Ministry of Tourism,
Wildlife and Heritage

National Elephant Action Plan For Kenya 2023-2032

WILDLIFE RESEARCH & TRAINING INSTITUTE
Discover Beyond

KENYA WILDLIFE SERVICE

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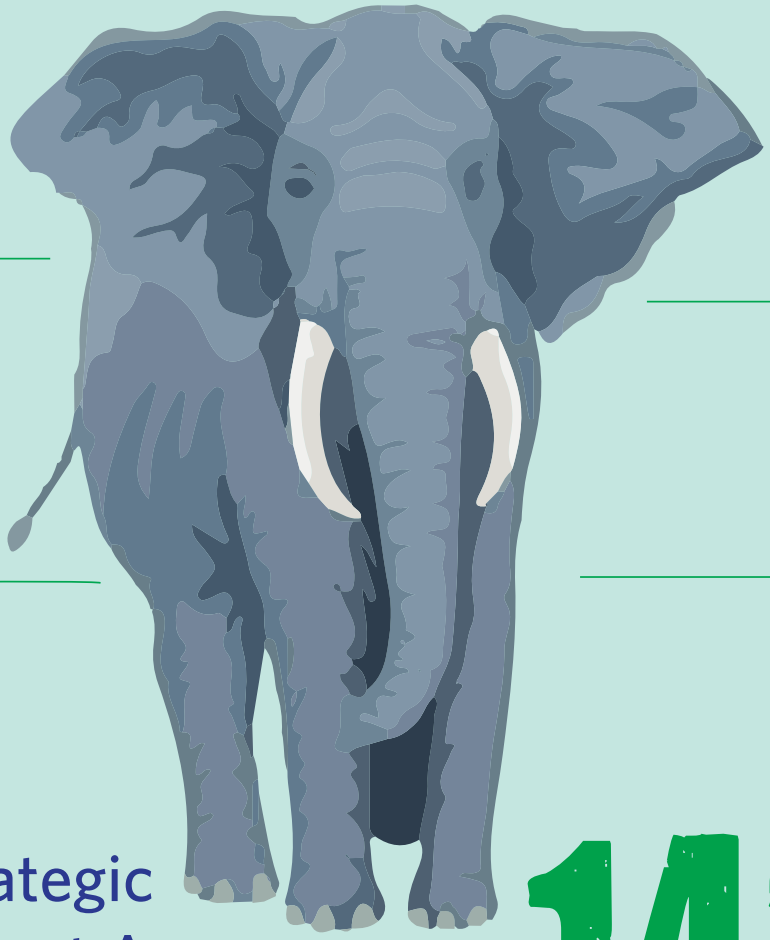
8 Strategic Objectives

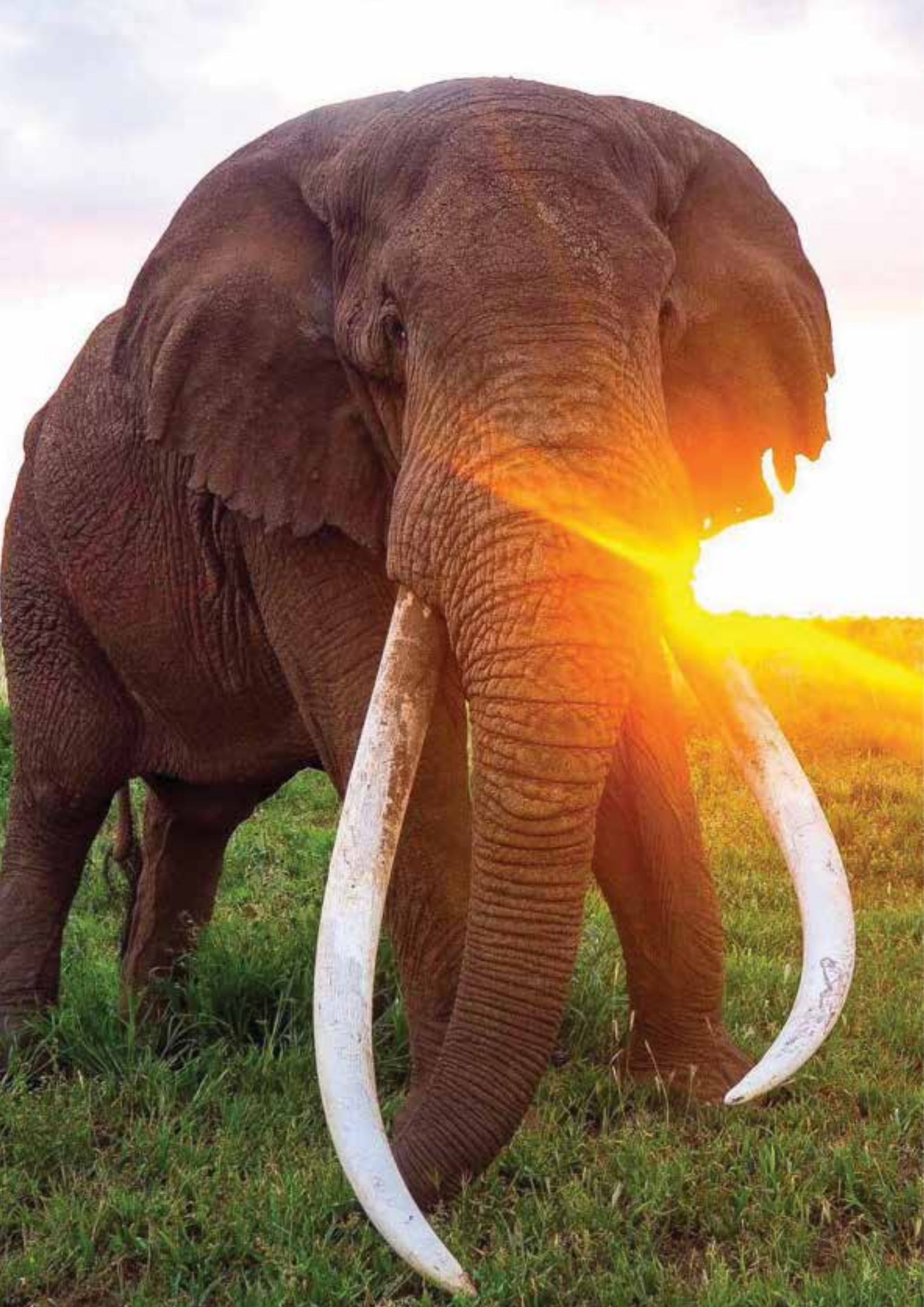
32 Priority Actions



4 Strategic Thrust Areas

- Spatial Planning
- Climate Change
- Human Elephant Conflict (HEC)
- Benefits & Livelihoods

142 Activities



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ACRONYMS

AEAP	African Elephant Action Plan
AED	African Elephant Database
AfESG	African Elephant Specialist Group
AMC	Area Management Committee
ANP	Amboseli National Park
ASAL	Arid and Semi-Arid Land
AWP	Annual Work Plan
CAEMC	Conservation Area Elephant Management Committees
CAK	Conservation Alliance of Kenya
CBD	Convention on Biological Diversity
CBNRM	Community-Based Natural Resource Management
CBO	Community-Based Organization
CEC	County Environmental Committee
CED	Community Education Department
CFA	Community Forest Associations
CIDP	County Integrated Development Plan
CITES	Convention on International Trade in Endangered Species
CMSEK	The Conservation and Management Strategy for the Elephants in Kenya
CoP	Conference of Parties
CPT	County Planning Team
CSP	County Spatial Plan
CWS	Community Wildlife Service
DNA	Deoxyribonucleic acid
DRSRS	Department of Resource Surveys & Remote Sensing
EAC	East Africa Community
EIA	Environmental Impact Assessment
EMC	Elephant Management Committee
EPC	Elephant Program Coordinator
EPIF	Elephant Protection Initiative Foundation
ETC	Elephant Technical Committee
ETIS	Elephant Trade Information System
EU	European Union
FR	Forest Reserve
GoK	Government of Kenya
HEC	Human Elephant Conflict
HWC	Human Wildlife Conflict
IAPS	Invasive Alien Plant Species
IGA	Income Generation Activities
INTERPOL	The International Criminal Police Organization
IUCN	International Union for the Conservation of Nature
KFS	Kenya Forest Service
KWCA	Kenya Wildlife Conservancies Association
KWS	Kenya Wildlife Service
KWS-LEA	KWS-Law Enforcement Academy
LAPSSET	Lamu Port-South Sudan-Ethiopia-Transport
LATF	Lusaka Agreement Taskforce
M&E	Monitoring & Evaluation
MIKE	Monitoring the Illegal Killing of Elephants
MoTW	Ministry of Tourism & Wildlife
MoU	Memorandum of Understanding

ACRONYMS

NBSAP	National Biodiversity Strategy and Action Plan
NDC	Nationally Determined Contribution
NDP	National Development Plan
NEAP	National Elephant Action Plan
NEAPSC	National Elephant Action Plan Steering Committee
NEMA	National Environment Management Authority
NGAO	National Government Administration Office
NGO	Non-Governmental Organization
NIAP	National Ivory Action Plan
NSP	National Spatial Plan
PA	Protected Area
PAC	Problem Animal Control
PAMU	Problem Animal Management Unit
PCR	Polymerase Chain Reaction
PES	Payment for Ecosystem Services
PIKE	Proportion of Illegally Killed elephants
PPP	Public-Private Partnership
RCMRD	Regional Centre for Mapping of Resources for Development
REDD+	Reduction of Emissions from Deforestation and Forest Degradation
RRU	Rapid Response Unit
SDGs	Sustainable Development Goals
SGR	Standard Gauge Railway
SMART	Specific, Measurable, Achievable, Realistic, and Time-bound
SSC	Species Survival Commission
TRAFFIC	Trade Records Analysis of Flora and Fauna in Commerce
UNEP	United Nations Environmental Program
WCK	Wildlife Clubs of Kenya
WCMA, 2013	Wildlife Conservation and Management Act, 2013
WRTI	Wildlife Research and Training Institute
WWF-K	World Wildlife Fund Kenya
SMART	Specific, Measurable, Achievable, Realistic, and Time-bound
SSC	Species Survival Commission
STE	Save the Elephant
SUA	Sokoine University of Agriculture
SUSO	Stand Up Shout Out
TNC	The Nature Conservancy
TRAFFIC	Trade Records Analysis of Flora and Fauna in Commerce
UNEP	United Nations Environmental Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNODC	United Nations Office on Drugs and Crime
USAID	United States Agency for International Development
USFWS	US Fish & Wildlife Service
WCK	Wildlife Clubs of Kenya
WCMA, 2013	Wildlife Conservation and Management Act, 2013
WCS	Wildlife Conservation Society
WEN	Wildlife Enforcement Network
WJC	Wildlife Justice Committee
WRTI	Wildlife Research and Training Institute
WWF-K	World Wildlife Fund Kenya
ZSL	Zoological Society of London

FOREWORD

The Government of Kenya through the Kenya Wildlife Service, partners and stakeholders has managed to successfully mitigate the upsurge of poaching in recent years. These efforts have significantly contributed to the recovery of national elephant populations that were highly threatened by the menace in the past. Furthermore, Kenya aims to contribute to the posterity of the savannah elephant through pragmatic, durable and sustainable conservation and management of its elephant populations.

As of 2021, Kenya had a population of 36,280 elephants that is steadily on a growth trajectory. This population had previously been reduced from 167,000 in 1973 to 20,000 individuals in 1989 due to massive poaching for ivory. As a result of the ivory trade ban in 1989, increased security efforts by the Government of Kenya and stakeholder support, poaching was significantly reduced by the 1990s. However, this population increase is at risk due to emerging elephant conservation and management threats, issues, concerns and challenges. The loss and fragmentation of elephant habitats, as a result of human population increase, climate change, and limited long-term land use and spatial planning are bringing to the fore, new elephant management challenges.

Further, these changes within the existing elephant range are significantly resulting to an increase in Human-Elephant Conflicts (HEC) as competition for resources escalates. Human elephant conflict is currently the primary threat to elephant conservation in Kenya. Its effective mitigation and enhanced security will require innovative new approaches, pragmatic actions and dedicated effort from all players including KWS, WRTI, relevant government departments, County governments, local communities and private landowners, , and local and international partners. Conservation and management decisions will also require to be informed by and based on sound science at all levels. Additionally, the country will need to explore and implement robust and sustainable financial resourcing mechanisms in order to implement all interventions recommended in this Plan

The Government of Kenya is committed to supporting efforts aimed at reducing the impacts of human-elephant conflicts as well as elephant poaching. Investments have been made towards reducing the cost of HEC to local communities and safeguarding their livelihoods. To date, the Government of Kenya has increased allocation of funds towards elephant and other wildlife conservation and management while continuing to support landowners and lo cal communities. This is despite the challenges of achieving a balance in socio-political and economic changes outlined in the country's development blueprints.

As a Government, a country and a people, we strive to achieve elephant conservation and management that is people, science and technology driven. I am happy to present to you the Second Edition of the National Elephant Action Plan for Kenya, 2023-2032. This document calls upon a change in paradigm through concerted efforts of all stakeholders to support the implementation of the activities.

HON. PENINAH MALONZA, OGW

CABINET SECRETARY

MINISTRY OF TOURISM, WILDLIFE AND HERITAGE

PREFACE

This New NEAP 2023-2032 has been developed through a participatory and consultative stakeholder driven process. The approach sets the overarching tone of managing elephant populations in the thirteen elephant ranges countrywide going forward. The Plan is aligned with the aspirations of the African Range States through the African Elephant Action Plan (AEAP). It further streamlines its activities with the national wildlife policy, and legislative processes, national development plans and programs, and anchors the implementation on collaborative stakeholder platforms.

The NEAP 2023-2032 recognizes the emerging and existential threats that still face the conservation and management of the African Savanna Elephant. It builds on the achievements of the first edition , NEAP 2012-2021 while integrating the lessons learnt during its implementation. Further, it recognizes the need to enhance efforts that will mitigate against the inherent risks at species, ecosystem and landscape levels. The Action Plan outlines a suite of eight strategic objectives that aim at tackling the most pressing national challenges regarding elephant conservation and management.

The interventions outlined herein are fashioned in a manner that they are prioritized based on the desired outcomes from the implementation of the Strategic Objectives. The activities are designed to complement each other across the whole document. The implementation and coordination mechanism leverages on stakeholder involvement and participation. The document notes that, some of the most g pressing issues and challenges facing the conservation and management of elephant nationally is the continuing loss of space through habitat fragmentation, poor quality of the habitat, climate change and water scarcity. The inherent risk of the resurgence of poaching and ivory trade and trafficking cannot be over emphasized while the need to actively manage existing enclosed and open populations is addressed. The question of viability of the populations, stocking rate and national ecological carrying capacity is provided albeit through scientific assessments. This concern although pressing has to be approached through sobriety and informed by science.

It is indeed noted that, the efficacy of the implementation of this Plan is buttressed through an effective coordination and financing mechanism. Site-based implementation arrangements with relevant stakeholders and involvement of local communities is emphasized as being key to ensuring success. The utility of multi- agency and multi-stakeholder forums is considered pivotal in bringing about ownership of interventions, resource provision and results. The same approach is recommended in fermenting cross border collaborations with neighbouring States and all other African elephant range States as structured dialogue and implementation arrangements are envisaged. Institutional capacity enhancements at both human and financial resource levels are considered a key ingredient in facilitating implementation of this Plan.

The State Department for Wildlife appreciates the cooperation between the Government, local communities, stakeholders and partners for the commitment and support towards elephant conservation and management in the country. It is my hope that, this collaboration will continue as we embark in this new phase of elephant conservation and management in the next decade

MS. SILVIA MUSEIYA

PRINCIPAL SECRETARY,

STATE DEPARTMENT FOR WILDLIFE

MINISTRY OF TOURISM, WILDLIFE AND HERITAGE

ACKNOWLEDGEMENT

Special thanks go to the Government of Kenya (GoK) for providing conducive policy environment and necessary resources for wildlife conservation and management in the country. The invaluable support provided by the State Department for Wildlife and the entire Ministry of WildlifeTourism and Heritage including in form of policy guidance is highly appreciated and acknowledged.

The steering role played by Kenya Wildlife Service (KWS) in elephant conservation and management as part of its mandate is recognized. The Wildlife Research and Training Institute (WRTI) provided the empirical data on elephant conservation and management during the development process. The two institutions were instrumental in shaping the outcome of this crucial document.

Special thanks go to the various stakeholders, partners and local communities for having participated in, and provided valuable inputs during the planning workshops held in the eight conservation regions across the country; Southern Conservation Area, Western Conservation Area, Tsavo Conservation Area, Northern Conservation Area, Eastern Conservation Area, Central Rift Conservation Area, Coast Conservation Area and the Mountain Conservation Area.

Their participation, involvement, views, and contributions are deeply respected and have been carefully considered and reflected in this Plan. The development of this NEAP would not have been possible without the support of the many wildlife conservation partners with immense interest for Kenya's wildlife and particularly the elephants

A special mention is given to the Elephant Protection Initiative Foundation (EPI),the World Wildlife Fund-Kenya (WWF-K), the African Wildlife Foundation (AWF) and the Conservation Alliance of Kenya(CAK) These partners facilitated with the financial resources for the Plan development contributing towards stakeholder engagements, consultations, data analysis and review. Members of the National Elephant Action Plan Steering Committee (NEAPSC) and the Committee's gave their all providing technical inputs to the document .

The efforts and dedication of the Ecodev Consultants in collating and consolidating views of the stakeholders during the Plan development process and facilitating in the delivery of the Plan are acknowledged. The great people of Kenya participating in the Plan development process truly owned the process and gav their perspectives and aspiration on the elephant and wildlife conservation. Their unwavering backing of the national wildlife conservation efforts and the implementation of the National Elephant Action Plan will be greatly gratifying.

Finally, all those who participated in the development of the Plan document and are not mentioned, Asanteni sana

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DIRECTOR GENERAL
KENYA WILDLIFE SERVICE

DR. PATRICK OMONDI, OG
DIRECTOR/ CEO
WILDLIFE RESEARCH AND TRAINING INSTITUTE

EXECUTIVE SUMMARY

This National Elephant Action Plan (NEAP) for Kenya (2022 – 2031) presents a pragmatic, cohesive and comprehensive strategy that is necessary for the conservation and management of Kenya's elephant population and is aligned to the aspirations of the African Elephant Action Plans (AEAP). The NEAP (2023-2032) provides an opportunity to bring together relevant stakeholders working on the conservation and management of elephants through a common vision, goal and a collaborative framework for implementation of priority actions.

This NEAP builds on the previous achievements and provides solutions to past and existing challenges, in a rapidly changing environment. It has a strong focus on the use of spatial planning tools to reduce fragmentation and incompatible land uses in dispersal areas and corridors, aiming at resolving loss of habitat and connectivity. Emphasis is placed on prevention and mitigation of Human Elephant Conflict (HEC) through use of locally emerging innovative techniques and tools as well building capacity of local communities to cope with HEC. Stakeholder involvement and collaboration is considered a key ingredient through established engagement platforms while the utility of existing conservation models is explored. The primary use of technology and related innovations going into the future is stated. The provision of elaborate financing for the implementation of the NEAP is emphasized. Finally, a monitoring and evaluation section, including an implementation plan are also provided to facilitate robust tracking and monitoring of progress, based on indicators and the principles of adaptive management.

This NEAP is premised on a comprehensive assessment of the existing policy, legal and regulatory frameworks, relevant stakeholder environments and wide consultative processes during its formulation. It describes in detail the current status of elephants in Kenya and the threats that pose a risk to their long-term survival, primarily based on work done by (KWS), (WRTI), and their partners. It goes further to give prescriptive and innovative ideas to emerging and existing challenges to their conservation and management.

It is indeed noted that despite the numerous challenges, the Kenya Government and its partners have been highly successful in conserving and managing their national elephant populations. This success can be attributed to various factors such as; improved government support to the wildlife sector; enhanced stakeholder support; and the enactment of the Wildlife Conservation and Management Act (2013) that provided for stiffer penalties for wildlife crime offenders. Additionally, the strengthened multi-agency platforms for supporting law enforcement served as the backbone to tackle poaching and the illicit ivory trade. These successes were further buttressed through the establishment of a forensic and genetics laboratory at KWS headquarters in 2015, to provide water-tight evidence for prosecution. These combined efforts led to a significant reduction in commercial poaching incidences and increase in elephant populations to the current estimate of approximately 36,280 elephants in 2021. Notable is the 5% annual growth rate that is ensuring future growth of populations. However, the increase in the number of elephants lost due to factors such as human-wildlife conflict and drought incidences still affect population growth.

EXECUTIVE SUMMARY

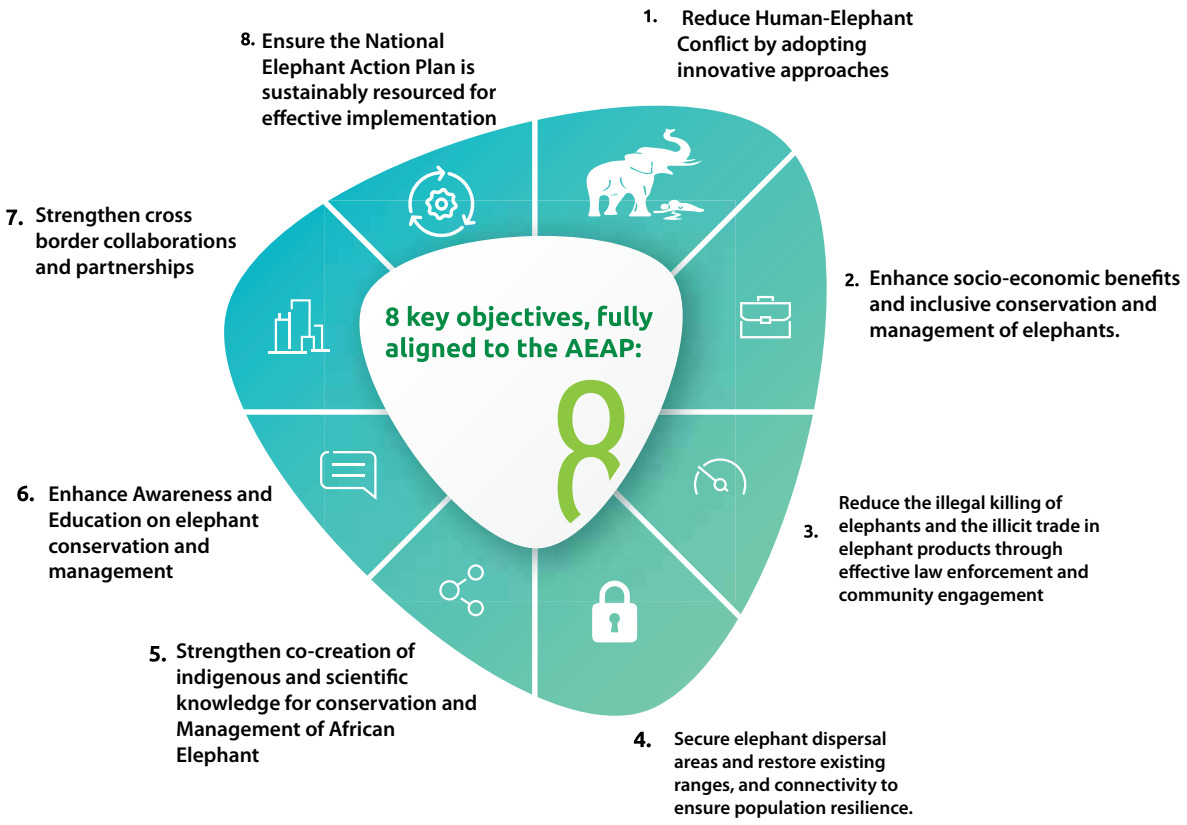
This NEAP captures the understanding that successful elephant conservation means among other maintaining and increasing numbers of elephants. This coupled with an increasing human population, implies that the situation cannot remain unchanged for much longer and something has to give way in light of competition for resources. Healthy elephant populations will rely upon a well-functioning ecosystem and habitat quality. However, these ecosystems are under immense pressure from varied aspects such as; climate change and anthropogenic factors leading to some collapsing. Further threats to these life-supporting ecosystems in the existing elephant range can partly be prevented through use of sound spatial planning processes, improvements in habitat quality and maintenance and re-establishment of connectivity. This process should commence with urgency before further increase of anthropogenic activities exhausts all alternatives. Other major challenges that should be tackled expeditiously in the future include the increasing HEC and benefits that accrue that could ferment a change in local community attitudes towards elephant conservation.

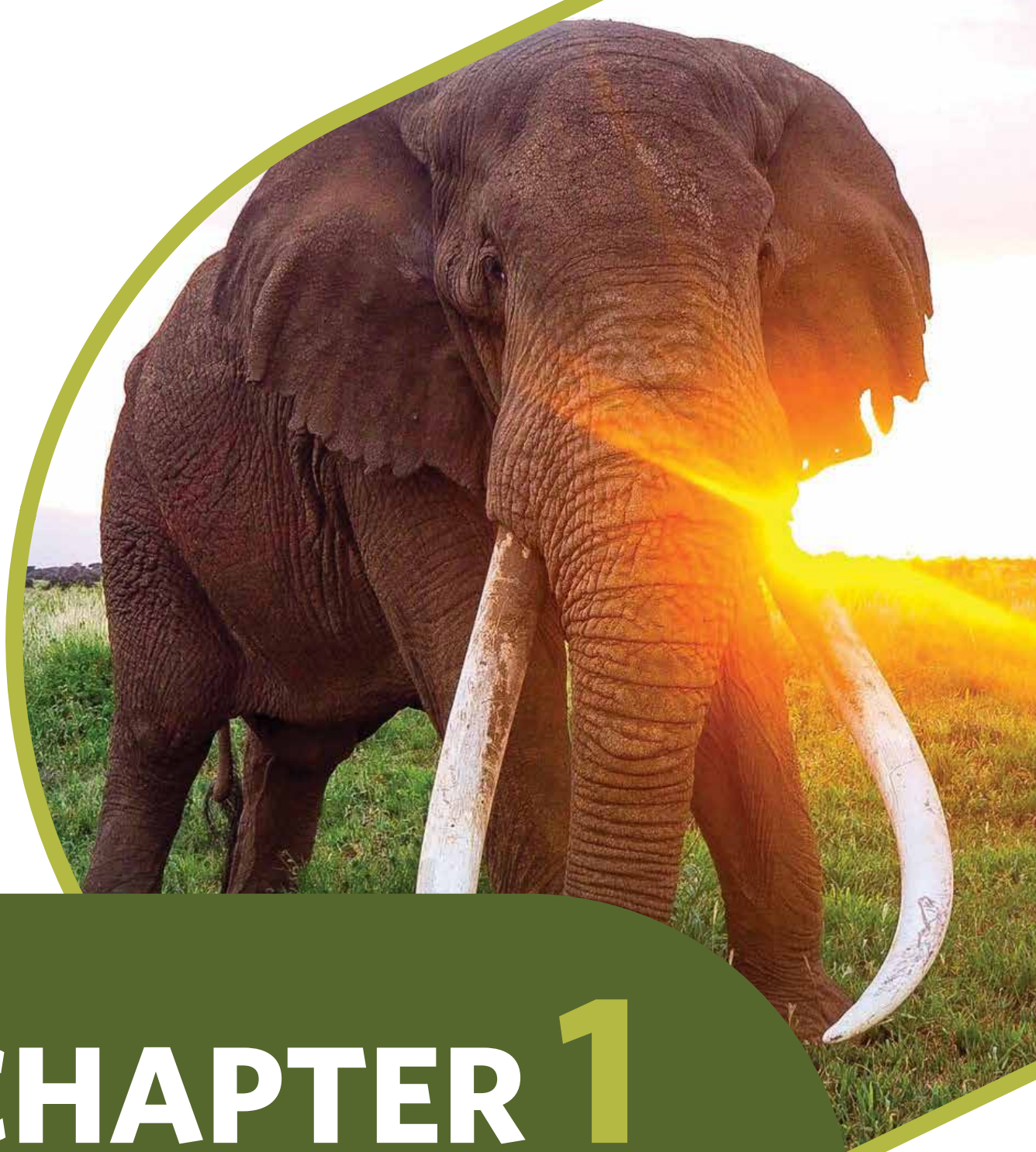
This NEAP is based on eight strategic objectives with corresponding targets that provide relevant actions for implementation. As articulated above, maintaining and winning more space is core to achieving elephant population increase. Thus, this NEAP recognizes the significance of the Kenya National Spatial Plan (2015–2045) being fundamental to the success of conservation and management efforts going into the future. The development of holistic County Spatial Plans (CSPs) and County Integrated Development Plans (CIDPs) and eventually Physical Development Plans will influence population abundance and distribution. This is especially for counties within the main elephant ranges as highlighted in the national wildlife status reports and the national wildlife dispersal areas and corridors reports. Therefore, a prerequisite to the sound formulation of these CSPs is for the County Planning Teams (CPTs) to have reliable data and information and include wildlife experts with up-to-date knowledge of elephant dispersal areas and seasonal migratory patterns. This will inform the land-use zoning exercises at both lower and higher levels leading to increase of the areas available to wildlife. Land use planning processes will also enhance compatibility of land uses eventually contributing to minimization of HWC and HEC in particular. County Spatial Plans will also form a basis for holistic management of natural resources including; land use and ecosystem planning, formulation of benefits that will accrue to local communities that bear the cost of living with elephants through optimization of land uses among others. Additionally, CSP's will also emphasise the creation of large conservation areas especially conservancies connected by wide corridors.

The use of innovative techniques such as technology for monitoring elephant conservation and management efforts; the control of invasive species, water supplementation to tackle water scarcity in protected areas occasioned by frequent and long drought due to climate change are cited as being game changers to sustaining populations. Adoption and upscaling the use of HEC toolkits have also been highlighted in this NEAP as ingredients to successful management. Formalization of engagement between range states is considered key to consolidating the achievements and management of cross border populations. During the implementation of the last NEAP 2012-2021 lack of a coordination and implementation mechanism was identified as a concern.

This NEAP has highlighted the central role of the coordination and recommends the strengthening of the implementation mechanism that encourages wide stakeholder participation while maintaining the pivotal role of the Elephant Program Coordinator. For brevity, the Implementation Plan (IP) is presented as a separate document but an inherent part of the overall document. It is noted that the IP needs to be updated regularly at least annually.

The plan's vision is to *"Sustain a thriving elephant population and their habitats, while ensuring beneficial and harmonious co-existence with humans for posterity"*. This vision will be achieved through the goal, *"Maintain viable, healthy and secure elephant populations while reducing human-elephant conflict, restoring elephant habitat and increasing the value of elephants to people".* This goal will be achieved through 8 strategic objectives with 23 targets and 140 specific activities. The strategic objectives include:





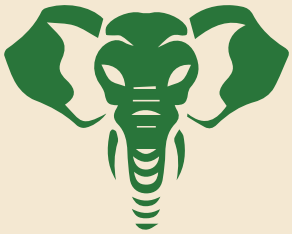
CHAPTER 1

INTRODUCTION

1.1 Introduction and Background

In the 1970's and early 1980's, the Kenya elephant population was estimated at 170,000 individuals at then utilising most of the country's varied landscapes. Between 1979 and 1989, the worldwide demand for ivory resulted in a sharp decline of the national population, with only 16,000 elephants remaining by the end of 1989. To address the elephant crisis, the Kenya government took bold steps to reform the wildlife sector by establishing the Kenya Wildlife Service (KWS) in 1989. The reforms based on the KWS Policy Framework and Development Program 1990-1996, also known as the "Zebra Book" (Annex 7 The conservation of Elephants and Rhinos) significantly succeeded in arresting the decline in populations and in reducing the illegal trade in ivory. International efforts also helped to list the African elephant under Appendix I under the Convention on International Trade in Endangered Species (CITES) in 1989. Despite these efforts to enhance the protection of elephant populations, they still faced challenges.

Realising the further need to structure and coordinate efforts and strengthen elephant conservation and management. The government developed the Conservation and Management Strategy for Elephants in Kenya (2012-2021) based on 7 key strategic objectives (Litoroh et al, 2012). Since its launch in 2012, numerous achievements have been realised with regard to most of the strategic objectives, but with a strong focus on protection and law enforcement and population increase. The national population has increased by more than 5% per year, to its current numbers at approximately 36,280 elephants in 2021 (Waweru et al., 2021; WRTI, 2021). This strategy is premised on the draft National Elephant Status report 2021.



About Elephant Population in Kenya

170,000
Elephants in early 1970's

Population Declined to
16,000
Elephants in 1979-1989

1989
The establishment of Kenya Wildlife Service (KWS) to curb the rapid decline

36,280
elephant population in Kenya; 2021

8
KENYA'S NEAP Consists:
key strategic objectives

Currently, elephant conservation and management still face significant challenges and threats related to; habitat loss, fragmentation, habitat quality, increased human elephant conflict (HEC) and climate change. It is also noted that a significant proportion of Kenya's elephant population seasonally or permanently exists outside protected areas. It is exposed to increasing human pressures that have negative impacts on the dispersal areas and migratory corridors (Ojwang et al., 2017).

Some of the above challenges can be addressed through improved spatial planning at the regional and county levels, design and application of innovative HEC tools and techniques, enhanced integration and adoption of climate change response strategies, increased participatory resource planning and implementation at the lower levels. Other considerations can be; equitable participation in decision-making related to wildlife management and use, coupled with rights over relevant resources of local communities. Further efforts to improve habitat quality through development of ecosystem and protected area management plans, invasive species control, water supplementation and active management of populations can enhance resilience.

This plan gives an incisive look at the above based on eight AEAP strategic objectives aligned to the IUCN-EPI guidelines. The plan builds on previous achievements, but in a rapidly changing environment. The salient difference between this NEAP 2023-2032 and the previous one is its focus on:

The below enumerates a paradigm shift in Kenya's approach to future elephant conservation and management.

1.2. Integrating Kenya's NEAP with the Policy, Legal Frameworks, SDGs and AEAP

The formulation of the NEAP (2023-2032) took into consideration the relevant policies and laws that govern the conservation and management of natural resources in Kenya. The objective is to provide a relationship and linkage of the plan to these important elements of governance. The NEAP also provides an opportunity to bring together relevant stakeholders working on the conservation and management of elephants through a common vision, goal and a collaborative framework for implementation of priority actions directed towards the long-term survival of the species.

A summary of the legal and policy frameworks, as well as other relevant plans that will guide implementation is provided, whilst a summary of the stakeholders is given-see annexes. Important to note the stakeholders supplement the work of KWS and WRTI as well as provide additional capacity and support required to conserve and manage Kenya's elephants.

1.3. Policy and Legal Frameworks

Table 1. Provides a summary of the policy and legal frameworks as well as other key plans that guided the development of this NEAP.

Table 1. Policy and legal frameworks and other key plans that are relevant for the implementation of the NEAP.

