii. Planning, design and construction of fish production systems

ix. Fish nutrition

x. General fish management practices

xi. Fish population genetics and breeding

xii. Fisheries resource economics and value chain

xiii. Post-harvest technologies and quality assurance

xiv. Occupational safety and health

xv. Fisheries policies, laws and conventions

2.4 Tourism and Hospitality Management

Overview

Tourism is one of the world's fastest growing industries and a major foreign exchange and employment generation for many countries. The ever-increasing number of international tourists/travellers around the world has raised the need for tourism and hospitality development. Many developing countries in Africa particularly Kenya are promoting the tourism and hospitality industry as a key strategic engine for economic development. According to the Annual Tourism Report of 2022, Kenya's international tourist arrivals were 1,483,752 which represents a 70.45% increase as compared to 2021 arrivals of 870,465. The inbound receipts grew up to KSh 268.09 billion compared to KSh 146.51 billion in 2021 which is a growth of 83%. The nearly 1.5 million visitors arrived in Kenya for different purposes, with visitors on holiday leading at 36.6% followed by those visiting friends and family at 27.8%. This sector accounts for 10.4% of the country's GDP, 5.5% of Kenya's formal employment, and contributes to 4.2% of the National Gross Fixed Capital Formation (new investments) as reported in the Kenya Tourism Satellite Account, 2019. The sector is also instrumental in the socio-economic well-being of the country's citizens, with multiplier effects in trade, agriculture, construction, manufacturing, and transport, among others. Kenya, as a premier tourism destination, boasts a distinctive blend of tourist attractions encompassing wildlife, culture, heritage, historical sites, meetings, incentives, exhibitions, conferences, and pristine sandy coastal beaches, among others. This diverse array of offerings underscores the necessity for competent service providers capable of catering to the evolving demands of the steadily growing number of visitors. The tourism and hospitality industry offers extensive opportunities for travel, accommodation, and food management jobs. It also includes associations or agencies directly involved with tourism and hospitality services. The agenda is intended to equip tourism and hospitality practitioners with knowledge, skills, and attitudes that will enable them to handle key technical and managerial duties in the tourism and hospitality industry at the local, national, regional, and international platforms.

The thematic area considers the salient issues in tourism and hospitality and also explores the non-consumptive tourism that would promote environmental conservation. It distinguishes the two areas of tourism and hospitality while recognising their complementarity and importance to the wildlife sector. The thematic area is also aligned to the Tourism Strategy for Kenya 2021–2025.

Objectives

The primary objectives and broad training areas addressing those objectives are as follows:

Tourism	Training areas
i) To enhance knowledge and build capacity of practitioners to create unique practical experiences for tourists. ii) To empower practitioners with knowledge to develop and manage the tourism products. iii) To equip practitioners with innovative approaches to financing tourism for environmental and economic sustainability. iv) To empower practitioners with skills and knowledge to manage clients. v) To build capacity in planning tourism activities and management of tourism facilities. vi) To enhance capacity of tourism practitioners to effectively communicate with diverse clientele. vii) To equip practitioners with safety and survival techniques in the wild. viii) To enhance understanding and application of tourism policies, laws, regulations and conventions.	i) Ecology of plants and animals ii) Animal behaviour iii) Plant taxonomy and ethnobotany iv) Nature interpretation/tour guiding v) Tourism products and management vi) Public private partnerships, concessions, insurance schemes, licenses and accreditations vii) Geography of tourism viii) Environmentally friendly tourism enterprises ix) Tourism and environment x) Visitor management xi) Tours and travel operations management xii) Leisure and recreational facilities management xiii) Communication skills xiv) Foreign languages xv) Bush craft and survival techniques xvi) Occupational safety and health xvii) Tourism policies, laws, regulations and conventions

Hospitality	Training areas
i) To enhance knowledge and skills in food and beverage production, service and sales. ii) To equip practitioners with competencies in sustainable financial management of catering and accommodation operations. iii) To enhance customer experience, satisfaction and retention. iv) To equip practitioners with occupational safety skills. v) To enhance understanding and application of policies, laws, regulations and conventions relevant to hospitality.	i) Food and beverage production (culinary arts) ii) Food and beverage service and sales iii) Catering and accommodation control (economics) iv) Accommodation operations v) Front office operations/ reservations vi) Economics of food and beverage production and sales vii) Adaptive customer service viii) Effective communication skills ix) Occupational health and safety, including first aid x) Relevant policies, laws, regulations and conventions

2.5 Wildlife Utilisation and Bioprospecting

Overview

Wildlife utilisation involves both consumptive and non-consumptive forms. Different countries have adopted one or both forms of wildlife utilisation in varying extents and, as a result, impacts on wildlife populations and local livelihoods vary across countries.

