# Elephant Conservation Action Plan for Uganda (2016-2026)

2016

Photo credit- Fred Kisame Eria

Acknowledgements

Contents

Abbreviations and Acronyms

AEAP	African Elephant Action Plan
ADF	Allied Democratic Front
AUTO	Association of Uganda Tour Operators
AWF	African Wildlife Fund
BINP	Bwindi Impenetrable National Park
CAA	Civil Aviation Authority
CAR	Central African Republic
CARE	CARE International in Uganda
CBOs	Community Based Organizations
CHAs	Controlled Hunting Areas
CITES	Convention of International Trade in Endangered Species
CMI	Chieftaincy of Military Intelligence
CSOs	Civil Society Organizations
DRC	Democratic Republic of Congo
EAC	East Africa Community
ECAP	Elephant Conservation Action Plan
EIA	Environment Impact Assessment
EPI	Elephant Protection Initiative
FAO	Food and Agricultural Organization
GEF	German Environmental Facility
GIZ	German Society for International Cooperation
HEC	Human Elephant Conflict
ICCN	Institut Congolais pour le Conservation de la Nature
IFAW	International Fund for Animal Welfare
IGCP	International Gorilla Conservation Project
ITFC	Institute of Tropical Forest Conservation
IUCN	International Union for Conservation of Nature
KCA	Kibale Conservation Area
KCWA	Karenga Community Wildlife Area
KNP	Kibale National Park
KVCA	Kidepo Valley Conservation Area
KVNP	Kidepo Valley National Park
KWS	Kenya Wildlife Service
LATF	Lusaka Agreement Task Force
LG	Local Government
LRA	Lord's Resistance Army
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MBIFCT	Mgahinga and Bwindi Impenetrable Forest Conservation
MBWR	Matheniko-Bokora Wildlife Reserves
MEMD	Ministry of Energy and Mineral Development
MFCA	Murchison Falls Conservation Area
MFNP	Murchison Falls National Park
MGNP	Mgahinga National Park
MIKE	Monitoring Illegal Killing of Elephants

MLHUD	Ministry of Land, Housing and Urban Development
MoES	Ministry of Education and Sports
MoH	Ministry of Health
MoWE	Ministry of Water and Environment
MTWA	Ministry of Tourism, Wildlife and Antiquities
MUBFS	Makerere University Biological Field Station
MUK	Makerere University Kampala
MUST	Mbarara University of Science and Technology
NEMA	National Environment Management Authority
NFA	National Forestry Authority
NGO	Non-Government Organization
PA	Protected Area
PIKE	Proportion of Illegally Killed Elephants
PUWR	Pian Upe Wildlife Reserve
QECA	Queen Elizabeth Conservation Area
QEPA	Queen Elizabeth Protected Area
RBDC	Ranger Based Data Collection
RS	Revenue Sharing
TANAPA	Tanzania National Parks
TRAFFIC	Trade Records Analysis of Flora and Fauna (The Wildlife Monitoring Network)
UNEP	United Nations Environment Program
URA	Uganda Revenue Authority
USAID	United States Agency for International Development
USFWS	United States Fish and Wildlife Service
UTB	Uganda Tourism Board
UWA	Uganda Wildlife Authority
UWEC	Uganda Wildlife Education Centre
UWS	Uganda Wildlife Society
WCS	Wildlife Conservation Society
WR	Wildlife Reserve
WWF	World Wildlife Fund for Nature
ZSL	Zoological Society of London

Foreword

The African elephant has been and still stands as one of the key contributors to habitat and finance sustainability through habitat modification and tourism respectively. Its contribution to the maintenance of wild ecosystems and hence the provision of change for the survival of other wildlife can never be over emphasized. Elephants are some of the key attractions in the wild that many travelers crave to watch. The African elephant therefore presents a significant opportunity towards attainment of Uganda Vision 2040.

World over, the concern about dwindling elephant populations in all Range States and the desire to sustainably conserve this key species has taken central stage at many debates that are focused on their survival. Range States are being urged to strengthen strategies that are focused on uplifting their conservation status. The development of this Elephant Conservation Action Plan (ECAP) is a key cornerstone intervention Uganda has put in place to contribute to policy in elephant conservation.

This plan is built around the auspices of the Uganda Wildlife Policy 2014 and complements the National Development Plans. The ECAP focuses on implementation of the eight strategic objectives that are aimed at "halting poaching of elephants and trade in elephant products, minimized human elephant conflict, controlled habitat loss and degradation, raised awareness about elephant conservation, attaining effective protection of elephants through awareness, collaboration, resource mobilization and management, and benefits from elephant conservation accruing to Ugandans". These strategic objectives were formulated during a stakeholder consultative process and are believed to be the key areas in achieving Uganda's dreams in attaining its goal in sustainable elephant conservation.

The priority project areas for implementation under this plan have been comprehensively articulated to reflect pertinent issues in conservation of elephants in Uganda. I therefore call upon all the partners, stakeholders, communities and community leaders at various levels, academicians and policy makers to pull their efforts together in this common fight against the extinction of our great heritage in Uganda so that we may together, in future, rejoice to see the results of our efforts and contribution to the survival of this endangered species and to national development. It's not doubtable that the successes that we will achieve will be a challenge to our children and grandchildren in maintaining the legacy that we shall have left for them to perpetually uphold.

I wish to express my sincere gratitude to all who have contributed in one way or the other to the development of this plan.

Chairman, UWA Board of Trustees

Preface

The African elephant is facing serious threats to its long-term survival. The two key threats to elephant conservation are habitat loss and poaching for ivory. Poaching undermines decades of conservation, drains source countries of their natural heritage, threatens the economic safety of rural communities and heavily affects revenue from wildlife tourism. Elephants in Uganda remain listed under Appendix I of CITES and the country is committed to its protection under the Uganda Wildlife Act Cap 200 of 2000. Uganda actively participated in the development of the range-states African Elephant Action Plan (AEAP). However, there was need to domesticate the actions identified in the AEAP at the country level. The development of a country-specific elephant conservation action plan is one of the key steps towards this domestication. A number of countries in the region have developed country-specific elephant conservation strategies/plans and Uganda has realized a need to develop one that will provide specific actions that are relevant to the country's challenges in promoting elephant conservation.

Elephants are iconic species for both conservation and for tourism. I am glad that the elephant population in Uganda has been on the increase since the late 1990s despite the general population decrease on the African continent. We cannot take this increase for granted. It comes at a huge cost in respect to protection and ensuring the security of the elephant population. We need to consolidate this increasing trend. This can only be achieved if we have a clear and concise elephant conservation management plan.

I wish to note that the Uganda Wildlife Act mandates the Executive Director of UWA to prepare management plans for protected areas and species. Whereas we have been doing very well in developing management plans for protected areas, we have not done very well in the development of species specific plans. I am glad that we have now come up with a species specific plan for elephants. I am hopeful that this elephant conservation action plan will attract support from all stakeholders, partners and the donor community.

We are grateful to the president of Uganda H.E Yoweri Kaguta Museveni who led the African leaders at the launch of the Clinton initiative to tackle wildlife trafficking, particularly the fight against the illegal ivory trade. We are also grateful to UNEP for availing the African Elephant Fund that has played a vital role towards strengthening the capacity of law enforcement against elephant poaching and illegal ivory trade. Such initiatives from our development partners are important for strengthening the conservation of African elephants. We are optimistic that with the Action Plan in place, more partners will come on board to address challenges affecting elephant conservation in Uganda.

I call upon all stakeholders to support the implementation of this action plan.

Conserving for Generations

Executive Director-UWA

SECTION A: INTRODUCTION & STATUS REVIEW

1.0 Introduction

The African elephant (*Loxodonta africana* and *Loxodonta cyclotis)* is the largest terrestrial mammal on earth and exhibits complex social behavior, and plays a key role in wild ecosystems. Despite their important roles in maintaining ecological balances and the flow of tourism income to the range states, the African elephant remains one of species faced with a high risk of extinction. Globally, the elephant is classified as vulnerable by the IUCN. As a result of the high levels of commercial poaching largely attributed to illegal trade in ivory and its products, the African elephant population is facing substantial pressure. This is exacerbated by habitat loss and degradation, mainly due to land-use changes driven by an increased human population in the region. In Uganda, the 1970s and early 1980s were devastating times for the African elephant, instigated by lawlessness that resulted in heavy commercial poaching mostly for meat and ivory. Consequently, the elephant population declined from an estimated 30,000 individuals in the 1960s to about 2,000 individuals in the 1980s (Lamprey et al. 2003).

Elephants are vital to the web of life in Africa. As a keystone species in habitat modification, elephants play important roles in providing balanced conditions for all the other species to survive within their ecosystem, opening up forest habitats to create firebreaks and grasslands, creation of water pools for other wildlife, and leaving nutrients along their way required for the growth of flora and certain faunal species. Sometimes called the "gardeners", elephants are essential for the dispersal of seeds that maintains tree diversity (Scriber, 2014). However, the contributions of elephants towards ecosystem resilience remain only partially understood (Ssali et al. 2012).

In the past, elephants had an extensive range of habitats, traversing across the country through migration corridors. However, the current increase in the human population, coupled with the demand for arable land and settlement, has considerably reduced the suitable range for elephants in Uganda (Figure 1). This trend has contributed to the fragmentation of elephant habitats and affected their natural migratory pattern and dispersal behaviors. As a result, the distribution of elephants in Uganda is primarily limited to protected areas, except for a few individuals in small remaining patches of

habitat found in open areas. Due to lack of effective or functional corridors, former migration patterns are now dysfunctional.
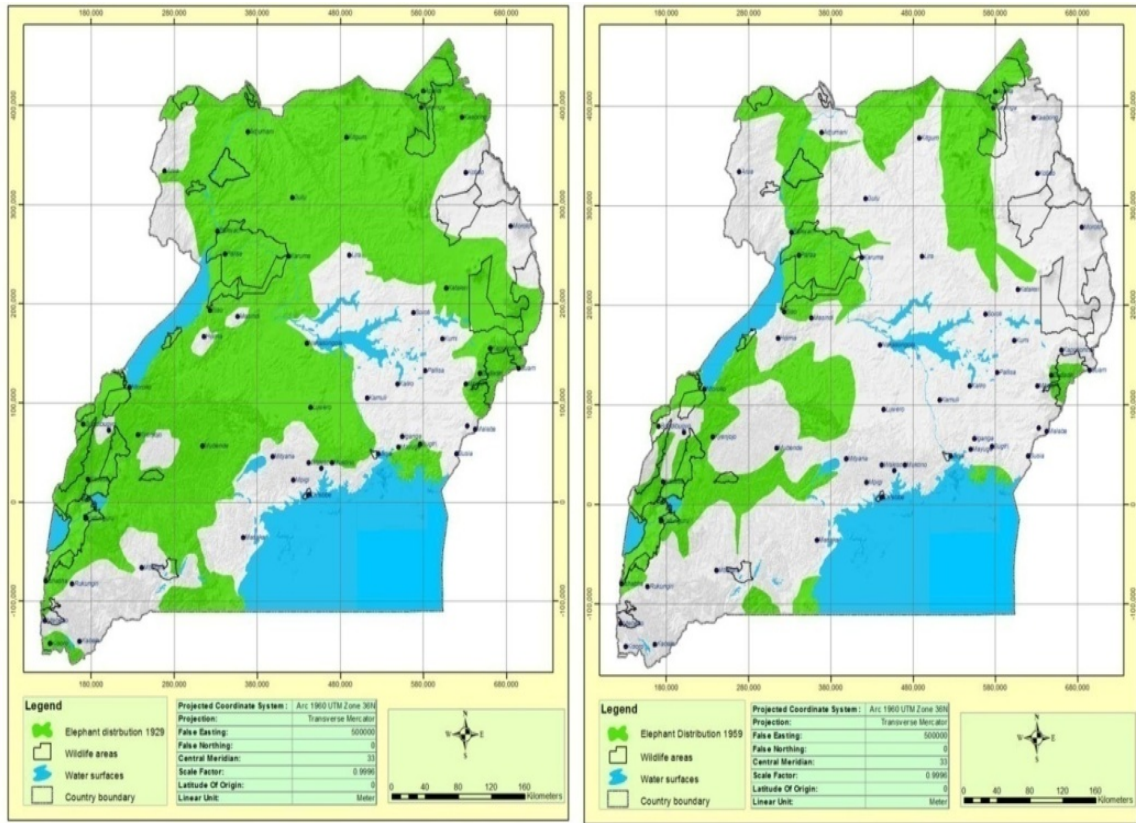
Figure 1: Elephant distribution in Uganda in 1929 (*left*) and in 1959 (*right*).