A. National frameworks addressing the conservation and management of the African Elephant
Constitution of Kenya 2010 Kenya's Vision 2030 Wildlife Policy, 2020 Wildlife Conservation and Management Act, 2013 (Amendments, 2019) National Wildlife Strategy 2018-2030 The Forest Conservation and Management Act, 2016 No. 34 of 2016 Environmental Management and Coordination Act CAP 387 of 1999 [Rev. 2012] Kenya Water Towers Coordination and Conservation Bill, 2019 The County Governments Act, 2012
B. Other relevant Plans
Wildlife Migratory Corridors and Dispersal Areas Report; Kenya Rangelands and Coastal Terrestrial Ecosystems County Spatial Plans Local Physical Development Plans County Integrated Development Plans Ecosystem Management Plans Kenya Wildlife Service Strategic Plan 2019-2024
C. Regional/ International frameworks addressing the conservation and management of the African elephant
Convention on Biological Biodiversity (CBD) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)-Washington Convention IUCN SSC Convention on Conservation of Migratory Species of Wild Animals (CMS), also known as the Bonn Convention
Other relevant international frameworks
United National Development Program, Sustainable Development Goals (SDGs), 2015 United Nations Framework on Convention on Climate Change (UNFCCC) CITES-MIKE Program TRAFFIC Lusaka Agreement Taskforce African Elephant Action Plan CITES National Ivory Action Plans

Formulating the New NEAP-Regional Perspectives

1.4. Integrating Kenya's NEAP with the SDGs and AEAP

The NEAP is fully integrated with the SDGs (see annexes illustrating the links between the SDG's and the SO's) as well as biodiversity-related conventions (through the National Biodiversity Strategy and Action Plan). The integration allows for leveraging and synergy between actions on sustainable socio-economic development and conservation. It also places the management of biodiversity, climate change and resilience. This approach reconciles development needs and priorities to natural resource management. Further, the alignment with AEAP streamlines its actions to those of the range states for effective conservation of the continental populations. Purposively, the alignment intends to present a cohesive and comprehensive body of work necessary to conserve a range of State's elephants, and thus implement the AEAP in Kenya. A critical part also enhances options for funding

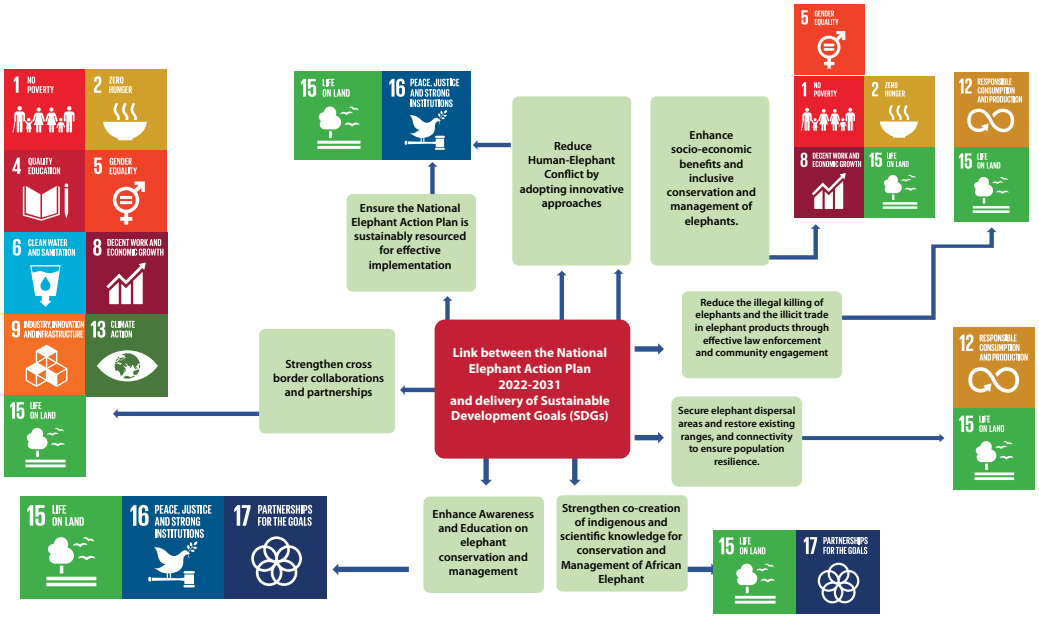
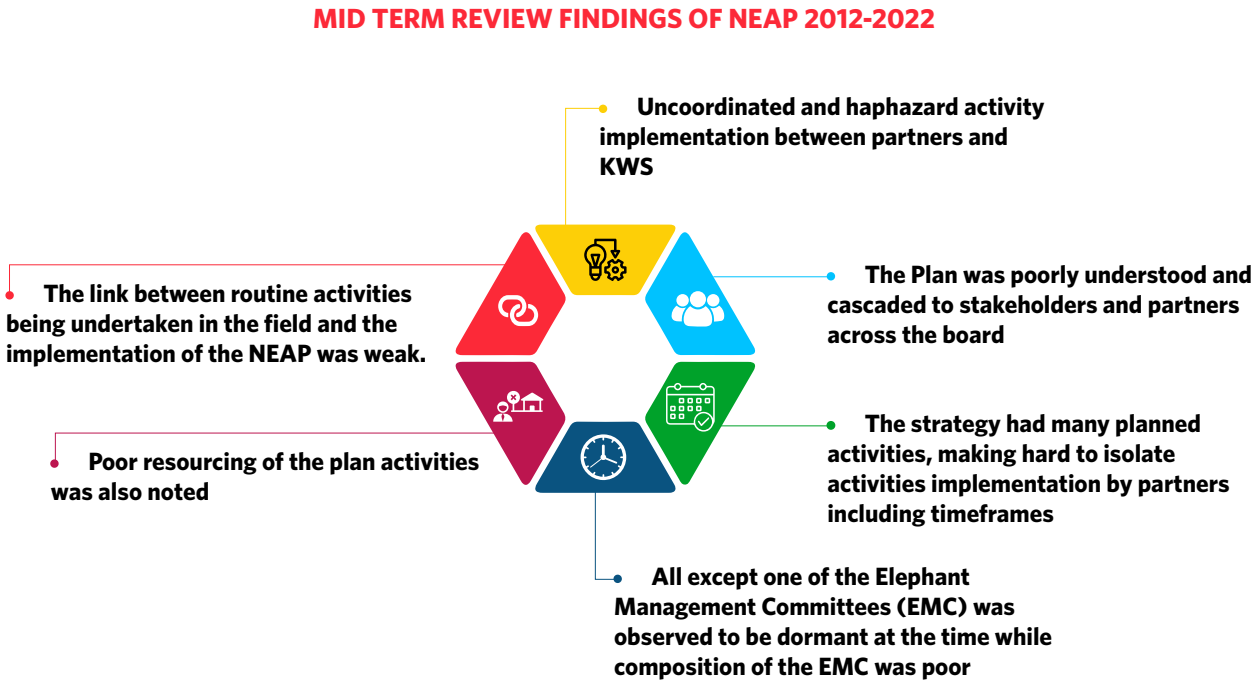


Figure 1: Figure illustrating the integration of the NEAP 2023-2032 with AEAP and SDG's.

1.5 Implementation of the Past NEAP 2012-2021 and Achievements

The past NEAP 2012-2021 was predicated on seven broad (7) strategic objectives (see figure 2 below) associated mainly with tackling poaching nationally. It also set the tone of dealing with issues related primarily on; recovery of the national elephant populations and a lack of funding to KWS. The NEAP also recognized the elephant range management concerns outside protected areas. Thus, noting that the future of elephants in these places will depend on whether or not they local communities and land owners participate in conservation of the species. However, it did not anticipate the new national governance structure and devolution of responsibility that was ushered by the promulgation of the new Constitution of Kenya 2010. Two reviews were conducted: a midterm review in 2015 and end of strategy review on the implementation status of this NEAP 2012-2021.

During the stakeholder consultative process held nationally when formulating this new NEAP 2023-2032, it was noted that the implementation of the previous plan was generally delayed until the last half of its cycle and it was not cascaded as envisaged. Further, it was observed that active implementation only began after 2015 with the formation of regional elephant management committees (EMC). The implementation was additionally also challenged with the emergence of the Global COVID 19 pandemic. It was reported that although there was implementation of elephant conservation and management activities, they were not aligned to the NEAP 2012-2021. The activities implemented by KWS was conducted in an ad hoc manner, and at times experienced resource constrains. The stakeholder assessments also identified gaps related to overall coordination of the past NEAP despite articulation of an elaborate implementation mechanism. Below are the summary of the review findings:



A summary assessment of the implementation of the NEAP 2012-2021 based on views of implementers from the regional workshops noted the following;

Strategic Objectives related to security and mitigation of HEC were ranked highly in implementation assessment scoring over 60%.

Those associated with provision of incentives were scored at 50%.

The Strategic Objectives associated with population expansion and habitat maintenance, research and monitoring, capacity and coordination and support were scored lowly at less than 30%.

Additionally, some of the most notable achievements of the previous NEAP 2012-2021 were observed as:

- A drastic reduction of poaching incidences and continuation of the ban on ivory trade,
- Significant decrease in large scale seizures of ivory, especially due to the use of improved technologies and other measures to detect and deter contraband at border points
- Establishment of a Forensic laboratory to determine the sources of ivory and enhance prosecution
- Introduction of multi-agency platforms leading to enhanced anti-poaching operations,
- Kenya was removed from the "gang of eight" i.e., source, transit and destination countries
- Improved prosecution and conviction of crimes related to wildlife through the enactment of the Wildlife Conservation and Management Act (WCMA) 2013,
- The creation of over 100 conservancies across the nation and elephant range that won more space for elephants,
- Improved collection of elephant mortality data by undertaking mortality data harmonization's at ecosystem levels
- Improved collection of human-elephant conflict data and establishment of a dedicated office at the 8 KWS Conservation Area and KWS Headquarters to collate HEC data
- Steady increase in population was also recorded
- Enhanced understanding of elephant movement patterns and range i.e. more elephants were collared with satellite-linked GPS collars in different elephant ranges
- Establishment of WRTI and regular undertaking of periodic elephant census including national wildlife census to update population status of elephants in Kenya,
- A noticeable increase of elephant conservation awareness through fundraising actions (e.g., Tembo naming festival).

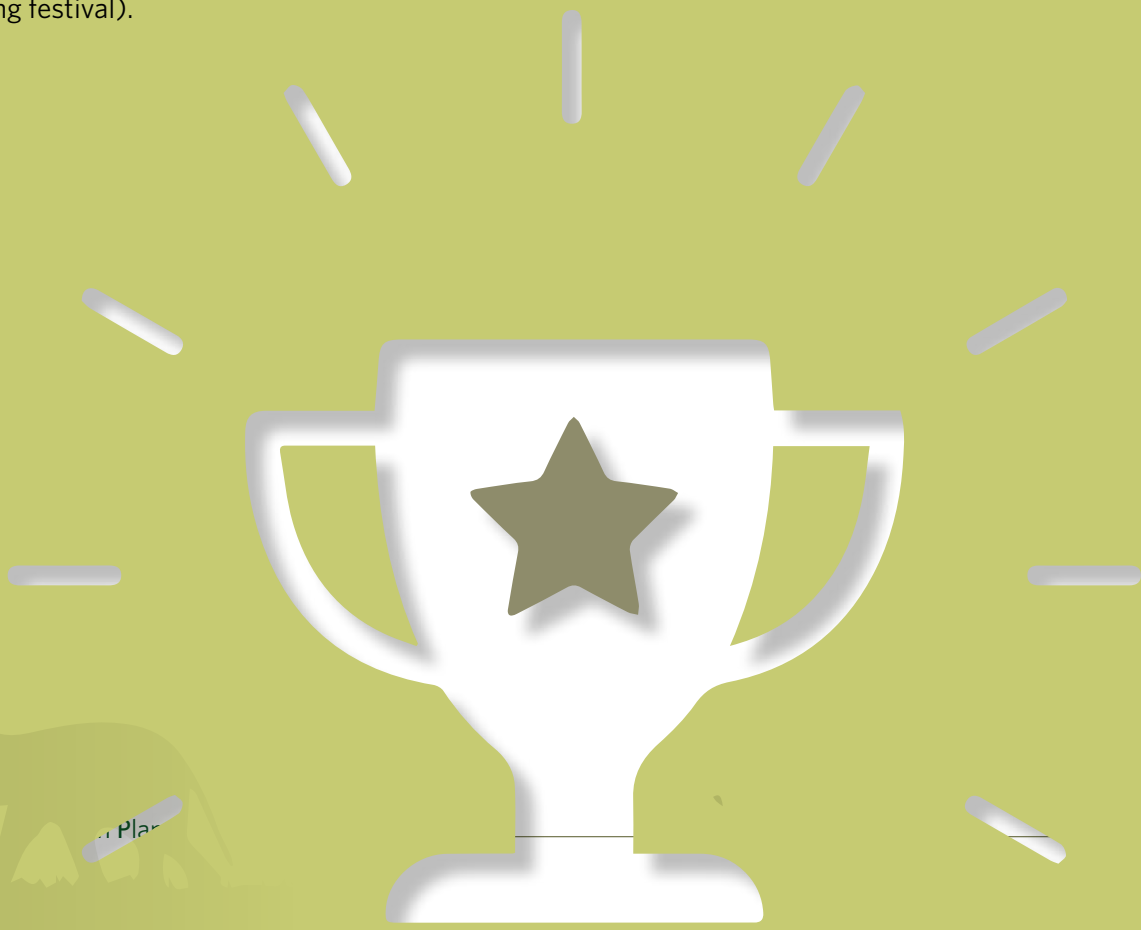


Figure 2: Illustration of the Strategic Objectives of NEAP 2012-2022

1.6 Key issues from field consultative meetings

The key issues from field stakeholder consultative meetings are summarised in Figure 2 below. The major highlights were the need to develop spatial plans, expansion of settlements, farms and infrastructure into elephant range, habitat loss and fragmentation among others

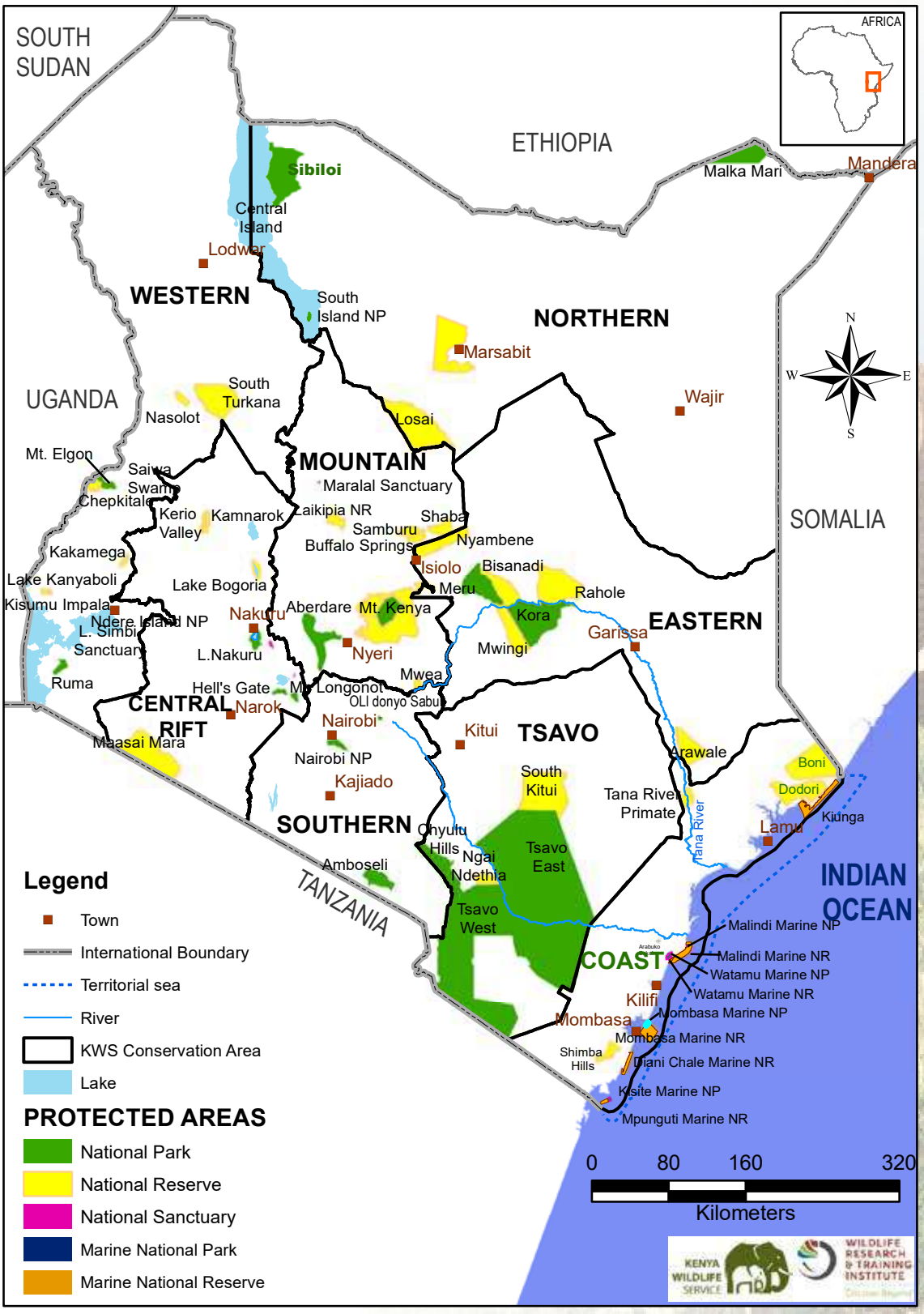


Figure 3 Stakeholder views and input from the field

Central Rift

- Inadequate understanding the elephant movement patterns and habitat connectivity issues/ fragmentation occurrence in the region leading to isolated populations. Land subdivision especially observed in South Turkana-Rimoi-Kam narok and between Mara, South West Mau areas (Chepalungu and Mau) to Tinderet thus increasing conflict.
- Increase in land adjudication activities, land ownership ownership in Nyakweri forest
- Poor management of trans-frontier elephant issues and coordination- Mara and Serengeti/ Baringo-Elgeyo Marakwet county, Laikipia-Mau-Mara
- Habitat destruction of Nyakweri-Transmar a areas

Western

- Expansion of Chepkitale settlements that border Mt.Elgon N.P. are expanding the existing reducing elephant range-encroachment
- Habitats loss is increasing conflicts in buffer areas around the PA's- Closure of S. Turkana-Nasalot elephant routes (corridors)-camps constructed along boundary
- Invasive species control in open areas especially (cestrum spp)
- Rampant charcoal burning reported in West Pokot County
- Un-resolved and new court cases are contributing to boundary disputes especially in areas bordering Mt Elgon National Park
- Fence destruction by communities around Trans- Nzoia is increasing HEC
- Proliferation of illegal small arms in the region leading to insecurity security of elephants
- Community cultural traditions that encourage illegal activities especially among the Pokots
- Negative perceptions by Turkana County governments about establishing wildlife conservancies

Tsavo

- Issuance of land titles to local community members in known elephant migratory and dispersal areas
- Invasive species in the elephant range
- Sporadic wild/bush fires due to arson in and around the PA
- SGR and proposed major infrastructure developments by government in areas adjacent to TCA-Road and express way
- In-formal transboundary arrangements between TCA managers and neighbouring Mkomazi in Tanzania

North Coast

- Need to align and streamline NEAP activities with stakeholder and partner plans
- Poor composition and representation of stakeholders at CWCC
- Limited resources to facilitate CWCC
- Lack of adequate water points in the Sokoke ecosystem for elephants
- Need to establish the stocking rate of Arabuko-Sokoke
- Prohibition of aerial patrols because the area is designated as no fly zone due to national security reasons
- Limited prosecution of cases because offices to do the job are not gazetted
- Proposed infrastructure development –Kangawati forest land use change (degazetting land in Kipini & Challa), Construction of the KMC, army barracks in Kipini around the conservancy-elephant corridor for Tsavo-Kipini-Boni-Dondori forest, LAPSSET corridor projects, Lamu Wind Power project, proposed Shakahola-Chakama agricultural scheme Need to align and streamline NEAP activities with stakeholder and partner plans
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AREA SALIENT ISSUES

South Coast

- Need to share earth ranger platform with officers in the field
- Limited collaboration in development of rangeland plans and cash-based economy training for agro-pastoralists
- Communities have Limited community capacity to use elephant monitoring techniques or tools for data collection
- Arabuko-Tsavo corridor is not robustly monitored
- Absence of radio-tracking technology to monitor elephant movement

Southern

- Land subdivision within the ecosystem is prevalent
- Elephant corridors provided are narrow and not connected to each other
- Rampant land sales by local communities
- Land buyers are introducing irrigated agriculture near Amboseli National Park/ecosystem
- There were unresolved cross-border elephant conservation and management concerns that should jointly addressed be addressed by Kenya and Tanzania

Northern & Eastern

- Water supplementation issues in most areas- Loiyangalani
- Presence of livestock around Marsabit forest is pushing elephants out in Laisamis and Ngurunit areas
- Delibarate Killing of elephants for cultural initiation programmes were reported in Imenti forest
- Encroachment into PA by influential/political personalities
- Enhance understanding of ring fencing of, and human activities in Marsabit National Reserve.
- Involve local communities in monitoring elephant movements
- There is limited capacity to conserve and manage elephant in Meru Conservation Area

Mountain

- Some fences are interfering with elephant movements and connectivity in Laikipia especially between Mutara and Segera ranches
- High cost of fence maintenance
- Need to integrate elephant data collected by partners: Currently partners use different techniques to collect and analyze elephant data
- Elephants are getting speared /injured by angry people in the communities. They are angered because HEC are increasing
- High elephant density in Mwea Game Reserve. Unless some elephants are translocated , the threat of Elephant population crushing , is eminent
- Communities are subdividing land in the corridors, between Laikipia and Kirisia Forest
- The elephant corridor from Mt Kenya to Aberdare is slowly and steadily closing
- Increasing settlements in other wildlife corridors
- Elephants escaping from wholly fenced Aberdares park when community members leave designated inlets into the park open
- On-going road construction work within the forest: Mau Mau Road

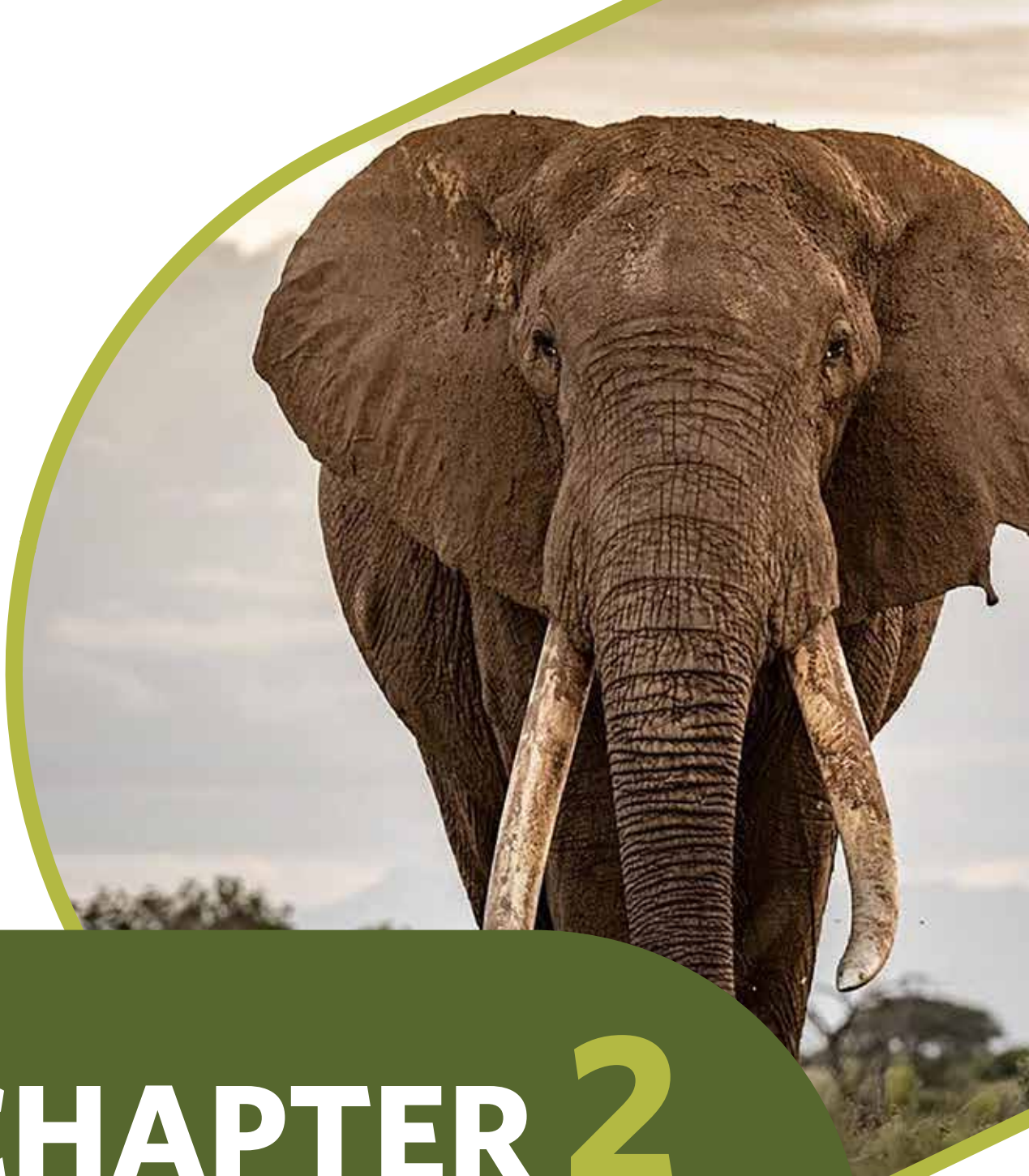
a) kinyona-Gatare-Njambini 30km; Treetop-Zaina-30 Km; Bushi-Gela 17km (Total 67Kmx11m=73.7Ha)

b) Proposed road works in the forest: Mutubio-Kandangoro-Tosho 35.8 km; and Treetop Gate-Ark Road 15km (Total 50.8 Km or Approx 55.88Ha)

- Inadequate fire breaks in and around the PA's
- land degradation in the rangeland
- Proliferation of small arms in northern Kenya is getting serious.
- The tarmacked Rumuruti-Maralal Road is disrupting animal movements

B. CROSS CUTTING ISSUES

- Development of county spatial plans
- Integration of Wildlife issues into County Integrated Development plans (CIDP)
- Integration of NEAP into CIDP
- Poor implementation of recommendations of Wildlife corridors and Dispersal Areas Report
- Need for develop KWS capacity for fund raising especially in proposal development to the national and county governments
- Need to balance conservation and economic development concerns at conservancy levels
- Creation of alternative conservation financing schemes
- Need to have the NEAP owned by stakeholders
- Poor appreciation of the national wildlife estate and it's challenges by Government
- Delayed payment of compensation resulting from HEC cases
- Weak enforcement of zoning prescriptions in areas adjacent to conservation areas
- Changing and incompatible land uses
- Sendetarization of pastoralists
- Poor community sensitization, awareness and education of local communities on elephant conservation and management
- Structural weakness in coordination of NEAP
- Climate change
- Limited sharing of data and information by conservation partners
- Ever increasing cases of HEC and limited resources to address the problem
- Poor implementation SEA, ESEA and Environmental audit management plans
- Lack of harmonization of activities undertaken by conservation NGOs
- Weak Community Wildlife Service
- Weak County Environmental committee
- Poorly cascaded NEAP to lower levels
- Need to include civil society organizations in the Environmental Management Committee
- Need to strengthen law enforcement through multi-agency platforms to deter illegal activities.
- Limited resourced KWS -WPU elephant operations due heavy reliance on the exchequer
- Limited consistent training of Rangers due limited to financial constraints
- Need to establish the actual of cost of elephant conservation and management
- Need to use science in conservation and management of elephants
- Continued negative media publicity on elephant conservation and management.
- Lack of access to elephant conservation and management data by the public
- Lack of resources to implement NEAP and little resource allocations available are not timely disbursed
- Need to develop tools for HEC data collection, monitoring and evaluation system
- Need to develop protocol for monitoring the effects of elephants on ecosystems
- Limited community capacity to use elephant monitoring techniques or tools for data collection
- Need to refine elephant dung techniques to count elephants in forest ecosystems
- Absence of elephant disease surveillance
- Need to conduct cost benefit analysis of elephant conservation and management
- Need to quantify the level of effort for ecological monitoring/ conservation activities
- Need to establish a national and area specific elephant carrying capacities
- There is need for in-depth understanding of HEC and dynamics.
- There is need to analyze elephant field data collected and submitted to KWS Headquarters and reports shared with the field and partners
- There was need to make NEAP user friendly: the previous NEAP was complex and bulky
- There is need to disseminate NEAP evaluation reports to the field
- There is need to sensitize land owners on elephant conservation and management initiatives across the landscape
- Loss of small game could also lead to decrease in elephant numbers
- Need to rethink how HWC compensation scheme should work effeciently
- Need to enhance incentives for, and benefits from elephant conservation and management to local communities
- Although there is routine collection of elephant related data by KWS and some stakeholders, it is not systematic. There is a need to develop a systematic M and E system and plans that should cover stakeholders.



CHAPTER 2

THE ELEPHANT RANGE, STATUS AND TREND IN KENYA

CHAPTER 2: THE ELEPHANT RANGE, STATUS AND TREND IN KENYA

2.1 Elephant Range

The total elephant range in Kenya increased from 107,113 km^2 in 2007 to 130,725 km^2 in 2016, partly due to changes in survey coverage for areas that were counted at regular intervals, and partly due to coverage of previously unassessed range (Table 2). This is approximately 22% of Kenya's land mass. The national elephant population is spread over thirteen (13) ecological units, which include protected areas and adjacent community areas. These units characterise the five main contiguous elephant ranges, namely the South East Range (Tsavo – Chyulu - Amboseli - Kilimanjaro complex), the South West Range (Nguruman – Masai Mara complex), the Centraal & North Range (Aberdares - Mt Kenya - Laikipia - Samburu - Marsabit - Meru complex), the North West Range (Nasolot - Rimoi - Kerio Valley complex), and the North East Coastal Range (Lamu District - Tana River system complex). The size of the elephant range was estimated using a combination of methods, with data sources of different reliability (AED, 2016).

Table 2: Elephant range in Kenya (km^2).

Data category	Known range	Possible range	Total range
Aerial or ground total counts	93,803	977	94,780
Informed guesses	4,465	0	4,465
Other guesses	5,423	43	5,466
Unassessed range	20,247	5,767	26,014
Total	**123,937**	**6,787**	**130,725**

Database (2016)

The KWS produced an elephant range map for Kenya, based on a series of nationwide counts, including the most recent count done in 2021, whereby the vast majority of savanna areas were predominantly covered by aerial census and the forest areas by using dropping techniques (see next sections for survey details), providing a rough account of elephant use for the 5 different and contiguous elephant ranges in the country (Figure 1).

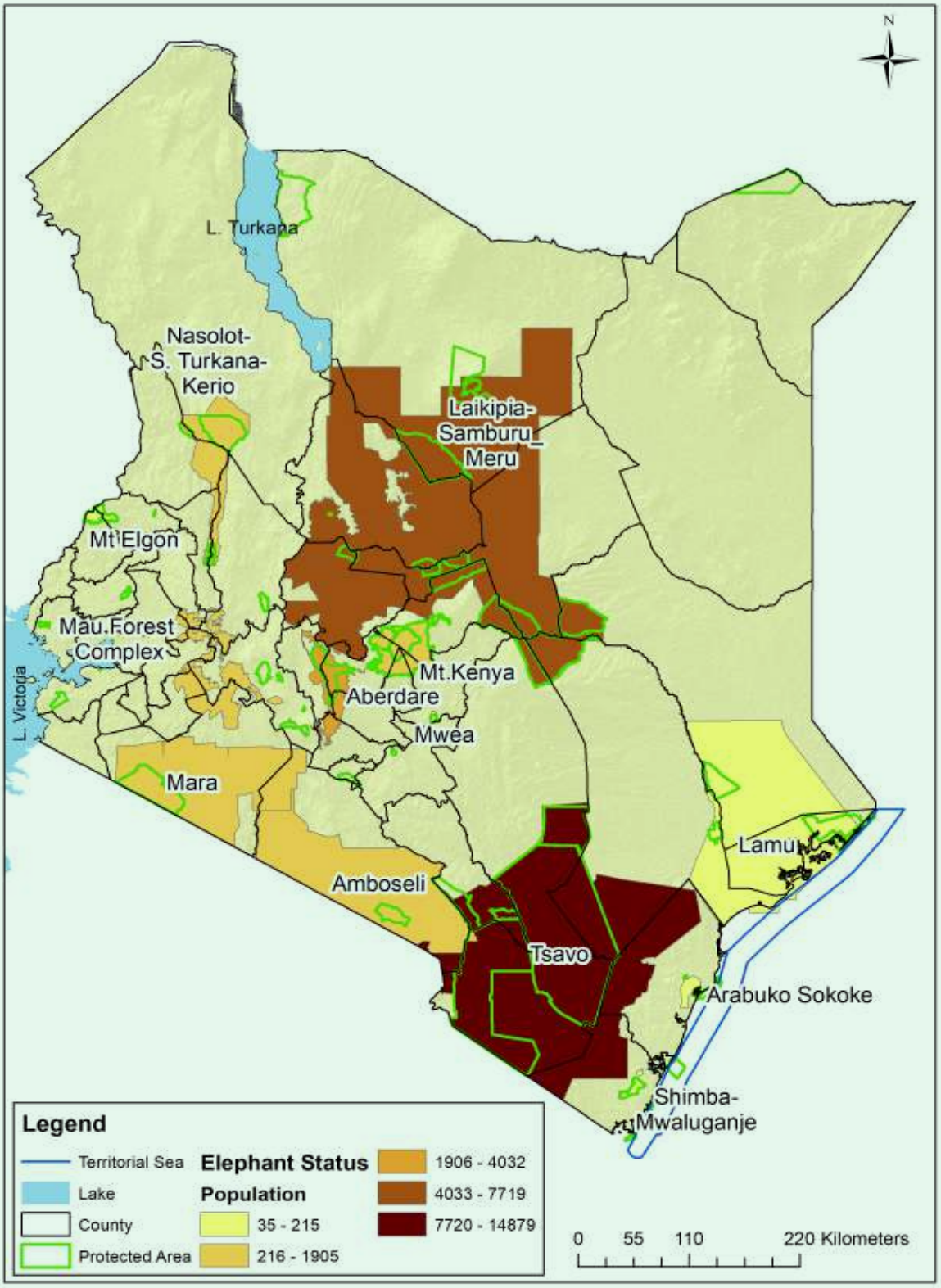


Figure 4: Map showing the elephant range in Kenya (Source: WRTI, 2021).

2.2 Elephant Population Status and Trends

Kenya had a population of increased from about 16,000 elephants in 1990 to about 36,280 elephants in 2021 across all the ranges assessed (Table 3). The elephant population grew at different rates in the various ranges assessed (Waweru et al., 2021). This population increase has been achieved through the hard work of the different players in the elephant conservation and management sector in Kenya. In the face of numerous challenges, such as an increasing human population, infrastructure developments, expanding agriculture, fragmentation of landscapes, and increased livestock grazing, the Kenya Government and its partners have been very successful in conserving and managing their national elephant population. The national elephant population increased from a low of approximately 16,000 in 1989 to a high of 35,588 in 2012 (Figure 5), an increase of roughly 5.3% per year on average, after which population numbers more or less stabilised, fluctuating between 32,214 in 2014 and 36,280 in 2021 (Waweru et al., 2021). The increase of the national elephant population was most pronounced from the late 1980s to 2014, after which the increase gradually tapered off and population numbers remained more or less stable (Figure 2). These estimates have been derived from a combination of survey methods, ranging from aerial total and sample counts in savannah ecosystems, dung density surveys in forested ecosystems and individual registration (Waweru et al., 2021).