In Kenya, wildlife utilisation was previously articulated in Sessional Paper No. 3 of 1975 – Statement on the future of wildlife management and policy. This policy envisaged non-consumptive wildlife utilisation (preservation of natural habitats for aesthetic, scientific and cultural purposes for educational, recreational and tourist attractions, water catchment and commercial photography) through the maintenance of a system of national parks and reserves. The policy also outlined consumptive wildlife utilisation, including sport hunting, live animal capture for export or restocking of other areas in Kenya, cropping for meat and trophies, game ranching, ensuring these activities yield positive national effects and benefits to landowners without conflicting with tourism objectives. Whereas the revenues from the parks would go to the exchequer, local communities in adjoining or migratory areas would benefit from economic activities generated by local parks, revenues from hunting, cropping and tourist facilities on their lands.

The Wildlife Conservation and Management Act of 1976 reflected the intent of this policy. However, the prohibition on hunting and revocation of wildlife dealership through Legal Notice No. 120 of 1977 and Act of Parliament No. 5 of 1978, respectively, as a reaction to poaching and dwindling numbers of rhinos and elephants were a setback to the vibrant wildlife sector envisaged by the 1975 national wildlife policy and the 1976 Wildlife Act. The need for another wildlife policy and wildlife legislation were necessitated by various emerging issues such as human population growth, escalating human–wildlife conflict, and, effects of disparities in sectoral policies on land, conservation and agriculture due to the effects of the bans on consumptive wildlife utilisation and resulting emphasis on non-consumptive wildlife utilisation. The Constitution of Kenya, 2010 stipulates the mandate of the state over the management of natural resources and the manner in which benefits should accrue to the people of Kenya. It also required that related national legislations, including that on wildlife be reviewed accordingly.

The Wildlife Conservation and Management Act, 2013 outlines wildlife use rights, both consumptive (game farming, game ranching, live capture, research involving off-take, cropping and culling) and non-consumptive (tourism, filming and photography, education, research, culture and religion). The national wildlife policy – Sessional Paper No. 1 of 2020 – aims to increase access, incentives and sustainable use of wildlife resources, while ensuring equitable sharing of benefits; promote partnerships and incentives for wildlife-based enterprises; and facilitate collaboration for effective governance and financing of the wildlife sector between communities, private conservancies, counties, national government and international partners. The Constitution of Kenya, the National Wildlife Policy of 2020 and the Wildlife Conservation and Management Act, 2013 outline rights and obligations with regards to research and development (bioprospecting) and bio-trade. These three legislative and policy tools broaden the definition of wildlife resources beyond the previous narrow definition which only covered wild animals. Other tools for wildlife utilisation derive from the National Wildlife Strategy 2030 and Kenya's development blueprint – Vision 2030.

Globally, wildlife resources provide monetary and non-monetary values and various products. The full potential for values has however not been realised. Inadequate awareness, regulation and overlapping legislation and policies and bio-piracy continue to affect equity in access to wildlife resources for various uses and attaining commensurate equitable benefits to local communities and the nation. The absence of several regulations which will facilitate the administration of wildlife utilisation, such as bioprospecting, wildlife conservancies, granting of

wildlife user rights, community participation, etc., continue to hinder the achievement of the objectives for wildlife utilisation envisaged in the Constitution, National Wildlife Policy and Wildlife Conservation and Management Act, 2023. Inadequate or absence of capacity for enhanced value chains in wildlife utilisation, e.g. taxidermy, aloe processing, quality skin tanning, etc., hinder the maximisation of returns from wildlife investment to the landowner/wildlife enterprises and creation of employment through small and medium wildlife enterprises. There is little knowledge of the impact of existing wildlife utilisation enterprises with regards to their contribution to the national economy. There is therefore need to align training focus to address these areas of knowledge and skills.