At the moment, the largest populations of elephants (see Table 1) are found in Queen Elizabeth, Murchison Falls, Kidepo Valley and Kibale National Parks, with small populations found in Bwindi Impenetrable NP, Rwenzori Mountains NP, Toro Semliki WR, Katonga WR, Budongo Forest Reserve outside MFPA, Karenga Community Wildlife Area, Otze/ Dufile, Aswa Lolim and East Madi Wildlife Reserves (Figure 2). Elephants have also been sighted in Sango bay, and are believed to be migrating and using habitats across the border in Tanzania in search for water and forage. Uganda also has one elephant in captivity at the Uganda Wildlife Education Centre (UWEC).

Since the late 1980s, there has been a gradual increase in the size of the elephant populations of Queen Elizabeth, Murchison Falls and Kidepo Valley National Parks. The elephant population in wildlife protected areas is currently estimated at 5,564

(Table 1), but this estimate is probably somewhat higher if elephants in forested areas outside national parks and wildlife reserves are included.

Figure 2: Uganda's protected area estate.

The recovery in elephant numbers from 2,000 in the 1980s to 5,564 (2014/15) can be largely attributed to successful conservation efforts implemented by the Uganda Wildlife Authority, improved legislation and conservation policies, and the stability and security in the country. However, an increasing elephant population alongside a growing human population has come at a price in the form of increased human-wildlife conflicts. These conflicts arise out of loss of suitable habitat for elephants due to agricultural expansion driven by the increase in human population. The action plan takes into account national development plans and long-term investment strategies that are aimed at addressing these challenges. Other major threats include competing land uses such as developments within protected areas in terms of oil and gas exploration, hydro-power infrastructure establishment, mining, commercial agricultural expansion around core elephant conservation areas and migratory routes, and market driven demand for ivory resulting in increased poaching of elephants.

2.0 Action Plan Preparation and Development

Preparation of this Elephant Action Plan started with identification of stakeholders (both at individual and institution level) to be consulted; these included UWA staff and the conservation experts from research and academic institutions as well as technocrats from government departments and agencies. Information for plan development was collected through secondary data reviews (Field data surveys conducted by wildlife management institutions since the 1960s, Ranger Based Data Collections on routine monitoring-RBDC) and consultations. Consultations were both at field level involving UWA staff and stakeholders in protected areas and at the national level. This exercise was conducted between December 2012 and May 2015. Consultations enhanced our understanding of the Strengths, Weaknesses, Opportunities and Threats (SWOT) of elephant conservation in Uganda. At the national level, a consultative meeting was held in May 2015, during which the vision, goal, and strategic objectives were formulated, the threats analysis done, and targets and activities identified for the logical framework. One of the achievements of the consultative exercise was the crafting of the overall goal: "*by 2026 elephants have increased to at least 8,300 from their current 5,564 and are distributed across their range.*" To attain this goal, eight strategic objectives need to be achieved, namely: 1) Poaching of elephants and trade in elephant products halted, 2) Habitat loss and degradation controlled, 3) Human-elephant conflict minimized, 4) Awareness on elephant conservation and management of key stakeholders increased, 5) Research on elephant conservation issues strengthened, 6) Cooperation among range states improved, 7) Effective protection of elephants improved by community awareness and increased benefits, and 8) the Elephant Conservation Action Plan (ECAP) for Uganda effectively implemented. During the development of the UWA strategic plan, several stakeholders and their roles were identified. UWA made use of this information to enrich the development of this ECAP. The plan has been developed to cover a period of ten years (2016-2026) with consequent midterm review after five years.

3.0 Brief Biology and Conservation Needs of Elephants

Description: A large grey or grayish-brown animal with a long flexible trunk, prominent ears, thick legs, and pointed tusks. The largest living land mammal; males

stand 3.6m tall at the shoulder and weigh up to 6.5 tons while females are 3m tall and weigh up to 4.5 tons. Their trunk is actually a long nose used for smelling, breathing, trumpeting, drinking and grabbing food. The African elephant has two finger-like features on the end of its trunk as an adaptation for grabbing small items. African elephants, unlike Asian elephants, are not easily domesticated.

Diet: Much of their time is spent feeding. Very adaptable in diet, they are both grazers and browsers and feed on various vegetable matters. Elephants break and fell big trees and can cause deforestation when the carrying capacity of the habitat is surpassed. The females undergo a gestation period of 22 months and can live up to 60-70 years in the wild (Dorst and Dandelot 1970) and 90 years in zoos. The calving interval is 4.5 – 6 years and females are reproductively capable for 40 years.

Intraspecific variation: Two distinct types of African elephants formerly considered as full species can be recognized. The Bush elephant (*Loxodonta africana*) is larger (about 4 meters high in shoulder) and has large broad ears with a sharply pointed lower lobe. The tusks are longer and are usually curved forwards. The Forest elephant (*Loxodonta cyclotis*) is smaller (about 3 meters at the shoulder) and has smaller rounded ears with less pronounced lappets and straighter, thinner and shorter tusks, usually projecting downwards (Dorst and Dandelot 1970).

Habits: Gregarious, elephant live in herds averaging from 10 to 20 individuals, sometimes up to 50, led by an old female. There is usually a master bull, one or two immature, and a number of cows and calves of various ages. Particularly in severe drought, the herds are much larger and number up to several hundreds. Adult elephant have no natural predators, but young may be attacked by lions (Dorst and Dandelot 1970). Elephant babies are weaned at two years old. Elephants give birth to one young, but twinning happens occasionally (Olupot *et al*. 2010).

4.0 Elephant Populations and Distribution by Conservation Area

4.1 Methodology

Population estimates over the years are a reflection of findings largely influenced by the different methods employed in different habitats and at different times. Different methods for population estimation are recommended for different habitats. Earlier survey results showed great fluctuations in numbers of elephants between years in the

1960s which may have been partly due to using different methods and partly due to migration (Buss 1990). Between 1995 and 1999, comprehensive aerial surveys under the Protected Area Assessment Program (PAAP) were undertaken to determine the status of large mammals in Uganda's savannah areas, and the results from these surveys provide baseline information for Queen Elizabeth and some of the other protected areas. Population estimates and distribution of large mammal species are available from various counts conducted prior to 1973 and from aerial surveys conducted in 1980, 1995, 1999, 2005, 2010 and 2014. In 1980, the first Systematic Reconnaissance Flight (SRF) survey was conducted in Murchison Falls Protected Area. Subsequent sample counts for protected areas were conducted during 1995/96, 1999/2000, in 2005, 2010 (Sommerlatte and Williamson 1995; Lamprey and Michelmore 1996; Lamprey 2000, and Wanyama (2010, 2012 and 2014).

4.2 Queen Elizabeth Protected Area (QEPA)

Queen Elizabeth Protected Area (QEPA) is part of a larger trans-boundary ecosystem that includes Kibale and Ruwenzori Mountains National Park in Uganda and the *Park National de Virunga* in the Democratic Republic of Congo (DRC). Queen Elizabeth National Park was designated a Biosphere Reserve in 1979. The lowest elephant population ever recorded was in 1980 (150 individuals; see Figure 3). Since then, there has been an increase in elephant numbers due to improved law enforcement. Current survey results of 2,913 elephants show that the numbers have recovered to around the mean value of their 1960-1970s levels when they were at their peak numbers (Wanyama et al. 2014) (Figure 3). This recovery was facilitated by the trans-boundary links between QEPA and Parc National de Virunga as shown by Plumptre et al. (2007).

Trans-boundary movement of elephants between QEPA in Uganda and Virunga in DRC is common and has been known for at least 50 years with animals moving back and forth between the two parks. Plumptre et al. (2007) highlights the importance of this migration, being vital for the survival of elephant populations within the larger landscape. This kind of movement has, to a large extent, led to changes in the distribution of elephants in QEPA, a trend which continues to date (Figure 4). Elephants were also known to move from QENP to Kalinzu and Kashoya-Kitomi Forest Reserves (Lamprey, pers. comm., 2006). In Rwenzori Mountains, ranger based

data collections have shown presence of elephants. This was also confirmed by Keigwin (2005).
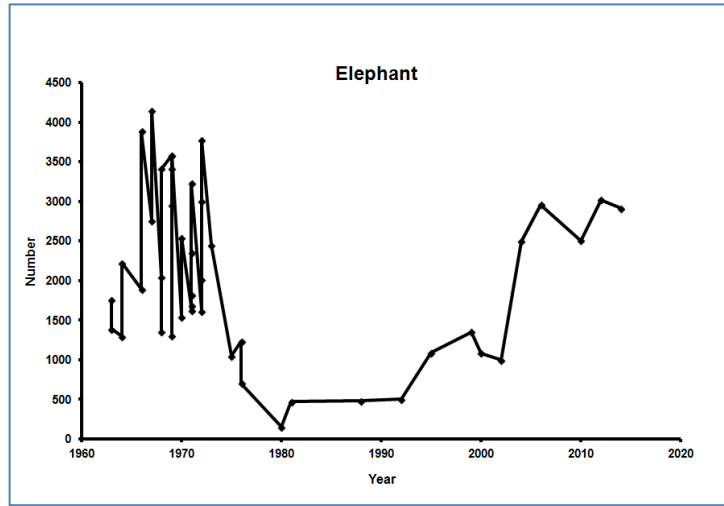
Figure 3: Population trend for QEPA from 1963 to 2014.
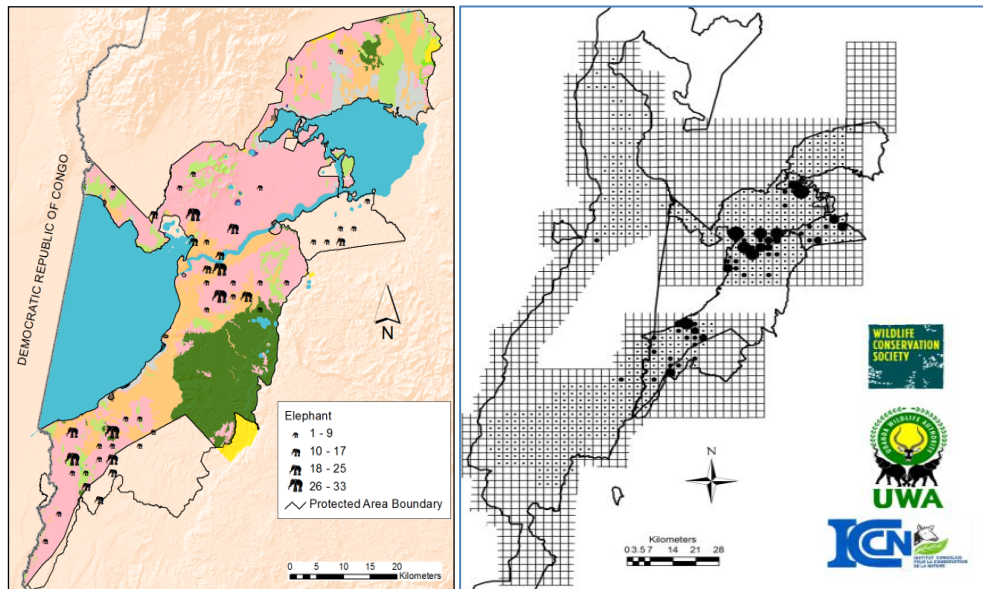
Figure 4: Distribution of elephants in September 2012 (*left*) and May-June 2014 (*right*) in QEPA.