Table 2: Elephant population estimates for different input zones by survey type and year of last count (Source: Waweru et al., 2021)

Input zone	Survey type	Year	Estimate
Aberdares CA	Dung count	2021	4,019
Amboseli Ecosystem	Individual Reg.	2021	1,887
Arabuko Sokoke Forest	Dung count	2017	215
Laikipia-Samburu-Marsabit	Aerial total	2021	6,867
Lamu-Lower Garissa	Aerial total	2021	35
Loita Forest	Dung count	2018	441
Loroki	Dung count	1997*	210
Maasai Mara Ecosystem	Aerial total	2021	2,595
Magadi ecosystem	Aerial total	2021	299
Mau Forest complex	Dung count	2020	951
Meru Ecosystem	Aerial total	2020	986
Mount Elgon	Informed guess	2002*	139
Mount Kenya	Dung count	2020	1,905
Mwea	Aerial total	2021	156
Nasalot-S Turkana-Kerio Valley	Aerial total	2021	493
Shimba Hills	Aerial total	2021	75
Tsavo Ecosystem	Aerial total	2021	14,879
Turkana County	Aerial total	2021	4
Nairobi NP (SWT)	Individual Reg.	2021	13
Tsavo (Captive)	Individual Reg.	2021	85
Laikipia (Captive)	Individual Reg.	2021	26
Total			**36,280**

* Very old surveys, with unconfirmed current status of elephant population

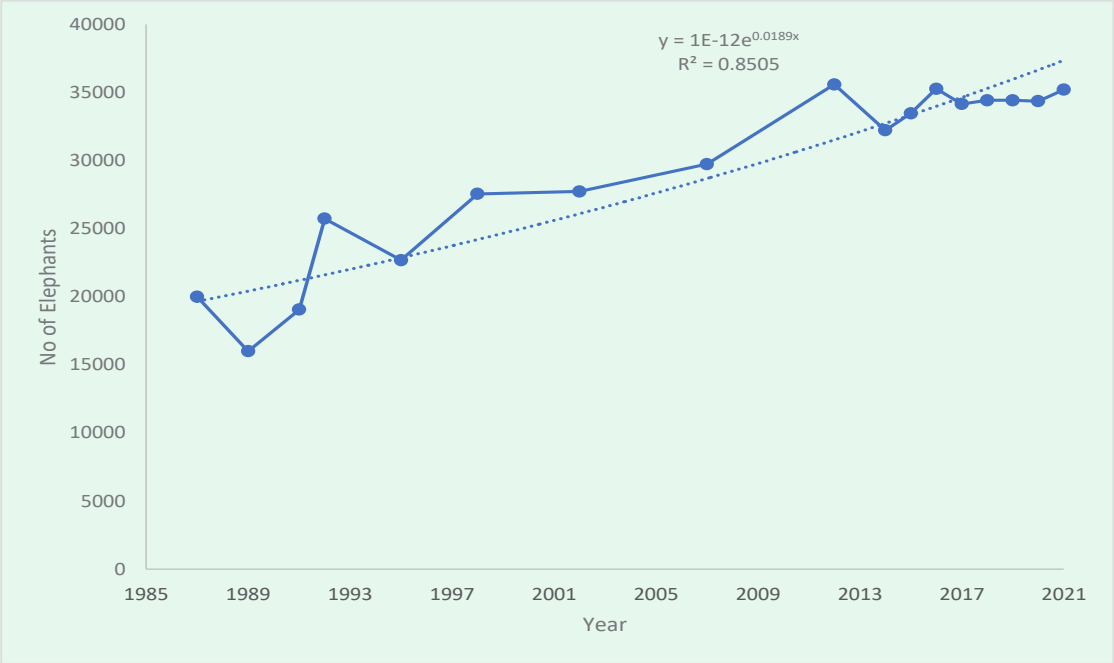


Figure 5: National elephant population trend (1989 to 2021).

A significant proportion of Kenya's elephant population seasonally or permanently exists outside protected areas and is exposed to increasing human pressures that have negative impacts on dispersal areas and migratory corridors. Over time, land use has changed and landscapes have become increasingly more fragmented, with an increase in human elephant-conflict, frequently resulting in more fences and further loss of connectivity. As explained in Chapter 4, fragmentation reduces the size of the dispersal area until a threshold is reached where elephants disappear from the landscape. The only way for Kenya's elephant population to further expand and increase in numbers is to reduce and reverse this trend, by securing elephant dispersal areas and migratory corridors as described in a highly important document as part of Kenya's Vision 2030 (Ojwang et al., 2017). Further this plan recognizes the need to improve the habitat quality of less utilised sections with the existing Protected Areas (PAs).

Waweru et al. (2021) describes in details the population status, trends and distribution in elephant range areas in Kenya. These are outline in the section below and detailed descriptions are available online (https://www.tourism.go.ke/wp-content/uploads/2021/08/NATIONAL-WILDLIFE-CENSUS-2021-REPORT-ABRIDGED-FINAL-WEB-VERSION.pdf)

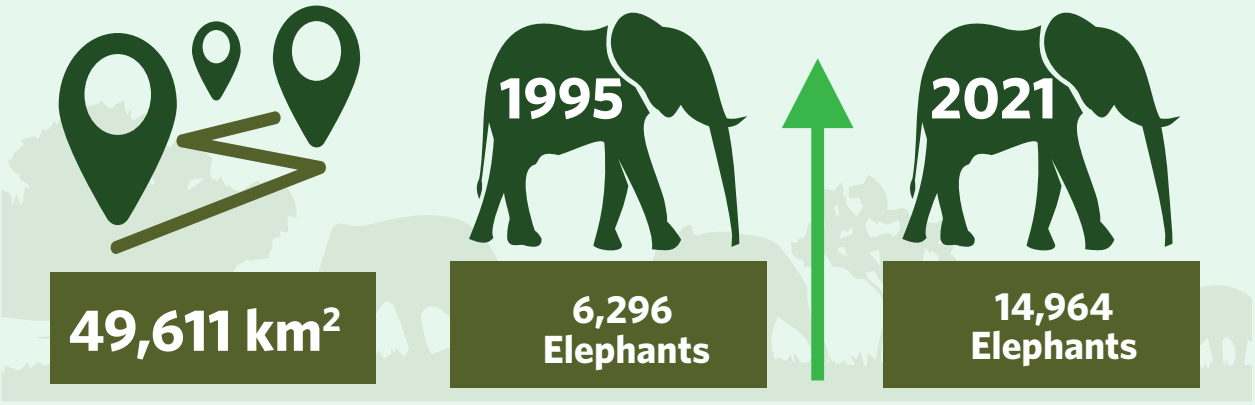
2.2.1 Southern range Elephant populations

a) Tsavo Ecosystem:

The Tsavo ecosystem occupies parts of the Taita Taveta, Kilifi, Kwale, Makueni and Kitui Counties, with a surface area of 49,611 km^2, being the largest contiguous savanna elephant range in Kenya (38% of total range). It also borders Tanzania's Mkomazi National Park to the south east, constituting a key trans-boundary conservation area in East Africa. The ecosystem consists of a mosaic of land tenure systems from public land (Tsavo National Parks, Chyulu National Park and the South Kitui National Reserve); Community ranches and Private land.

The ecosystem hosts the largest population with 14,964 elephants in 2021 (Waweru et al., 2021). The Tsavo elephant population increased from 6,296 in 1995 to 14,964 in 2021, or by roughly 5.3% per year on average. Kyale et al. (2014) and Ngene et al, (2013 & 2017) provide an excellent account of census methodology used over the years.

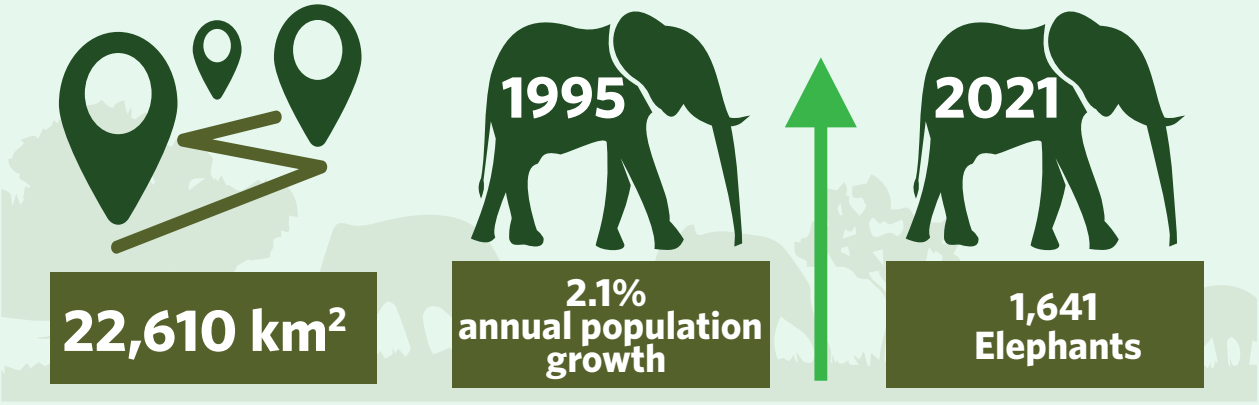
Elephant distribution for the Tsavo ecosystem remained more or less unchanged for the period from 2008 to 2017, when aerial total counts were done during the same time of the year – that is the dry season from February to March. Although there were minor fluctuations in the peripheral areas of the elephant range, presumably due to expanding agriculture, livestock grazing and other anthropogenic activities, the bulk of the elephant population remained within the confines of the protected areas and more specifically in the hearts of both Tsavo East and West. This was probably partly due to a security gradient, with patrol coverage and density declining towards the perimeters of the Tsavo complex, and livestock grazing and other human disturbances declining from the perimeters towards the heart of the protected areas, with food and water availability as secondary factors. Based on the 2021 census, elephant numbers were highest in Tsavo East NP (60% of the population) followed by Tsavo West NP (22%). Taita ranches (13.6%) came third, while no elephants were observed in South Kitui National Reserve. Also, elephant numbers in Galana/Kulalu ranches have been declining for some time.



In this action Plan, key considerations for the Tsavo elephant population will be on, habitat and population management within the PAs especially water provision; Human Elephant Conflict and competing land uses in the ranches; linear infrastructural developments and habitat fragmentation; and the trans-boundary nature of the elephant population.

b) Amboseli Ecosystem:

The Amboseli ecosystem comprises approximately 22,610 km^2. Only 1.7% of the ecosystem, the Amboseli National Park, is a protected area. The entire of the other land mass within the landscape is community owned group ranches and private land. All the community ranches within the landscape are in the process of subdivision into private ownership.



The Amboseli ecosystem hosts an elephant population of approximately 1,641 elephants. This represents a 2.1% annual population growth for the period 1995 to 2021. The estimate for the Amboseli elephant population has been derived from aerial total counts, aerial sample counts and individually identified and monitored animals. In the landscape, elephants mostly utilise the Amboseli swamp, inside the

Amboseli National Park but also utilise areas outside the National Park during the wet season. Outside the park, elephants utilise the Shombole Ranch in the Magadi area, with low densities of elephants on the communal group ranches surrounding ANP, such as Olgulului, Kuku, Mbirikania and Lengism. These days, both ranches and conservancies are important elephant habitats during the wet season, when elephants are more or less evenly distributed over the Amboseli landscape and the western part of the Magadi area.

Key considerations for the Amboseli elephant population will be on spatial planning and competing land uses such as livestock overstock and crop farming. In areas outside of the Amboseli NP, Human Elephant Conflict, land subdivision, habitat expansion and securing of corridors and dispersal areas, and the trans-boundary nature of the population.

c) Shimba Hills Ecosystem:

The Shimba Hills ecosystem encompasses an area of approximately , in the coastal region of Kenya. This is a forested ecosystem and comprises Shimba Hills National Reserve, Mwaluganje Sanctuary, Mkongani West and Mkongani North Forest Reserves. Three different techniques have been used to survey the Shimba Hills elephant population. These include dung density surveys (Reuling et al., 1992, Litoroh, 2003 and Reuling, 2007), aerial total counts (Litoroh, 2002, Kimutai, 2007, Ngene et al., 2012, Waweru et al., 2021), and individual recognition (Kahumbu, 2002). The 2021 dung density survey estimated an elephant density of 1.26 elephants/km^2 (95% CI 1.03 – 1.54 elephants/km^2) with a percent coefficient of variation of 9.95. This gave an overall abundance estimate of 317 (95% CI 259 – 389) (Kiambi et al., 2022).

During the 2007 count, about 62% of the elephants were observed in Shimba Hills, Mwaluganje and Mkongani West, with the remaining 38% in the community area in between Shimba and Mwaluganje, but close to Mwaluganje. In 2012, the sightings in the community area observed a few large herds that comprised 58% of the elephants counted. The observation of a few large herds indicated a stressed population, probably as a result of increased poaching due to low security levels. The remaining 42% (115) were observed in Shimba Hills (80), Mwaluganje (16) and Mkongani West (19).

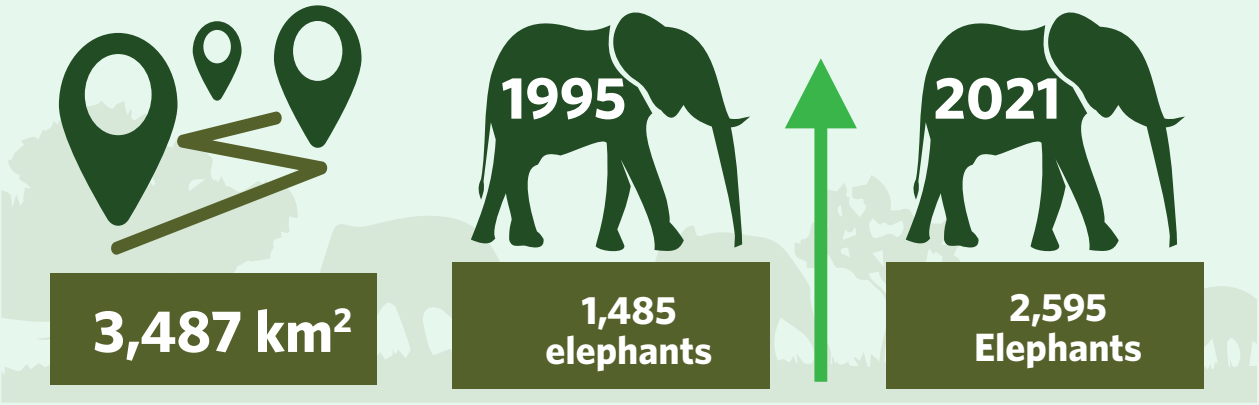
With its small size, the Shimba Hills Mwaluganje ecosystem is in desperate need of participatory land-use planning; scaling law enforcement and enhanced benefit generation especially for the Mwaluganje elephant sanctuary.

d) Masai Mara Ecosystem:

Aerial total counts have been used to survey the elephant population of the Masai Mara National Reserve and the adjacent community conservancies (3,487 km^2), while dung counts were used to survey the elephants in the Trans-Mara and Loita Forests. The Masai Mara elephant population increased from 1,485 in 1995 to 2,595 in 2021 (Waweru et al., 2021), a population increase of roughly 2.9% per year on average.

The Narok North elephant population dropped from an estimated 181 elephants in 2006 to only 9 elephants in 2017, a decline of roughly 7.9% per year on average (Mwiu et al., 2017, Omondi et al., 2006). This decline was mainly attributed to the change in land use within the northern extent of the Mara ecosystem, from elephant range to extensive wheat farms, which led to heightened HEC and the decision to translocate 102 elephants from Siyapei in 2012.

In the Masai Mara, numerous community conservancies were established starting in 2005. As part of the ecosystem, they play an important role by hosting roughly one-third of the elephant population, with the other two-thirds utilising the reserve itself. Among the conservancies that are usually home to elephants are Mara North, Olare Orok, Motorogi, Naboisho, Nashulai, Siana, Isaaten and Olaro South. On the other hand, the Loita Forest elephant population was estimated at 441 elephants in 2018 (Vanleeuwe and Nyaligu, 2018). The forest is utilised by the local communities as a dry season livestock grazing area. The surveys conducted in January 2018 (wet season) and October 2018 (dry season) revealed no significant seasonal changes in elephant distribution in Loita Forest, suggesting a resident elephant population for the Loita forest (Vanleeuwe and Nyaligu, 2018).

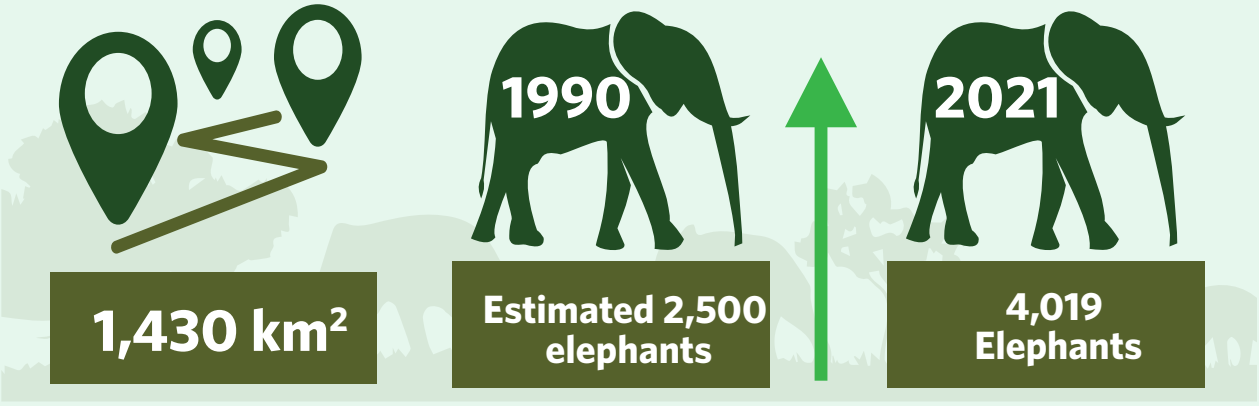


Key considerations for the Mara ecosystem will be on; habitat expansion; fencing infrastructure in the communal areas, land subdivision, Human Elephant Conflict and the trans-boundary nature of the population.

2.2.2 Central & North Elephant Range

a) Aberdares Ecosystem:

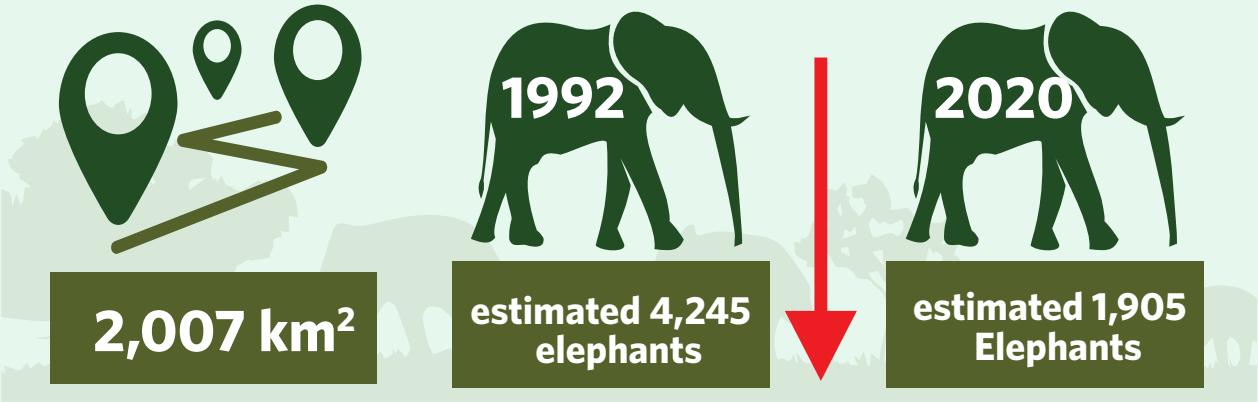
Being a forested ecosystem (1,430 km^2), the size of the Aberdares elephant population has predominantly been estimated by using indirect methods. With the need to meet the MIKE forest elephant dung survey standards (Hedges and Lawson, 2006), forest survey methodology in Kenya has greatly improved over time. In 1990, the population was roughly estimated at 2,500 elephants (Reuling et al., 1992). The Aberdare forest elephant population is currently estimated at 4,019 elephants (95% CI 2,813 – 5,741) (Kiambi et al 2022). Previously, there was an elephant density at 2.40/ Km^2 or 1,840 elephants (% CV 25.05) in the Aberdare National Park (767 Km^2) and 2.56/ Km^2 or 1,700 elephants (%CV 27.76) in parts outside the National Park (663 Km^2) in 2005. Moreover, there has been a 1.8% annual population increase for the Aberdare Forest Ecosystem elephant population for the last two decades. The last two surveys denote a plateau growth since 2017. Noting that the ecosystem is perimeter fenced, this might be an indication of the onset of density dependent population regulation mechanisms.



Key considerations are a thorough habitat quality and browse availability assessment and blockage of the corridor between Aberdare and Mount Kenya forest.

b) Mount Kenya Ecosystem:

Similar to the Aberdares, for the Mount Kenya National Park and National Reserve (2,007 km^2), the elephant population has been surveyed using dung count methodologies. The population declined from an estimated 4,245 elephants in 1992 (Reuling et al., 1992a) to an estimate of 1,905 in 2020 (Vanleeuwe, 2020), a decline of 1.6% per year on average for a 35 year period. Connectivity between both mountain ranges – that is Aberdares and Mt Kenya – and between these two ecosystems and surrounding landscapes has been gradually severed over time, with 400 km and 214 km of electric fence respectively on the hard boundary between human land use and wildlife habitat. With the exception of a few narrow corridors, nowadays elephants are primarily confined to the two montane ecosystems. Poaching and retaliatory killings of elephants due to HEC on the increase were key threats. Both Aberdares and Mt. Kenya ecosystems have become islands of wilderness in a sea of cultivation, where elephant populations require active management to safeguard them for future generations as well as for a flourishing tourism industry in non-pandemic times.



During the dung surveys carried out in 2016 and 2020, elephants were concentrated in the north and in the northern and eastern parts of the Mt. Kenya ecosystem respectively (Figure 6). The south and southwest appeared to be less preferred habitat, perhaps on account of anthropogenic disturbance, steep slopes, and less preferred forage, or any combination of these.

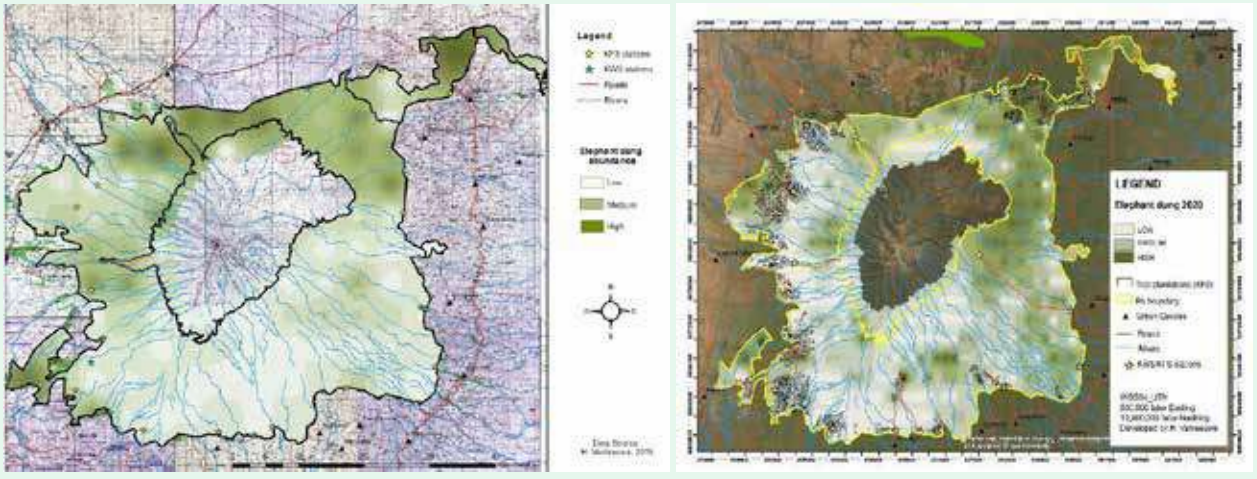
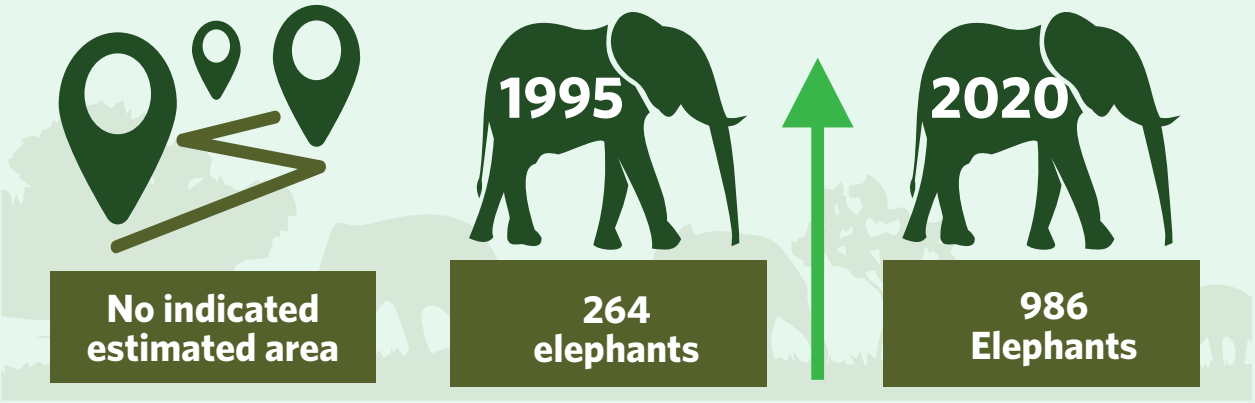


Figure 6: Elephant dung distribution for Mount Kenya in 2016

(left; Vanleeuwe, 2016) and 2020 (right; Vanleeuwe and Ngugi, 2020).

c) Meru Ecosystem:

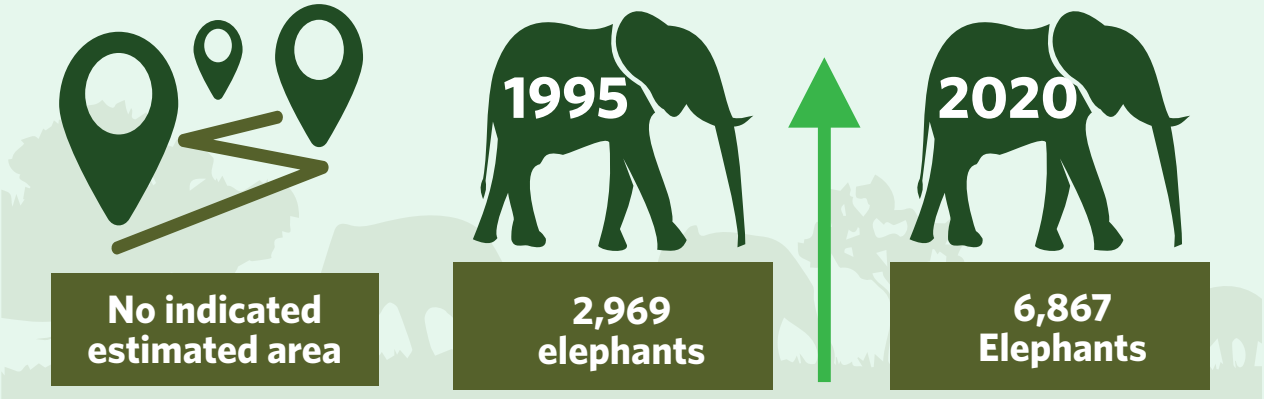
Primarily, aerial total counts have been used to determine the size of the elephant population in the Meru ecosystem, which includes Meru and Kora National Parks, Bisanadi National reserve and the adjacent dispersal areas (Blanc et al., 2007). We should note, however, that the Meru ecosystem is part of the much larger Laikipia – Samburu – Marsabit – Meru landscape, with intact connectivity with Shaba National Reserve into Samburu. Thus, local elephant densities fluctuate from one year to the next, and generally shifting towards the north, depending on a number of variables, among which are changing land use; security and food and water availability especially due to droughts. This implies that elephant population estimates for the Meru complex should be interpreted as part of the larger population occupying this extensive landscape.



The elephant population of the Meru ecosystem increased from 264 in 1995, to 986 in 2020, or roughly 7.8% per year on average. While in 2011 the entire Meru system was used by elephants, distribution shifted to Meru National Park and Bisanadi National Reserve in 2014, with a further shift north to Isiolo County in 2017, while no elephants were observed in Mwingi North GR in Kitui County and Rahole GR in Garissa County. In 2020, elephants were observed deep in Isiolo County, with concentrations in Bureega/ Yanamayo and Nderera. Over time, part of the Meru complex has become increasingly more fragmented due to in-migration of people, changing land use and expanding livestock grazing. When this trend is not reversed by participatory integrated local land-use planning to maintain wide corridors between the various conservation areas of the system, especially under conditions of accelerating climate change, the long-term future of elephants and other wildlife in this part of the larger landscape looks bleak.

d) Samburu – Laikipia - Marsabit Ecosystem:

Combinations of aerial sample and aerial total counts have been used to estimate the elephant population –in this ecosystem. A dung survey conducted in the Mathews' ranges in 1992 estimated a population of 630 4 215 elephants (Reuling et al., 1992b, Blanc et al., 2007). The elephant population of the larger Laikipia -Samburu landscape increased from 2,969 in 1995 to 6,867 in 2020, an increase of roughly 5.2% per year on average over a period of 25 years (Waweru et al., 2021).

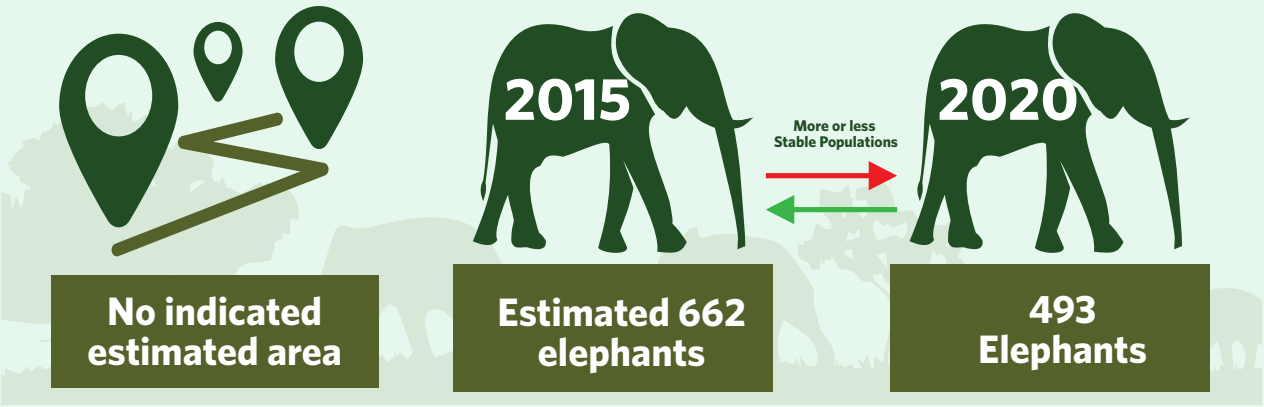


Apart from the protected areas, which include forest reserves, national reserves, national parks and sanctuaries that host large numbers of elephants, conservancies, have a big role in hosting elephants, as long as connectivity is being maintained. With the exception of some locally high densities, elephants were observed across the entire Laikipia – Samburu ecosystem in 2017. Compared with previous years, there were only minor shifts in distribution with connectivity still largely intact. However, to safeguard the future of elephants in this important landscape, county spatial plans and above all local physical development plans should include participatory integrated land-use planning exercises to reverse trends in fragmentation and to maintain long-term connectivity throughout the landscape, which includes the Meru complex.

2.2.3 North West Elephant Range

a) Nasalot - South Turkana and Kerio Valley Ecosystem:

The elephant population in this ecosystem is the largest elephant population in western Kenya (Chase et al., 2015). Key habitats in the ecosystem are South Turkana, Nasalot, Kerio Valley (Rimoi) and Kamnarok National Reserves. In 1999, a total of 792 elephants were counted, with 621 elephants observed in Nasalot and South Turkana, one large herd of 166 elephants was observed in the Kerio Valley and Kamnarok, with the few remaining elephants observed in Sigor/Kalossia. In 2010, a total of 362 elephants were counted, 199 in South Turkana, 136 elephants in the Kerio Valley, and 27 elephants in Nasalot (Edebe et al., 2010). In 2015, the population was estimated at 662 elephants, with 349 elephants observed in Nasalot and Kerio Valley/ Kamnarok (Chase et al., 2015). Low numbers of elephants were observed in South Turkana, with high numbers of carcasses (Chase et al., 2015). In 2021, the population was estimated at 493 (KWS, 2021). From these estimates no apparent trend is visible for the period from 1999 to 2021, concluding that population numbers have remained more or less stable, but most likely with persistently high poaching levels.



Key considerations for the western elephant populations will be on linear infrastructure and habitat fragmentation; enhancing law enforcement initiatives and the upcoming large-scale irrigation schemes.

2.2.4 Isolated populations

a) Lamu-Tana River Ecosystem:

During the 2015 census of the Lamu-Tana River ecosystem 57 elephants were counted in two large herds in lower Tana River, and three individual elephants in Garissa. During the 2021 census, no elephants were observed in this ecosystem. In 2015, the carcass ratio was 21%, indicating that the decline of this population near the Somali-Kenya border was due to poaching. High level of cross - border insecurity along the Kenya Somali border led to a takeover of the Boni Dodori forest by the Kenya Defense Forces. While movement data confirms elephant movement across the Kenya - Tanzania border, minimal to no initiatives to confirm and sustain the cross-border nature of the population have been undertaken.

b) Arabuko Sokoke Forest Ecosystem:

Arabuko Sokoke lies on the Kenya coast, close to Malindi, and covers roughly 420 km^2 of coastal forest. The forest has a perimeter fence and currently hosts a population of approximately 215 elephants (Priscilla, 2020).

c) Mwea National Reserve:

Mwea National Reserve is a 42 km^2 enclosed area in Embu County with approximately 156 elephants (Omengo et al., 2022). The Mwea elephant population has exponentially increased from 82 elephants in 2012, to 125 elephants in 2017 and subsequently to 156 elephants in 2021. The current estimate translates to a density of approximately 3.7 elephants/km^2. This high elephant density is progressively impacting negatively on the habitat quality hence a key focus is on active elephant population management.

d) Mau Complex:

The Mau complex covers 4,170 km^2 of montane forest between Nakuru, Narok and Naivasha, and is divided into 7 forest blocks. The most recent survey returned an estimate of 951 elephants (Mwiu et al., 2020). From 2016 to 2020, the distribution of elephants across the 7 blocks showed a minor shift towards the south, with only few signs of elephants observed in the northern blocks. There has been a general increase in illegal activities in the Mau Forest over the period 2017 to 2020 (Figure 7), majority of which were linked to logging, forest encroachment and livestock grazing. While regulated livestock grazing is permissible by law, there was a high correlation between illegal bushmeat and livestock grazing. Conversely, the spatial distribution of elephants was negatively related to illegal activity.