Objectives

The primary objectives of this thematic area are:

i. To enhance the skills of practitioners in identification of forms of wildlife utilisation;

ii. To impart knowledge and skills on emerging issues in bioprospecting, research and development in the utilisation of wildlife resources to enhance equity in access and benefits sharing;

iii. To enhance competencies in wildlife enterprises and value addition for conservation and socio-economic development; and

iv. To enhance knowledge and application of wildlife utilisation laws, policies, regulations and conventions.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. History of wildlife utilisation categories and types of wildlife utilisation (consumptive, non-consumptive)

ii. Bioprospecting, research and development

iii. Wildlife trade, bio-trade

iv. Wildlife resource economics

v. Captive wild animal husbandry and artificial propagation of wild plants

vi. Wildlife value addition

vii. Role of wildlife utilisation and impact to conservation and local and national economies

viii. Communication skills

ix. Occupational health, safety and ethics relevant to this thematic area

x. Relevant laws, regulations, policies and multi-lateral environmental agreements

2.6 Wildlife Health, Crime and Forensics

Overview

The incidence of disease poses an increasingly recognized threat to wildlife populations and the conservation of endangered species, potentially leading to local extinctions. Of particular concern are emerging zoonotic diseases of wildlife origin. Over the past two decades, more than 60% of emerging infectious diseases have been identified as zoonotic, with over 70% originating from wildlife. Many factors favour the emergence and re-emergence of diseases including increased interaction between humans, domestic animals, and wild animals highlighting the need for a holistic approach to disease surveillance and detection to effectively manage them. This is particularly so in developing countries like Kenya where the link between humans, domestic animals, wildlife, and the environment are closely interlinked and therefore the ecosystem plays a critical role in disease epidemiology. The threat of disease to wildlife, livestock, and humans is currently exacerbated by population growth, habitat loss, climate change, and global movement of people, livestock, and wildlife (all move with their pathogens) which has increased the interaction among them resulting in pathogens crossing the species-specific barrier.

To safeguard wildlife resources, human welfare, and livestock productivity in Kenya, there is a need to equip wildlife practitioners with basic knowledge of wildlife diseases and ecosystem health, especially at the human–livestock–wildlife interface. This training agenda proposes to develop training modules that will cover many aspects of wildlife health and welfare including basic surveillance methods that rely on the detection of individual and population health indicators (syndromic surveillance) that are discernible before confirmed diagnoses are made by wildlife health professionals, as well as collection and preservation of samples from dead animals and the environment. Expanding basic disease surveillance to include non-veterinarians, particularly for neglected taxa and geographical regions, will result in better and more effective management of wildlife diseases and conservation in a One-Health context.

Each year, while countless species are driven closer to extinction, criminals make billions of dollars from the sale of wildlife and wildlife products. Not only do these crimes have a devastating impact on biodiversity, but they also undermine national and regional political and economic security, weaken the rule of law, and threaten global efforts to responsibly and sustainably manage natural resources in the service of development for all. As with other areas of transnational organised crime, wildlife crime is rooted in profit opportunities.

This training agenda proposes to develop training modules on wildlife crime to enhance the knowledge of wildlife practitioners with an interest in this area. The modules will cover many aspects of this complex crime and will apply a multidisciplinary approach and use innovative and practical teaching techniques meant to inspire and encourage trainees to engage in this important topic.

Forensic science has become a major tool for the generation of scientific evidence for the prosecution of wildlife crimes. With increased wildlife crimes such as bush meat harvesting and trophy poaching, new and improved forensic techniques are required to enhance the prosecution of wildlife crimes. This training agenda will develop modules covering many areas of forensic science aimed at impacting appropriate knowledge for wildlife practitioners interested in this area. This will result in enhanced support in the prosecution of wildlife crimes particularly in neglected geographical regions and taxa to reduce population threats and extinction risks. The capture and handling of wild animals play a prominent role in wildlife conservation and management. Unfortunately, training modules in African wildlife restraint and immobilisation are limited in many veterinary schools. This places most veterinary graduates lacking practical skills in wildlife capture. The training agenda proposes to develop a field-based course designed to provide wildlife health professionals with hands-on training experience on capturing and chemically immobilising wild animals.