4.3 Murchison Falls Protected Area (MFPA)

The vulnerable status of elephants in Uganda and their overall decline is largely attributed to population changes in Murchison Falls Protected Area. Here elephants were most affected by poaching during the 1970s and 1980s. Before 1973, the population was estimated at 12,000 individuals, and by 1980 it was reduced to

approximately 1,420 (Douglas-Hamilton et al. 1980, cited in Lamprey et al. 2003). During this period, all elephants south of the Nile River were completely wiped out. While elephant numbers have increased since 1980, the population remains below the pre-1973 levels. In 2009, a census by WCS recorded 19 Elephants in Madi Corridor showing the need for a wildlife dispersal corridor between MFPA and other elephant habitats.

Early official estimates of elephant populations in the Bunyoro district suggest that during the 19th century more than half of the elephants in Uganda were found in this region. Most of the elephant population resided in south-central and western Bunyoro, but it was to this area that people who previously resided close to the banks of the river had been relocated during the sleeping sickness outbreak (Laws et al. 1975). Thus, as people came to inhabit the historic elephant range, conflict between humans and elephants increased. The current survey results of 1,330 individuals in MFPA show that elephant numbers still have a long way to go to recover to their 1960-1970s population levels (Wanyama et al. 2014) (Figure 5).
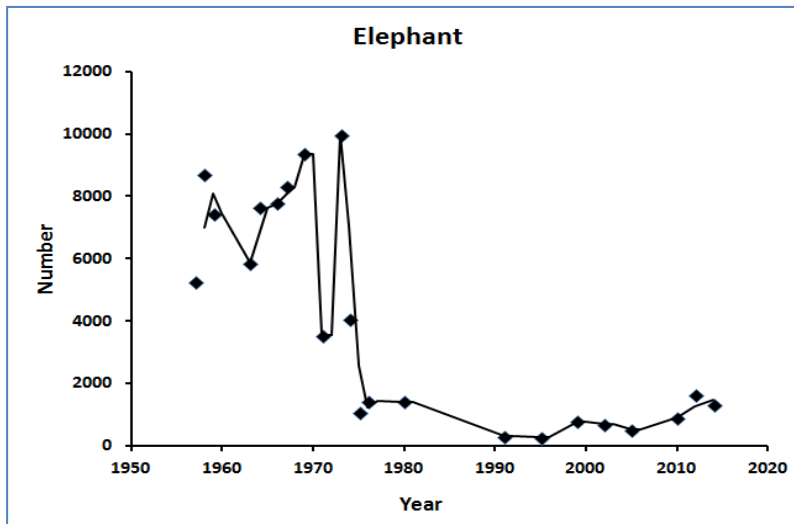
Figure 5: Population trend for MFPA from 1957 to 2014.

The current distribution of elephants shows that they are commonly seen in Buligi, Tangi and Paraa sectors on the northern bank of the Nile, evenly distributed over both grassland and woodland vegetation (Figure 6).
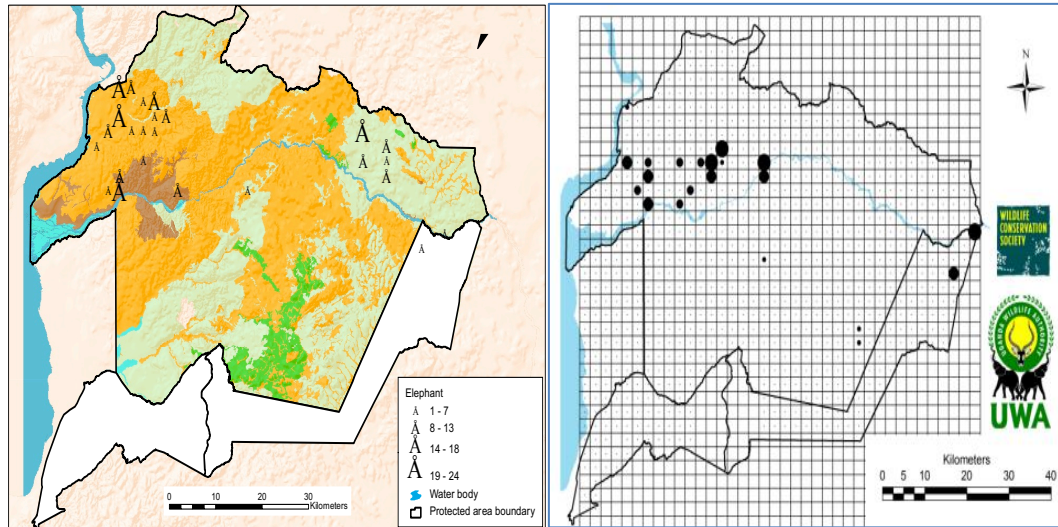
Figure 6: Distribution of elephants in June 2012 (*left*) and May-June 2014 (*right*) in MFPA.

4.4 Kibale Conservation Area (KCA)

Elephants are found throughout Kibale Conservation Area, which is comprised of Kibale National Park (KNP), Katonga Wildlife Reserve, Semuliki National Park and Toro Semuliki Wildlife Reserve. In 2010, the elephant population in Kibale National Park was estimated from dung counts at 487 (Wanyama 2010) (Figure 7). The map (Figure 7) shows the location of elephants in KNP by dung and sightings from 2004 to 2012.

While elephants were observed throughout the park, concentrations of elephants were observed in the central areas of Ngogo, southeast and north of the park. It is envisaged that elephants used to move in the corridor between KNP and Queen Elizabeth National Park (QENP). The corridor was established in 1926 as a controlled hunting area and to maintain and facilitate elephants in their passage between forested areas to the north (which became Kibale Forest Reserve in 1932) and savannah areas to the south (which became QENP) (Baranga 1991, Drennon 1997). This corridor still exists, but is now very narrow. Much of this narrow strip is not settled, but the land bordering on it is now occupied and heavily degraded by agricultural development. This increases pressure on the corridor and threatens its functionality as an elephant migratory passage.
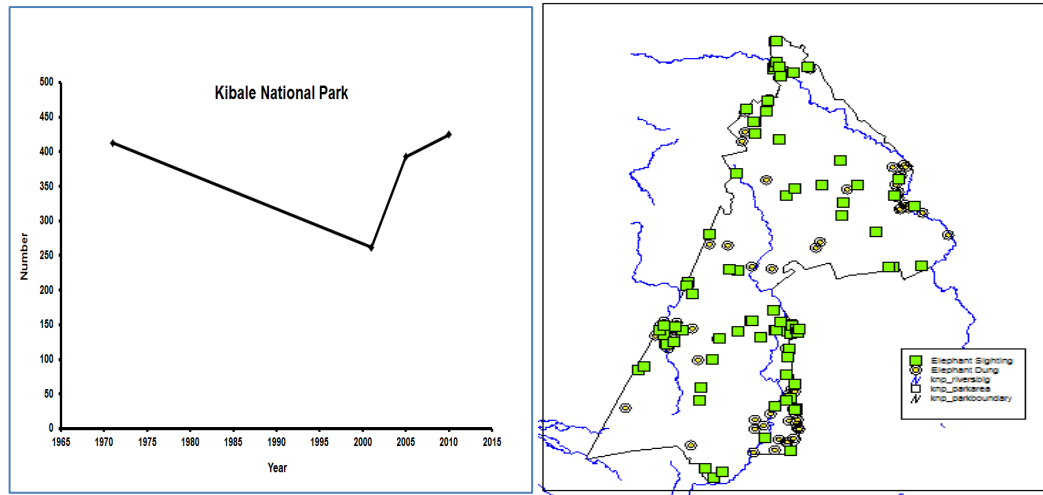
Figure 7: Elephant population trend from 1970s-2010 (*left*) and distribution from 2004-2012 (*right*) in KNP

In Katonga Wildlife Reserve elephants have been sighted ranging within an area approximately 51.75 square kilometers mostly in the riverine forest and papyrus swamp in the areas of Kataraza and alongside River Katonga (see Figure 8) (Kisame and Wanyama 2015). This small remnant population is thought to have once been part of a larger population that extended to Kibale National Park and is now isolated (M. Polanski. pers. comm., 2004).
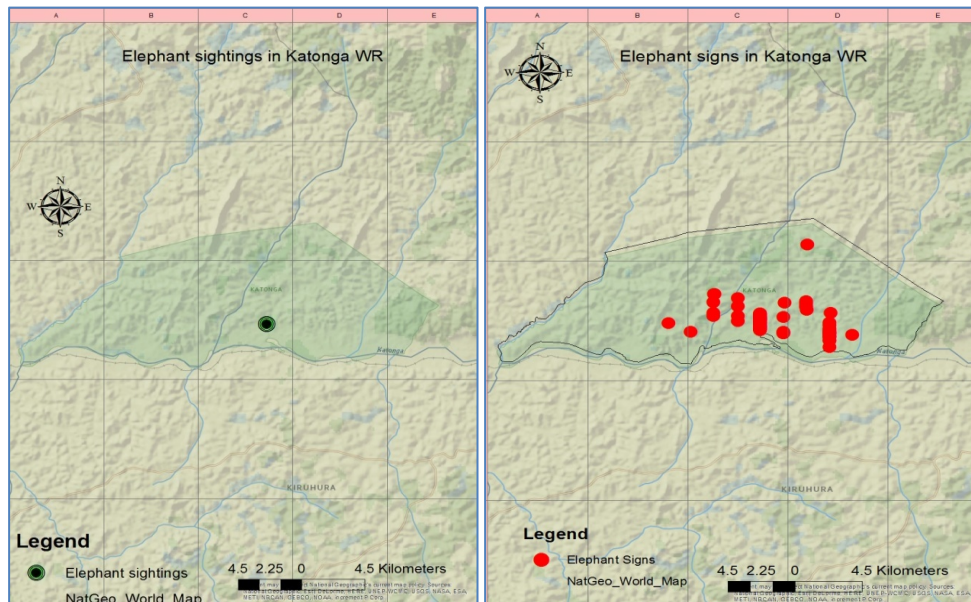
Figure 8: Distribution of Elephants in Katonga Wildlife Reserve, March 2015.

4.5 Kidepo Valley National Park (KVNP)

In the 1990s, with improved management, the population started increasing in Kidepo Valley National Park (KVNP). This can be attributed to low death rates and trans-boundary elephant migrations. However, few numbers were estimated in the year 2004 compared to the year 2000. This may be due to the different survey methods used or because elephants migrated out of the park to the neighboring Karenga Community Wildlife Area. For example, in 2000 an aerial sample count was conducted while in 2004 it was an aerial total count.

In addition, the two surveys were conducted during different times of year. The 2014 survey indicated an increase in the elephant population, with 407 (total count) individuals in KVNP. The overall trend shows that elephant numbers (Figure 9) have increased to levels of the 1960s and 1970s (Wanyama et al. 2014). Known elephant ranges in the eastern parts of Uganda also included PUWR, MBWR and Mount Elgon National Park. However, observations over the past years have not recorded presence of elephants in PUWR, MBWR the Ugandan part of Mount Elgon National Park.
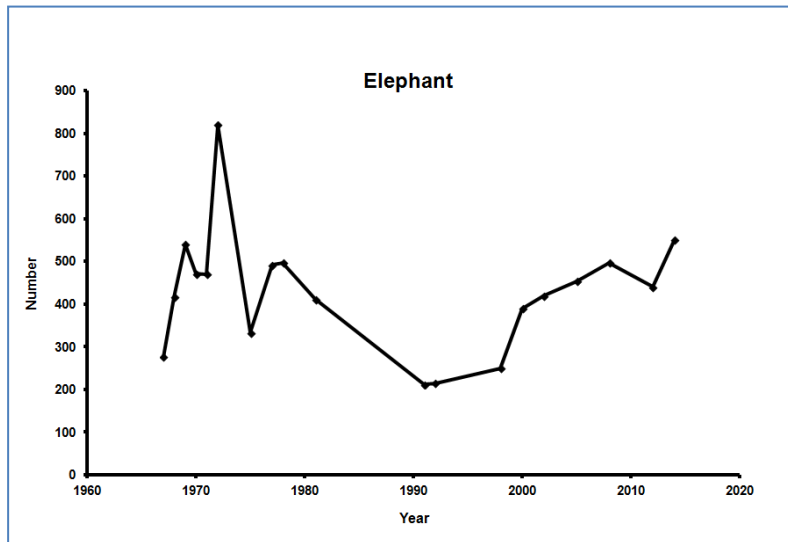
Figure 9: Population trend for Kidepo Valley National Park.