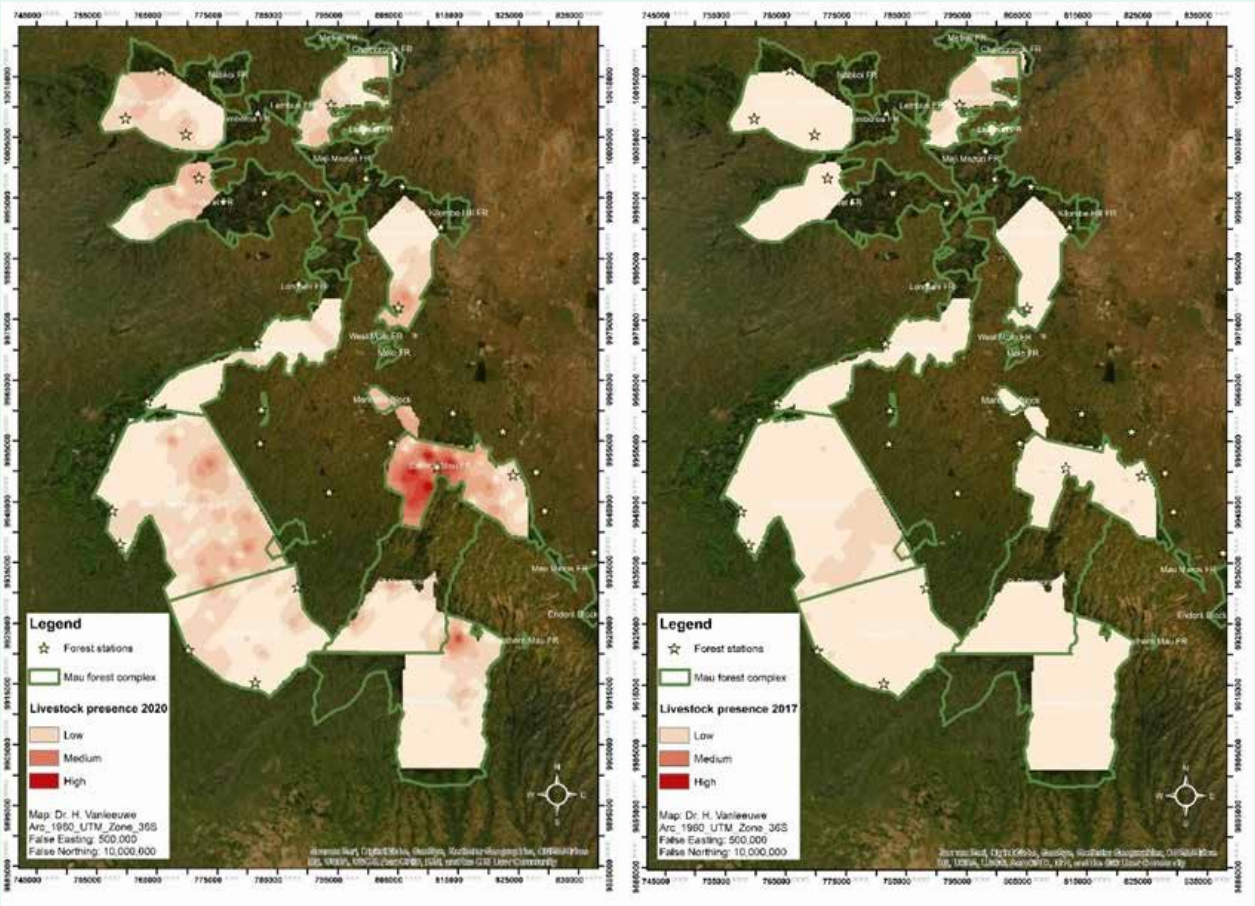
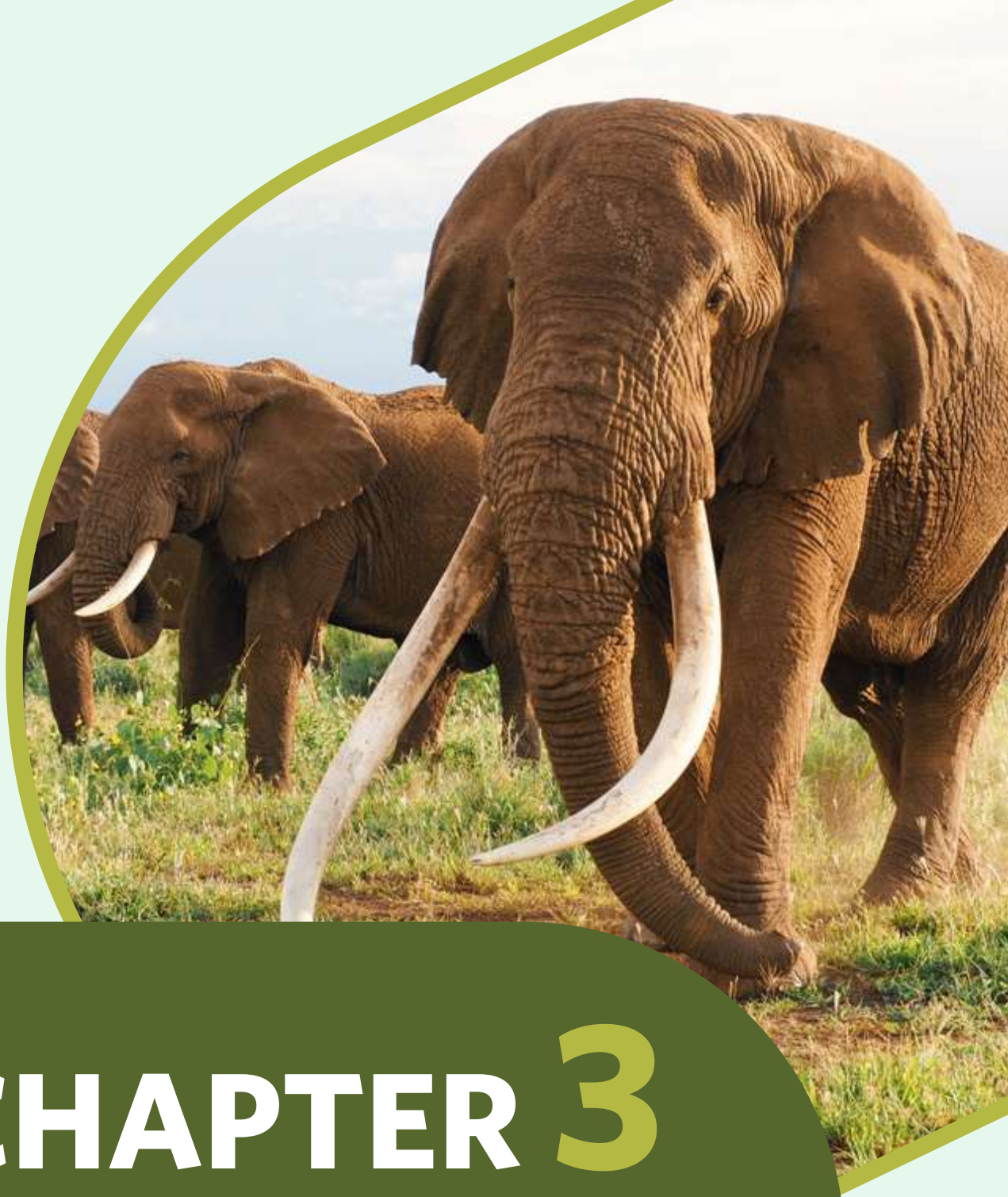


Figure 7: Socio-economic activity across the Mau Forest Complex.



CHAPTER 3

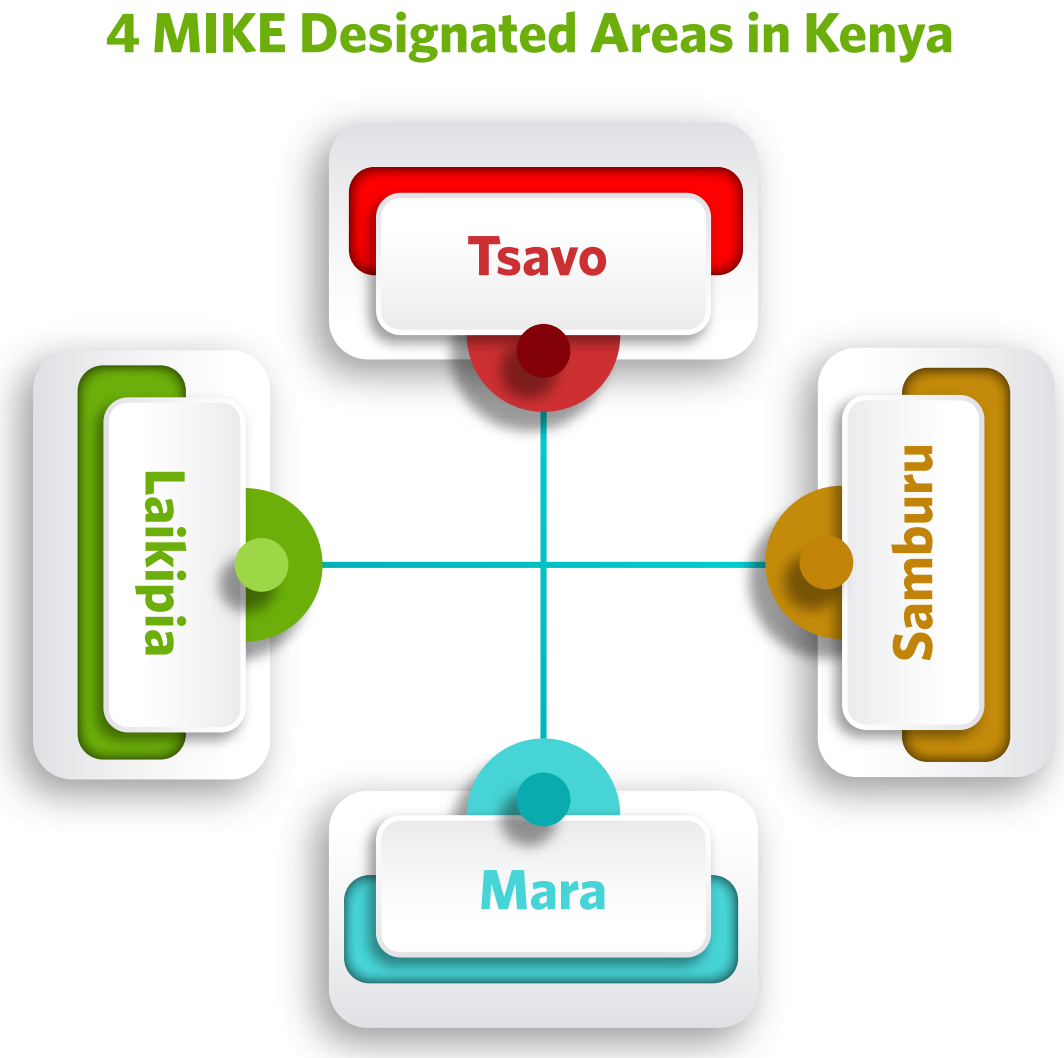
ELEPHANT MORTALITY AND HUMAN-ELEPHANT CONFLICT MANAGEMENT

CHAPTER 3: ELEPHANT MORTALITY AND HUMAN-ELEPHANT CONFLICT MANAGEMENT

3.1 Monitoring the Illegal Killing of Elephants (MIKE)

Decline of elephant populations has historically been driven by poaching. The inadequacy to monitor and control poaching due to lack of a unified scientific approach across range states led to the establishment of the MIKE program. Kenya has four (4) designated MIKE sites namely; Samburu-Laikipia, Tsavo, Mara and they are required to; measure and record levels and trends of illegal hunting; assess to what extent observed trends are related to the resumption of the ivory trade, and establish a comparative information base for management purposes. The latest sites to be established are the Tsavo site in 2014, and most recently the Mara conservation area. The MIKE program works through participatory network constituted of land owners, private ranch managers, Kenya Wildlife Service, researchers, herders and community conservation managers who regularly collect data using various techniques. Quarterly meetings are held to harmonize the records per site then the data is collated by KWS security personnel into one national record. Under the MIKE program, the causes of death are simplified into four main categories; Poaching, Natural, Problem Animal Control and Conflict related deaths and 'Unknown'.

By 2018, analyses of the detailed spatial-temporal trends in poaching for the most intensively monitored site (Laikipia-Samburu), showed a significant reduction in poaching levels (Ihwagi, 2018). The decline in poaching levels has been observed in other Kenyan sites as well (Omondi Pers. Comm., 2021). Figure 8 shows the cumulative numbers of elephants poached per county between 2000 and 2020



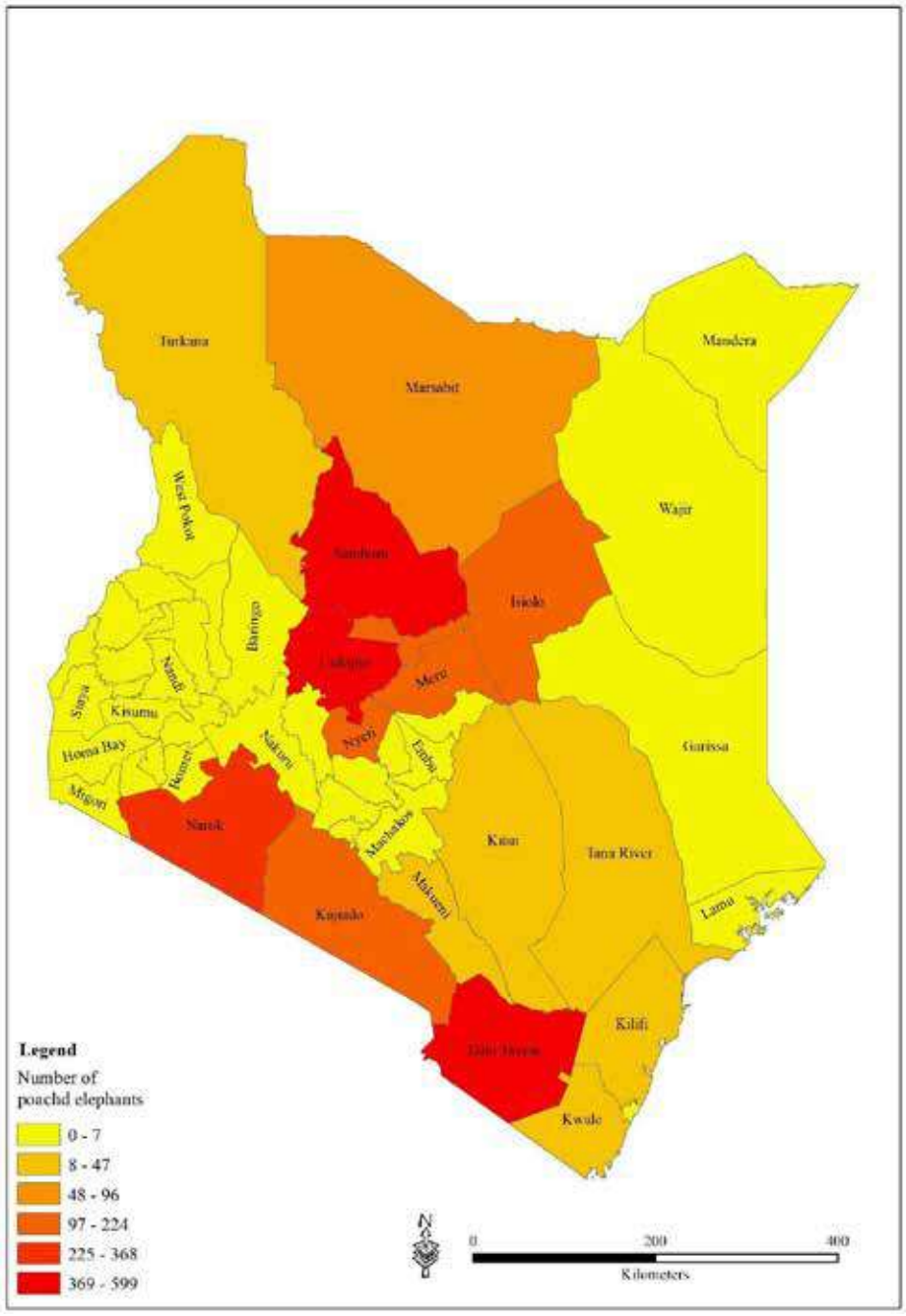
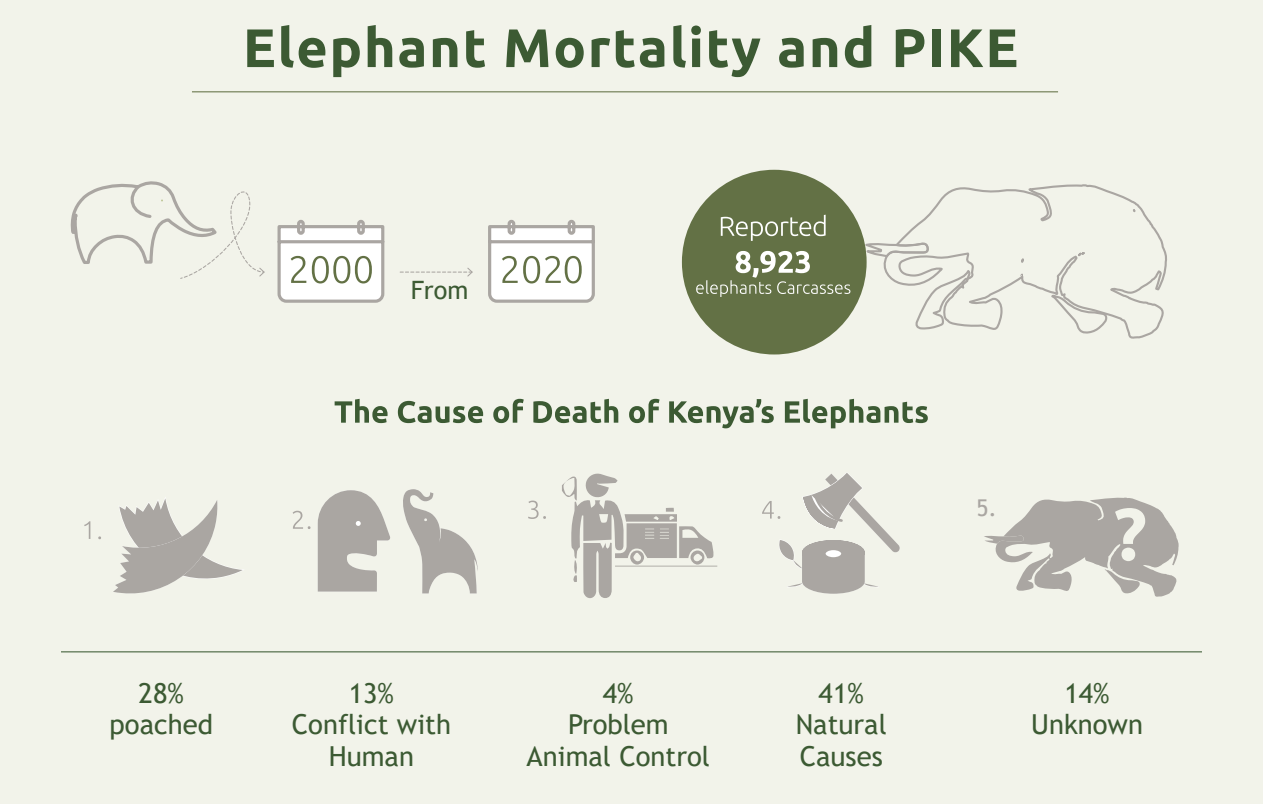


Figure 8: Cumulative numbers of elephants poached per county between 2000 and 2020 (Source: KWS, 2020).

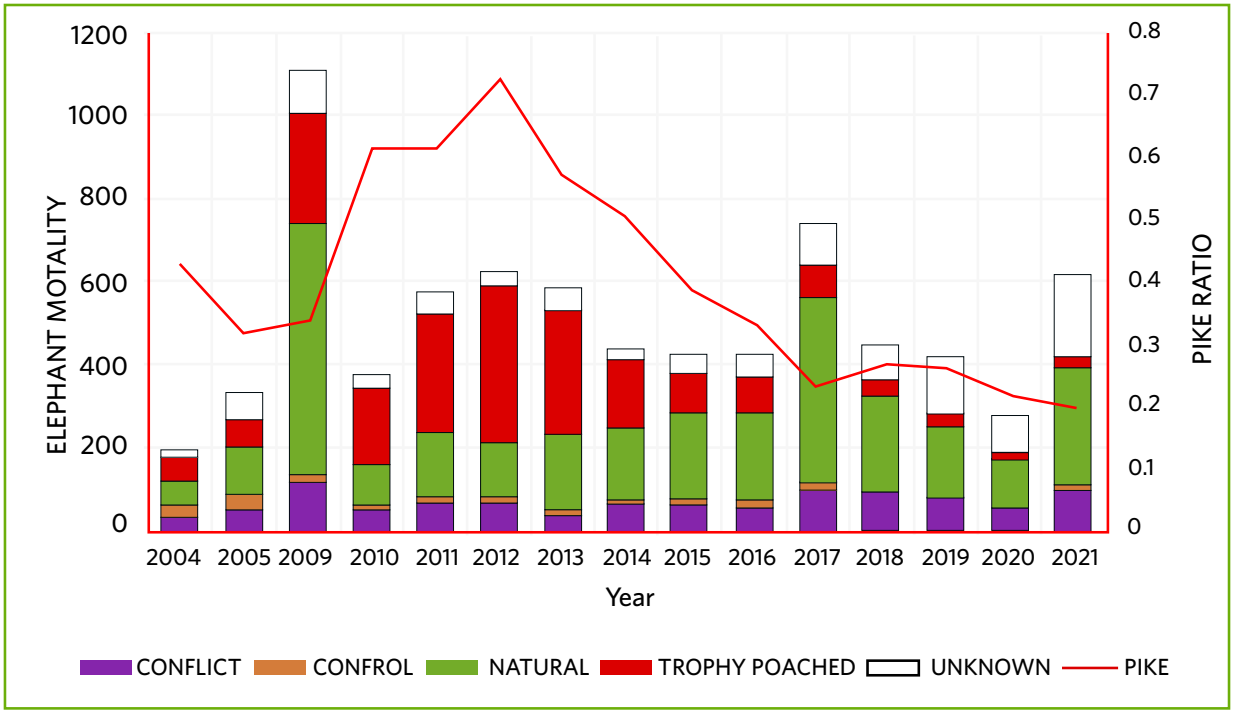
3.2 Elephant Mortality and Proportion of Illegally Killed Elephants (PIKE).

Monitoring of elephant mortality is key to establishing the implications of different causes of their mortality on overall elephant population growth. This has been achieved through the calculation of Proportion of Illegally Killed Elephants (PIKE). PIKE was described and adopted by CITES Secretariat as an unbiased estimator of the levels of poaching and standard measure of the severity of poaching at a given space or time (Jachmann, 2013, Douglas-Hamilton et al., 2010, Ihwagi, 2018). Further, the number of illegally killed elephants comprises of those that died from poaching and those that died from human-elephant conflicts. PIKE has since then become a reliable metric for comparing levels of illegal killing even between sites with different sampling effort per unit area (Douglas-Hamilton et al., 2010; Jachmann, 2013; Ihwagi et al., 2015).

Based on countrywide PIKE calculations for each corresponding year, from 2000 to 2020, 8,923 dead elephants were reported; 28% poached, 13% from conflict with humans, 4% as a result of Problem Animal Control, 41% though natural causes and it was not possible to ascertain the cause of death for 14% of the recorded cases. Additionally, PIKE fluctuations were noted between 35% and 55% from 2000 to 2009. However, it rose to an all-time high of 73% in 2012, and then steeply dropped to a low of 22% in 2020 (Figure 9) due to various interventions. The numbers of elephants that died of natural causes and for those carcasses where it was not possible to ascertain the cause of death peaked in 2009 and 2017, in both cases the second year of a two-year severe drought, with lack of surface water and food throughout the arid rangelands of Kenya. During times of drought, elephants move into the local community areas looking for water and food hence the increase in numbers of elephants killed due to conflict (HEC) in both 2009 and 2017.



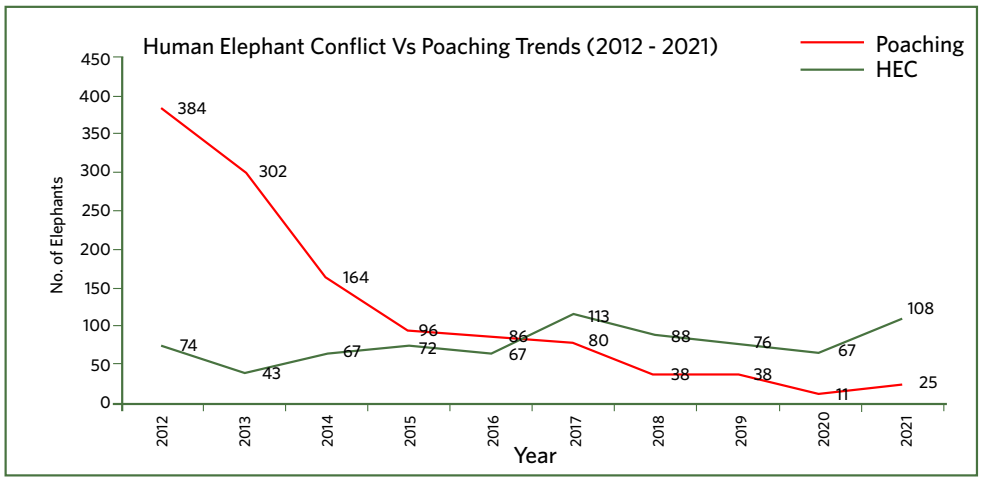
Furthermore, it is apparent that over time, many carcasses were reported as having died from unknown causes. Because absolute as well as relative numbers varied widely by year, further training of field staff to improve carcass assessment is needed.



(Source: KWS database)

Figure 9: Elephant mortality by cause of death and PIKE from 2000 to 2020

While elephant poaching has been brought to control, retaliatory killings of elephants due to Human-Elephant Conflict (HEC) is on the rise with 108 elephants having been killed in the year 2021. This constitutes the elephants killed in HEC and those killed in PAC. Elephant mortality data indicates that in the last 5 years the country is losing more elephants to HEC as opposed to poaching as shown (Figure 9).



"HEC is increasingly becoming the number 1 cause of elephant mortality"

Figure 10: Human Elephant Conflict Related Deaths and Poaching Trends (2017-2021)

3.3 Human-Elephant Conflict Management

Over the past 10 years, HEC has been gradually increasing, with a particularly steep increase in property damage. Kenya is experiencing an exponential human population growth, putting pressure on the available land, as the need for land for human settlements and infrastructure mounts. As a result of expanding agriculture to feed a growing human population, habitat degradation and fragmentation has rapidly increased. This process is further compounded by climate change, leading to unpredictable weather conditions, increasing temperatures, flush floods in some areas, and prolonged droughts in others. Thus, elephant habitats are no longer as productive as they used to be, while due to the changing climate and for some ecosystems increased elephant densities, the protected areas set aside are too small to cater for large herbivores on a year-round basis. This is evident in counties that host or border protected areas or ecosystems with large elephant populations (e.g., Taita Taveta, Laikipia, Narok, Meru, Isiolo, and Makueni among others).

Managing HEC in Kenya can take many forms (Nyhus, 2016) and HEC management strategies used in Kenya are summarized below (Table 5).

Table 5: Summary of HEC management tools and techniques used in Kenya

Strategy	Type	Notes
Problem Animal Management Unit (PAMU)	Mitigation	Formed in 2006, the team can be split into four fully equipped units that can be simultaneously deployed to high conflict zones to support the local PAC teams.
Erection of Wildlife Barriers	Prevention	Barriers e.g. moats, fences (very effective, but cost is the main impediment). KWS manages over 2,000 km of fences spread across the country.
CSR (Corporate Social Responsibility) Projects	Mitigation	KWS, through the CWS department, supports communities that host wildlife by establishing projects e.g. bore holes to provide water that keep elephants away from people. Schools and health facilities buy good will from the people affected by HEC.
Translocation	Prevention	Translocation of problem animals.
Tracking	Prevention	Tracking of the matriarch of an elephant family enables intervention before HEC occurs (geofencing).
Public Education & Awareness	Prevention	Continuous public education and awareness creations on HEC carried out by KWS staff together with other stakeholders.
Compensation	Mitigation	The government provides compensation for losses incurred during such conflicts e.g. human death and injuries.
Beehive fences	Prevention	Locally based HEC prevention technique e.g. Sagalla - Tsavos.
National Wildlife Strategy 2030	Prevention	• Develop and implement management approaches including harnessing traditional/ indigenous knowledge in mitigating human wildlife conflict, with focus on education, awareness, integrated planning and building capacity of wildlife officers and local communities. • Develop and provide communication and education materials, and extension services on human wildlife conflict mitigation measures and management strategies. • Develop and promote alternative consolation programs to ensure prompt response for loss, injury and damage caused by wildlife. • Develop sustainable innovative national compensation scheme including insurance and community supported programs for loss of property, livestock and crops.

Strategy	Type	Notes
Wildlife Endowment Fund	Prevention	As stipulated in the Wildlife Conservation and Management Act, 2013, the functions of the Wildlife Endowment Fund shall be to: (a) Develop wildlife conservation initiatives; (b) Manage and restore protected areas and conservancies; (c) Protect endangered species, habitats and ecosystems; (d) Support wildlife security operations; (e) Facilitate community-based wildlife initiatives; and (f) Such other purposes as may be provided for by rules made under this Act.

While the above initiatives are useful if undertaken in a holistic and integrated way, the major tool to significantly address HEC is sound spatial planning at the macro levels – that is national and county – fine-tuned by participatory integrated local level land-use planning to minimise overlap of wildlife habitat and human land use, and to limit the length of the interface between these. Kenya has a National Spatial Plan (2015 – 2045), which includes the protection of wildlife migration corridors and prohibiting incompatible land-use activities as policy statements (Kenya NSP, 2015), thereby catering for large charismatic wildlife species that require vast areas to survive. The NSP forms the foundation for which lower-level plans will be prepared, which include Regional Plans, County Spatial Plans and eventually Physical Development Plans for all administrative levels. Therefore, sound spatial planning with the aim to increase environmental resilience, thereby minimising the overlap between wildlife and human land use, will not only limit conflict (HEC), but it will also provide society with unmeasurable large benefits in the form of ecological services, while significantly contributing to tackling the ongoing biodiversity and climate crises. See Chapter 4.0 for a detailed explanation.

CHAPTER 4

CURRENT THREATS, CHALLENGES AND EMERGING ISSUES TO ELEPHANT CONSERVATION AND MANAGEMENT IN KENYA

CHAPTER 4: THREATS, CHALLENGES AND EMERGING ISSUES AFFECTING ELEPHANT CONSERVATION AND MANAGEMENT IN KENYA

4.1 Background

Elephant Conservation and management in Kenya still faces a number of threats, issues and challenges. Broadly these threats, issues and challenges are based on four main categorizes with varying regional occurrences. Climate Change, poor spatial planning and illegal ivory trade are cross cutting while habitat loss and fragmentation, population loss, socioeconomic and livelihoods and institutional capacities and policy frameworks vary in magnitude across the thirteen elephant ranges. Data analysis of recent elephant mortality indicates a significant increase in incidences related to Human-Elephant Conflicts. Retaliatory killings incidences of elephants by local communities are slowly on the rise with population loss rising above poaching as from 2017 (see figure 10 above). This marks a departure from the traditional loss of elephant populations thus need for new instruments to curb the rise.

4.2 Illegal Ivory Trade and Trafficking

The National Wildlife Strategy (2018-2030) identified the illegal wildlife trade and more specifically the international trade in ivory and trophies as one of the most serious wildlife crimes in Kenya. This phenomenon directly affects the survival of elephant and its prevalence has exacerbated the loss of national populations. Illegal ivory typically travels great distances from source to market, making it a logistic and transport-intensive activity. Wildlife traffickers exploit the increasing connectivity of global transportation, online markets and gaps in law enforcement to minimise the risk of detection.

Kenya has been identified as a key transit hub within the region to international destinations, and various wildlife products. According to TRAFFIC's Wildlife Protection and Trafficking Assessment in report published in May 2016, Kenya as a key transit country in Africa for ivory and contraband, due to its relatively well-developed network. Drawing on data from the Elephant Trade System (ETIS) and KWS Databases, the main sources elephant products trafficked through Kenya are from South Sudan, Mozambique, Uganda, Zambia and local Ivory shipped through Kenya from Uganda, DRC and enters the country through unconventional routes porous borders. Specific entry points are; from Central Malaba/Busia border point along the Kenya-Uganda Tarakea and Lunga Lunga from Tanzania; from South Lokichogio and Moyale to Ethiopia or Liboi to Somalia. then shipped to markets in Asia via exit points of or Mombasa port.

Concerned about the increased killing of African identified Kenya, Uganda and Tanzania as source Vietnam and the Philippines were also listed as and China as destination countries for ivory and

Kenya emerged wildlife transport Information of ivory and Tanzania, DRC, populations. South Sudan along Kenya's Africa through the border; Taveta, Sudan through The contraband is Eldoret and or JKIA

elephants, CITES counties. Malaysia, transit countries while Thailand elephant products (CITES, 2013). These

countries were listed as the "Gang of Eight" responsible for the increase in elephant deaths and the thriving illegal ivory trade. CITES warned the eight countries need to stop the trade or face sanctions.

The eight countries were required to submit specific action plans on how they intended to tackle the problem of poaching and the illegal ivory trade by March 2014. CITES also resolved that all signatory countries should profile and determine origin of ivory seizures above 500 kilos, confiscated within their territories, and report to CITES secretariat within 3 months. Due to its efforts, Kenya has since been removed from the *"Gang of Eight"*. In the period 2000 to 2020 there were; prosecution of 2,006 persons, recovery of 53,469 kg of ivory; 1,958 ivory-related arrests, and 48 arrests related to other elephant products (Figure 11).

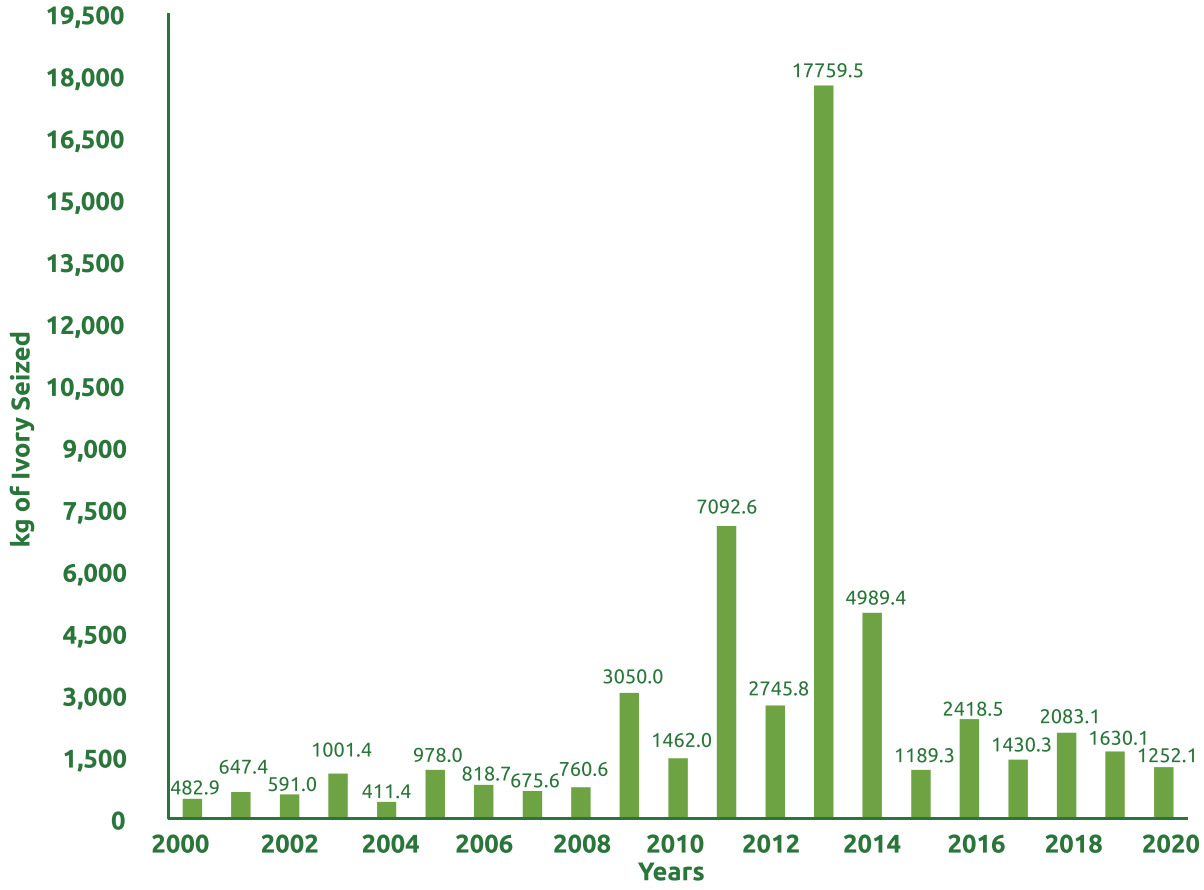


Figure 11: Quantities (kg) of ivory seized in Kenya from 2000 to 2020

4.3 Elephant Mortality due to Human-Elephant Conflict (HEC)

4.3.1 Mortality of elephants due to HEC by County

Although Kenya has succeeded in increasing its elephant population, the escalation of human-elephant conflicts (HEC) has emerged as the single most pressing challenge to national populations. From 2000 to 2020, about 1,160 elephants were killed as a result of HEC (Figure 12) with causes being attributed to either self-defence, or retaliatory killings. A time series of elephants killed as a result of conflict shows a change in distribution, especially after 2010, with incidences gradually more concentrated for the three main populations – that is Laikipia/Samburu/Meru ecosystem, Tsavo ecosystem and the Mara ecosystem. These conflicts basically occur when human and elephant interactions result in negative impacts on human socio-economic or cultural life and on the conservation of elephant populations and their habitats. Additionally, it is noted that increasing human and livestock populations, settlement of humans in wildlife habitat and changes in land-use in general (Mukeka et al., 2018a) have contributed

to HEC. Other factors that could relate are a changing climate and local rainfall patterns, loss of habitat, habitat quality and increasing fragmentation of the various landscapes.