Objectives

The primary objectives of this thematic area are:

i. To impart knowledge on basic wildlife health skills to support the safeguarding of wildlife, livestock, and human health through prevention, early detection, identification, and management of wildlife diseases and their ecological drivers through a one-health approach;

ii. To enhance competencies on management of wildlife crimes;

iii. To impart knowledge and expertise in wildlife forensics to support the management and prosecution of wildlife and fisheries crimes; and

iv. To enhance competencies on wildlife capture, restraint and translocation.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. Animal health: Epidemiology and ecology of wildlife diseases; Basic wildlife parasitology; Samples' collection and preservation; Disease surveillance and diagnostics; and Monitoring wildlife health status.

ii. Wildlife crime: Types and drivers of wildlife crimes; Intelligence gathering and analysis; Frameworks for combating wildlife crimes; Markets for illegal wildlife products; Crime scene management (evidence and exhibit management); Wildlife cyber security; and Basic court procedures and etiquette.

iii. Wildlife forensics: Taxonomy of plants and animals; Sample handling and management; Collection, preservation and identification of exhibits; and Forensic DNA analysis.

iv. Wildlife capture and translocation: Wildlife capture, restraint and translocation techniques; Post release animal monitoring techniques; Animal welfare; and Policies, laws and conventions.

2.7 Natural Resource Governance

Overview

Natural resource governance and leadership encompass the norms, culture, rules, practices, policies and institutions, stewardship, and directives that shape the way we interact with the environment. Natural resources and their governance are complex and require contemporary means of framing problems related to sustainable utilisation and access. Recognising and addressing the cross-scale dynamics in designing and implementing an effective natural resources governance arrangement remains a major challenge for researchers and practitioners in the 21st century. Understanding the human–nature relationships with proper recognition of outside organisations, economic, and sociopolitical forces will essentially require a combination of approaches, methods, and techniques.

Furthermore, biodiversity and the ecosystems they support form the foundational basis for sustainable development. Natural resources generate a wide array of goods and services crucial for the global economy and the livelihoods of many, particularly the impoverished rural populations in countries undergoing economic transitions. The intricate connection between biodiversity conservation and poverty alleviation is not always acknowledged or comprehended. Human-induced threats to, and exploitation of, our natural resources require urgent attention. Effective leadership and governance of Kenya's natural resources are thus paramount in finding enduring and sustainable solutions to the environmental and natural resource sector's challenges.

Good natural resources leadership and governance aim to promote informed decision-making and cooperation in national development planning. However, the TNA of the wildlife sector in Kenya has identified some skill gaps, including, *inter alia,* leadership and administration, knowledge of roles and functions of a Board, lack of awareness of Multilateral Environmental Agreements (MEAs), strategic planning and risk mitigation.

Objectives

The primary objectives of this thematic area are:

i. To enhance natural resource leadership and governance by inculcating skills and knowledge among leaders in middle, senior, and executive management;

ii. To enhance competencies in the development of strategic and business plans in the natural resource sector;

iii. To enhance competencies in management of community-based natural resources;

iv. To build capacity in resource mobilisation for natural resource managers; and

v. To enhance knowledge and application of natural resource policies, laws, regulations and conventions.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. Communication skills

ii. Government, governance, and board practice

iii. Leadership, executive coaching and mentorship

iv. Culture and change management

v. Strategy and business planning

vi. Actors and players in the natural resource conservation and management

vii. Property rights and gender equity

viii. Resource mobilisation techniques

ix. Community-based natural resources management (CBNRM)

x. Paradigms of conservation (political, economic, social, environmental)

xi. Policy and law formulation process

xii. International conventions and Multilateral Environmental Agreements (MEAs)