Kidepo Valley National Park is composed of two main valleys, the Kidepo and Narus Valleys, which are surrounded by volcanic hills. It covers an area of 1,442 km². Parts of the park are secure today, facilitating the fast recovery of wildlife populations. Karenga

Community Wildlife Area covers an area of 956 km². It is an overspill area for Kidepo Valley National Park (KVNP), in which elephants and other species move south along the Lokalis River to the open plains south of the Rom Mountain.

The park is part of a major savannah ecosystem in which some wildlife lives permanently or migrates on a seasonal basis through the entire Karamoja region. This region, approximately 27,700 km², comprises three wildlife estates: the national park (Kidepo Valley), three wildlife reserves (Matheniko, Bokora Corridor and Pian-Upe) and three controlled hunting areas (CHAs), e.g. North Karamoja, South Karamoja and Napak. Wide elephant trails were observed crossing into South Sudan on the northern part of KVNP, indicating movement back and forth across the border. The aerial census of 2005 showed that elephants were restricted to the Narus Valley and the 2014 aerial census (Figure 10) shows the distribution of elephants in KVNP to be largely restricted to the Narus Valley with a few individuals in the Karenga corridor.
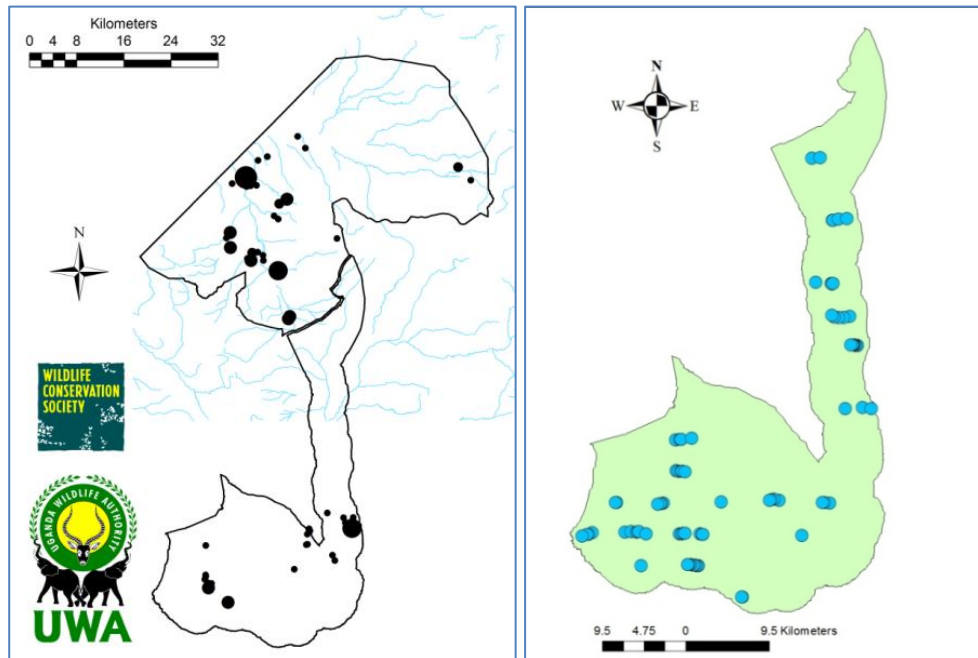
Figure 10: Elephant distribution in KVNP and KCWA, June 2014 (*left*) and in KCWA (spoor only) in April 2015 (*right*)

4.6 Bwindi Mgahinga Conservation Area (BMCA)

Bwindi Mgahinga Conservation Area is composed of Bwindi Impenetrable National Park (BINP) and Mgahinga Gorilla National Park (MGNP). Prior to 1991, Bwindi was a forest reserve and regulations about forest access were liberal and usually not enforced. Local people hunted, mined, logged, pit sawed, and kept bees in the area. It was gazetted as a national park because of its rich biodiversity and threats to the integrity of the forest (UNP 1991). Bwindi is considered to have an extremely high diversity of species and it is only in BINP that the resident elephants in BMCA are found.

Elephants in BINP favored the bamboo zone during the wet season because of the presence of young bamboo shoots (Babaasa, 2000). Elephants normally concentrate around mubwindi and murugyezi swamps during arid seasons, especially July to September when forest edges become drier (Anecdotal observation). The *Chrysophyllum* dominant mixed forest around mubwindi swamp is the best available habitat during the dry periods, and the only one upon which the elephants can depend for their long term survival. This explains the distribution pattern observed below (Fig. 11). Thus, the protection of these habitats is critical if the BINP elephant population is to survive (Babaasa 2000).
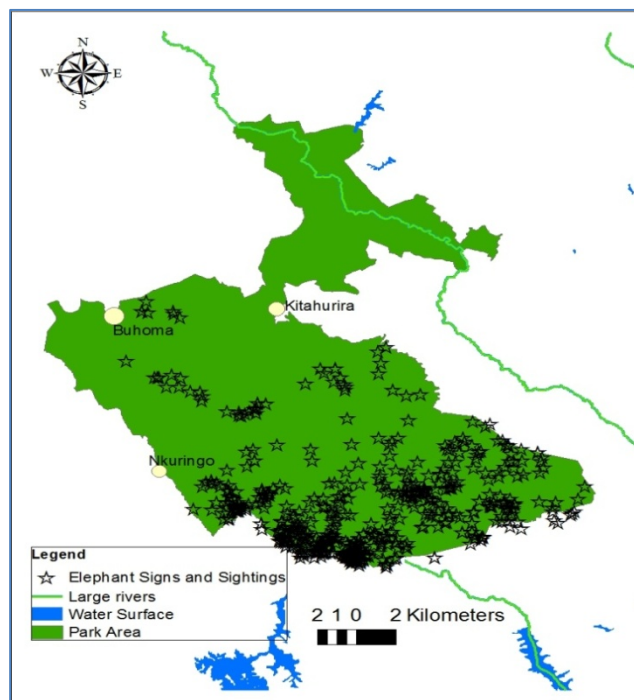
Figure 11: Elephant distribution in Bwindi National Park, Jan 2001-Sept 2012 (*UWA*)

A small number of elephants also occasionally cross into Mgahinga NP from Virunga National Park in DRC and Rwanda. (Fig.12). The number is estimated to be 11 (P. Ezuma pers. comm., 2015) and some of the data from ranger based monitoring in MGNP is shown (Fig. 13).
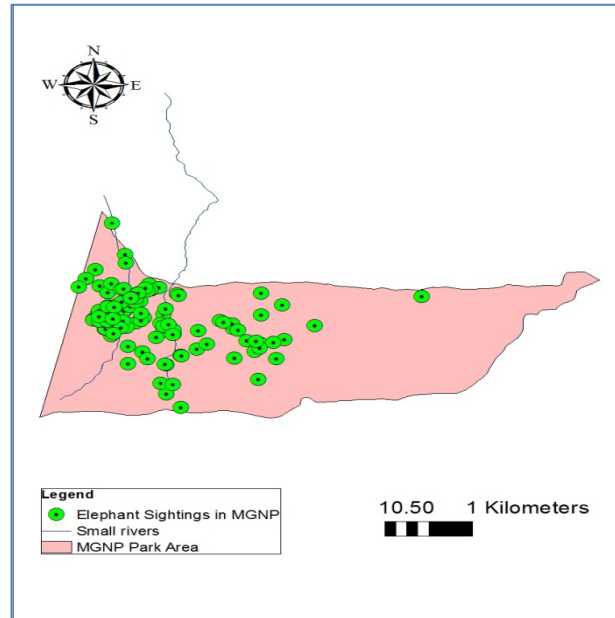
Figure 12: Elephant distribution in MGNP (UWA).

Babaasa (1994) estimated the population of the elephants in Bwindi to be 22 in 1993, and currently the population is estimated to be fewer than 40 (Babaasa pers. comm.). Also the population was estimated at 30 individuals (Said et al. 1995) in 1994 and 25 individuals in 1997 (McNeilage et al. 1998). Since then no substantive surveys have been conducted. The subsequent elephant numbers from 2001-2012 (Fig. 13) are simply encounters from ranger-based data collection. The current numbers in BINP are estimated at 43 individuals (F. E. Kisame, pers. comm., 2015). While elephants are still present in the park, the encounter results are inadequate because of inconsistencies in ranger data collection, which is dependent upon resource allocation, manpower availability, and seasonality. This emphasizes the need for surveys in BINP and MGNP to reduce the information gap for elephant population estimates. Elephants also existed in LMCA but are said to be locally extinct in that range according to RBDC records in LMNP.
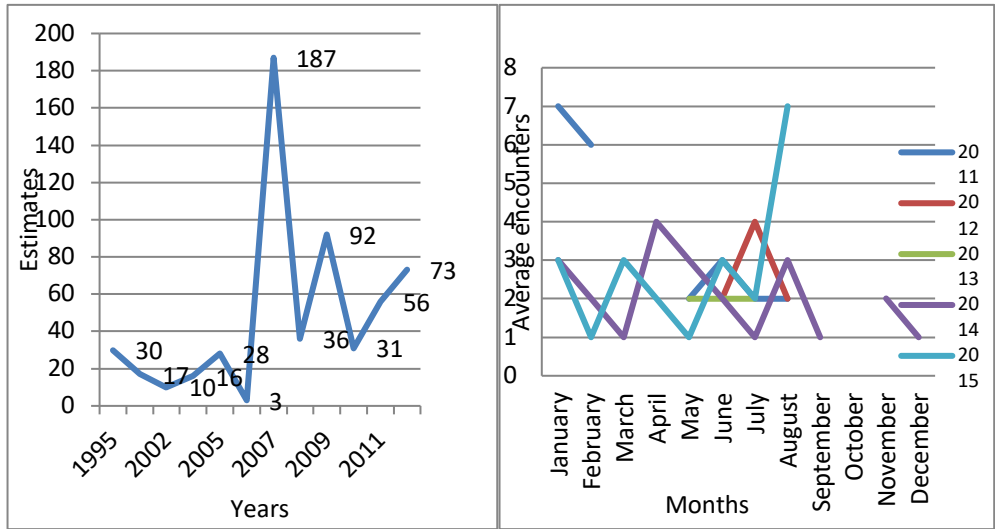
Figure 13: BINP elephant population estimate and encounters by year (*left*); MGNP elephant encounters from 2011-2015 (*right*)

4.7 Size of the National Elephant Population for Uganda

The most recent population estimate for elephants in Uganda's protected areas for which survey results or crude population estimates are available is 5,564 (2014/15; Table 1). The exact number permanently resident in the country is not known due to migration and habitat fragmentation. From the early 1980s to 2014, elephant numbers in Uganda have gradually increased (Fig. 14).
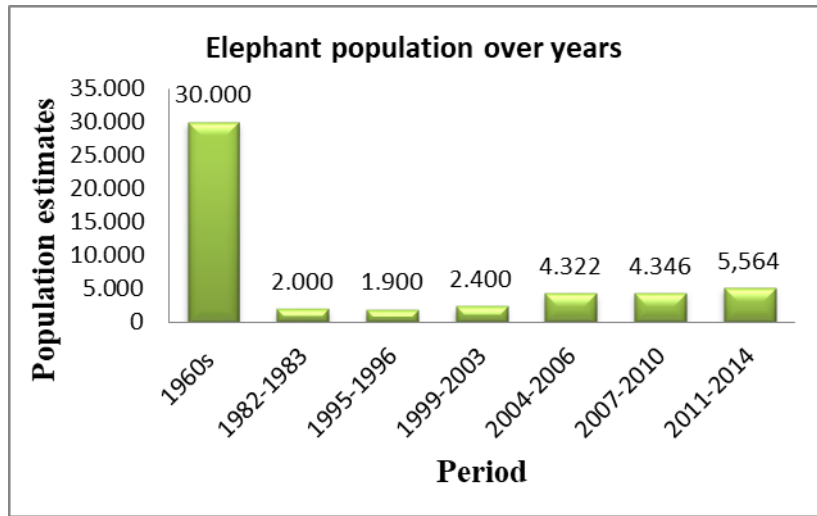
Figure 14: Elephant population trend in Uganda (1960s-2014) (UWA Archive)