There are four main types of HEC that occur: crop raiding, attack on humans, livestock attack, and property damage (Mukeka et al., 2018). Attacks on humans result in either deaths, injuries or threat to human life, whereas retaliatory killing of elephants by communities occurs because of crop or property losses and the failure of wildlife authorities to respond in time or pay compensation (Regmi et al., 2013).

The figure 12 below shows a distribution by county of elephants killed due to conflict for the period 2000 to 2020.

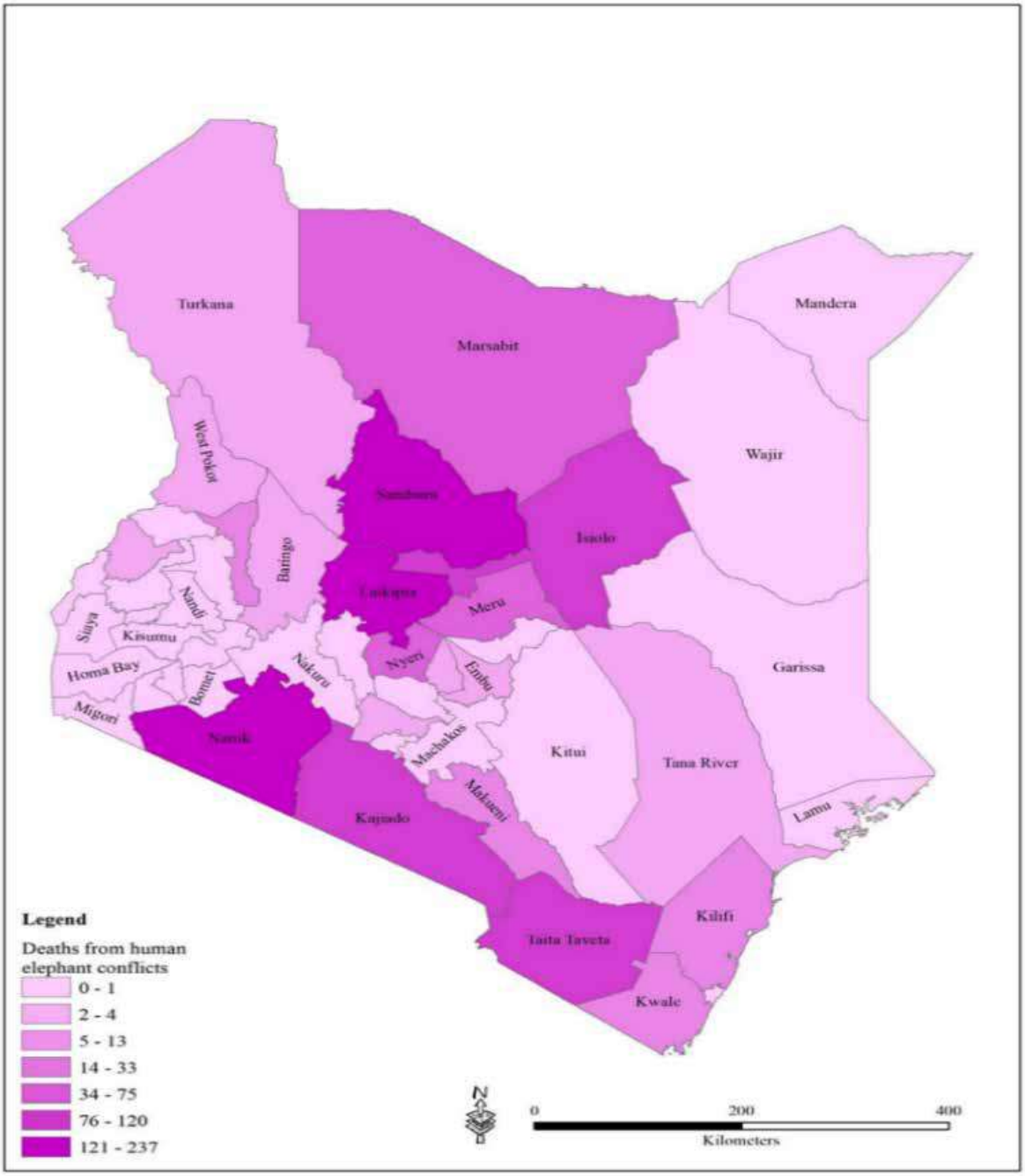


Figure 12: Distribution of number of elephants that died from conflicts from 2000 to 2020

4.3.2 Frequency of HEC Incidences between 2008 and 2020

A total of 25,422 HEC incidents were reported from 2008 to 2020 (Figure 13). The highest number

of HEC incidents were reported in 2016 (n = 2,919), followed by 2008 (n = 2,622), while the lowest number was reported in 2010 (n = 1,273). Human threat (60.2%, n = 15,303) was the most frequent type of incident, followed by crop damage (32.8%, n = 8,331), and property damage (4.7%, n = 1,194) respectively (Figure 14). Human death (1.2%, n =297) and human injury (1.1%, n = 269) were low and more or less stable throughout the period but with the highest impact. Depredation (0.1%, n = 28) was the least common type of elephant conflict.

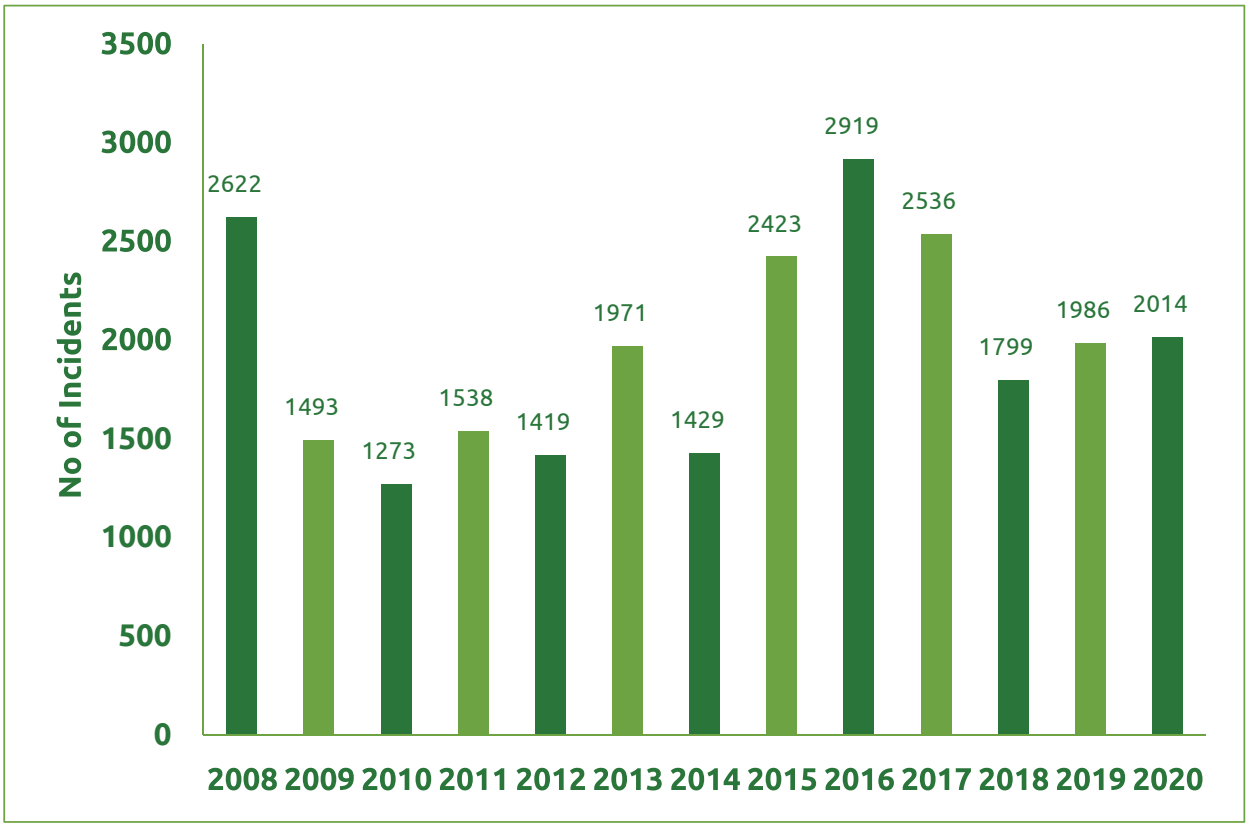
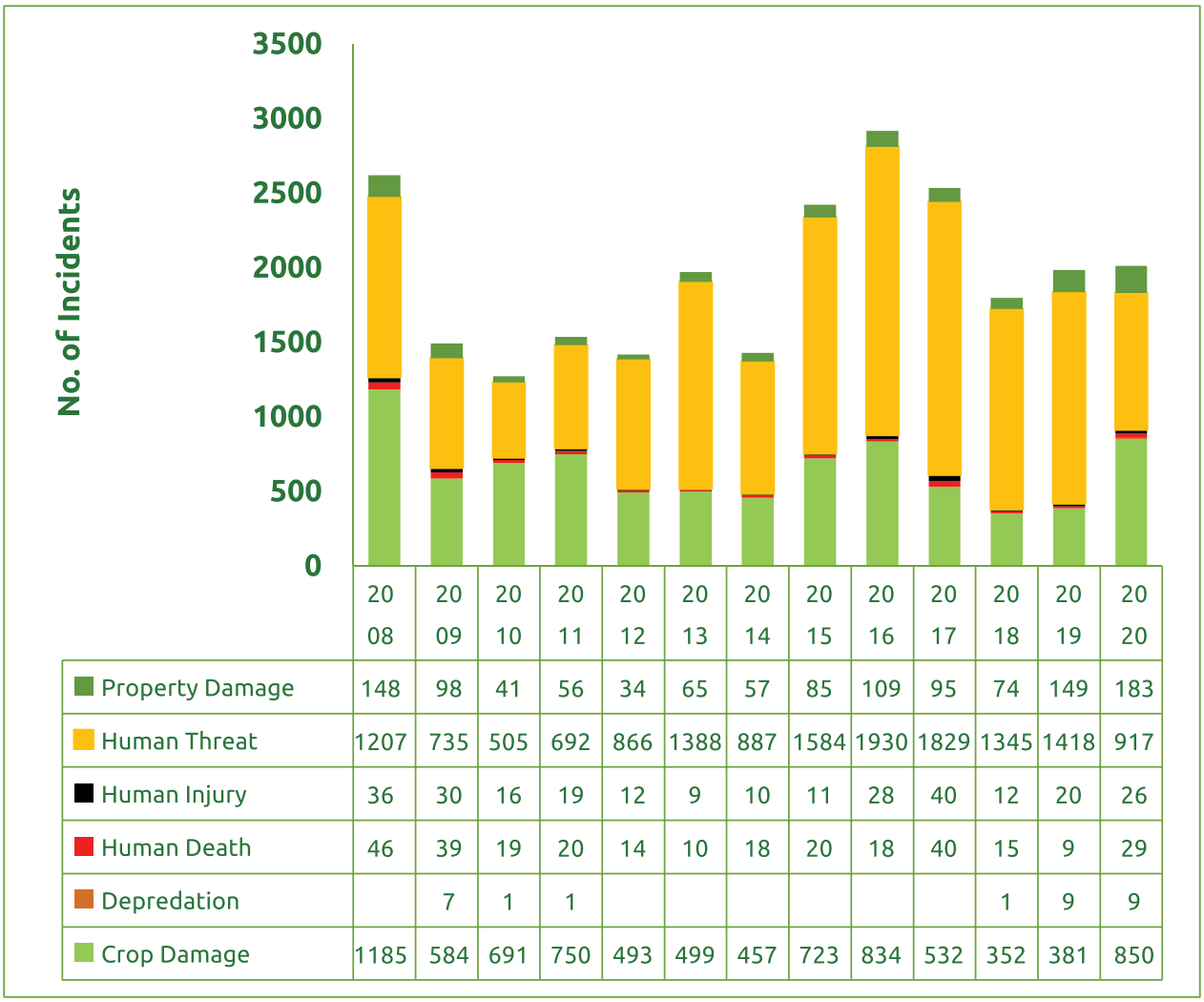


Figure 13: Total number of HEC incidences for all types of conflict from 2008 to 2020.

(Source: KWS, 2020).



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Property Damage	148	98	41	56	34	65	57	85	109	95	74	149	183
Human Threat	1207	735	505	692	866	1388	887	1584	1930	1829	1345	1418	917
Human Injury	36	30	16	19	12	9	10	11	28	40	12	20	26
Human Death	46	39	19	20	14	10	18	20	18	40	15	9	29
Depredation		7	1	1							1	9	9
Crop Damage	1185	584	691	750	493	499	457	723	834	532	352	381	850

Figure 14: HEC incidents by type of conflict from 2008 to 2020

When omitting 2008 as an outlier, elephant crop damage incidents have been fluctuating but without a pronounced or significant trend over the period (Figure 15). Within an annual cycle, it is observed that crop damage occurrence peaks during the months of June, July, August, January and February, when crops are ripening and ready for harvest whereas it was lowest in November, December and April. This pattern in crop damage may have been caused by variations rainfall, with low rainfall periods leading to shortage in water and food in elephant dispersal areas.

On the other hand, incidences of human deaths and injuries caused by elephants declined from 2008 to 2013 (Figure 16). However, there was an increase in 2017 with a decline in 2019, and increase again in 2020. This oscillating relationship between human death and injury over time may also been caused by variations in local rainfall patterns, combined expansion of local agricultural areas, increased settlements and livestock densities that resulted negatively on human-elephant interactions. Incidents of property damage by elephants also declined from 2008 to 2010. It is observed that an increase is reported linearly to 2020, by a factor of roughly 4.5 (Figure 17). Most property was damaged between July and October, which includes the crops ripening and harvest season, being mostly dry months when elephants roam the community areas and are active in crop raiding. Poaching pressure may have increased during the same oscillating periods.

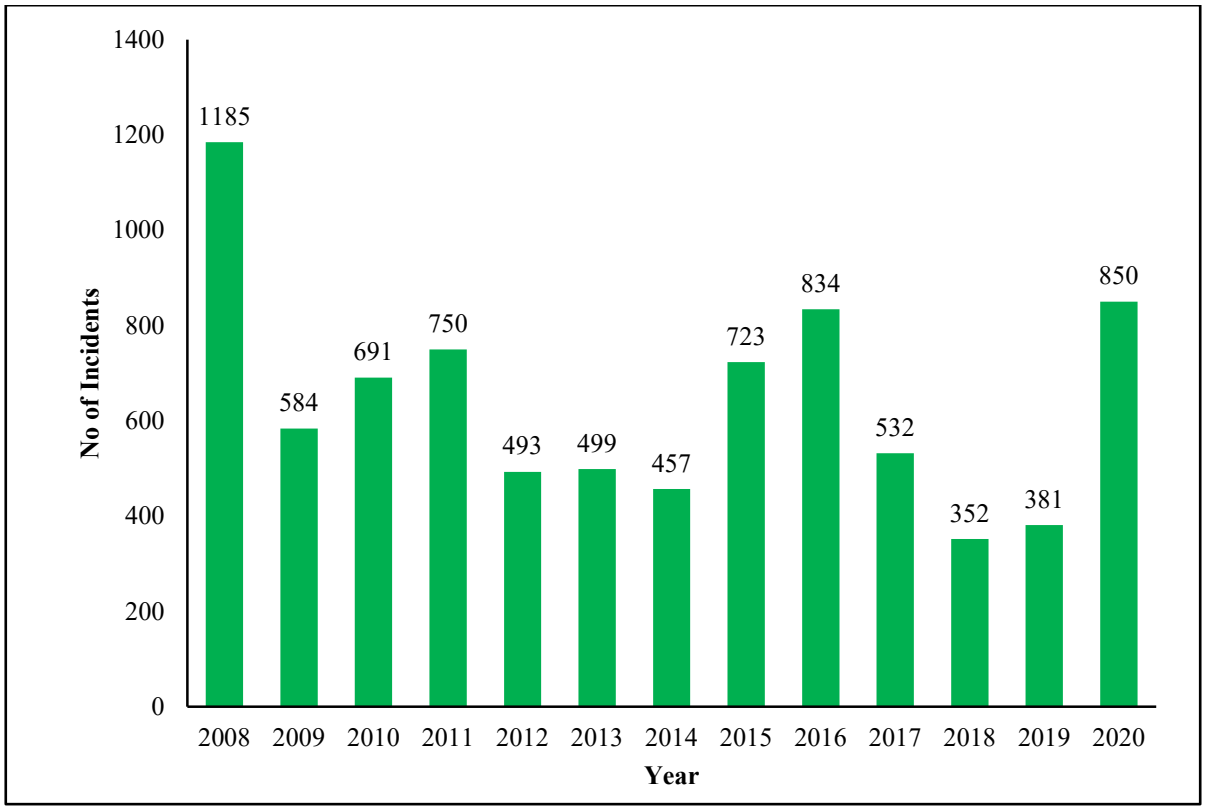


Figure 15: Incidences of crop damage by elephants from 2008 to 2020

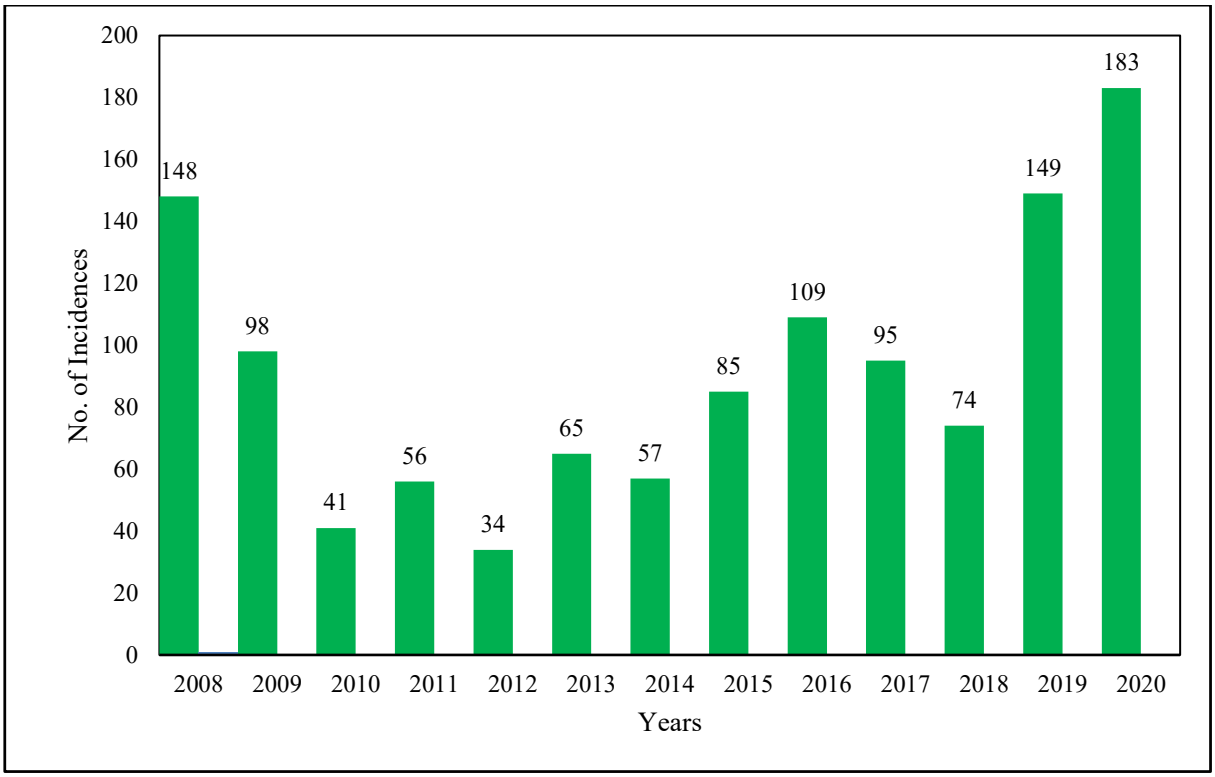


Figure 16: Incidences of property damage by elephants from 2008 to 2020

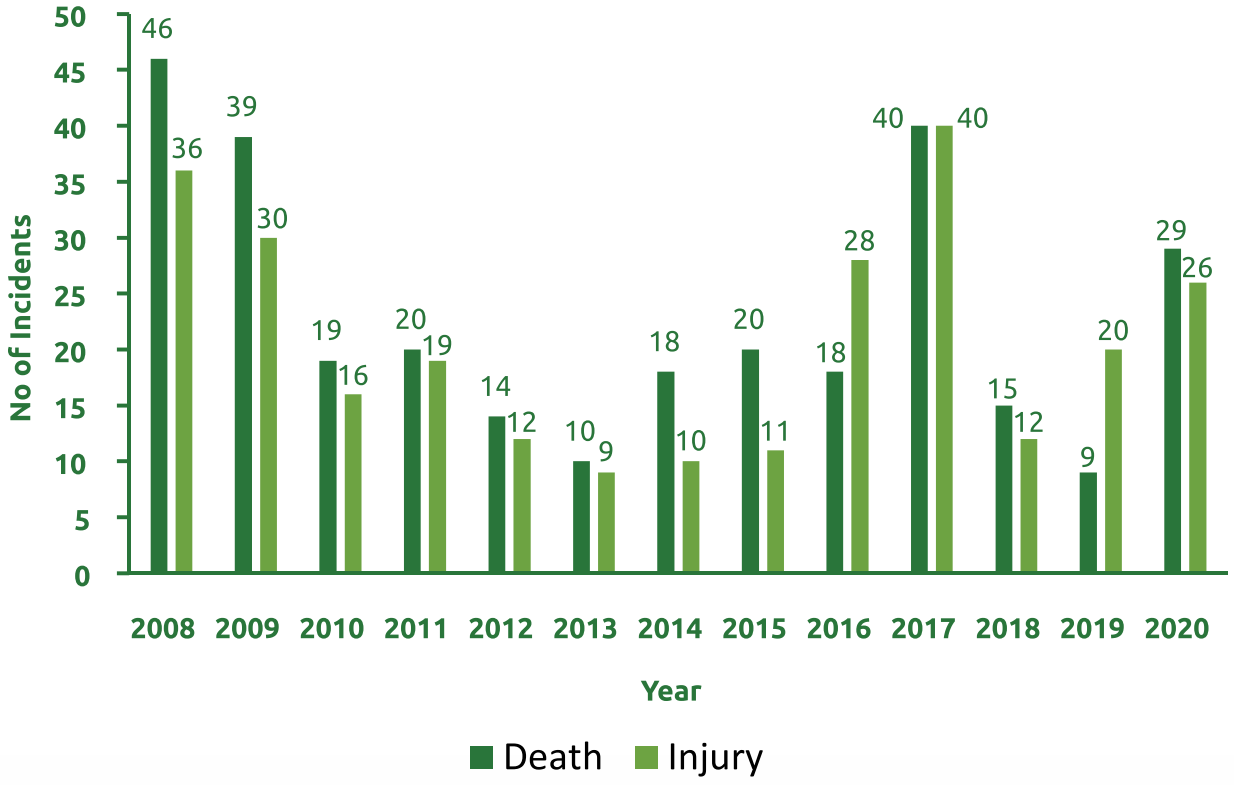


Figure 17: Incidences of human deaths and injuries caused by elephants from 2008 to 2020

4.3.3 Incidences of HEC by County

Between 2008 and 2020, HEC incidents were reported for 38 out of the 47 counties in Kenya. Makueni, Narok, Kajiado, Kwale, Meru and Tana River Counties, Taita Taveta and Laikipia accounted for nearly 90% of all HEC incidences reported (Table 6). The total number of HEC incidences also varied widely by county, being a function of elephant density, elephant distribution, human density and distribution and main land uses – or overlap of wildlife habitat and human land uses and length of interface. Among the counties with HEC, Taita Taveta County (28%, n = 2,819) ranked highest due to high densities of elephants, with human land uses surrounding the Tsavo Ecosystem. Correspondingly, Laikipia County also reported one of the highest HEC incidences (12.7%, n = 1,286), with slightly lower elephant densities, but with human densities three times higher than Taita Taveta.

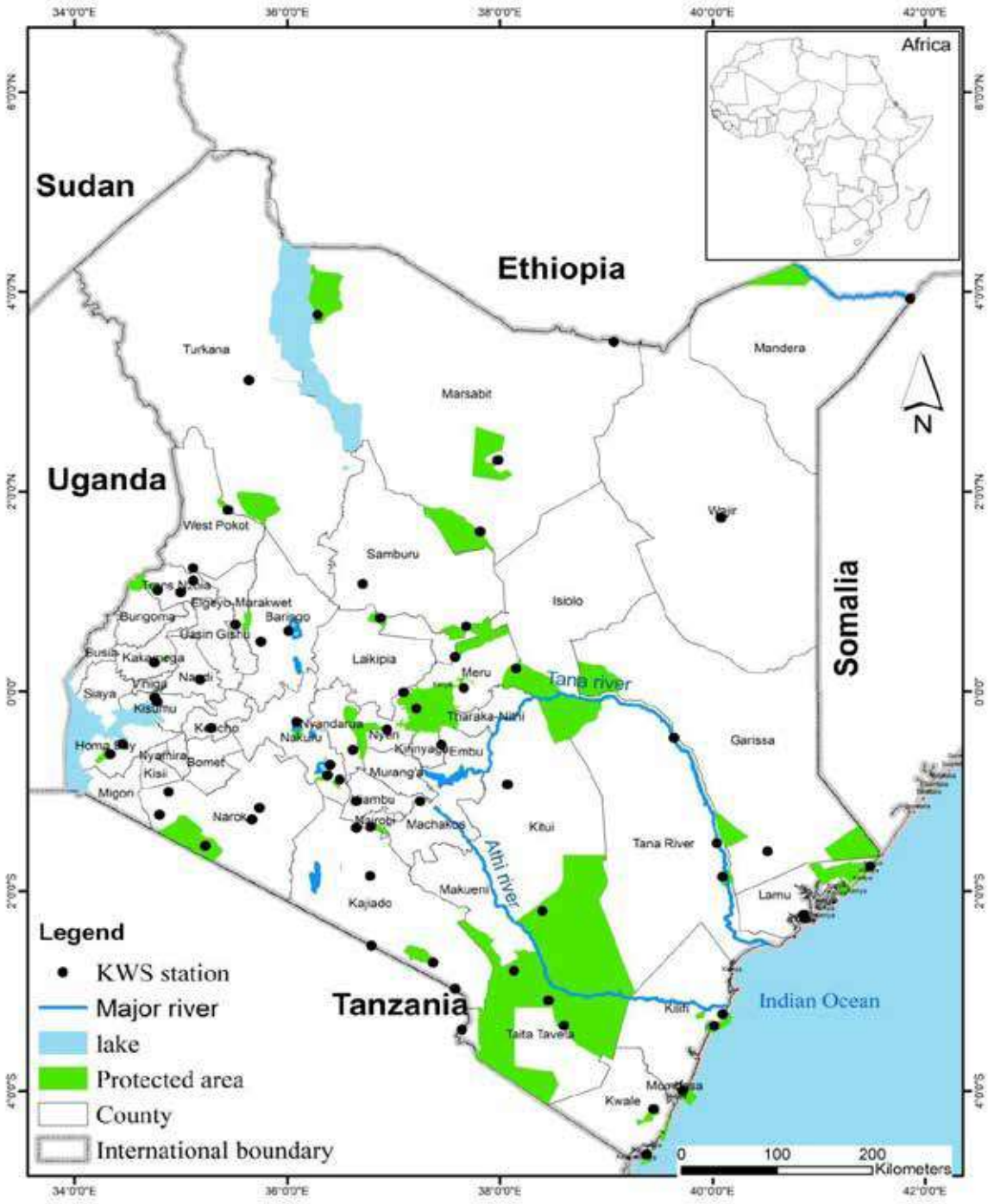


Figure 18: Map providing an overview of the protected areas, counties and KWS stations collecting information on HEC

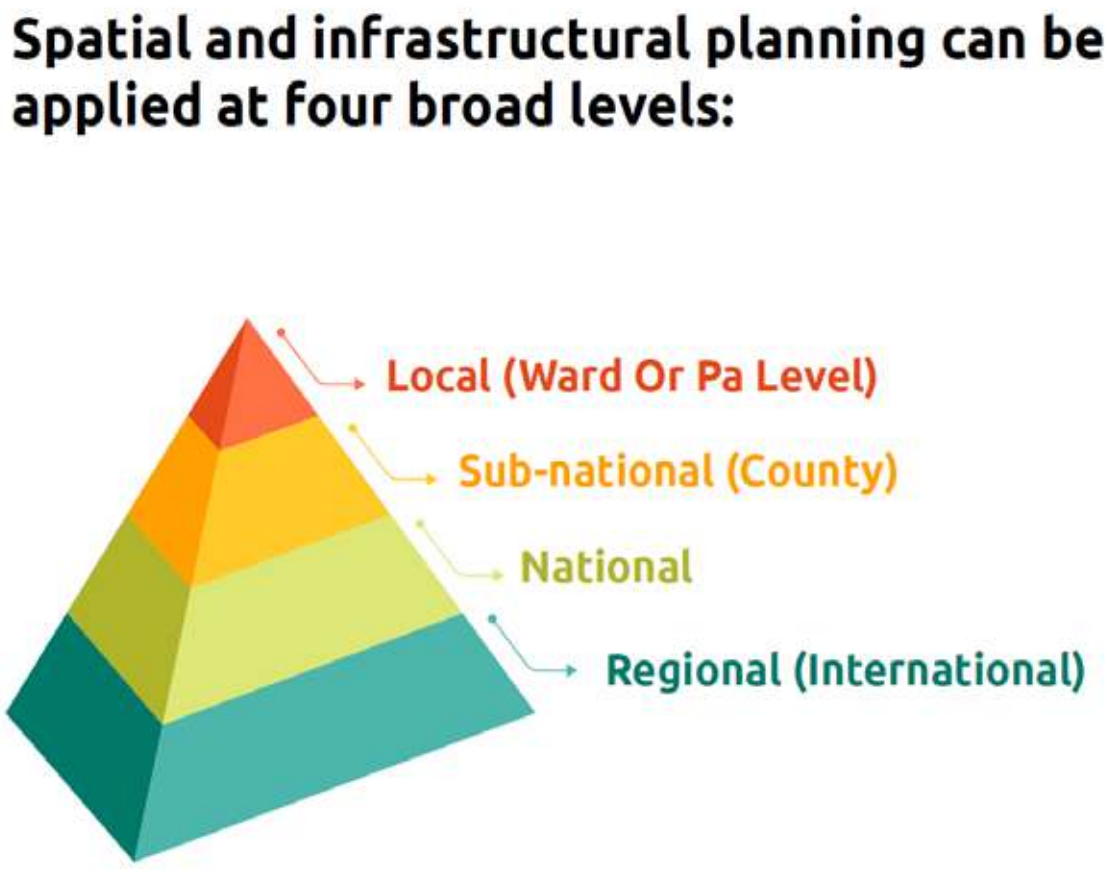
Table 6: Consolidated HEC Incidents by County (2008 – 2020)

County	Density People/ km²	Conflict Type				Total
		Crop Damage	Human Death	Human Injury	Property Damage	
Taita Taveta	20	2,339	49	78	353	2,819
Laikipia	60	1,031	46	47	162	1,286
Makueni	122	697	4	12	50	763
Narok	65	975	64	34	171	1,244
Kajiado	53	523	22	19	130	694
Kwale	105	566	18	15	42	641
Meru	221	638	16	12	98	764
Kitui	47	106	10	8	7	131
Marsabit	7	236	6	7	74	323
Nyeri	322	179	2	1	24	206
Isiolo	11	145	10	6	13	174
Tana River	9	67	8	4	1	808
Kilifi	119	44	3	4	1	52
Lamu	22	135		1		136
Baringo	60	92	5	2	24	123
Samburu	15	100	18	8	10	136
Nakuru	288	49	2	1	14	66
Elgeyo M.	149	78	1	2	1	82
Embu	238	73	2		1	76
Kericho	367	49			1	50
Nyandarua	205	40	2	1	5	48
Murang'a	454	12				12
Garissa	18	23	1	3	1	28
Tharaka Nithi	151	23	2	1	3	29
Machakos	239	20	1		1	22
Kiambu	987	8			3	11
Mombasa	5,686	5		2	1	8
West Pokot	74	20			1	21
Bungoma	757	22		1		23
Turkana	13	13	3			16
Kirinyaga	506	9			1	10
Trans Nzoia	401	4	1			5
Nairobi	6,328	2				2
Bomet	438	1			1	2
Nandi	307	3				3
Homa Bay	359	2				2
Uasin Gishu	394		1			1
Wajir	14	2				2
Total		**8,331**	**297**	**269**	**1194**	**10,091**

4.4 Poor Spatial Planning

Spatial planning, can be considered as the overarching tool for ensuring long-term conservation outcomes including those of elephant conservation and management. It can be used to; minimise the human-elephant interface, thereby preventing and/or reducing HEC; to maintain connectivity under conditions of accelerating climate change (building ecosystem and species resilience); to protect ecosystem that provide important and valuable ecosystem services through reduction in fragmentation of landscapes. It can also contribute towards the achievement of the 30 x 30 targets. Spatial and infrastructural planning can be applied at four broad levels: regional (international), national, sub-national (County) and local (Ward or PA level).