2.8 Nature Financing Solutions

Overview

The sustainable use of natural resources for national development is an overwhelmingly important policy dream of many countries, including Kenya. However, the financial challenges that come with it can be daunting. Unlocking investment in nature financing requires investors, governments, and infrastructure operators to include natural capital solutions and to implement specific financing strategies. The critical consideration is how Kenya could deploy scarce public resources in a way that catalyses the required redirection of finance towards achieving conservation outcomes as well as leveraging private equity for nature. Conservation finance markets have the objective of investing in productive ecosystem services like agri-business, protective financial appropriations like conservation and protection of water towers to discount the future cost of freshwater, and new markets for ecosystem services like the voluntary carbon markets, among others. However, modern approaches like nature-based solutions promote strategic alternatives that address the climate crisis and biodiversity loss while also tackling a variety of social challenges, such as water and food security.

Kenya, like most other countries, measures economic performance or GDP by looking at income and total produced capital. However, with 75% of Kenyans deriving their livelihoods directly from natural resources, this natural wealth and ecosystem services are not

factored in while calculating Kenya's GDP, despite the World Bank recognising the exclusion of natural capital globally as a key weakness in calculating a country's wealth. The challenge in Kenya is compounded by gaps in knowledge and skills on conservation financing mechanisms as well as Natural Capital Accounting (NCA).

Objectives

The primary objectives of this thematic area are:

i. To enhance knowledge on the importance of natural resources;
ii. To enhance understanding of ethics in natural resource management;
iii. To enhance competencies in natural resource valuation;
iv. To enhance the application of nature-based solutions in natural resource management; and
v. To enhance skills in resource mobilisation and partnerships for nature and biodiversity conservation.

Training areas

The following broad training areas were identified to address the objectives under this thematic area:

i. Types of natural resources
ii. Ecosystem goods and services
iii. Natural resource ethics and governance
iv. Natural resource economics and valuation
v. Conservation economic incentives
vi. Carbon and biodiversity evaluations and markets
vii. Nature-based conservation solutions
viii. Resource mobilisation for nature and biodiversity conservation

03 Implementation Framework

This agenda will be implemented by institutions training in wildlife matters and other stakeholders in the wildlife industry to continuously build capacity of their staff in wildlife conservation and management. This agenda will serve as a guide to refocus the training to respond to the needs of wildlife and related sectors for the next ten years.

The Institute will take the lead role in popularizing the Agenda amongst its partners and other institutions training in wildlife management and related courses. This will be done through workshops to disseminate the agenda and on-site visits to establish the extent of awareness of the agenda and its implementation.

The Institute will review its curricula and align them to the training agenda. In addition to this, short target specific courses will be developed and offered to practitioners in wildlife and related sectors to promote continuous professional development in tandem with changing industry dynamics.

04 Monitoring and Evaluation

Monitoring and Evaluation (M&E) provides feedback that highlights shortcomings in the implementation process, thus allowing for timely corrective measures if and where necessary. The Institute shall implement a detailed M&E framework that will guide data collection, analysis, and reporting on the implementation of the eight thematic areas in the Training Agenda. This information shall be used to track progress on the implementation, identify gaps, and weaknesses in the implementation process, and, monitor the outcomes and impacts realised in the capacity and skills development.

The implementation process will be monitored using a framework that will be revised every three years to accommodate the needs of the industry as well as other best practices, monitoring standards, and systems. The agenda will be evaluated midway and at the end of the ten years to ensure it remains relevant and delivers the expected outcomes in enhancing capacity in wildlife conservation and management through training.