Table 1: Elephant population estimates per site in Uganda

Site	Year	Population
Murchison Falls Protected Area	2014	1,330[a]
Queen Elizabeth Protected Area	2014	2,913[a]
Madi Corridor	2009	19[b]
Kidepo Valley National Park	2014	407[a]
Karenga Community Wildlife Area	2014	214[a]
Bwindi Impenetrable National Park	2012	43[c]
Kibale National Park	2010	487[d]
Toro-Semliki Wildlife Reserve	2015	27[e]
Semuliki National Park	1998	30[f]
Katonga Wildlife Reserve	2015	~20[g]
MGNP	2015	~11[h]
RMNP	2003	~20[i]
Sango bay (kaiso, namalala, malabigambo, tero east and tero west forest reserves in Rakai)	2015	~36[j]
Other sites: Otze Forest Reserve		6[k]
UWEC (elephant in captivity)	2015	1[l]
Total		**5,564**

Data source: [a](Wanyama et al., 2014), [b](WCS, 2009), [c](F. Kisame, pers. comm., 2012), [d](Wanyama 2010), [e](Wanyama 2015), [f](F.Michelmore, pers. comm., 1998), [g](Kisame and Wanyama 2015), [h](P. Ezuma, pers. comm., 2015), [i](M. Keigwin, quest. reply,2005), [j](F. Kisame, pers. comm., 2015),[k](R. Lamprey, pers. comm., 2004), [l](W. Ruhinirwa, pers. comm., 2015).

4.8 Elephant mortality

Causes of elephant mortality are largely due to human activity. During the May-June 2014 aerial survey (Wanyama et al. 2014), eleven carcasses were found in QEPA, two fresh ones, six recent ones and three old carcasses (Figure 15).
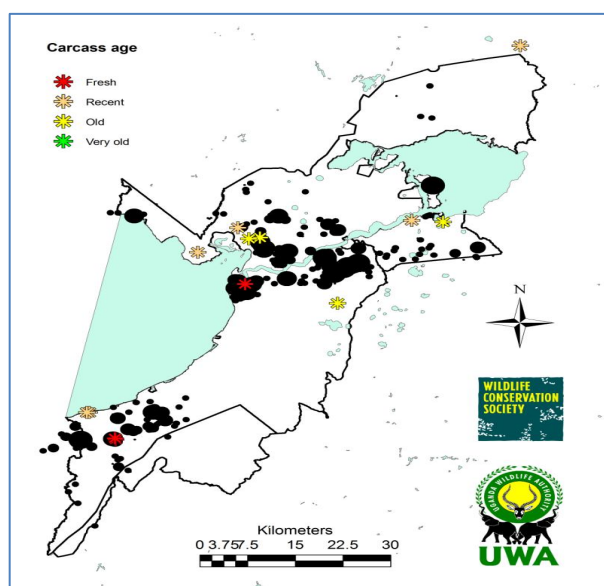
Figure 15: Elephant herds of different sizes (black circles) with location of 13 elephant carcasses (fresh, recent or old) in QEPA.

The data series are inadequate and there is need to consistently collect data on elephant mortality. Main causes are poaching, critical injuries while outside the park destroying

property and crop raiding, road accidents by speeding vehicles and natural causes (Fig. 16). Zero implies absence of data in some of the PAs such as BINP.
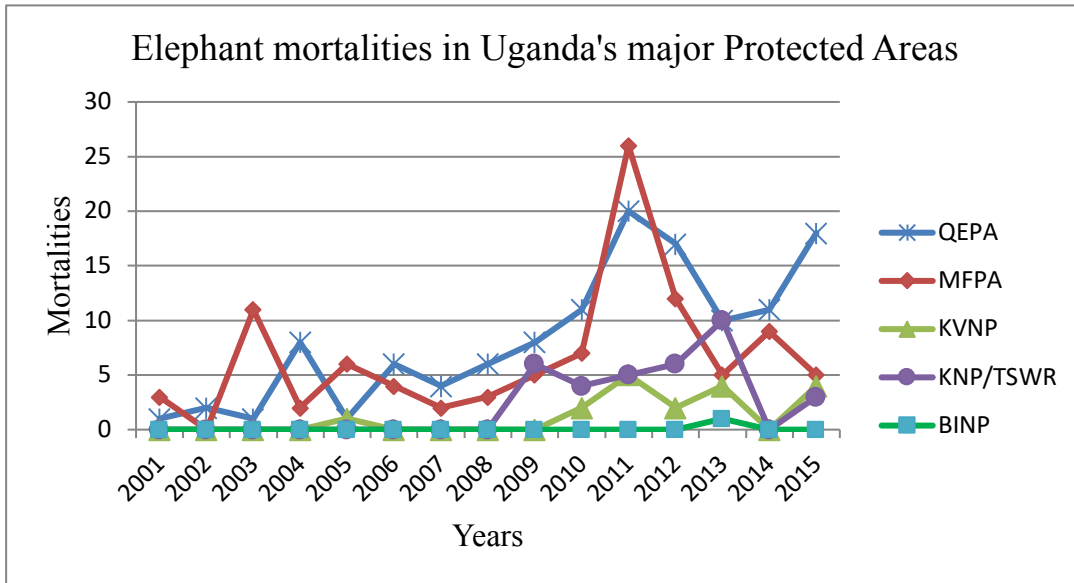
Figure 16: Elephant mortalities in Uganda's major elephant Protected Areas (UWA Archive)

The PIKE values (ratio of illegally killed elephants to all deaths) are high for Uganda's elephant population because natural mortality is low due to the fact that poaching in the 1970s and 1980s targeted old individuals with larger tusks, and therefore most old individuals were killed at that time (Fig. 17).
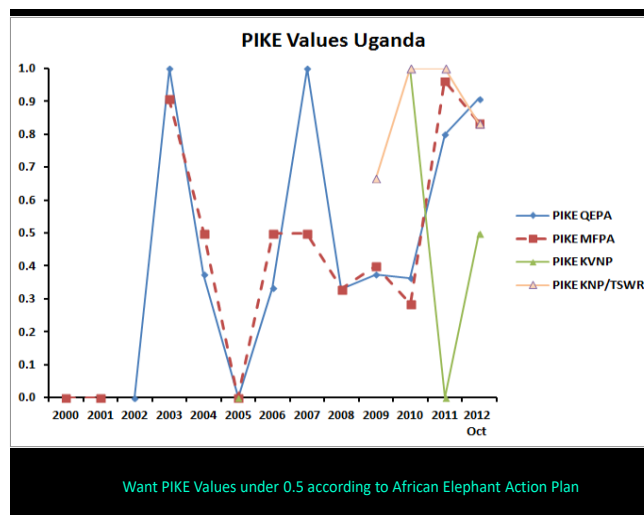
Figure 17: PIKE Values for Uganda's main protected areas.

5.0 Legal Frameworks and Policies on Elephant Conservation

5.1 The Uganda Constitution (1995)

The 1995 Constitution of the Republic of Uganda, Objective XIII, provides for state protection of important natural resources such as land, water, wetlands, minerals, fauna and flora on behalf of the people of Uganda. Objective XXVII, provides for the creation and development of Parks, Reserves, recreational areas and conservation of natural resources by central and/or local governments. Under this Objective, the state is obliged to promote the judicious use of natural resources so as to safeguard and protect the biodiversity of Uganda.

5.2 National Environment Act 1995 (Cap 153 of 2000)

The National Environment Act 1995 delineates guidelines for conservation of biological diversity. This Act mandates the National Environment Management Authority (NEMA), in consultation with the lead agency, to issue guidelines and prescribe measures for the conservation of biological diversity. In issuing guidelines under Subsection 1, the authority may (a) specify national strategies, plans and programs for the conservation and the sustainable use of biological diversity, (b) determine which components of biological diversity are threatened with extinction, (c) identify potential threats to biological diversity, and (d) devise measures to remove or investigate their effects.

5.3 The Uganda Wildlife Policy (2014)

The Uganda Wildlife Policy has several objectives, two of which are important to elephant conservation. The first objective seeks to ensure that the biological diversity of Uganda is conserved within the country's protected area system, and is managed on sound conservation principles. The second objective seeks to promote and maintain viable and representative wildlife populations in Uganda, both within and outside protected areas. The Policy goal is "to conserve wildlife resources of Uganda in a manner that contributes to the development of the nation and the well-being of its people" while relevant and specific.

5.4 The Uganda Wildlife Act Cap 200 of 2000

The Wildlife Act Cap 200 provides for the protection of wild animals that are rare, endangered and endemic. The Act further provides for the Institutional framework of Uganda Wildlife Authority to manage and enhance conservation of biodiversity in confined habitats within the protected areas, so that species abundance and diversity are maintained in accordance with Convention on Biological Diversity (CBD) standards. It also provides for the implementation of relevant international treaties, conventions, agreements or other arrangements to which Uganda is a party.The government of Uganda is obliged to observe the provisions and regulate wildlife trafficking within its territories in collaboration with member states.

The Wildlife Act is today the principal legal framework for regulating the illegal trade of wildlife in Uganda. The Wildlife Act came into effect on August 1, 1996, and is the primary legislation governing protection. It aims to provide for sustainable management of wildlife, to consolidate laws relating to wildlife management, and to establish a coordinating, monitoring and supervisory body for such purposes. The Wildlife Act prohibits unauthorized hunting, capture, and killing of a protected species and the trading, exporting, importing, and re-exporting of wildlife "specimens"(defined as any wild animal, alive or dead, whether or not native to Uganda, and any readily recognizable part or derivative of such animal).

The Act establishes the Uganda Wildlife Authority to achieve, among other things, the sustainable management of wildlife conservation areas; develop, recommend, implement, and manage wildlife management policies; recommend the creation of wildlife conservation areas; establish policies and procedures for the sustainable use of wildlife by local communities; and control internal and external trade in wildlife specimens. UWA's strategic operations are spearheaded by an Executive Director, who is supervised by a Board of Trustees. UWA is a semi-autonomous government agency body within the Ministry of Tourism, Wildlife and Antiquities (MTWA).

5.5 National Biodiversity Strategy

One of the objectives of the National Biodiversity Strategy is to develop and strengthen co-ordination, measures and frameworks for biodiversity management. Section 4 of

this strategy is critical about the status of wildlife and sets out strategies for meaningful conservation of wildlife

5.6 Uganda Forestry Policy (2001)

Uganda Forestry Policy (2001) highlights Uganda's approach to habitat and species conservation as being based on a protected areas system of National Parks, Wildlife Reserves and Forest Reserves and generally focuses on different components of biodiversity (wildlife and trees).

5.7 National Forestry and Tree Planting Act (2003)

Section 29 (1) of the National Forestry and Tree Planting Act (2003) provided for the conservation and management of All forestry biological resources and their derivatives, whether naturally occurring or naturalized with in a forest, for the benefit of the people of Uganda in accordance with this Act and any other Law relating to biological resources.

5.8 Vision 2040

Under Vision 2040 periodic efforts will be undertaken to attain a green and clean environment with no water and air pollution while conserving the flora and fauna and restoring and adding value to the ecosystems.

5.9 The National Development Plan II (2015-2020)

The plan provides for conservation of key species.