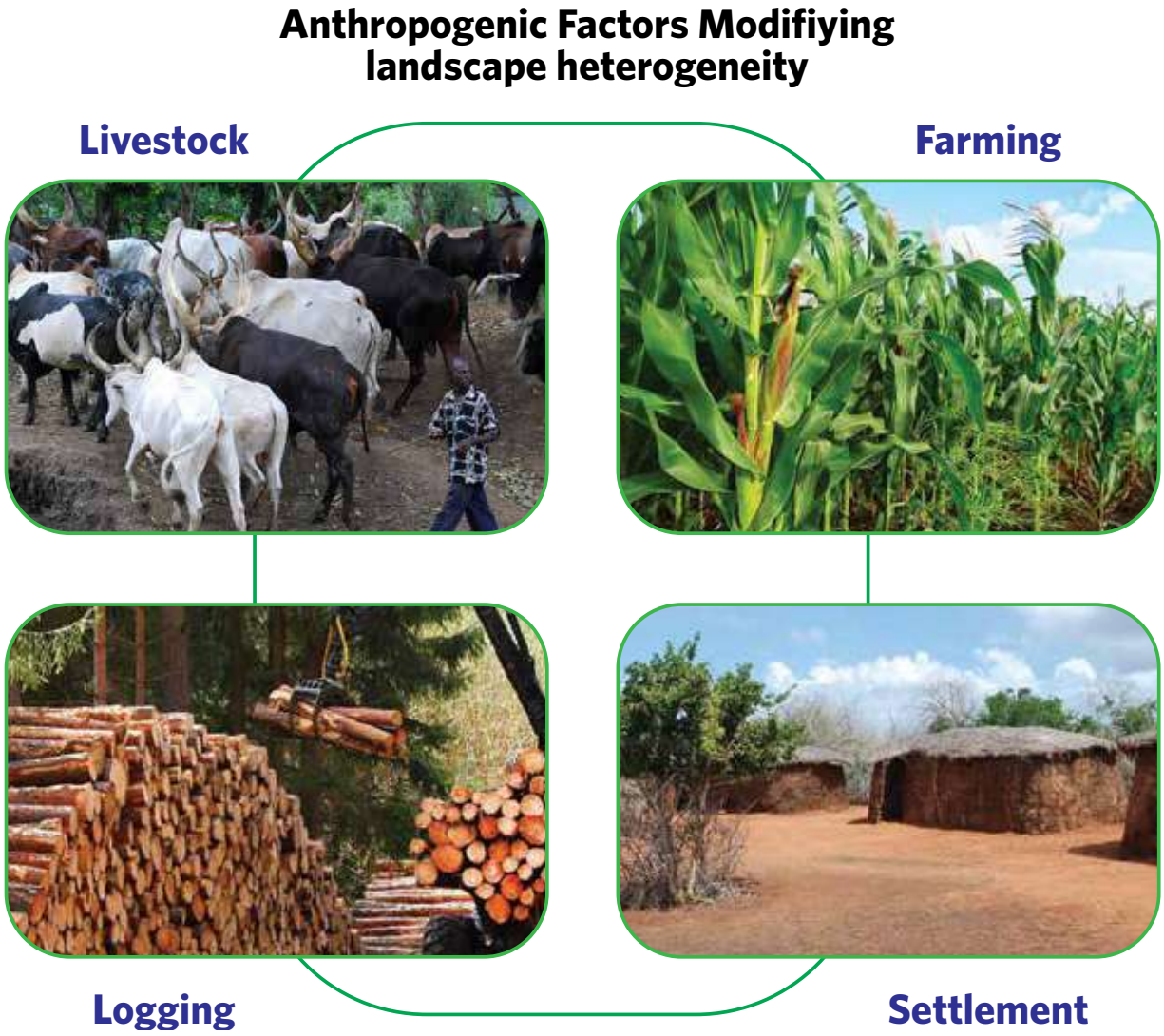
The lack of elaborate spatial planning across the country has contributed to poor land-use regimes, conflicting land uses practices and policies, lack of comprehensive planning priorities and projects undermining conservation at operational levels. Moreover, the existing spatial planning arrangements have not embraced fully the interaction of various stakeholders as prescribed in planning policies. They have not guaranteed space for elephant thus compromising the integrity of conservation systems. The weak participation of local communities in the planning processes have also jeopardized zoning prescriptions and regulations as no adequate public education and community involvement is conducted.



Conservation spatial planning therefore needs be an integral part of the national spatial planning development strategies (NDSs) and discourse. This can best be achieved through an integrated approach that builds and leverages upon the synergies of actions on development, biodiversity, climate change and resilience. Additionally, there is urgent need to formulate the county spatial plans in elephant ranges that account for both diurnal and seasonal movements of elephants and other wildlife. This should be through a consultative and participatory approach that is steered at county and ward levels.

4.5 Fragmentation and Participatory Integrated Land-use Planning

Local-level land-use planning needs to be tackled by a participatory approach, involving all local stakeholders in the process that should be based on understanding and acceptance. Prior to this process, active and old elephant and wildlife corridors and preferred seasonal feeding and watering areas need to be identified. Once the continuous habitat in question is sufficiently large for elephants and other wildlife to survive in the long term, even under conditions of accelerating climate change and, the interface between humans and wildlife has been minimised, the process requires identifying areas suitable for farming staple and cash crops, including settlements. These areas have to be clearly demarcated for elephants as no-go zones. Overlaps of defined areas set aside for people and for wildlife and therefore competition for resources should be circumvented as much as is practically feasible. Only in cases where this is difficult to avoid, HWC/HEC mitigation tools need to be used. The challenge of coexistence, whereby a landscape is used and managed in such a way that people find safe space and ways to make a living, but elephants and other wildlife also find safe space to thrive falls or stands with this pragmatic approach to spatial planning, at both the macro and local levels. The above, however, describes the simplified theoretical basis for spatial planning, while in the real world, landscape heterogeneity has already been gradually modified by anthropogenic factors such as logging, farming, settlements and livestock. This in turn has led to increased fragmentation of entire landscapes, which is the breaking up of continuous natural habitat into smaller patches, whereby a patch is an area having relatively homogeneous conditions relative to other patches.



Fragmentation is a major threat to global biodiversity and species distribution, first due to isolation of protected areas, and second, in the case of elephants, increased patchiness not only results in a decline of the dispersal area, but it disrupts movements via corridors and migration routes, thereby severing connectivity and lowering resilience. Increased patchiness will also lead to an increase of edges with farmlands and settlements (human-elephant interface). Because we are dealing with perimeters of irregularly shaped patches, an increase in fragmentation or patchiness results in an exponential increase in the human-elephant interface, and consequently an exponential increase in human-elephant conflicts. Large patches of natural habitat (15 – 16 km^2) determined by large blocks of farms merely change the distribution of elephants to less cultivated areas without affecting elephant population dynamics (Pittiglio, 2012). Further fragmentation due to a lot of scattered small farms will result in an exponential increase in HEC, but eventually with declining elephant presence up to the point where they will completely disappear from the landscape (fragmentation threshold). This implies that in terms of spatial planning to mitigate HEC and to maintain and improve connectivity, the size of the human-elephant interface needs to be minimised, whereby a few large farm blocks with settlements is preferred to a large number of small farms scattered over the landscape.

4.6 Spatial Planning and Infrastructural Development in Kenya

The National Spatial Plan (2015-2045) is the first of its kind in the history of Kenya. It is a strategic vision that defines the general trend and direction of spatial development for the country, covering the entire forty-seven counties and the Exclusive Economic Zone (EEZ). The purpose of the National Spatial Plan is to provide a national spatial structure that defines how the national space is utilized to ensure optimal and sustainable use of land. This is imperative as it facilitates the achievement of the land policy principles of efficiency, equity, sustainability and productivity. The Plan promotes the attainment of national, social, economic and environmental goals and objectives. Further, the Plan provides strategies and policies to deal with national challenges including urbanization, regional imbalances/ inequalities, rural development, environmental degradation, transportation and underutilization of the massive resources available in the country. It is, however, worthy noting that as much as the plan defines the trend and general direction of spatial development of the country, there is a gap in providing habitats and connectivity for wildlife species beyond protected areas.

The gap has been filled by the Report on Wildlife Migratory Corridors and Dispersal Areas, which is a Kenya Vision 2030 Flagship project. The report provides a comprehensive synthesis of the wildlife dispersal areas and migratory corridors in Kenya's rangeland and coastal terrestrial ecosystems. It explicitly identifies and maps wildlife habitat connectivity and associated conservation issues and concerns. It also suggests salient recommendations on strategies for securing the dispersal areas and migratory corridors within the specific context of different regions and landscapes. The proposed Conservation Connectivity Framework (CCF) suggests a number of mechanisms (legal, economic, and others) to engage local communities, private land owners, counties, and national government in a collaborative conservation process for the key wildlife areas. Working together, stakeholders can secure space for wildlife and healthy ecosystems for biodiversity conservation and sustainable development.

Wildlife migratory corridors connect core habitats and are critical for species' survival and long-term viability of ecosystems. In the African savannah, animals disperse or migrate across landscapes in response to intrinsic factors (e.g. breeding); external or environmental factors

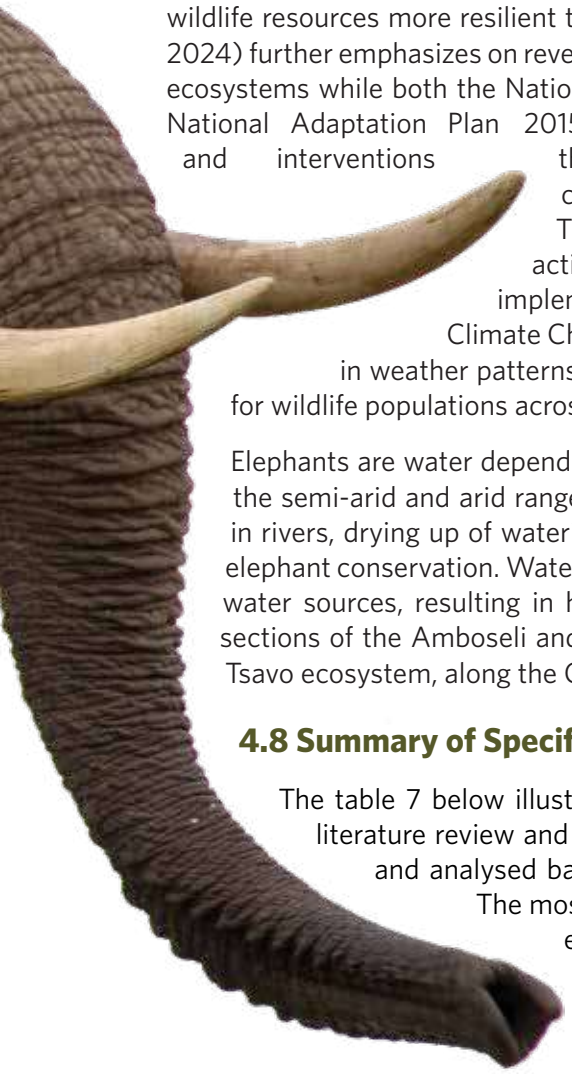
(drought, floods, diseases, fires), to access vital resources such as pasture, water, breeding grounds; to reduce the risks of predation; and to enhance genetic health (mating), among others. Migration is essential for sustaining resilience of large populations in the face of variable rainfall, which is highly correlated to availability and shortage of forage. Connectivity conservation recognizes the importance of physical connection and linkages between isolated habitats that increase the effective area available to wildlife. Restoration of wildlife habitats helps to improve the integrity of ecosystems; and are an essential strategy in maintaining landscape patterns and ecological processes that promote the survival of species in environments modified by both natural events and anthropogenic activities, and reverses the effects of habitat fragmentation. Wildlife dispersal areas and migratory corridors are key elements in the conservation connectivity framework proposed.

At county level, each of the forty-seven counties is required to develop their own spatial plans. The spatial plans are supposed to guide county specific social, economic, environmental goals and objectives. At the time of developing this plan, only Kajiado, Makueni and Baringo counties had developed spatial plans. The rest of the counties were either in the process of doing so or, had not even started.

At local /land owner level, wildlife conservancies are encouraged to develop their own wildlife management plans. They are required to develop plans in accordance with IUCN Protected Area Planning Framework. The plans usually zone, among other land uses, where wildlife conservation and management is supposed to take place, (wildlife areas and corridors) and show where actual and proposed infrastructural projects are sited or to be developed.

4.7 Climate Change

Kenya's rangelands and wildlife are already being affected by climate change. Climate change has impacted on the wildlife sector in Kenya leading to increased human wildlife conflicts because of competition of natural resource use especially forage and water. Other notable impacts associated with climate change include; changes in habitat and species distribution, migration patterns, spread of wildlife diseases, increase of colonization by invasive species, increase of poaching for bush meat and outbreak of wildfires among others. The National Wildlife Strategy 2030 emphasizes on the development of a National Wildlife Adaptation Strategy and proposes that priority interventions be initiated to make rangelands and wildlife resources more resilient to climate change. The Kenya Wildlife Service Strategic Plan (2020-2024) further emphasizes on reversing and stabilizing the declining trend across wildlife populations and ecosystems while both the National Wildlife Climate Change Adaptation Strategy 2018-2022 and the National Adaptation Plan 2015-2030 proposed a suite of comprehensive institutional frameworks and interventions through ATAR's (Adaptation Technical Analysis Report) for climate change response in the context of a devolved government system. The actions proposed are meant to complement or upscale adaptation actions that are ongoing through various projects and programmes being implemented by the national and county governments. The National Wildlife Climate Change Adaptation Strategy for Kenya (2023-2032) identifies variations in weather patterns (rainfall and temperature) and water scarcity as being a key concern for wildlife populations across all ecosystems.



Elephants are water dependent, and need about 200-300 litres of water per day. Lower rainfall in the semi-arid and arid rangelands in the north due to climate change, with declining water flows in rivers, drying up of watering points, often worsened by irrigation practices pose a challenge to elephant conservation. Water shortage frequently results in clustering of elephants near permanent water sources, resulting in high densities and habitat destruction. This is especially evident in sections of the Amboseli and Laikipia/Samburu ecosystems, as well as in the central parts of the Tsavo ecosystem, along the Galana and Tsavo Rivers.

4.8 Summary of Specific Other Threats

The table 7 below illustrates a summary of the threats that have been synthesized through literature review and stakeholder consultation per region. The threats have been assessed and analysed based on character, magnitude and intensity of occurrence per region. The most intense threat category is the habitat loss and fragmentation, socio-economics and livelihoods, and Institutional capacities, legislative and regulatory frameworks specifically the conflicting sectoral laws and mandates.

There is urgent need to mitigate against habitat loss and fragmentation loss while improving the quality of the range. Although local community socio-economic and livelihood considerations are articulated in various policy and tactical interventions, they are limited, their impact minimal while their participation low. It is also noted that local communities continue to bear the cost of conservation with no corresponding benefits. Thus, emphasis needs to be place on meaningful incentives to encourage their continued participation in conservation and management. On the other hand, institutional capacities and the lack of harmony in policy formulation and implementation is significantly affecting natural resource management governance. There is urgent need to strengthen and enhance the institutional capacities and collaboration among various stakeholders in formulation or implementation across the board.

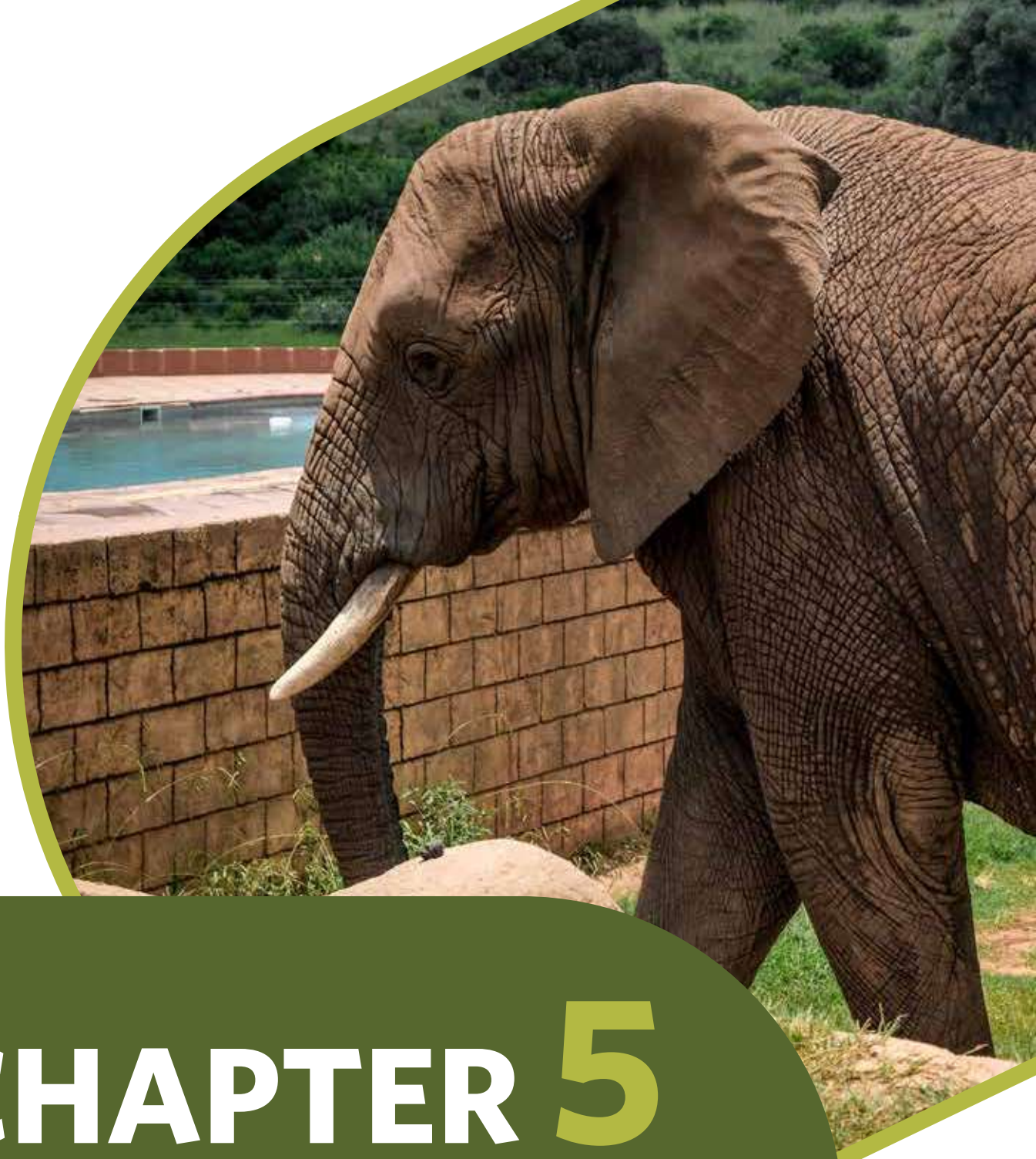
Increasingly it is being observed that illegal grazing inside protected areas is becoming stealthy. The use of children who cannot be legally prosecuted, as agents of grazing is becoming more pronounced (Wildlife Direct 2016). Therefore, there is need to enhance surveillance and tracing back of the livestock to the owners for purposes of prosecution against child labour. Due to the above socio-economic and livelihood issues, the strategic objective: Enhance socio-economic benefits and inclusive conservation and management of elephants has been elevated to priority number 2 in this NEAP.

TABLE 7: SUMMARY TABLE ILLUSTRATING THREATS, ISSUES AND CHALLENGES IDENTIFICATION AND ASSESSMENT FOR ELEPHANTS

		National Population Ecosystems													
Threat Category	Threat Type and Description											Isolated Populations			
		Tsavo	Amboseli	Shimba Hills	Maasai Mara	Aberdares	Mt. Kenya	Meru	Samburu-Laikipia-Marsabit	Nasalot, South Turkana, Kerio Valley	Mau	Elgon	Lamu-Tana River	Arabuko Sokoke	Mwea
Habitat loss and fragmentation	Land Use Changes														
	Fire														
	Water quality and availability														
	Invasive spp														
	Infrastructure Development														
	Settlements														
	Agriculture														
	Livestock stocking levels														
	Illegal grazing														
	Charcoal burning														
Population Loss	Poaching														
	Retaliatory killing														
	Elephant population overabundance														
	Small arms Proliferation														

Threat Category	Threat Type and Description	National Population Ecosystems													
												Isolated Populations			
		Tsavo	Amboseli	Shimba Hills	Maasai Mara	Aberdares	Mt. Kenya	Meru	Samburu-Laikipia-Marsabit	Nasalot, South Turkana, Kerio Valley	Mau	Elgon	Lamu-Tana River	Arabuko Sokoke	Mwea
Socio-economics and Livelihood	Human Elephant Conflict														
	In-adequate incentives and benefits														
	Mineral exploration & extraction														
	Incompatible community attitudes and culture														
Institutional, Legislative and Regulatory framework	Lack of standards and guidelines														
	Weak law enforcement														
	Conflicting sectoral laws,														
	Delayed HWC compensation														
	Lack of Trans Boundary Collaborative Frameworks,														

Legend				
	Minimal	Medium	Severe	Not Applicable



CHAPTER 5

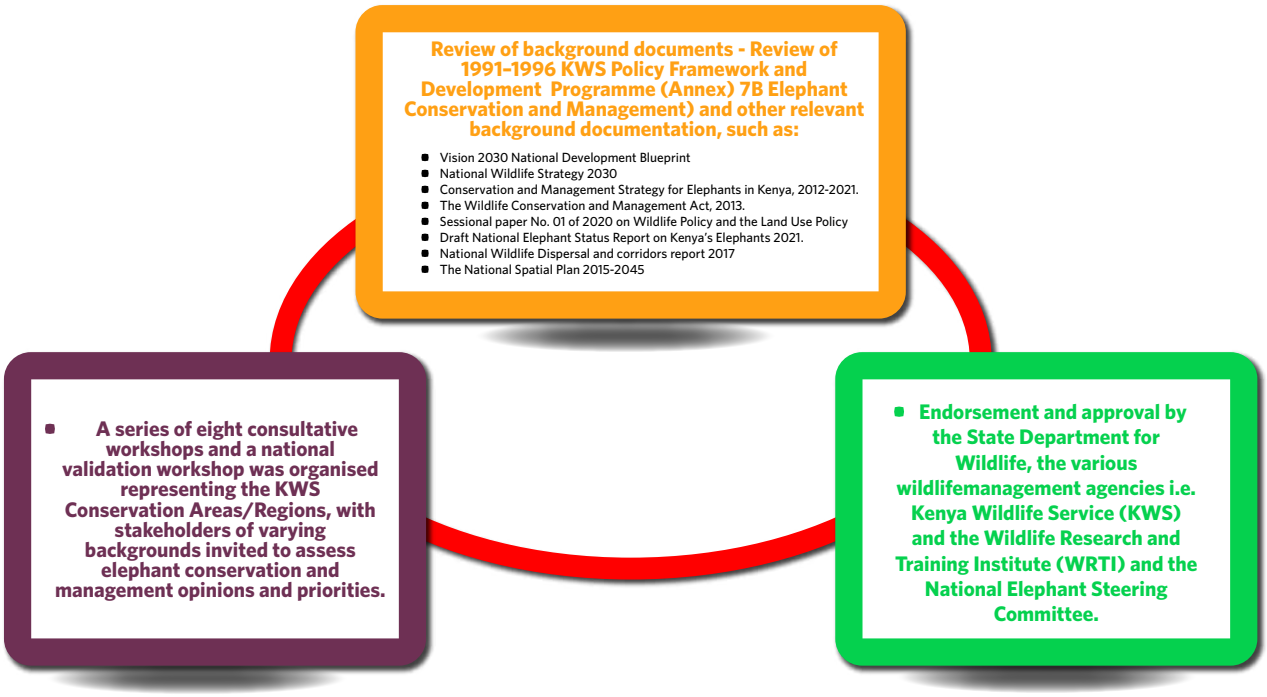
THE NATIONAL ELEPHANT ACTION PLAN

CHAPTER 5: THE NATIONAL ELEPHANT ACTION PLAN

5.1 The Action Plan

The 2023-2032 National Elephant Action Plan (NEAP) provides a strengthened framework that will guide elephant conservation and management over the next 10 years. A review will be undertaken after 5 years in 2026 to evaluate progress achieved in implementing the activities outlined in the action plan. This will refocus implementation of activities in the action plan to ensure their adequate implementation over the remaining 5 years (2026-2031).

The development of the NEAP 2023-2032 was conducted through a consultative, participatory and collaborative process involving multiple stakeholders, key informants, experts and partners. The conservation area Elephant Management Committees (EMC) played an instrumental role in deliberations that resulted in views from the field. The formulation process of this NEAP involved the following steps:

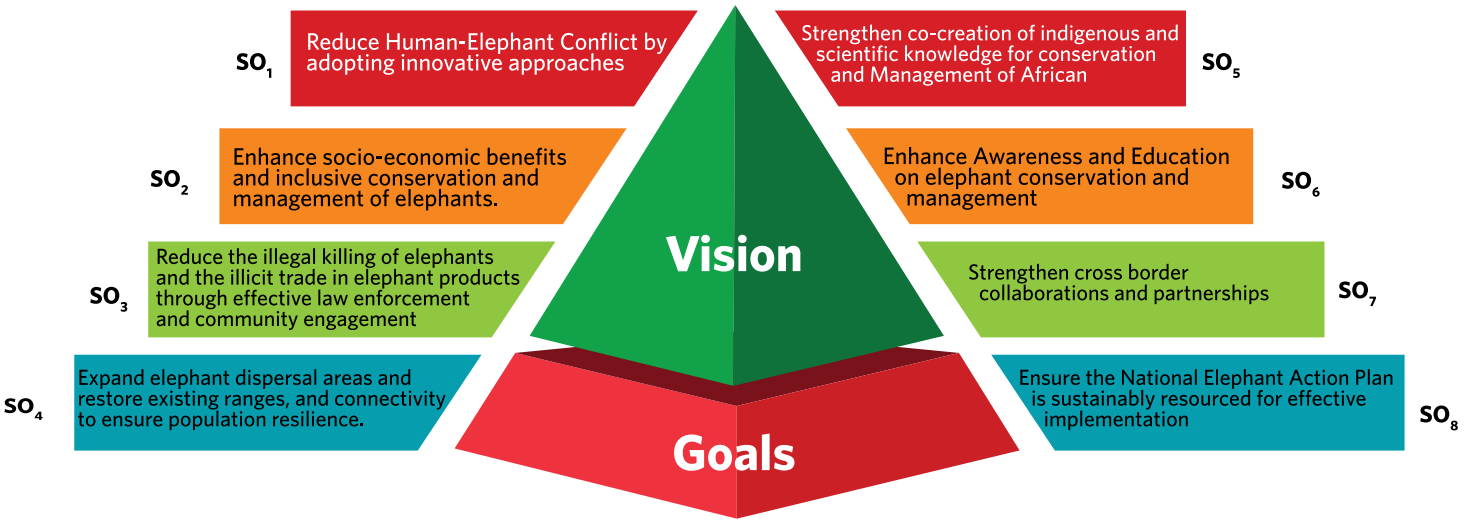


Vision, Goals & Strategic Objectives

Vision: Sustain a thriving elephant population and their habitats, while ensuring beneficial and harmonious co-existence with humans for posterity by 2031.

Goal: Maintain viable, healthy and secure elephant populations while reducing human-elephant conflict, restoring elephant habitat and increasing the value of elephants to people by 2031.

8 Key Strategic objectives, fully aligned to the AEAP



5.3.1 Objective 1: Reduce Human-Elephant Conflict by adopting innovative approaches

Main Target: HEC incidences reduced by at least 70% in the first three years of implementation

Rationale

Conflicts between elephants and humans occur when wildlife and incompatible land use overlap as they compete for the same resources. The elephant-human interface is reducing at unprecedented rate due to; scarcity of water, habitat fragmentation, farming, incompatible land uses, increasing human and elephant populations heightening conflict with time. The lack of comprehensive implementation of land-use policy, poor spatial planning, weak institutional capacities and poor allocation of adequate resources to mitigate against HEC has only exacerbated the situation. HEC often contributes to human death and injury, property destruction, negative attitude towards wildlife conservation and loss of livelihoods. Additionally, local communities have not been adequately compensated for bearing the cost of living with wildlife.

For coexistence of elephants and people, it is important to minimise the occurrence of the above and adequately and timely compensate them for losses. The robust implementation of various HEC tools and techniques in each of the 5 elephant ranges is encouraged while provision of adequate resources is emphasized in dealing with this challenge. This will be achieved through the development of localised HEC interventions to ensure effective responses, use of technology and information to support decision support systems, provision of resources to combat HEC through non-traditional sources of funding among others. Additionally, the revamping of education and awareness and community wildlife services by strengthening linkages for community support and coexistence with wildlife is accentuated. The current action plan will build on proven HEC mitigation measures such as deterrence methods, building community and KWS capacity for their involvement in wildlife management (community-managed conservancies and/or HEC mitigation), compensation and quick processing of HEC cases, implementing corporate social responsibility, and support of nature-based enterprises. This implementation of proposed interventions will also leverage on stakeholder involvement (Table 8). Some of the priority activities that have been identified for efficacy of this strategic objective are:

Priority Activities

1. *Develop and implement a National HEC strategy and site-specific action plans*
2. *Strengthen Problem Animal Control Units within KWS and Conservancies using technology and other innovative approaches.*
3. *Establish a modern real time HEC database and mechanism for data capture, access and analysis for management decision support*
4. *Create a biennial national dialogue mechanism to address HEC i.e. conference to evaluate, monitor and propose conflict resolution measures*
5. *Sensitize and educate local community leadership platforms including County Environmental Committees (CEC) on the strategy and other wildlife issues*
6. *Identify appropriate holistic HEC tools and technologies (HEC toolkit) and assess their efficacy, suitability and potential for upscaling*

Table 8: Targets and Activities to Reduce Human-Elephant Conflict by adopting innovative approaches

Objective 1: Reduce Human-Elephant Conflict by adopting innovative approaches			
Target	**Activity**	**Timeline**	**Indicators**
1.1 HEC incidences reduced by at least 70% in the first five years of implementation (national baseline 2022) with a progressive reduction thereof.	1.1.1 Develop and implement a National HEC strategy and site-specific action plans	2023	HEC strategy and action plans developed
	1.1.2 Strengthen the capacity of Community Wildlife Service (CWS) and Community Education to address HEC in line with Wildlife Policy 2021 and KWS strategic plan 2020-2024	Continuous	CWS and CED re-established
	1.1.3 Strengthen Problem Animal Control Units within KWS and Conservancies using technology and other innovative approaches.	Continuous	No of units strengthened
	1.1.4 Sensitize and educate local community leadership platforms including County Environmental Committees (CEC) on the strategy and other wildlife issues.	By end 2022	No. of meetings held, minutes documented and circulated
	1.1.5 Engage the County Environmental Committees and local grassroot institutions as conflict resolution platforms.	Continuous	No. of engagement meetings
	1.1.6 Establish a modern real time HEC database and mechanism for data capture, access and analysis for management decision support	By 2023	Real Time HEC database developed
	1.1.7. Assess attitudes and perceptions towards elephant's vis a vis HEC mitigation measures	Annual	Assessment report
	1.1.8 Create a biennial national dialogue mechanism to address HEC i.e. conference to evaluate, monitor and propose conflict resolution measures.	Biennial	No. of dialogue forums held
	1.1.9 Encourage the cultivation and marketing of alternative crops that are not prone to being raided by elephants, with focus on HEC hot spots	Continuous	No. of communities sensitized.
1.2 Adopt new proven HEC reduction tools and technologies by 2026	1.2.1 Identify appropriate holistic HEC tools and technologies (HEC toolkit) and assess their efficacy, suitability and potential for upscaling	2023	Reports on novel locally relevant HEC tools and technologies
	1.2.2 Package suitable HEC tools and technologies (toolkit) appropriate for various regions and HEC hotspots	by 2023	No. of packages developed
	1.2.3 Disseminate information on HEC tools and technologies for use by stakeholders	Continuous	No. of communities involved. Number of HEC incidences per unit time.
	1.2.4 Review and implement the national fence guidelines and plan that assesses the efficacy of fencing as a mitigation tool.	Continuous	Fence guidelines adopted
	1.2.5 Review, revise and implement all MoU's with stakeholders on fence construction and maintenance	Continuous	No. of MoU's under implementation
	1.2.6 Enhance fencing technical support and maintenance unit within KWS.	Continuous	% of resources provided
	1.2.7 Expand the technical capacity of communities to use available and tested elephant deterrents.	Ongoing	No. communities using elephant deterrents.

Objective 1: Reduce Human-Elephant Conflict by adopting innovative approaches			
Target	**Activity**	**Timeline**	**Indicators**
1.3 National HEC resolution and mitigation capacity enhanced	1.3.1 Assess effectiveness of HEC resolution schemes and mitigation.	Continuous	Report available
	1.3.2 Develop and implement national HEC training programs (including conflict resolution and mitigation, community engagement and PAC and community/ education wardens training).	Continuous	No. of staff trained per unit area
	1.3.3 Deploy and retain competent KWS and conservancy personnel experienced in HEC issues and mitigation regionally.	Continuous	No. of qualified personnel deployed per unit time
	1.3.4 Mobilise relevant resources for HEC mitigation including external sourcing of funds to clear compensation backlog	Ongoing	Types and quantities of resources acquired
	1.3.5 Review and design new national systems of HEC compensation mechanisms	Periodic	Assessment report available
	1.3.6 Implement the KWS strategic plan 2020-2024 and HR manual to manage HEC hotspot and compensation (Refer to KWS SP 2020-2024 strategic objective 2 initiative 6)	Continuous	No. of compensation claims paid per area unit per unit time
1.4 Address Climate Change impacts on elephant habitats and populations	1.4.1 Implement relevant climate change measures and interventions for resilience as outlined in the National Climate Change Response Strategy, National Climate Change Action Plans, National Adaptations Plans and the National Wildlife Climate Change Adaptation Strategy for Kenya 2023-2032 (NWCCAS 2023-2032-strategic objective 1: 2.2.5) NCAAP Priority Actions 3.2 action 4 and 3.2.4	Continuous	No. of measures and interventions adopted and implemented
	1.4.2 Adopt Climate Change relevant programs and active management measures to mitigate against drought and REDD+ to improve elephant habitats i.e. *(NWCCAS 2023-2032)*	Continuous	No. of programs identified and adopted
	1.4.3 Identify and implement appropriate climate adaptation and mitigation measures to address HEC	2023	No. of appropriate HEC measures identified
	1.4.4 Improving water supply through construction of successive concrete check dams along streams and rivers in Protected Areas and Conservancies	Continuous	No. of interventions implemented
	1.4.5 Construct water troughs and undertake water trucking during severe droughts using drough mitigation funds	Continuous	% Reduction of drought related elephant mortality
	1.4.6. Support water harvesting by community to reduce competition for over natural sources of water	Continous	No. of water harvesting project initiated and operational
	1.4.7 Provision of supplementary feeds and salt licks in PA's and conservancies during drought	Continuous	% Reduction of drought related elephant mortality
	1.4.8 Promote modern rangeland management initiatives around PA	Continuous	% Reduction in HEC

5.3.2 Objective 2: Enhance socio-economic benefits and inclusive conservation and management of elephants

Main Target: Enhance income generation and livelihoods for communities and stakeholders in elephant ranges

Rationale

Community-oriented approaches to wildlife conservation usually have a strong economic rationale based upon the premise that if local people participate in wildlife management and socio-economically benefit from this participation, then a "win-win" situation will arise whereby wildlife is conserved at the same time as community welfare improves. Thus, for community conservation activities to have the ultimate goal of maintaining wildlife populations, they simultaneously are required to improve the socio-economic status of human communities in wildlife areas. This approach also denotes a significant departure from the exclusionist approach to wildlife conservation that has undoubtedly resulted in the more inequitable distribution of wildlife benefits i.e., over the long term it may neither lead to community welfare improvement nor contribute to wildlife conservation. This objective is also cognisant that community incentives to conserve wildlife, and the conditions they depend on, also vary at different times for different people.