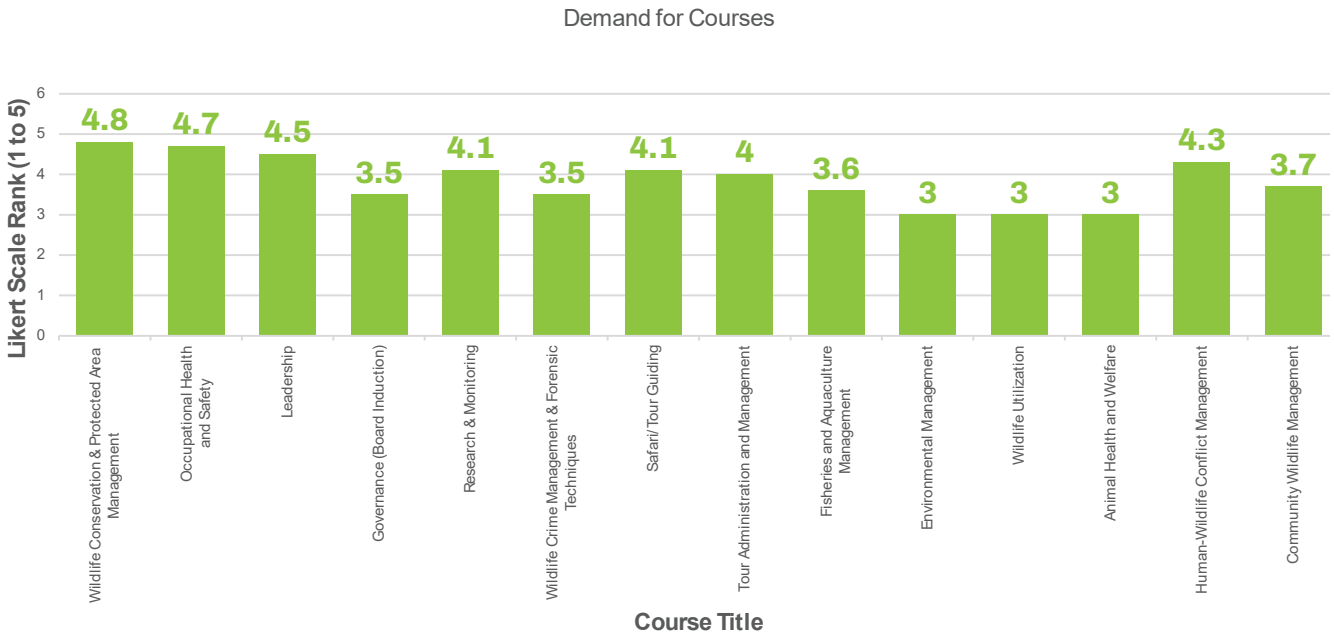
05 Annexes

Annex 1 : List of institutional stakeholders consulted

1	African Conservation Centre (ACC)
2	African Nazarene University
3	Amboseli Ecosystem Trust (AET)
4	Aqua-Culture Farms
5	Big-Life Foundation (BLF)
6	Born Free Foundation – Kenya
7	County Government of Nakuru
8	East African Wildlife Society (EAWLS)
9	Florensis Kenya
10	Former KWS CEOs
11	International Centre for Insect Physiology and Ecology (ICIPE)
12	International Fund for Animal Welfare (IFAW)
13	Karatina University
14	KENGEN
15	Kenya Association of Tour Operators (KATO)
16	Kenya Fisheries Service
17	Kenya Forest College – Londiani

18	Kenya Forest Service (KFS)
19	Kenya Marine and Fisheries Research Institute (KMFRI)
20	Kenya National Commission for UNESCO
21	Kenya Professional Safari Guides Association (KPSGA)
22	Kenya Wildlife Conservancies Association (KWCA)
23	Kenya Wildlife Service (KWS)
24	Kenya Wildlife Trust (KWT)
25	KWS – Law Enforcement Academy (Manyani)
26	Lewa Conservancy
27	Maasai Mara Game Reserve
28	Maasai Mara Tour Guides Association
29	Maasai Mara Wildlife Conservancies Association (MMWCA)
30	Mpala Research Centre
31	National Museums of Kenya
32	Njuki-ini Aqua-Culture Farm
33	Northern Rangelands Trust (NRT)
34	Ornamental Fish Outlet (Naivasha)
35	Pollmans Tours and Safari
36	Save the Elephants (STE)
37	Solio Conservancy
38	Taita Taveta Lodge and Wildlife Sanctuary
39	Taita Taveta Wildlife Conservancies Association (TTWCA)
40	Technical University of Kenya
41	The State Department for Fisheries and the Blue Economy
42	The State Department of Wildlife
43	Tsavo Heritage Foundation (THF)
44	Vipingo Conservancy
45	Wildlife Clubs of Kenya (WCK)
46	Wildlife Research and Training Institute (WRTI)

Annex 2 : Demand for Particular Courses Ranked by Likert Scale



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