5.10 The African Elephant Action Plan (2010)

Uganda is one of the 38 African elephant range states that adopted the African Elephant Action Plan (AEAP) in 2010, with a vision to "ensure a secure future for African Elephants and their habitat to realize their full potential as a component of land use for the benefit of the human kind". In adopting the Action Plan, all African range States have recognized that the threats faced by the African elephant must be addressed immediately, otherwise they may result in entire populations being lost. The Action Plan seeks to address eight priority objectives; (1) Reduced Illegal Killing of Elephants

and Illegal Trade in Elephant Products (2) Maintained Elephant Habitats and Restored Connectivity (3) Reduced Human-Elephant Conflict (4) Increased Awareness on Elephant Conservation and Management of Key Stakeholders that include Policy Makers, Local Communities among other Interest Groups (5) Strengthened Range States Knowledge on African Elephant Management (6) Strengthened Cooperation and Understanding among Range States (7) Improved Local Communities' Cooperation and Collaboration on African Elephant Conservation (8) African Elephant Action Plan is Effectively Implemented.

5.11 African Elephant Conservation Act of 1988

Enacted in 1988 as an amendment to the Endangered Species Act, the African Elephant Conservation Act aims to protect African elephant species in the wild. A major threat to African elephants comes from the illegal trade of ivory. The Act grants the authority to establish the <u>African Elephant Conservation Fund</u> to provide funding for projects that benefit African elephants through research, conservation, and management of the species and its habitats.

5.12 Elephant Protection Initiative (EPI)

In 2015, Uganda joined the Elephant Protection Initiative (EPI). The EPI is a global initiative in which range states, partner states, NGOs, IGO's, private citizens and the private sector work in partnership to: *Provide both immediate and longer-term funding* to address the Elephant Crisis through full and timely implementation of the African Elephant Action Plan, by accessing public and private sector support through the creation of a long-term fund that provides guaranteed financial support for all participating range States for the implementation of the AEAP on the basis of threat to Elephant populations and need, and further provides incremental payments linked to overall elephant numbers and growth in elephant populations. This fund would also provide funds for world-wide citizen education on the issue; for addressing the various development needs of local communities, including poverty, for national conservation activities, and for regional co-operation; *Close domestic ivory markets in those participating states still operating a domestic market; Observe a moratorium on any consideration of future international trade* for a minimum of 10 years and thereafter until African elephant populations are no longer threatened; and agree to put all stockpiles beyond economic use.

5.13 Convention on International Trade in Endangered Species (CITES)

CITES is an international agreement between governments for the regulation of trade in, and products of endangered species. Its aim is to ensure that international trade in specimens of wild animals and plants do not threaten their survival. This convention came into force on the 1st of July, 1975 and now has 181 parties. Uganda is Party to CITES, and elephants in Uganda are listed under Appendix 1 of CITES implying that no trade in ivory or any other elephant product is allowed in Uganda.

5.14 International Convention on Biological Diversity

Uganda is signatory to CBD and as such has obligation and mandate to conserve biodiversity within its borders. The objectives of the Convention are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. The programs of work developed under the CBD encourage parties to take a wide range of actions to biodiversity conservation and sustainable use. The convention also provides for the establishment of a system of protected areas or areas where special measures need to be taken to conserve biodiversity. Therefore, Parties are required to promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species of threatened species in natural surroundings through development and implementation of plans and other management strategies.

5.15 Convention on Migratory Species (CMS) of 1979

This convention obligates Uganda to conserve migratory species of wildlife across their migratory range. It also requires Uganda to cooperate with other states that form part of the migratory range of wildlife resources found or migrating through Uganda. Uganda's elephants migrate to Kenya, South Sudan and the Democratic Republic of Congo (DRC).

5.16 East African Community Protocol on Environment and Natural Resources

This protocol obligates Uganda to sustainably conserve wildlife resources in partnership with the local communities. The protocol requires Uganda to cooperate in management of trans-boundary wildlife resources, promotion of social and economic

incentives for conservation and to conclude agreements aimed at conserving trans-boundary wildlife species.

5.17 Lusaka Agreement Task Force (LATF)

LATF is an intergovernmental law enforcement agency established in 1999 with the Secretariat and operational arm of the Lusaka Agreement on Co-operative Enforcement Operations directed at controlling Illegal Trade in Wild Fauna and Flora. The Agreement, which is listed as a United Nations Environmental Treaty No.XXVII.11 was adopted in 1994 in Lusaka, Zambia. Uganda is a Party to the Agreement which comprises 7 Parties and 3 Signatories of African countries that seek to "reduce and ultimately eliminate illegal trade in wild fauna and flora". Lusaka Agreement Task Force (LATF) is mandated to combat transnational illegal trade in biodiversity resources mainly through fostering inter-state cooperation and collaboration among agencies through executing and coordinating national, regional and multi-regional enforcement operations focused on intelligence and investigations into violations of biodiversity laws, and presenting evidence to the appropriate countries for action.

SECTION B: THE ELEPHANT ACTION PLAN

1. Vision, Goal and Strategic Objectives

The Vision and Goal identified during the workshop are as follows:

Vision: Viable elephant populations throughout the country, playing their functional role across their range, benefiting the people of Uganda and the global community.

Goal: By 2026 elephants have increased to at least 8,300 from the current 5,564 and are distributed across their range.

Purpose of the Plan: The ultimate purpose of the plan is to ensure the protection and long-term conservation of a viable elephant population, as well as to provide for review and monitoring of the strategic actions. The plan provides an opportunity to formulate and coordinate management intervention actions essential for the protection and conservation of viable elephant populations in Uganda. Primarily, the plan aims at establishing a framework that guides management and planning processes to ensure informed decisions in addressing elephant conservation in the protected areas, both now and over the next ten years. Specifically, the plan outlines strategies to halt poaching. Given the expected increase in elephant populations with the implementation of these conservation actions, the plan also outlines strategies to mitigate potential habitat impacts and human-wildlife conflict that could arise with growing elephant and human populations. Finally, the plan recognizes the importance of tangible outcomes and indicators of progress. Regular assessment will be key to achieving the desired objectives during the implementation period.

Strategic Objectives:

1. Halt poaching of elephants and trade in elephant products,
2. Control habitat loss and degradation,
3. Mitigate Human Elephant Conflict (HEC),
4. Effectively protect elephants through awareness and sound management,
5. Strengthen research on elephant conservation issues,
6. Strengthen cooperation between range states,
7. Improve community cooperation by increasing benefits,
8. Effectively implement the Elephant conservation Plan for Uganda.

Objective 1: Stop poaching of elephants and trade in elephant products

Target 1.1: Regulatory frameworks to aid elephant conservation are strengthened by 2021.

Rationale

Conservation legislation exists in Uganda but not specific to elephant conservation, per se. For example, the existence of the Wildlife Act and the Forest Act reinforced the designation of some areas as national parks. National Park status gives these habitats higher protection and empowers state agencies to increase protection and control of these Parks and other protected areas, notably wildlife reserves and forest reserves, while restricting adjacent communities' access. To protect the remaining elephants and allow their populations to recover fully, Uganda's elephants were listed on Appendix 1 of CITES. Uganda's Wildlife Act does not fully satisfy the requirements for implementation of CITES, and is currently under review to address wildlife utilization and trade including confiscation of specimens that are illegally traded or possessed. The Act will also streamline the handling of confiscated items, and products and strengthen penalties for wildlife traffickers and offenders among others. These amendments will lead to fulfillment of some CITES requirements and standards. There is a draft bill, but it is very important that Uganda's conservation laws are well formulated to prevent loopholes and eventually support these important resources. Another problem is enforcement. Many countries are starting to enact and actually implement harsher penalties against poaching, rather than just talking about such measures, and Uganda should do the same.

Table 1.1: Activities required to achieve Target 1.1

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
1.1.1 Fast track the revision of the Uganda Wildlife Act to provide for deterrent penalties *where appropriate*	Consultative meetings and workshops	Revised Wildlife Act in place and enforced	By 2019	MTWA, Cabinet, Parliament	18,581
1.1.2 Formulate guidelines and regulations to operationalize provisions of the amended Uganda Wildlife Act to address specific gaps and issues relating to prosecution of wildlife crime offenders	Consultative meetings	CITES domestication orders, guidelines and regulations in place	By 2020	MTWA, Cabinet, Parliament	32,040
1.1.3 Draft and enforce operating procedures for wildlife conservation and management	Consultative meetings and workshops	Standard Operating Procedures in place	By 2020	UWA, MTWA,	14,020
1.1.4 Review government policies to match the current demands and development in elephant range sites	Consultative meetings	Number of policies reviewed	By 2021	MTWA, UWA, UWS	57,530
1.1.5 Develop guidelines on trophy and exhibit disposal	Consultative process	Trophy disposal guideline in place and implemented	By 2019	UWA, MTWA, LATF	16,075
1.1.6 Develop a guideline on management of captive elephant (s)	Consultative process	guideline on management of captive elephant(s)	By 2021	UWEC, UWA, MTWA	17,548

Target 1.2: Poaching of elephants stopped by 2026

Figure 18. An elephant pit trap in Kibale NP being covered by rangers

Rationale

Elephants are targeted by poachers for their valuable tusks that have lucrative markets throughout the world, especially in Asia. While major sources of ivory going to international markets originate from Tanzania and Mozambique (Wasser et al. 2015), poaching for ivory also remains a problem in Uganda. The presence of elephant carcasses with chopped off tusks is a manifestation of poaching that is attributed to the illegal ivory trade. Elephant poachers who are equipped with sophisticated weapons and are able to access national and international black markets are not subsistence hunters. However, it is well known that the people who are masterminding the ivory trade are the rich and

not those involved in the direct killing of the elephants. These poachers are not the poor, struggling people, and elephant poaching represents a distinct type of illegal hunting. Over the last twenty years, elephant poaching has been exacerbated by civil unrest.

Between 1996 and 2000, rebel insurgency caused major problems with safety and conservation in northern Uganda. Murchison Falls National Park was once affected by the "Lord's Resistance Army" (LRA) rebel insurgence and the "Allied Democratic Forces" (ADF) rebel insurgency posed threats in Kibale, QEPA, RMNP, SNP and TSWR. These rebel groups greatly affected security in northern and western Uganda and caused negative impacts on adjacent protected areas and wildlife therein. On the one hand, management operations in the Parks were obstructed, whereas on the other hand rebel forces themselves posed a major threat to elephant conservation. For example, poaching of elephants for ivory has been indicated as an economic strategy of ADF in the Democratic Republic of Congo (Christy 2015). Insecurity due to cattle raids through Karamoja PAs is still a challenge. Some areas in KVNP were relatively insecure due to warring activities by the remnant Karimojong and Toposa warriors. The presence of a small force of rangers in the elephant range made patrol efforts limited and could not contain the insecurity and hunting activities. Mechanisms to encourage coordination and strengthening of security must therefore be explored.

In addition to the direct threats from civil unrest, problems can arise in attempts to secure peace. For example, following continued rebel attacks in Murchison Falls Conservation Area, a number of army detachments (UPDF) were established. While their role in securing the area was genuine, some of the army personnel were implicated in incidents of elephant poaching. In a single incident on 27th March 2003, a group of poachers from the nearby internally displaced people's camp collaborated with some UPDF soldiers and entered the park, shot and killed seven elephants and extracted the ivory which they carried away for sale despite the fact that the culprits were identified, arrested and charged. Such an incident had not happened in any of the protected areas since the 1970s.

Elephant poaching is thus a multifaceted challenge, and one distinct from other types of illegal hunting. The poachers who are truly poor and struggling should be targeted and be empowered in other areas that will discourage them from continued poaching of elephants. Running a traditional hunter training session is probably something that

would draw outside funding. Elephant poaching however is largely driven by national and international markets and is affected by civil unrest. Given the high stakes of the ivory trade, and the potential for large financial gains, corruption is a major concern. There are numerous activities to mitigate elephant poaching (see table 1.2). In addition to increased capacity for enforcement and monitoring, there needs to be a concerted effort to root out corruption. With novel technologies and staff support, poaching and corruption associated with poaching will be reduced.