Elephant and wildlife conservation is now widely recognised to support a range of ecological services and ecosystem functions. It can also provide considerable intrinsic cultural, aesthetic, existence value to local populations and economic values (Tourism, Payment for Ecosystem Services and employment). Additionally, benefits accrue can at global, national and local levels with the range and accrual being the sum total of all value of benefit of wildlife i.e. Total Economic Value (TEV).

Convincing communities to co-exist with elephants will require that they draw tangible benefits, directly linked to the presence of elephants. This will not only increase their tolerance but convert them to be the custodians of elephants. Currently, there exists more than 170 local communities that have set aside their land as active and prospective conservancies. The land set aside is close to 6.5 million hectares in size, however there is still little or no tangible benefits that accrue to them. Building on this platform this strategic objective aims at establishing Nature Based Enterprises and other forms of benefits that will directly improve community's livelihoods, expand and secure wildlife space beyond protected-area (Table 9).

Priority Activities

1. *Identification and mapping of stakeholders, partners and partnership arrangements including profiling and categorization for improved governance*
2. *Conduct an assessment on the existing and potential incentive and benefits programs focusing on non-consumptive uses of wildlife*
3. *Identify, pilot and scaling up different incentives frameworks including interventions outlined in policy*
4. *Conduct feasibility assessment for all the existing and potential Nature Based Enterprises-(NBE) nationally including the conservancies*
5. *Design appropriate benefits sharing mechanism that guarantee inclusiveness, equity and equality*
6. *Conduct an elephant benefits accrual study*

Table 9: Targets and Activities required to enhance socio-economic benefits and inclusive conservation and management of elephants

Objective 2: Enhance socio-economic benefits and inclusive conservation and management of elephants.			
Targets	**Activities**	**Timeline**	**Indicators**
2.1 Strengthen partnerships and collaboration with stakeholders	2.1.1 Identify and map stakeholders, partners and partnership arrangements including profiling and categorization for improved governance	2023	Stakeholders mapped.
	2.1.2 Establish formal partnership and engagement frameworks and arrangement based on 6.1.2 and other conservation organizations/ partners and tourism agencies	2023	No. partnership arrangements established.
	2.1.3 Develop and implement the joint action plans from 2.1.2	2024	No. of joint action plans developed.
2.2 Establish and create new incentive mechanisms to support elephant conservation in all ranges	2.2.1 Conduct an assessment on the existing and potential incentive and benefits programs focusing on non-consumptive uses of wildlife	2023	Draft assessment report
	2.2.2 Identify, pilot and scaling up different incentives frameworks including interventions outlined in policy (e.g., concessions, taxation, county grants/ micro finance, conservation easements etc. to enhance conservation enterprise and diversifying IGA)	Continuous	No of incentive programs initiated
	2.2.3 Incentivize landowners to accommodate and take a greater role in the conservation of elephants	Continuous	% increase in land supporting elephant conservation
2.3 Establish equitable benefits sharing mechanisms to support partnership arrangements including nature based IGA's	2.3.1 Conduct Feasibility assessment for all the existing and potential Nature Based Enterprises-(NBE) nationally including the conservancies	2023	Report on NBE's
	2.3.2 Support the establishment of viable nature-based income generation activities (IGAs) and Nature Based Enterprises including Eco-tourism ventures/ Payment for Ecosystem Service (PES)	Continuous	No. of nature based IGA's supported
	2.3.3 Design appropriate benefits sharing mechanism that guarantee inclusiveness, equity and equality for activities supported under 2.3.1	Continuous	No. of beneficiaries
	2.3.4 Adopt community enterprise development best practices in all elephant ranges including design of a livestock support tool kit appropriate for pastoralists	Continuous	Number of enterprises adopted and rolled out
	2.3.5 Conduct an elephant benefits accrual study	Periodic	Report available

5.3.3 Objective 3: To reduce the illegal killing of elephants and the illicit trade in elephant products through effective law enforcement and community engagement

Main Target: The Proportion of Illegally Killed Elephants (PIKE) is reduced to less than 1 % per annum (baseline 2022).

Rationale

The United Nations reckons that poaching of elephants is a persistent global problem with profound effects on the East African region. Further illegal trade in elephant products is re-emerging as a salient concern. Whereas elephant poaching and ivory trafficking have been significantly addressed in Kenya, they still remain a major threat to elephant populations in the country and other Africa range states. Therefore, there is an urgent need to enhance the protection of elephant populations and mitigate against illegal trade. Kenya is committed to eliminate markets and reduce demand for illegal wildlife trade.

The lessons learnt from previous measures and intervention to address elephant poaching and ivory trafficking will be used to strengthen the preparedness of the country to deal with this threat. The methods of poaching have also shifted from use of firearms to use of silent methods e.g. poisoning, spearing and trapping. Poaching hotspots have also shifted to affect virtually all the elephant ranges in the country. This strategic objective will use various law enforcement measures including; prevention, detection, suppression, arrest, prosecution, conviction and punishment to create a disincentive for potential offenders (Table 10). The following are some of the priority law enforcement actions required for this NEAPs strategic period (2022 – 2031):

Priority Activities

1. *Enhance capacity of law enforcement officers to prevent, detect and investigate elephant poaching and ivory trafficking through specialised training and equipment*
2. *Enhance multi-agency approach to wildlife law enforcement operations to disrupt poaching and ivory trafficking syndicates and networks*
3. *Continue lobbying for sustained elephant ivory trade moratorium in CITES international community.*

Table 10: Targets and activities required to reduce the illegal killing of elephants and the illicit trade in elephant products through effective law enforcement and community engagement

Objective 3: To reduce the illegal killing of elephants and the illicit trade in elephant products through effective law enforcement and community engagement			
Target	**Activity**	**Timeline**	**Indicators**
3.1 Proportion of Illegally Killed Elephants (PIKE) reduced to less than 1 % per annum.	3.1.1 Recruit, train and equip KWS, County, Community and Private Conservancies security staff to adequate levels.	2022 onwards	No. of recruited and trained personnel; No. of personnel trained; No. of personnel adequately equipped.
	3.1.2 Establish, strengthen and deploy specialised security units (KWS & Conservancies) at elephant ranges and ivory trafficking routes	2022 onwards	No. of specialised units operating. No. of community scouts involved.
	3.1.3 Undertake specialised operations to detect, deter, disrupt and overcome any potential threat to elephant security	2022 onwards	No. of successful operations undertaken; No. of trophies recovered; No. of poaching gangs disrupted
	3.1.4 Strategic deployment of security personnel based on elephant movements, distribution, threats and illegal ivory trade routes	Ongoing	No. of units (personnel) deployed in hotspots per unit time
	3.1.5 Increase ground and aerial surveillance patrols to acceptable levels.	Ongoing	Annual No. of hours on ground and aerial patrols done
	3.1.6 Enhance capacity of law enforcement officers to prevent, detect and investigate elephant poaching and ivory trafficking through specialised training and equipment	2022 onwards	No. of specialised trainings conducted; No. of specialised equipment procured
	3.1.7 Modernise intelligence operations to embrace modern technology in collation and analysis of information,	2022 onwards	Technology adoption for intelligence operations and analysis; procurement of modern equipment
	3.1.8. Enhance intelligence analysis capacity to better identify patterns, trends and linkages among offenders and trafficking networks.	2022 onwards	No. of analytical products (operational and strategic) produced
	3.1.9 Enhance multi-agency approach to wildlife law enforcement operations to disrupt poaching and ivory trafficking syndicates and networks.	Ongoing	No. of multi-agency intelligence operations undertaken per unit time
	3.1.10 Strengthen intelligence-led patrols by utilising platforms such as Command and Control Centers and a Security Database.	Ongoing	No. of Command-and-Control Centers established, Operational Security Database; No. of areas using intelligence led patrols and deployments.
	3.1.11 Collect data on illegal ivory trade to help control illegal trade and to support the ivory trade ban.	Ongoing	Data collected and provided to KWS management on a timely manner; ETIS returns submitted
	3.1.12 Continuous review of courses offered at KWS LEA and WRTI to address emerging elephant security and management issues and incorporate the lessons learnt.	By 2024	No. of courses reviewed and introduced

Objective 3: To reduce the illegal killing of elephants and the illicit trade in elephant products through effective law enforcement and community engagement			
Target	**Activity**	**Timeline**	**Indicators**
3.2 Strengthened legislation and law enforcement.	3.2.1 Strengthen scene of wildlife crime management for enhanced investigation and prosecution of poaching, retaliatory killings and illegal wildlife trade cases.	By 2023	Number of convicted cases for wildlife crime offenders per unit time; Number of stiff penalties meted out as provided for in the Wildlife Act 2013 per unit time
	3.2.2 Improve the chain of custody of exhibits and crime scene management for effective prosecution	Continuous	No. of successful prosecutions
	3.2.3 Improve the storage and management of ivory stockpiles	Continuous	No. of successful prosecutions
	3.2.4 Build investigation and prosecution capacity and sensitization to adequately use the judicial process (Law and Order) to deter poaching, retaliatory killings and illegal wildlife trade.	2022 onwards	No. of training programs undertaken, Number of officers appointed as Scene of Crime Officers and number of Prosecutors appointed.
	3.2.5 Sustain and enhance training programs for the judiciary, investigators and prosecutors on wildlife crime.	Continuous	Number of workshops for prosecutors, magistrates and judges; Number of successful prosecutions per unit time
	3.2.6 Undertake an education and awareness program on elephant security and illegal ivory trade issues for stakeholders including the general public.	2022 onwards	No. of initiatives undertaken. Surveys and PRA results documented, disseminated and used to refine activities
	3.2.7 Promote regular dialogue with transboundary states to harmonise the regional position on elephant trade issues, policy and legislation on Transboundary issues through regional frameworks	By 2026	No. of agreements and resolutions
	3.2.8 Strengthen law enforcement and awareness at key points of entry and exit to combat ivory trafficking through the country's borders and apprehend offenders.	Continuous	No. of seizures per unit time; No. of awareness/sensitization programs
	3.2.9 Enhanced use of forensic techniques, Canine Units and other appropriate technologies to address elephant poaching and ivory smuggling.	Continuous	No. of interdictions detected by Canines; Number of units operationalized
	3.2.10 Continue lobbying for sustained elephant ivory trade moratorium in CITES international community.	Ongoing	Elephant remains in Appendix I and II of CITES
	3.2.11 Sensitize prosecutors, law enforcement officers and stakeholders on the impact of corruption on elephant conservation.	Ongoing	No. of staff sensitised on corruption matters
	3.2.12 Conduct awareness programs on wildlife crime and law enforcement in poaching and HEC hotspots.	2022 onwards	No. of awareness activities undertaken

Objective 3: To reduce the illegal killing of elephants and the illicit trade in elephant products through effective law enforcement and community engagement			
Target	**Activity**	**Timeline**	**Indicators**
3.3 Improved community engagement.	3.3.1 Increase active involvement of security staff in local community engagement programs to win community support in elephant protection.	2022 onwards	% Proportion of community engagement activities involving security personnel including conflict cases reported
	3.3.2 Enhance partnerships with National and County Governments, Community and Private Conservancy scouts.	2022 onwards	No. of joint operations with County, Community and Private Conservancy scouts per unit time
3.4 Improved cross-border protection of elephants and combat of illegal ivory trade.	3.4.1 Strengthen National, Regional and International Wildlife Enforcement Networks and Task Forces.	2022 onwards	No. of annual meetings attended; Number of programs undertaken
	3.4.2 Enhance inter-agency cross border collaboration in combating elephant poaching and ivory trafficking across the international borders.	2022 onwards	No. of One Stop Border Posts equppied with ivory scanning equipment
	3.4.3 Undertake concurrent security operations and meetings in trans-boundary ecosystems.	2022 onwards	No. of concurrent cross-border operations and meetings undertaken; Number of arrests and seizures per unit time
	3.4.4 Enhance cross-border information sharing and coordination with law enforcement	2022 onwards	Intelligence and wildlife information shared

5.3.4 Objective 4: Securing elephant dispersal areas and restore existing ranges, and connectivity to ensure population resilience

Main Target 1: Active management of existing populations to ensure resilience

Main Target 2: Maintain and improve the existing elephant ranges, migration corridors and habitats by 2031

Main Target 3: To expanded the elephant ranges and habitat by at least 1% of Kenya's national land mass through securing corridors and creation of conservancies

Rationale;

Currently, Kenya has only 8% under protected areas and 11% of potential conservancy establishments. The CBD convention advocates those countries should have at least 30% of their total land mass under conservation i.e., 30x30 targets. In addition, the need to manage populations in enclosed areas is paramount to maintaining the range, mitigating HEC and ensuring viability of the species. It is noted that active management of populations in the past has been through translocations and re-introductions. Due to an increased occurrence of orphaned elephants, re-wildling is also becoming increasingly necessary as an active management technique.

Further, the management of the range has been cited as a key challenge within the PAs. Elephants are increasingly utilising isolated pockets in our PA thus limiting the capacity to host increased numbers of populations. In this plan it is envisaged that deliberate and adaptive actions will be adopted to enhance habitat utilisation.

Protected areas are increasingly becoming islands; isolated and surrounded by settlements, agriculture and high livestock densities. The growth in human population is placing a demand for agricultural land, and accompanying socio-economic infrastructure among others. Both humans and elephants rely on the highly fertile land due to the lands' biomass production ability. This is posing a threat to the elephant dispersal area beyond the PA's. All is not lost. In areas of low human density, there is documented harmonious coexistence between elephants and humans (Hoare 2000, Sitati et al., 2003). This plan aims at identifying and establishing the potential elephant ranges beyond what is already secured.

Further, the loss of connectivity is inhibiting the distribution of elephants. There is an urgent need to secure migratory routes (corridors), to enhance connectivity and linkages between habitats. This will require more than just the physical delineation of boundaries through spatial planning. The creation of conservancies through public-private partnerships should be encouraged in areas perceived to be key migratory routes (corridors) to ensure the contiguity of wildlife habitats. Further it is envisaged that collaboration with relevant partners such as the County Governments in the spatial planning process will enhance connectivity. The Wildlife Migratory Corridors and Dispersal Areas; Kenya Rangelands and Coastal Terrestrial Ecosystems report (Ojwang et al., 2017) need to be implemented (Table 11).

Priority Activities

1. *Active management of closed populations*
2. *Modernization of the KWS capture and veterinary unit*
3. *Collaborate with the county governments on land-use and spatial planning and apply necessary environmental safeguard*
4. *Identify durable funding opportunities and resource mobilization for conservancies in the elephant ranges and securing corridors*

Table 11: Targets and activities required to expand elephant dispersal areas and restore existing ranges, and connectivity to ensure population resilience

Objective 4: Secure elephant dispersal areas and restore existing ranges, and connectivity to ensure population resilience.			
Target	**Activity**	**Timeline**	**Indicators**
4.1 Active management of existing populations to ensure resilience	4.1.1 Translocate from over stocked elephant ranges and other threatened populations	2022 and continuous	No. of elephants translocated
	4.1.2 Translocate to under stocked elephant ranges	2022 and continuous	No. of elephants translocated
	4.1.3 Translocation for genetic management	2022 and continuous	No. of elephants translocated
	4.1.4 Domesticate the IUCN guidelines and develop protocols for captive elephant management	2022 and continuous	Guidelines and protocols developed
	4.1.5 Develop and implement elephant re-wilding protocols	2022 and continuous	Protocols developed
	4.1.6 Conduct appropriate veterinary interventions	2022 and continuous	No. of interventions undertaken
	4.1.7 Modernization of the KWS capture and veterinary unit	2022 and continuous	Type and no. of modern equipment acquired
4.2 Maintain and Improve the existing elephant ranges, migration corridors and habitats by 2031	4.2.1 Identify and assess degraded habitats and elephant ranges	2022-2026	No. of sites identified and assessed
	4.2.2 Restoration of degraded elephant ranges and dispersal areas based on 2.1.1.	2026-2031	Acreage of degraded restored
4.3. To secure the elephant ranges and habitat by at least 1% of Kenya's national land mass through securing corridors and creation of conservancies	4.3.1 Actively Implement the provision of the WCMA 2013, associated legislation and National Wildlife Strategy 2030 using multi-agency platforms in establishing conservancies and enhancing connectivity of wildlife dispersal areas	2023-2032	No./ Size of new conservancies and dispersal areas (Acreage)established.
	4.3.2 Refine and prioritize implementation of the national corridors report to secure dispersal area	2023-2024	Report on prioritized corridors
	4.3.3 Identify durable funding opportunities and resource mobilization for conservancies in the elephant ranges and securing corridors	2022-2026	No. of funding opportunities for conservancies secured
	4.3.4 Enhance the level of KWS/ WRTI participation in the formulation of the CSPs.	2023-2026	% of KWS involvement in CSP process
	4.3.5 Build capacity and improve engagement of relevant communities to manage dispersal areas and corridors as conservancies.	2022 - 2026	No. conservancies with strengthened capacity

Objective 4: Secure elephant dispersal areas and restore existing ranges, and connectivity to ensure population resilience.			
Target	**Activity**	**Timeline**	**Indicators**
	4.3.6 Ensure an EIA is carried out and effectively used for decisions on planned developments in existing elephant dispersal areas and corridors.	2012-Onwards	EIA reports on all potential developments disseminated through decision-making framework
	4.3.7 Collaborate with the county governments on land-use and spatial planning and apply necessary environmental safeguard	Continuous	No. of spatial plans developed collaboratively
	4.3.8 Collaborate with the governments of neighbouring countries on land-use planning to safeguard trans-boundary populations.	2023-2026	Number of MoUs and site-specific reports

5.3.5 Objective 5: Strengthen co-creation of indigenous and scientific knowledge for conservation and Management of African Elephant

Main Target: By 2026, a scientifically based research and monitoring program is generating in-depth information on the status of Kenya's 5 distinct elephant populations as regular feedback for adaptive management.

Rationale

Effective conservation and management of elephants requires reliable data and information. Reliable data and information is key to informing management decisions on protection, conflict management, population status, health, movement, habitats, stakeholder engagement and policy considerations. Research on elephants is often undertaken in collaboration and partnership with stakeholders. The Government has recently established the WRTI to undertake and coordinate wildlife research countrywide.

Currently, reliable data is acquired through innovation based on relevant thematic areas by combining conventional scientific methods and indigenous knowledge through citizen science. Citizen science (Haklay, 2010; Ostrom, 2010) in this context is defined as the collection and analysis of data relating to the elephant's and their natural range by members of the general public. Through these collaborative initiatives encompassing professional and non-professional scientists the democratic space for scientific discourse is enhanced. The citizen science approach is thus expected to enhance scientific inclusivity, promote gender mainstreaming and reduce inequality inherent in conservation spheres (See Ostrom, 2010). Hence, priority is given to adaptive research programs to guide conservation actions and to evaluate their effectiveness following the principles of adaptive management. Kenya will continue to play a leading role in conservation science especially in elephant conservation and management. In order harmonise elephant research activities, coordination will be at the national level- WRTI. Priority are highlighted below and Table 12 provides the specific interventions.

Priority Activities

1. *Develop a national elephant database and information repository.*
2. *Establish impacts of introduction, reintroduction and rewilding of elephant populations and design of appropriate protocols for management*
3. *Enhance the use of technologies for tracking elephants and understanding their movement patterns, and habitat utilisation*

4. *Identify key data gaps on policies and issues concerning elephant conservation and management including critical research needs/knowledge gaps*

5. *Conduct national institutional needs assessment to identify, map and develop recommendations for capacity enhancement intervention requirements targeting counties and local wildlife associations*

6. *Monitor and establish elephant stocking rates for key habitat/ populations to determine impact of elephant density on habitat including enclosed populations*

Table 12: Targets and activities to strengthen co-creation of indigenous and scientific knowledge for conservation and Management of African Elephant

Objective 5: Strengthen co-creation of indigenous and scientific knowledge for conservation and Management of African Elephant			
Target	**Action**	**Timeline**	**Indicators**
5.1 Census methodology, data analysis and data management strengthened	5.1.1 Improved national survey methods (remote sensing, aerial photography deep machine learning and artificial intelligence) for monitoring elephant populations to update the national elephant population database, including refining and testing methods for improved census.	2022-2024	Peer reviewed methodologies identified and adopted
	5.1.2 Use of appropriate census methodologies to update the status of elephant populations for savannah ecosystem	Continuous	Technical Report and peer review publication
	5.1.3 Apply standardised and improved forest survey method(s) for key forest populations	Every fourth year	Technical Report and peer review publication
	5.1.5 Identify and adopt effective ranger/scout based monitoring systems that synchronise with the national database.	2022-2023, then onwards	Effective monitoring systems identified and adopted
	5.1.4 Identify and adopt effective ranger/scout based monitoring systems that synchronise with the national database.	2022	Operational structure of the national database developed
	5.1.6 Sustained training for the National program on Monitoring the Illegal Killing of Elephants (MIKE) monitoring and reporting system to effectively deduce the causes of mortality	Continuous	Number of standardised annual reports produced and submitted
	5.1.7 Monitor and establish elephant stocking rates for key habitat/ populations to determine impact of elephant density on habitat including enclosed populations.	2023 onwards	Carrying capacity and impact reports
	5.1.8 Model impacts of climate change and invasive species on elephant populations	2022 onwards	Reports produced and circulated
	5.1.9 Establish impacts of introduction, reintroduction and rewilding of elephant populations and design of appropriate protocols for management.	Continuous	Technical Report and peer review publication
	5.1.10 Assess and monitor habitat fragmentation and changes on elephant populations outside PA's.	Continuous	Technical Report and peer review publication

Objective 5: Strengthen co-creation of indigenous and scientific knowledge for conservation and Management of African Elephant			
Target	**Action**	**Timeline**	**Indicators**
	5.1.11 Enhance the use of technologies for tracking elephants and understanding their movement patterns, and habitat utilisation.	Continuous	Technical Report and peer review publication
	5.1.11 Undertake disease surveillance and clinical interventions to enhance elephant population health.	Continuous	Technical Report and peer review publication
	5.1.12 Conduct studies on the role of elephants and their contribution to livelihoods.	2022-2025	Technical Report and peer review publication
	5.1.13 Conduct studies to understand the implications of soil chemistry, water availability and forage quality on elephant movement patterns, home range sizes and habitat utilisation	2022 and Continuous	Technical Report and peer review publication
	5.1.14 Model home range and suitable habitats for elephants	2022 and continuous	Technical Report and peer review publication
	5.1.15 Enhance cross border elephant population monitoring and data sharing.	2022	Cross border data sharing protocols
5.2 Data collection and information sharing from research and monitoring for management decision support system and policies.	5.2.1 Identify key data gaps on policies and issues concerning elephant conservation and management including critical research needs/ knowledge gaps.	Continuous	Regular reports on key policy and strategy gaps available
	5.2.2 Annual conference to disseminate research findings to assist in policy and strategy formulation.	Continuous	Number of research recommendations used for policy formulation
	5.2.3 Establish impacts of introduction, reintroduction and rewilding of elephant populations and design of appropriate protocols for management.	Continuous	Technical Report and peer review publication
	5.2.4 Develop a research newsletter and bulletin to disseminate new research information 5.2.5 Evaluate the efficacy of key policy and strategic interventions regarding elephant conservation and management	Quarterly	No. of bulletins Policy and strategy analysis reports available
	5.2.6 Adopt simplified mobile phone-based data collection and information dissemination platforms for professional and non-professional scientists (Citizen science)	Continous	No. od information dissesmination platforms used
5.3 Data on elephant ivory stockpiles and trade data analyzed to inform management decision and policy	5.3.1 Analyze, interpret and disseminate ivory stockpile and trade data.	2023, then annually	Number of reports on ivory trade data processed and disseminated to relevant groups in a timely manner
	5.3.2 Use DNA analysis to establish origins of confiscated ivory.	Continuous	DNA profiles established and updated

Objective 5: Strengthen co-creation of indigenous and scientific knowledge for conservation and Management of African Elephant			
Target	**Action**	**Timeline**	**Indicators**
5.4 Information on elephant conservation and management in Kenya disseminated to the public with the view to enlisting public support for elephant conservation and management initiatives	5.4.1 Publish annual elephant status reports.	Every January	Annual technical report published
	5.4.2 Subscription to review journals	Annual	No. of journals subscribed
	5.4.3 Organise Elephant Conservation and Management Conference to discuss contemporary elephant issues.	Every two years	Conference papers and report
5.5 Strengthen institutional innovation and capacities to manage elephants	5.5.1 Conduct national institutional needs assessment to identify, map and develop recommendations for capacity enhancement intervention requirements targeting counties and local wildlife associations.	Continuous	Capacity needs identified and supported
	5.5.2 Implement the recommendations of 5.5.1 based on available resources.	Continuous	Number of capacity enhancement programs undertaken
	5.5.3 Acquire hardware and software for data analysis	2022 onwards	No. of software lince acquired
	5.5.4 Train scientists on data analysis	2022 onwards	No of scientists trained

5.3.6 Objective 6: Enhance Awareness and Education on elephant conservation and management

Main Target: By 2026, the majority of stakeholders, including the general public, are supportive of elephant conservation (national baseline 2023).

Rationale

The general perception of the elephant by rural communities is generally negative and a cost to their life and livelihoods. In order to change the negative attitudes, there is a need to continuously educate people on how to mitigate HEC and appreciate elephant conservation. Additionally, concerted efforts should be made towards; sensitization, awareness, education and participation regarding elephant conservation and management. Educated communities have always perceived elephants from the prism of being beneficial to their livelihoods. Further, conservation education has resulted in demonstrable and strengthened natural governance regimes while public participation has increased ownership of conservation outcomes. The plan highlights the use of indigenous knowledge systems and the need to amplify a coherent mechanism to consolidate conservation actions (Table 13).

Priority Activities

1. *Creation of community dialogue forums for positive messaging*
2. *Conducting perception survey on elephant conservation and management*

Table 13: Targets and Actions required to Enhance Awareness and Education on elephant conservation and management

Objective 4: Enhance Awareness and Education on elephant conservation and management			
Targets	**Activities**	**Timeline**	**Indicators**
6.1 Implement sensitization, education, communication awareness and participation in elephant conservation and management	6.1.1 Establish site specific community dialogue forums and platforms at national and local levels in collaboration with the county environmental committee (see 1.1.4)	Continuous	No. of site-specific dialogue forums
	6.1.2 Develop and strengthen conservation sensitization and education curriculum targeting both adults and students in local communities.	Continuous	Curriculum developed and implemented
	6.1.3 Strengthen the provision of education conservation programs aligned to activity 1.1.1 including delivery of Conservation Education Department (CED)	Continuous	No of CED programs delivered annually
	6.1.4 Develop a national elephant communication awareness strategy aimed at all relevant stakeholders.	2023	Communication and awareness strategy developed and implemented
	6.1.5 Strengthen the capacity of the KWS Communications Unit (KCU), both in terms of expertise and equipment, to facilitate changing public opinion on elephant conservation issues. Also see 1.1.1	On-going in some areas like Tsavo	% of attitude change from baseline
	6.1.6 Carry out a targeted surveys on knowledge attitudes and support for elephant conservation.	2023	Baseline established
	6.1.7 Constantly engage the media both print, electronic and social to highlight the conservation efforts being done on elephant conservation.	Continuous	% of attitude change from baseline

5.3.7 Objective 7: Strengthen cross border collaborations and partnerships

Main Target: Active involvement in national, regional and international fora on elephant conservation and management

Rationale

International collaboration in elephant conservation and management has delivered significant achievements. However, there is need to enhance the collaborative initiatives going into the future at all levels. Cross border collaboration between Kenya, Tanzania and Uganda on trans boundary elephant conservation and management have been majorly informal. Further the management of resources across boundaries has been weak and disjointed. Joint border patrol programs with Tanzania are functioning well but they remain poorly developed with Uganda. The Lusaka Protocol envisaged greater collaboration between partner states, however this has not also been forthcoming. There is urgent need for Kenya to enter into formal agreements with her immediate neighbours including development of transboundary ecosystem management plans. Further, joint efforts on building investigative and prosecutorial capacities with both transit and destination countries, are essential for the fight against organised international trafficking. Targets and Activities for Objective 7 are summarised in Table 14.

Priority Activity

1. *Establish official structures for management of trans boundary elephant populations*

Table 14: Targets and Activities required to strengthen collaborations and partnerships among range States

Objective 6: Strengthen collaborations and partnerships among range States			
Targets	**Activities**	**Timeline**	**Indicators**
7.1 Official collaboration established at regional and international levels to dismantle trafficking networks.	7.1.1 Identify existing platforms and establish official structures for management of trans boundary elephant populations (e.g. Lake Victoria Basin Commission)	2023	No. of MoU's
	7.1.2 Develop trans boundary ecosystem management plans to manage transboundary populations of elephant	2024	No. of trans boundary management plans
	7.1.3 Strengthen security collaboration protocols with bordering countries in anti-poaching and illegal wildlife trafficking.	2022 (Start)	No. of protocols strengthened.
	7.1.4 Implement cross border patrols, joint seizures, forfeitures and border controls with bordering countries	On-going	No. of joint interventions undertaken.
	7.1.5 Conduct joint investigations and exchange information on wildlife crimes	Continuous	No. of investigations
	7.1.6 Enhance standardadization and monitoring of cross border elephant populations	Continuous	No of cross border population status reports

5.3.8 Objective 8. Ensure the National Elephant Action Plan is sustainably resourced for effective implementation

Main Target: By 2031 at least 90% of Kenya's NEAP effectively implemented.

Rationale

Effective coordination, collaboration and networking among all stakeholders involved in elephant conservation and management will be key in ensuring success of this NEAP. The implementation of the previous NEAP 2012-2021 highlighted a number of key implementation challenges and resource constrains. The NEAP was not streamlined into the strategic and operational plans of KWS. Active implementation of the NEAP only began in the last half from 2015 to 2022. There was lack of widespread knowledge about the existence and contents of the plan while funding was not well coordinated. This NEAP 2023-2032 highlights the significant role of various partners and stakeholders. It also clarifies the need for use of multiple platforms including placing emphasis on sensitisation and participation i.e., county governments, community wildlife conservancies and the state agencies. Additionally, the responsibility of the National Elephant Action Plan Steering committee is elucidated in ensuring successful implementation. The principles of participation, teamwork, transparency, accountability and collective responsibility will be required and must be embraced by all stakeholders. The pivotal role of devolving the implementation of the Action Plan to the local levels is imperative. Furthermore, the need for the adequate resources is prioritized through the use of innovative mechanisms and elevated through national frameworks and systems. Targets and Activities for Objective 8 are summarised in Table 18.

Priority Activities

1. *Publicize the NEAP 2023-2032 nationally*
2. *Establish the NEAP coordination and implementation committees*
3. *Integrate the NEAP with other county and national plans and programmes*
4. *Fundraise for the NEAP*

Table 15: Targets and Activities required to ensure the National Elephant Action Plan is sustainably resourced for effective implementation

Objective 8: Ensure the National Elephant Action Plan is sustainably resourced for effective implementation			
Targets	**Activities**	**Timeline**	**Indicators**
8.1 A well-coordinated and managed structure for supporting stakeholders and enhancing decision making and action.	8.1.1. Establish and commission the relevant NEAP implementation committees with clear ToRs		
	8.1.2 Resource (personnel and funding) the NEAP implementation Committees	Continuous	Amount of funds allocated
	8.1.3 Develop Regional specific NEAP Actions and implementation plans and priorities	Periodic	Fund established
	8.1.4 Establish M&E Team to evaluate the NEAP implementation.		Amount of PES funds mobilized
	8.1.5 Publicise the NEAP and establish close and consistent relationships with partners (refer to SO3)	Continuous	No. of PPP arrangements
	8.1.6 Establish official collaboration agreements for information exchange, coordination and resource actions for those engaged in the implementation of NEAP including integration of NEAP activities in National Adaptation Plans, CIDP's (County Integrated Development Plans)	Continuous	No. of successful proposals and amount of funds mobilized
8.2 Explore different financing mechanisms for implementation of NEAP	8.2.1 Prioritise interventions in the NEAP for fundraising and subsequent implementation.	Continuous	% of funds mobilized
	8.2.2 Engage the national treasury / county Governments to allocate funds	Continuous	
	8.2.3 Revive the elephant Research Fund.	2023	Fund established
	8.2.4 Tap into climate change and PES funding mechanisms.	Continuous	% of PES funds mobilized
	8.2.5 Explore Public Private Partnerships (PPP)	Continuous	No. of PPP arrangements
	8.2.6 Engage various donors for the support.	Continuous	% of funds mobilized

CHAPTER 6

IMPLEMENTATION PROCESS OF THE KENYA NEAP

CHAPTER 6: IMPLEMENTATION PROCESS OF THE KENYA NEAP

This NEAP will be implemented through a National collaborative process that will involve a myriad of stakeholders, partners, communities, county governments, state agencies and departments. The architecture of the implimentation mechanism will ensure the effectiveness in activity delivery and resourcing.

The NEAP is an officially approved government strategy developed by the MoTW, who will ensure the necessary coordination and follow-up required for its timely implementation. The NEAP is designed to be a tool for planning, resource mobilisation and monitoring elephant conservation measures. The NEAP is a live document and will evolve to adopt new threats, challenges and opportunities. The mechanism for the implementation of the NEAP is as follows:

IMPLEMENTATION PROCESS OF THE KENYA NEAP

National Elephant Action Plan Steering Committee-NEAPSC

- Identify, develop and implement relevant elephant conservation and management related policies
- Make major management and technical decisions concerned with conservation and management of elephants
- Ensure the successful implementation of all required actions
- Communicate issues of national concern on elephant conservation and management in consultation with the ministry responsible for wildlife
- Engage the National Treasury and external donors to fund the NEAP

National Elephant Action Plan Secretariat (NEAP) Secretariat

- Coordinate the development and implementation of the conservation area/site specific Action Plans in close collaboration with the Conservation Area Committees
- Regularly receive, present and escalate emerging implementation issues/challenges to the National Elephant Action Plan Steering Committee
- Evaluate and synthesize technical recommendations from the NEAPSC and the conservation area committees for implementation
- Collate and synthesize national data and information on elephants
- Work in close collaboration with the conservation area implementation Committees to develop and/or review elephant conservation, management and research proposals for funding
- Develop the requisite guidelines, protocols and procedures as outlined in the NEAP for consideration by the NEAPSC
- Coordinate the review and report on the implementation of the progress
- Participate in the NEAPSC meetings

Conservation Area Elephant Action Plan Implementation Committees

- Coordinate the development of the Conservation area/site specific Action Plans in close collaboration with the National Elephant Action Plan Secretariat
- Develop annual Work plans and budgets for implementation of site-specific priority initiatives
- Work in close collaboration with the NEAPS to develop and/or review elephant conservation, management and research proposals for funding
- Actively engage relevant partners within their jurisdiction on the financing and implementation of identified initiatives
- Provide information as required on implementation status to the NEAP Secretariat
- Actively engaging partners in their areas for purposes of leveraging resources and capacities

National Elephant Action Plan Steering Committee-NEAPSC

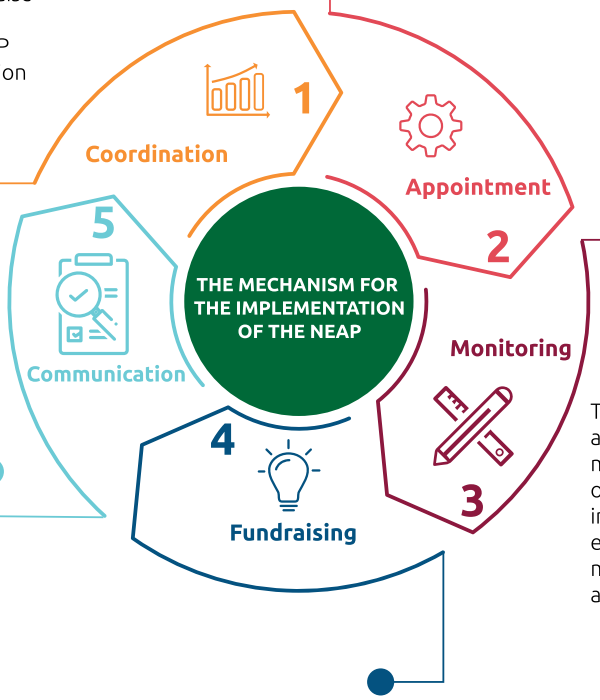
The National Elephant Action Plan Steering Committee (NEAPSC) will assume the overall executive responsibility for implementation, monitoring and evaluation of the NEAP. This committee will be appointed by executive authority due to its cross cutting representation and mandate.