Table 1.2: Activities required to achieve Target 1.2

Activities	Methods	Indicators	Timeline	Actors	Cost estimates ($)
1.2.1 Improve staffing in PAs.	Recruiting and training	Number of staff recruited and deployed, number of trainings	On-going	UWA	1,500,000
1.2.2 Intensify aerial surveillance in PAs to deter elephant killing	Aerial flights,	Number of surveillance flights, decline in reports of incidents	On-going	UWA	PP UG1
	Procurement	Three Drones & required equipment purchased	2021	UWA, WCS, AWF, partners	PP UG1
1.2.3 Strategic deployment (e.g. based on hot spots) and provide equipment to field rangers at all sites with minimum of 15 elephants.	Recce Survey, Deployment procedures, Procure	Reports, number of equipment, frequency of deployment, incidences of arrests and annual population status reports	On-going	UWA, WCS, AWF, GEF Informants	PP UG1
1.2.4 Identify and document elephant poaching hotspots and use results for enforcement planning	Surveillance	Annual status report for identified hotspots, number of hotspots	On-going	UWA, WCS, Informants	PP UG1
1.2.5 Ground surveillance - monitoring with SMART	Surveillance (Foot Patrols and vehicle patrols)	Surveillance reports from ground patrols, number of foot and vehicle patrols, number of elephants protected and monitored	On-going	UWA, WCS, AWF,UCF	3,362,500
1.2.6 Training of prosecutors, magistrates, Police Judiciary and monitoring cases and exposing corruption and set up offenders database	Training meetings/ Workshops	Reports of training meetings and numbers of prosecutors trained	On-going	UWA, AWF, LATF, MIKE	93,369

1.2.7 Review and improve ranger training for Law enforcement	Consultative review meetings,	Training manual in place, reduced incidents of elephants poaching	By Dec. 2019	UWA, LATF and partners	23,574
1.2.8 Modernize anti-poaching surveillance and patrol equipment	Procurement procedures	Equipment purchased and training received, number of specialized enforcement units in place, area coverage increased	By 2019	UWA, LATF, MIKE,WCS, AWF	234,080
1.2.9 Strengthen UWA legal team to address court cases and ensure arrested poachers are prosecuted effectively and monitored to ensure they remain in prison for duration of their sentence	Consultative meeting, retreats	Proportion of convictions remaining in prison for duration of sentence, reports of prosecuted cases, number of successfully investigated cases	Years 2,4,6,8, 10	UWA, Police, DPP, Judiciary	65,520
1.2.10 Build human resource capacity of law-enforcement teams to collect, handle and preserve court admissible evidence	Training of staff and development of protocols	Ratio of convictions to prosecutions	By 2021	UWA	PP UG1

Target 1.3: Zero ivory seizures by 2026

Rationale

Uganda has been one of the key transit countries for the illegal trade in ivory and other wildlife products. For instance, two recent assessments by Harrison *et al* (2015) on Wildlife crime, and Wasser and Mondol (2015) reveal Africa's major poaching hotspots and indicate that most of the ivory seized in the past 20 years is from Eastern Democratic Republic of Congo and Tanzania-Mozambique though there is some level of domestic trade. Several ivory seizures have occurred while on transit through Uganda over the past three years. It will be impossible to control illegal international ivory trade if domestic trade continues.

Meanwhile, the huge amounts of money involved explains why elephant poaching and ivory smuggling is connected to so many armed conflicts, especially the current situation in the Democratic Republic of Congo. Ivory is extremely valuable because of

the high cultural attachment valuation, high demand, and limited (and decreasing) supply and that the price will continue to rise as elephants disappear.

Table 1.3: Activities required to achieve Target 1.3

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
1.3.1 Develop a strong informant intelligence network within communities to improve information flow to combat elephant poaching and ivory smuggling (recruit community monitors).	Recruit and facilitate informants to counter benefits from ivory	Networks in place with numbers of informants reporting to UWA	On-going	UWA, LATF	750,348
	Intelligence gathering	Quality of informer reports - leading to arrests and prosecution	On-going	UWA, informants	37,500
1.3.2 Strengthen the Intelligence Enforcement Unit at Uganda Wildlife Authority (UWA) to curb the illegal wildlife trade in the country	Recruitment, training	Number of people recruited, number of people trained	On-going	UWA, LATF, MIKE, CMI	87,500
1.3.3 Establish a wildlife law enforcement training academy for UWA	Draft concept	Academy established	By 2026	UWA, MTWA, LATF, partners	1,250,000
1.3.4 Train staff in governance and managerial skills to aid elephant conservation	Training	Number of staff trained, number of trainings	By 2020	UWA, MTAC, Lake Katwe Institute, MUK	73,000
1.3.5 Train judges, customs and police in law-enforcement techniques with respect to ivory.	Training meetings/ workshops	Training report, Attendance lists	By Dec. 2019	UWA, LATF, MIKE	10,850
1.3.6 Conduct studies on the domestic ivory trade in Uganda.	Field study	Report	By 2020	UWA, LATF	6,250
1.3.7 Develop procedure and implement the structure for record keeping of ivory	Ivory stockpile management system	Ivory marking and registration systems in place	By Dec. 2018	UWA, LATF, STOP ivory	8,300
1.3.8 Strengthen the security of the confiscated ivory	Budgetary process	Ivory strong room in place	2017	UWA, LATF, MIKE	60,000
1.3.9 Create a National Task Force on illegal ivory and other wildlife contraband	Consultative	Task force in Place	2018	Interpol, Kampala Bureau, Uganda Police, URA, Customs, , UWA, CAA CMI and IFAW	11,249

1.3.10 Deploy wildlife law enforcement staff at key/major entry and exit border points	Recruitment, training	Reports on deployment and number of cases of intercepted ivory	2026	UWA	83,765
1.3.11 Establish mechanisms for feeding Uganda data quickly to the Elephant Trade Information System (ETIS)	Meetings, Consultancy	System in place	2018	UWA, TRAFFIC, LATF	11,589
1.3.12 Train staff in intelligence to increase their awareness in ivory and its trade dynamics	Training	Report	Years 1,3,6,9	UWA, LATF,MIKE, US Fish and wildlife institute-Botswana	50,000
1.3.13 Engage TRAFFIC to coordinate all activities concerning the regulation of the ivory trade.	Consultative engagements	Number of engagements	2019	UWA, TRAFFIC	20,832
1.3.15 Acquire and deploy sniffer dogs at key transit routes	Lobby platforms, funding proposals	Sniffer dog team at Entebbe in place	2017	UWA, African elephant fund, WCS, Maisha, AWF	107,299
		Sniffer dog team at other sites in place	2026		569,573
1.3.16 Enhance the capability of the Wildlife Forensic and Genetic Laboratory in QENP to extract DNA from ivory and other samples	Procurement of laboratory equipment and training of staff & setting up genetic library	Operational laboratory at QENP	2021	UWA and partners	PP UG1
1.3.17 Carry out inspection of transit materials at entry and exit terminals	Use of inspection teams, sniffer dog teams	Inspection team in place, inspection reports, Inspection Standard Procedures (ISP)in place	On-going	LATF, UWA, Police, Customs	150,000
1.3.18 Support the rescue, rehabilitation of injured, abandoned or orphaned baby elephants	Trainings	Number of rescued, rehabilitated of injuries, abandoned or orphaned elephants, number of people trained in rescue mechanisms	On-going	UWEC, UWA, partners	75,000
1.3.19 Support the translocation and introduction of rehabilitated and reintegration of baby elephants	Trainings / Establish Elephant re-integration structures in the PAs	Number of staff with skills in the processes / Establish one elephant re-integration structure/holding facility in QEPA	On-going	UWEC, UWA, partners	300,000

Target 1.4: By 2026 adequate resources for elephant protection secured

Rationale

Elephant conservation is complex and deliberate efforts are needed to mobilize resources if the targets are to be achieved. There has been limited funding for elephant conservation projects in Uganda given that there was no management strategy/plan. Without resources, it becomes very difficult to implement a planned activity on time. Identifying potential sources of funds from government in form of an elephant conservation fund to support elephant conservation projects in the country is a key component of this plan. The support will also come through lobbying and engaging potential funding partners such as; The African Elephant Fund, UNEP, MIKES, STOP ivory, WCS, AWF, World Bank, USAID, Zoological Society of London(ZSL), Fauna and Flora International (FFI), IUCN, The Nature Conservancy, British Council, U.S. Fish and Wildlife Service (USFWS), and International Fund For Animal Welfare (IFAW) and Global Environment Facility (GEF).

Table 1.4: Activities required to achieve Target 1.4

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
1.4.1 Lobby funding from partners	Lobby platforms	Amount of funds received, percentage amount of funds allocated to elephant conservation	On-going	UWA, Partners	50,120
1.4.2 Diversify and Improve UWA revenue collection	Proposals, consultancy	Number of new products and activities developed, amount of revenue generated	On-going	UWA, partners	43,000
1.4.3 Assess staff needs (numbers, training)	Needs assessment, consultancy	No of staff needs identified	By 2019	UWA	19,456
1.4.4 Recruit,equip and train staff	Concept	Number of staff recruited, number of equipment procured, Number of staff trained	On-going	UWA, Partners	432,008
1.4.5 Efficiently manage funds to implement targeted elephant conservation activities	Financial procedures	Clean audit reports	On-going	UWA	90,200
1.4.6 Establish an Elephant Conservation Fund	Concept approval /consultancy	Elephant Conservation Fund in place	By 2020	UWA, Partners	23,678

1.4.7 Construct an enclosure for the elephant at UWEC	Fundraising	Amount of funds obtained, Elephant enclosure in place	By 2020	UWEC, partners	151,040

Objective 2: Control habitat loss and degradation

Target 2.1: By 2019 regulations on fire use and its management developed

Rationale

Wild fires pose a challenge in most elephant habitats. These fires in some cases have been spread through pastoralist activities and prolonged dry conditions in PAs. Pastoralists burn grasslands to allow for sprouting of nutritive young grass for their cattle. Poachers may burn grasslands to attract wild ungulates to an area where they can be hunted. Fires are also set by trespassers in protected areas. Inadequate awareness and implementation of fire management plans in the PAs is partly to blame for the continued fire incidences in these elephant habitats.

There is need for control measures to check fires and limit their spread. Measures to prevent grazing in protected elephant range areas could restore proper land management and reduce pastoralist activities. This will go along away at mitigating grazing mostly during dry seasons. Burning grasslands is also controlled to some degree by the Uganda Wildlife Authority for land and wildlife management. However, research and monitoring is required to determine the impact of burning on different habitats, and how they may affect species, mainly the elephants and their ecology. Aleper et al (2008) demonstrated that fire can be used as a management tool to promote the recruitment of *A. sieberiana*- a highly preferred browse species for elephants in Kidepo system. A previous study also showed that fire may stimulate seed germination in *A. sieberiana* (Sabiiti and Wein 1988). Where fires are prevalent from pastoralists

and poaching, UWA may avoid planned bush-burning activities. Increased communication and coordination of efforts across UWA and other stakeholders is required.

Table 2.1: Activities required to achieve Target 2.1

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.1.1 Develop awareness programs on fire and its impacts on elephant conservation	Meetings, media programs, plays, poems	Reports, number of programs, number of meetings	By Dec. 2018	UWA, NEMA, Partners	36,900
2.1.2 Review and develop regulations on grazing in elephant PAs.	Consultative meetings	Regulations in place	Year 4	UWA, NEMA communities	23,375
2.1.3 Monitor implementation of a fire management plan in all elephant range PAs	Meetings	Reports, fire prevention measures in place	On-going	UWA	41,505
2.1.4 Develop and review fire management plans *where appropriate*	Consultations	Reports, number of plans developed and implemented	By 2019	UWA, NGOs	57,560

Target 2.2: By 2020 human activities in the elephant ranges controlled

Rationale

The human population in Uganda has increased rapidly over time. It increased from 9.5 million in 1969 to 24.2 million in 2002. Between 1991 and 2002 the population increased at an average annual growth rate of 3.2 percent. The current population stands at 34.6 million (UBOS 2014). This rapid increase could cause numerous problems for the ecosystem, including problems for elephants. Human activities that degrade the remaining elephant habitat or other human activities that disturb and destabilize elephants have been known to include logging, farming, mining, settlements, charcoal burning, grazing and hunting.