Both the NEAP secretariat and conservation area elephant action plan implimentation committee will be appointed by the Chair NEAPSC. The NEAP secretariat will monitor implementation throught the implementation period and regularly report to the NEAP SC.

THE MECHANISM FOR THE IMPLEMENTATION OF THE NEAP IS AS FOLLOWS:

National Elephant Action Plan Coordinator. Appointment of a NEAP Coordinator who will act as the focal point within the MT&W to coordinate implementation of the NEAP and coordination of the National Elephant Action Plan Coordination Committee. The NEAP Coordinator will liaise closely with the EPI National Focal Point and with the NIAP Coordinator/NIAP Coordination Committee.

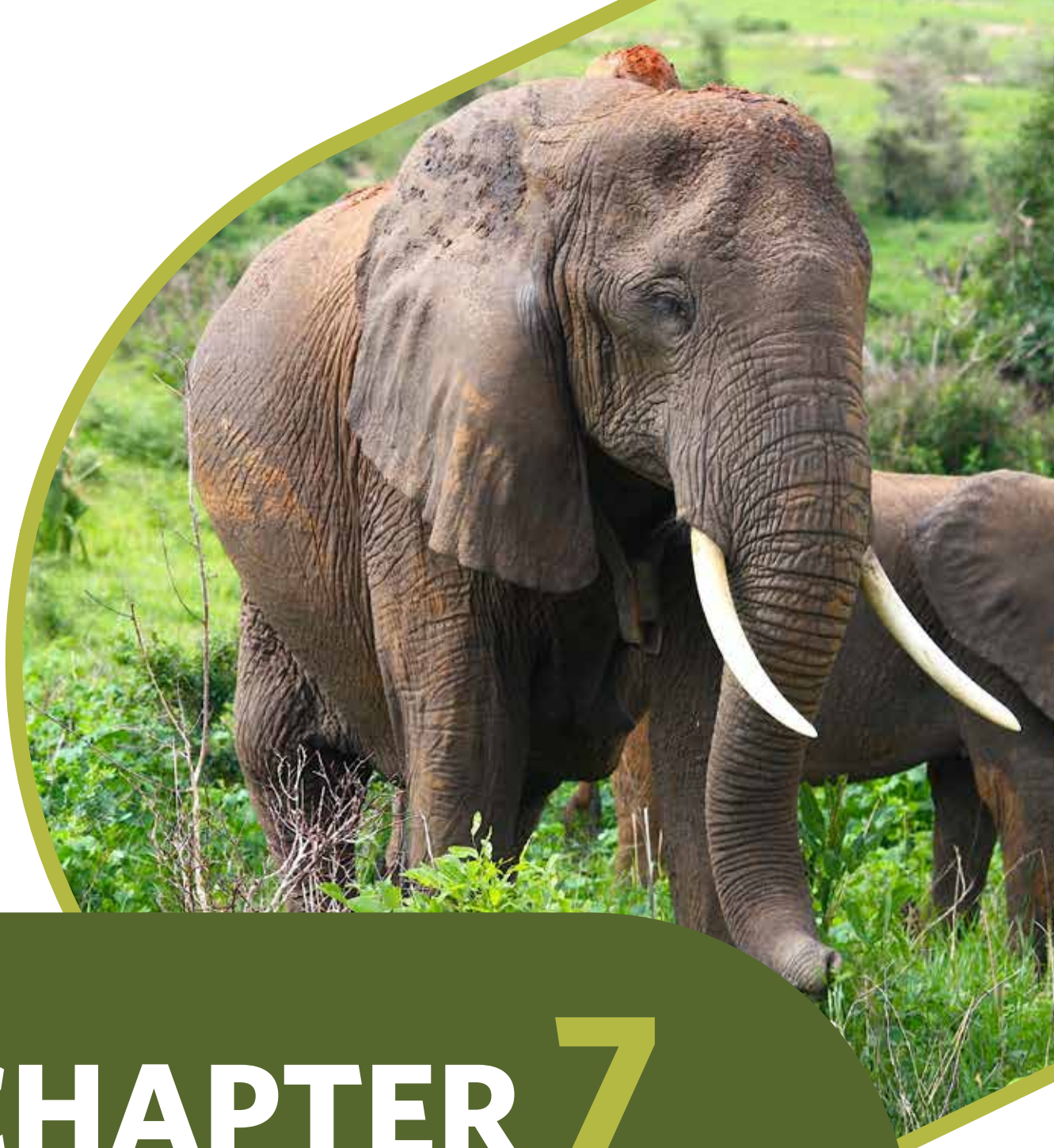
National Elephant Action Plan Coordination Committee. Appointment of a National Elephant Action Plan Coordination Committee (NEAPCC) whose responsibilities include promoting the NEAP, monitoring implementation of the NEAP and assessing progress with the NEAP's three-year implementation plan. The NEAPCC should include a representative from each of the ten elephant sites as well as relevant NGOs working on the ground.



The NEAP Coordinator and the NEAPCC will support communicating results of NEAP implementation periodically to government and donors. Continued support may depend on timely and accurate description of activities that demonstrate progress, if not necessarily impacts. Use of social media is also recommended to help communicate results from the implementation and monitoring to raise public awareness of elephant conservation.

The NEAP Coordinator and NEAPCC will monitor implementation of the NEAP's three-year implementation plan, especially with the means of verification and targets.

Fundraising to ensure the full implementation of the NEAP is vitally important, although it will be challenging given limited government resources and often complex procedures linked with donor funding. Hopefully the majority of priority activities in the NEAP can be funded by government, with gaps identified funded by international and national NGOs. The EPI Foundation will use its best endeavors to assist member states in seeking funding for medium-term high-priority actions (EPIF, 2021).



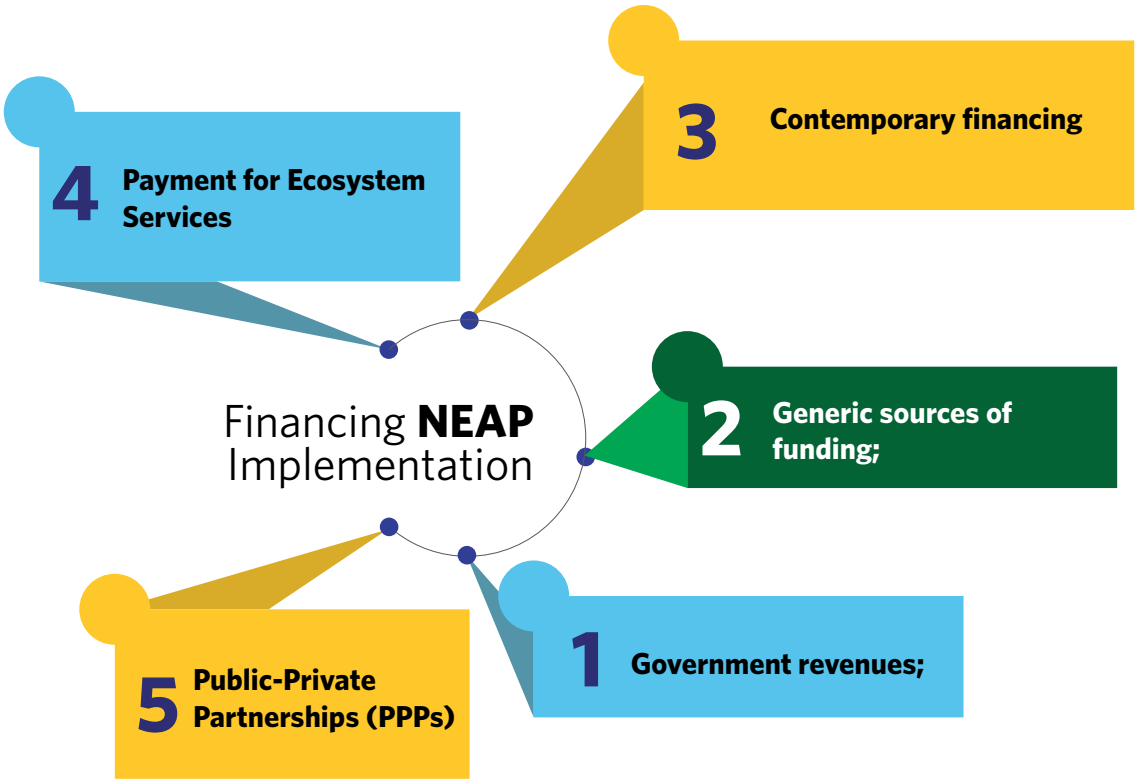
CHAPTER 7

FINANCING NEAP IMPLEMENTATION

CHAPTER 7: Financing NEAP Implementation

Elephant conservation and management in Kenya in the past has been financed to a large extent through donors and Appropriation In Aid (AIA) sources. The AIA was basically through a flourishing wildlife-based tourism industry that in pre-pandemic times contributed as much as 9% to GDP and 10% of total workforce (the revised National Tourism Policy, 2020). To date elephant conservation and management still remains donor dependent. An important step would be to gradually reduce donor dependency and increase government support. Furthermore, project-based support should also be seen as a collaborative management partnership between national wildlife agencies and NGOs, but to varying degrees involving local communities, to attract investment and technical capacity to improve PA performance and biodiversity conservation in general.

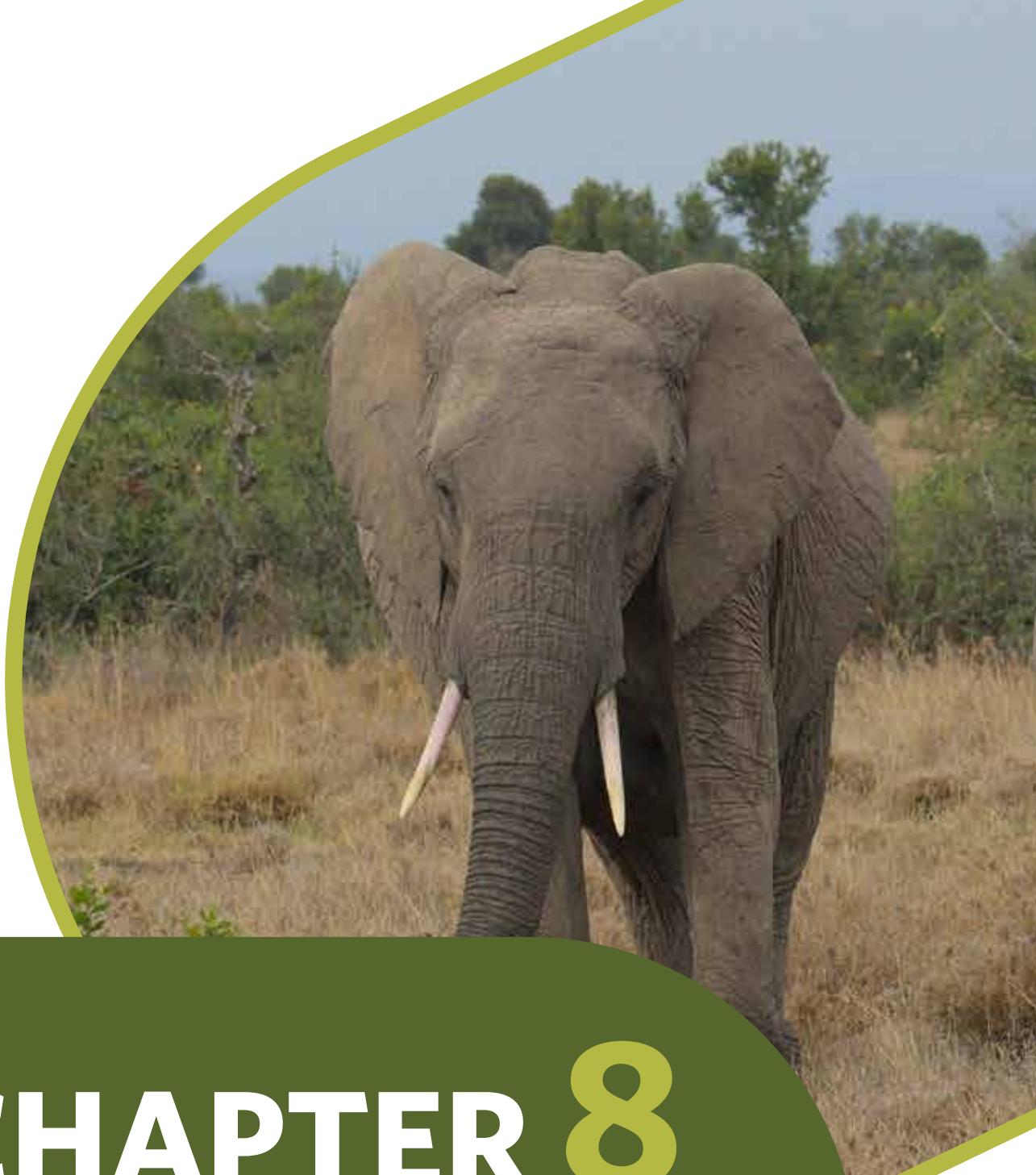
The implementation of Kenya's NEAP will be financed through traditional and innovative mechanisms including blended finance. There will be need to revolutionize traditional resource mobilization approaches. The embrace of partnerships as strategic, proactive tools is expected to unlock funding, investment and expertise for conservation and make investments. A few models are currently in use for the conservation of wildlife and their habitats can be used to attract financing. Some of the these will include;



- **Government revenues;** increased government subvention will be requested especially in financing HEC, operations and maintenance of the state and government agencies. Other ways would include the modernisation of the fiscal framework to increase tax returns that can be ploughed back into conservation
- **Generic sources of funding;** these will include official donor assistance programmes, part financing of NEAP activities together with government and individual partners who undertake NEAP implementation directly.
- **Contemporary financing** modalities such as private and philanthropic funding to especially support the establishment of Nature Based Enterprises and other socio-economic activities as outlined,
- **Payment for Ecosystem Services;** these will include the design and development of offsets instruments either for carbon or other ecosystem services such as water. Both savanna and

forest elephants play an important role in increasing the storage of carbon and nitrogen in the soils (Kristensen et al., 2021; Chami et al., 2019; Chami et al., 2020). Thus, elephants are important players when it comes to climate change mitigation. Although the practice of natural capital accounting is still in its infancy - that is in terms of mainstreaming biodiversity into national accounts – some progress has been made with estimating the value of live forest elephants through their contribution to natural carbon capture (Chami et al., 2020). It was estimated that each live forest elephant is worth more than $1.75 million

- **Public-Private Partnerships (PPPs);** the recently enacted framework for financing government programs under the PPP arrangements will also be explored especially in instances of developing infrastructure and associated services. Long term protected-area management concessions by private sector parties or the non-profit sector, such as NGOs in protected areas, Private or community-managed conservancies will be explored for seeking external financial support while others are such as tourism ventures.



CHAPTER 8

MONITORING & EVALUATION

CHAPTER 8: Monitoring and Evaluation

8.1 Monitoring and Evaluation Process

Implementation of the Kenya NEAP is designed on the assumption that interventions in the form of activities under each of the 8 objectives are aligned to the African Elephant Action Plan (AEAP). This is intended to contribute to strengthened management and conservation of local elephant populations and consequently to the long-term survival of the species in Kenya. Monitoring and evaluation of this plan will be based on a comprehensive results chain mechanism. Monitoring will be conducted to assess progress of activity implementation while evaluation of the outputs and outcomes will determine achievements i.e. whether implementation is meeting the objectives and their targets. It is noted that the next phase of elephant conservation will require; evidence-based approaches, use of adaptive management and systematic appraisals for improving conservation by learning from management outcomes (EPIF, Monitoring & Evaluation Framework for NEAPs).

Thus, the NEAP 2023-2032 M&E plan will provide a mechanism for continuously appraising, reviewing and refining interventions and actions. The clear identification of indicators for monitoring will increase effectiveness of the interventions. The selected indicators including fund raising are intended to be practical and realistic, and will be meaningful at both the national and site level. Periodic assessment of progress at site and national level will provide a vital component of adaptive management.

To track progress towards achieving a desired state, indicators will be used to provide evidence of results outputs. This NEAP provides indicators that will enable assessment of progress towards the achievement of intended outputs, outcomes, objectives and goals. The indicators are placed along the NEAP results chain and correspond to others within the implementation framework. Further the logical arrangement of activities and the link to the objectives, targets, goal and vision strengthen the results chain.

The NEAP will utilize the output indicators to measure the quantity, quality and timeliness i.e. efficiency in the short-term results of implementation performance. Outcomes will be used to track progress in the attainment the intermediate results generated NEAP outputs (for instance: Proportion of Illegally Killed Elephants in key sites (PIKE), or elephant population trend in key sites). Outcome will be used to determine whether the targets for a specific objective have been achieved. However, it is important to note that for most types of indicators for example HEC will require baseline data to track progress. Ideally, all outcome indicators baselines are set to commence at the begining of the NEAP.

8.2 The Reporting and Review Cycle

Monitoring of implementation progress is the responsibility of the National Elephant Action Plan Steering Committee (NEAPSC) and the NEAP Secretariat. The NEAP Secretariat will be responsible for preparing quarterly progress and annual reports, monitoring annual work plans and output indicators. The NEAP Secretariat will advise NEAPSC of any delays or difficulties faced during implementation so that appropriate support or corrective measures can be adopted in a timely and appropriate manner. A key ingredient of the reporting cycle will be the conservation area committees who will implement activities through multi-agency and multi-stakeholder approaches and platforms. The NEAP implementation Plan (NEAP_IP) designates implementation of activities based on the key stakeholders who are active in implementation. It is envisaged that a series of reports to monitor performance will be developed:

Monthly Progress Report: This brief report will be is prepared by the Conservation area committees and the NEAP Secretariat containing monthly activities and milestones achieved.

Quarterly Progress Report: This report will be prepared by the NEAP Secretariat comparing the approved work plan with the actual performance and identifies constraints and recommends remedial actions.

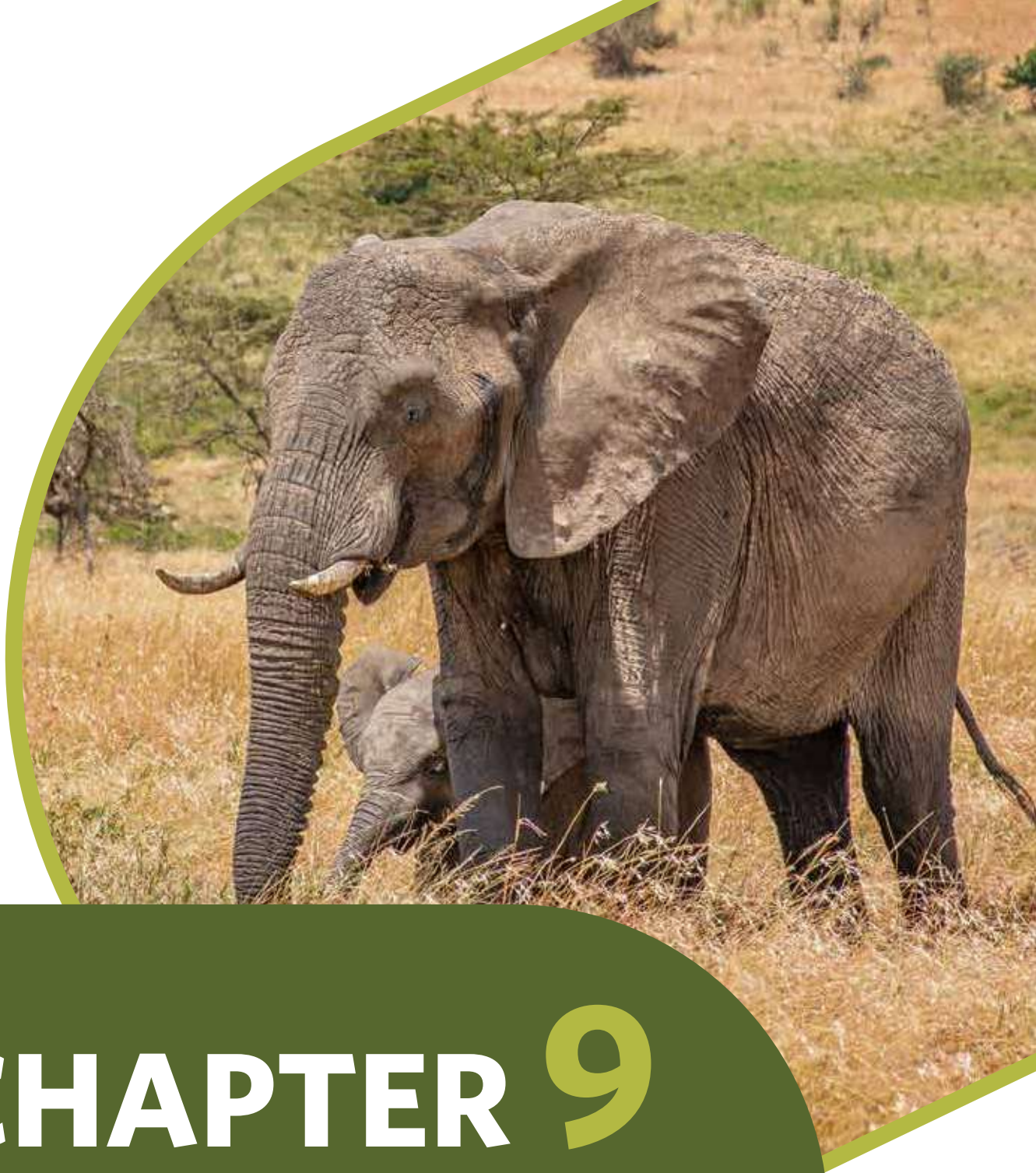
8.3 The Log Frame

Table 16 below provides a summary log-frame that will guide monitoring and evaluation of implementation of the NEAP 2023-2032.

Table 16: Log-frame to guide monitoring and evaluation of NEAP 2023-2032 implementation

Goal: Maintain viable, healthy and secure elephant populations while reducing human-elephant conflict, restoring elephant habitat and increasing the value of elephants to people.				
Baselines 1. Surface area of existing dispersal areas and corridors rehabilitated (km^2), baseline 2022 2. Surface area of new dispersal areas and corridors created (km^2), baseline 2022 3. Proportion of Illegally Killed Elephants (PIKE), baseline 2022 4. Number of ivory seizures at entry and exit points per unit time, baseline 2022 5. Estimate of the size of the national elephant population, baseline 2021 6. Number of HEC incidences per unit time, baseline 2022 7. Type of benefits accruing to local communities in the elephant ranges 8. Attitudes on elephant conservation and management				
Objective	**Target**	**Indicator**	**Verification**	**Risks/Assumptions**
1. Reduce Human-Elephant Conflict by adopting innovative approaches	HEC incidences reduced by at least 70% in the first three years of implementation	% Reduction in HEC	Quarterly HWC/ HEC reports	Timely data analysis and reporting
2. Enhance socio-economic benefits and inclusive conservation and management of elephants	Enhance income generation and livelihoods for communities and stakeholders in elephant ranges	% Increase in benefits to communities in elephant ranges	Periodic CWS report	Lack of capacity with county government Opposition by communities and landholders Political constraints (high level political support is required to continue to find a compromise between land use for development and conservation) Lack of data and information
3- Reduce the illegal killing of elephants and the illicit trade in elephant products through effective law enforcement and community engagement	The Proportion of Illegally Killed Elephants (PIKE) is reduced to less than 1 % per annum (baseline 2022).	% Reduction in PIKE	National Wildlife Status Reports	International demand for ivory does not significantly increase. Sustained law enforcement Reduction in HEC incidences

Objective	Target	Indicator	Verification	Risks/Assumptions
4-Expand elephant dispersal areas and restore existing ranges, and connectivity to ensure population resilience	-Active management of existing populations to ensure resilience	% of viable populations	National Elephant Status report	Timely data collection and analysis Provision of adequate resources
	- Maintain and improve the existing elephant ranges, migration corridors and habitats by 2031	% Cover of quality habitat and migration corridors	Vegetation survey reports	Management and rehabilitation of existing elephant range Provision of adequate resources
	- To expand the elephant ranges and habitat by at least 1% of Kenya's national land mass through securing corridors and creation of conservancies	% Increase in elephant range	National Wildlife Status Reports	Collaboration of land owners Elaborate spatial planning and enforcement of regulation
5- Strengthen co-creation of indigenous and scientific knowledge for conservation and Management of African Elephant	By 2026, a scientifically based research and monitoring program is generating in-depth information on the status of Kenya's 5 distinct elephant populations as regular feedback for adaptive management.	% Increase in applied science in management of wildlife	No. of WRTI applied science management recommendations	Inadequate funding Lack of technical expertise for specialized surveys Uptake and embracing of applied science recommendation by managers
6- Enhance Awareness and Education on elephant conservation and management	By 2026, the majority of stakeholders, including the general public, are supportive of elephant conservation (national baseline 2023).	% Increase in positive attitudes by stakeholders supportive of elephant conservation	National Perception and attitudes towards wildlife report	Adequate information and sensitization programs Provision of benefits that accrue to stakeholders Sustained public and stakeholder education
7- Strengthen collaborations and partnerships among range States.	Active involvement in national, regional and international fora on elephant conservation and management	% Reduction in international ivory trafficking	National Ivory Inventory reports	Sustained international efforts to reduce trade in ivory Sustained cross border law enforcement efforts
8- Ensure the National Elephant Action Plan is sustainably resourced for effective implementation	By 2031 at least 90% of Kenya's NEAP effectively implemented	% of NEAP activities implemented and resourced	Mid term and end of term reports	Lack of funding Lack of expertise Lack of political support Poor monitoring and evaluation. Poor coordination



CHAPTER 9

PRIORITY ACTIONS AND PROJECTS

CHAPTER 9: Priority Actions and Projects

9.1 Priority Actions

Based on the thrust areas of this NEAP, the contextual situations, the vision and goal. The following quick win interventions have been identified and will give the implementation of the NEAP 2023-2032 the Big Push thus ensuring adequate momentum is created towards the full achievement. The implementation of these quick wins is essentially the critical path that guarantees goals and targets of the plan are successful in both the short and long term. It is noted that the priority actions have been carefully selected as they provide a catalytic effect through the linkages with other actions throughout the whole plan. The actions are in tandem with continental and national funding requirements.

9.2 Quick wins

The main quick-win actions include the following:

Appointment of NEAP Coordination and implementation committees

Assessment to guide the rehabilitation of the degraded areas

Development of guidelines and protocols

Standardisation of HEC data

Publicising the NEAP

Harmonisation of elephant mortality data

Establishing the elephant database

9.3 List of National Elephant Action Plan 2023-2032 Priority Activities

Table 17 below provides a summary of priority activities to ensure immediate implementation of NEAP 2023-2032. They are arranged according to NEAP strategic objectives.

Table 17: Priority Activities for implementation during the implementing the NEAP 2023-2032

No.	Strategic Objective	Priority Activity	Estimated Cost (Kshs) '000
1.	8	Sensitization workshops on NEAP 2023-2032 to teams implementing the NEAP at the 8 KWS Conservation Area	8,000
2.	8	Area Elephant Management Committee Meetings within the 8 KWS Conservation Area	8,000
3.	3	Provision of supplementary feeds to elephants during drought periods	10,000
4.	3	Water trucking during drought periods	10,000
5.	3	Construction of successive concrete dams along streams and rivers in elephant range for storage of water during the rainy season	50,000
6.	5	Establishment of National Elephant Database	5,000
7.	5	Standardization of HEC data and information Collection	5,000
8.	5	Harmonization of elephant mortality data	2,000
9.	5	Provision of data analysis hardware and software and associated training on use of software	10,000
10.	5	Provision of resources (equipment, vehicles and finances) to the wildlife education department	20,000
11.	3	Mobilise relevant resources for HEC mitigation including external sourcing of funds to clear compensation backlog	4,000,000
12.	3	Construction of electric fences	1,000,000
13.	2&3	Review, refine, prioritise and secure national elephant corridors	50,000,000
14.	2	Restoration of degraded elephant ranges and dispersal areas based; Undertake habitat management in protected areas and conservancies (invasive species [e.g., Opuntia and Commiphora among others] removal; use of fire as an habitat management tool; mowing)	30,000
15.	2	Translocation of elephants to destock overstocked parks and restock understocked parks as well as for genetic management of isolated and fenced populations	100,000
16.	2	Modernization of the KWS capture and veterinary unit	1,000,000
17.	5	Update the national elephant population status	200,000
18.	1	Force Modernization for enhanced security of elephants	2,000,000
19.	1	Enhanced ground and aerial surveillance patrols to acceptable levels.	5,000,000
20.	1	Sensitization of the judiciary, the police and prosecutors on the NEAP and related elephant issues	10,000
21.	1	Conduct awareness programs on wildlife crime and law enforcement in poaching and HEC hotspots.	200,000
22.	5	Establish the stocking rates of elephants in protected areas, ecosystems and conservancies	30,000

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Annex 1: List of Stakeholders

Stakeholder	Scope	Role
National Government/State Agencies		
Ministry of Tourism & Wildlife (MoTW)	National	Policy
County Governments	County	Policy, enforcement, securing wildlife space (Spatial Planning through CSPs)
Kenya Wildlife Service (KWS)	National	Implementation of NEAP
Kenya Forest Service (KFS)	National	Management of forest habitat
Wildlife Clubs of Kenya (WCK)	National	Education
National Government Administration Office (NGAO)	County	County Security coordination
National Museums of Kenya	National	Research
Regional Center for Mapping of Resources for Development (RCMRD)	National	Capacity building (Remote Sensing & GIS)
Department of Resource Surveys & Remote Sensing (DRSRS)	National	Technical (resource surveys)
Relevant Government Ministries & State Departments	National	Policy & collaboration
Wildlife Training and Research Institute (WRTI)	National	Research
County Wildlife Conservation Committees	County	Linkages
National Commission for Science, Technology and Innovation (NACOSTI)	National	Regulatory (Research)
National Environment Management Authority (NEMA)	National	Environmental enforcement
Kenya Industrial Research Development Institute (KIRDI)	National	Intellectual property rights
Community Based Organizations		
Community Conservancies	County	Wildlife conservation & community involvement
Kenya Wildlife Conservancies Association (KWCA)	National	Governance
Community Forest Associations (CFA)	National	Habitat conservation and livelihoods
Reteti Elephant Sanctuary	Samburu	Nurturing orphaned elephants
Local/International-Non-State Actors		
Conservation Alliance of Kenya (CAK)	National	Governance
African Conservation Centre (ACC)	South Rift	Wildlife conservation and supporting community livelihoods
African Wildlife Foundation (AWF)	National	Resource mobilisation, elephant conservation, capacity building and supporting community livelihoods
Amboseli Trust for Elephants (ATE)	South Rift	Elephant monitoring

Stakeholder	Scope	Role
Africa Wildlife Tracking	International	Elephant tracking technologies
IUCN African Elephant Specialist Group (AfESG)	International	Technical support
African Fund for Endangered Wildlife (AFEW)	Nairobi	Education and awareness
Maasai Mara National Reserve	Narok	Collaboration
Monitoring of Illegal Killing of Elephants (MIKE)	International	Elephant monitoring
Mpala Research Centre (MRC)	Laikipia	Wildlife research
Mara Elephant Project (MEP)	South and central rift	Resource mobilisation, elephant monitoring, and community livelihoods, supporting KWS in HEC management
Mount Elgon Elephant Project (MEEP)	Mt. Elgon	Elephant monitoring
Northern Rangelands Trust (NRT)	Northern Rangelands	Governance, elephant conservation, resource mobilisation, securing habitats and community livelihoods
Mount Kenya Trust	Mount Kenya	Resource mobilisation, elephant conservation and supporting community livelihoods
Rhino Ark	Mount Kenya, Aberdares, Mau, Eburru, Kakamega	Resource mobilisation, game proof fences
Save the Elephant (STE)	Samburu, Tsavo, North Kenya	Elephant monitoring & research
World Wildlife Fund Kenya (WWF-K)	National/ International	Resource mobilisation, elephant conservation, capacity building and supporting community livelihoods
Zoological Society of London (ZSL)	International	Resource mobilisation, elephant conservation, capacity building and supporting community livelihoods
Tsavo Trust	Tsavo	Resource mobilisation and elephant monitoring
Wildlife Conservation Society (WCS)	International	Conservation action, education, and inspiring people to value nature
Pan African Wildlife Conservation Network	Nairobi	Advocacy
Stop Ivory	Nairobi	Advocacy
Savannah Tracking	National	Elephant tracking technologies
Born Free Kenya	Amboseli, Meru, Kajiado, Narok	Resource mobilisation, elephant conservation and supporting community livelihoods
Nature Kenya	National (Arabuko Sokoke)	Elephant Monitoring
Wildlife Direct	Nairobi	Advocacy
Elephant neighbours	Nairobi	Advocacy
Kenya Association of Tour Operators (KATO)	National	Tourism

Stakeholder	Scope	Role
Learning Institutions	National & international	Conservation education, awareness, research
Research Institutions/projects	National & international	Research
Sheldrick Wildlife Trust	Tsavo, Amboseli, Chyulu, Meru , Nairobi, Laikipia, Naivasha and Masaai Mara	Resource mobilisation, elephant conservation, nurturing orphaned elephants and supporting community livelihoods. Collaboration with KWS on Veterinary interventions
Space for Giants	Samburu/ Laikipia/ Nyeri	Resource mobilisation and Elephant monitoring
Lobby groups	Site based e.g Friends of Tsavo, Arabuko Sokoke etc	Advocacy, resource mobilisation
Stand Up Shout Out (SUSO)	Nairobi	Advocacy
Hoteliers	National	Tourism
Africa Network for Animal Welfare (ANAW)	Nairobi	Advocacy
Intergovernmental institutions		
United States Agency for International Development (USAID)	International	Resource mobilisation, capacity building
US Fish & Wildlife Service (USFWS)	International	Capacity building, resource mobilisation
Elephant Protection Initiative (EPI)	International	Resource mobilisation, advocacy, technical support
International Union for Conservation of Nature (IUCN)	International	Technical support
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	International	Technical
East Africa Community (EAC)	Regional	Policy
United Nations Environmental Program (UNEP)	International	Policy, governance and technical
United Nations Educational, Scientific and Cultural Organization (UNESCO)	International	Technical
United Nations Office on Drugs and Crime (UNODC)	International	Capacity building and law enforcement equipment
Embassies and high commissions	International	Policy
European Union (EU)	International	Resource mobilisation, capacity building
Wildlife ambassadors, Private individuals, Philanthropist & corporates	National	Resource mobilisation, advocacy, publicity

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