These must be controlled. Some elephant range areas, for example East Madi WR, Karenga corridor and Karuma WR, are still faced with the challenge of human settlements, cultivation and grazing of livestock. Alternative land for settlements and income generating programs for communities living within and next to these habitats need to be explored as well as creation of awareness about the importance of conserving elephants.

Table 2.2: Activities required to achieve Target 2.2

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.2.1 Lobby to strengthen awareness mechanisms on birth controls for communities around PAs	Lobby platforms, Meetings	Number of meetings	On-going	MoH, private sector, UWA	12,500
2.2.2 Monitor spatial and temporal distribution of illegal activity and their trends in gazetted elephant range areas.	Surveillance, Mapping	Reports	On-going	UWA, NGOs, research institutions	80,450
2.2.3 Evict illegal settlers and resettle legitimate land owners from protected elephant ranges to control habitat degradation	Eviction notices, Meetings	Settlers evicted, Reports	By 2020	UWA, Police, LGs, MLHUD	154,000
2.2.4 Eradicate logging in protected areas that are known to be elephant habitats to control habitat degradation.	Enforcing the law, Arrests	Logging sites restored	On-going	NFA, UWA, NEMA	38,500
2.2.5 Engage communities in activities that do not require them to encroach upon protected areas to reduce human-elephant conflicts (e.g. bee keeping around gardens)	Case study, exposure retreats, training	Number of bee hives/ number of bee keepers	By 2020	IGCP, GIZ CSOs, CBOs, UWA, Private sector	197,300

Target 2.3: By 2020 waste management protocols in PAs strengthened

Rationale

Waste disposal in most PAs is still a problem. Elephants have been seen in PAs like Queen Elizabeth National Park (QENP), Murchison Falls National Park (MFNP) and Kidepo Valley National Park (KVNP) scavenging on waste refuse. Improper waste disposal increases chances of elephant attacks and disease spread in elephant range habitats, affects elephants behavior and sometimes may lead to injury, destruction of houses, and other property and food stealing by elephants from houses. Wastes also change the aesthetic value and visibility of the environment. There is need to strengthen waste disposal mechanisms and management in the elephant ranges. Solid waste due to human activities should be managed through a number of activities such as—waste prevention, recycling, composting, controlled burning, or land filling.

Table 2.3: Activities required to achieve Target 2.3

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.3.1 Develop, review and implement guidelines on waste management in elephant sites	Consultative meetings/ workshop	Guidelines reviewed	By 2018	UWA, LGs, NEMA, CARE, AWF	49,510
2.3.2 Conduct awareness programs on waste management and its effects in PAs	Meetings	Number of programs	On-going	UWA, LGs, CARE, Communities	42,543
2.3.3 Procure incinerators in elephant range PAs to better manage wastes	Proposal, Procurement procedures	14 incinerators in place	By 2020	UWA, CARE NEMA, UNEP, USAID	55,000

Target 2.4: By 2021 developments in elephant range protected areas regulated.

Rationale

There has been a rise in human development in protected areas (PAs) and elephant ranges. Developments come with associated impacts that either reduce the size of elephant habitat and or change the land use type. Increase in developments in PAs is partly due to lack of commitment to conservation and implementation of policies that are geared to protect the key elephant habitats. The laxity and inadequate coordination in implementing the policies and EIA best practices is further one of the contributors to degraded elephant ecosystems. Strengthening EIA procedures and ensuring their implementation will promote sound environment practice and will minimize adverse impacts due to developments such as tourism infrastructure, pylons in QECA and more so, the extractive industries in PAs.

Table 2.4: Activities required to achieve Target 2.4

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.4.1 Review and harmonize policies to minimize infrastructure development in protected areas *where appropriate*	Consultative meetings/ workshops	Number of Policies reviewed	By 2020	MTWA, UWA, NEMA, MoE, MoWE, NFA	62,256
2.4.2 Conduct regular meetings among agencies to improve coordination	Meetings	Number of coordination meetings, Reports	On-going	UWA, NEMA, NFA	6,000

2.4.3 Review and strengthen regulations to EIA process in PAs	Consultative meetings/ workshops	EIA regulations reviewed	By 2019	NEMA, UWA	33,567
2.4.4 Monitor impact of existing developments	Field study	Reports	On-going	UWA, WCS, Researchers	45,500
2.4.5 Lobby government of commitments to elephant conservation and reduction of developments within PAs	Develop concepts, workshop for policy makers	Reports	By 2021	UWA, NGOs	109,560

Target 2.5: Mechanisms to prevent encroachment on the elephant range in place by 2022.

Rationale

The continued encroachment of protected areas and occupancy of wildlife corridors is pushing the elephants to survive in small, fragmented habitats. Due to encroachment, what was once elephant (and other wildlife) habitat is destroyed due to deforestation and cultivation. A number of elephant corridors to this effect have increasingly been settled.

Habitat loss has been known as an important driver to the decline of species, including elephants. The shrinking of elephant habitats must be targeted and slowed by securing the boundaries of current ranges and by reducing the pressures that nibble away at their edges. Encroachment on elephant habitats must be prevented and encroached corridors secured and rehabilitated. Measures must be taken to reduce the antagonism of local people who come into contact with elephants by encroaching on their habitats like the elephant corridors. Historically known elephant corridors in Uganda include the Kibale Corridor connecting Queen Elizabeth and Kibale Forest National Parks, the Karenga Community Wildlife Area adjacent to Kidepo valley National Park and Matheniko-Bokora corridor, Murchison falls National Park-East Madi-South Sudan elephant corridors and QEPA-Virunga Park corridors north and south of Lake Edward.

It is important to learn from older corridors to provide baseline comparisons in terms of restoration, land use and conservation policy and park-people dynamics (Ryan and Hartter 2012). One of the main hypotheses for the elephant presence in KNP is their

inability to migrate to their former habitats in the Democratic Republic of the Congo (DRC) and in QENP in Uganda. This is because of two issues, one local and one international. Dealing with each will require different approaches. The first is the narrow corridor adjacent to Lake George that connects KNP and QENP (WCS & CDC 2008). If there is a lot of poaching or development in this area, such as the expansion of Katwe Village, they will not be able to cross. Similarly, encroachment on former corridors makes it difficult for elephants to move between habitats. The inability of elephants to travel to the DRC is likely driven by poaching activities. To facilitate migration, which is important to elephant conservation, certain hotspot areas should be identified and given heavy ranger patrols (WCS & CDC 2008; Ryan and Hartter 2012) to monitor elephants in this corridor.The part of KNP-QENP corridor west of Lake George would be a prime target (WCS & CDC, 2008).

Table 2.5: Activities required to achieve Target 2.5

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.5.1 Study habitat use by populations that once ranged over large areas but are now restricted to small reserves.	Field study	Reports	By 2020	UWA, WCS, research institutions, researchers	12,075
2.5.2 Assess habitat conditions and prepare habitat management plans for each elephant range habitat.	Habitat assessment, consultancy	Reports, habitat management plan in place	By 2021	UWA, WCS, AWF, research institutions, researchers	92,300
2.5.3 Demarcate and secure the boundaries of protected elephant habitats and along corridors to prevent encroachment	Using pillars	Number of Km, report	By 2022	UWA, MLHUD	250,345
2.5.4 Lobby for gazettement to effectively protect elephant habitat, especially migration corridors in cross-border areas.	Meetings	Report	On-going	MTWA, UWA, LG, Ministry of Foreign Affairs, communities	58,456
2.5.5 Establish and manage migratory corridors where agricultural encroachment is prevented.	Concept generation and fundraising Surveillance, mapping corridors	Reports	On-going	UWA, LGs, Communities, partners	501,567

Target 2.6: By 2026 spread of alien and invasive species in elephant range controlled.

Rationale

Most elephant habitat ranges today are being displaced by invasive species. The spread of invasive species is now a challenge to wildlife management in Uganda. Increase in human activities and climatic change variability is looked at today as contributing to the spread of invasive species. Coupled with climate change, invasive species have become one of the most difficult threats to reverse in Uganda and thus the problems, causes and effects are global and therefore require global support for solutions.

Alien and invasive species change the ecosystem, reduce the food resource base and habitat health. For example, much of the KNP forest was logged during its time as a forest reserve, and some alien species of trees were planted in plantations (pines and eucalyptus). Since the national park was gazetted many of these introduced trees are being removed and logging has ended. In Bwindi Impenetrable National Park, invasive species of plants, such as *Lantana camara*, is spreading particularly in the north-eastern part of the park. Safari and Byarugaba (2008) recommended physical removal (uprooting and burning) of lantana thickets to encourage regeneration of the natural forest. They attribute its rapid spread to past forest disturbance, such as logging and encroachment for agriculture when the forest was being managed as a forest reserve. *Lantana camara* removal from the forest should be given high priority by Park authorities, as it is spreading rapidly and could compromise the ecological integrity of the park. In QEPA the invasive species management has become one of the biggest challenges lately with *Lantana*, *Dichrostachys*, Spear grass, and *Parthenium* all being problem species. Strategies to control and eradicate alien and invasive species shall be given adequate attention in all elephant ranges.

Table 2.6: Activities required to achieve target 2.6

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.6.1 Development of alien and invasive	Consultative meetings/ workshops	Alien and invasive strategy in place	By 2019	UWA, Partners	PP UG2

species monitoring protocols					
2.6.2 Map areas covered by alien and invasive species in PAs	Mapping	Maps, Reports	By 2019	UWA, Partners	PP UG2
2.6.3 Conduct research on alien and invasive species in PAs and how to eradicate them.	Field study	Reports	Year 4,5,6	UWA, NFA, WCS, Researchers	PP UG2
2.6.4 Create awareness about alien and invasive species for staff and communities around PAs	Awareness meetings	Reports, meetings	On-going	UWA, Partners	PP UG2
2.6.5 Develop and implement eradication interventions e.g. uprooting,	Mechanical, biological and chemical means	Report detailing interventions made	On-going	UWA, Partners	PP UG2

Target 2.7: By 2026 knowledge base on climate change and its impacts strengthened

Rationale

Elephant habitat ranges in Uganda are steadily disappearing probably due to changes in climatic conditions and poor land use practices exacerbated by increased human population demands for cultivation and settlement. Climate change is associated with a change in rainfall and temperature regimes. Climate change is likely to have serious implications for water resources, food security, natural resource management, human health, settlements and infrastructure. In Bwindi Impenetrable National Park, climate change impacts are yet to be elucidated for the Bwindi forest ecosystem. However, some changes have been noted, such as an increase in water conductivity between 1999 and 2008 that could be related to climate change. We need to assess how climate change will affect the biodiversity of the forest, through the contraction or expansion of species' ranges. There is also a need to assess the potential effects of climate change on ecosystem services that elephant range forest ecosystems provide, such as stream hydrology and rainfall patterns in the area (Kasangaki et al. 2011). Climate is changing

in Uganda, however. Rainfall is increasing in QEPA (Plumptre et al. 2012) and temperature has risen by 2ºC around Kibale National Park over the past 100 years and is probably due to forest and wetland clearance as well as global climate changes (Plumptre, 2012). To what extent these changes will affect elephant habitat is uncertain. Increased rainfall is likely to lead to increasing woody vegetation in the savanna parks and there may be a need to actively manage savannas in the future to maintain grasslands. Elephants are fairly adaptable though and can live in dry savannas, wet savannas and forest so may not be as much affected by these changes as other species. Activities that lead to changes in rainfall and temperature like deforestation, emissions of carbon dioxide in the atmosphere need to be minimized. There is need to regulate and control activities that cause changes in rainfall and temperature regimes.

Table 2.7: Activities required to achieve Target 2.7

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.7.1 Develop bye laws to reduce deforestation in elephant ranges *where appropriate*	Consultative meetings	Bye laws in place	By 2020	UWA, LGs MTWA, NFA	40,875
2.7.2 Review and strengthen regulations on environmental management	Consultative meetings	Number of regulations reviewed	By 2021	NEMA,MTWA, UWA,	27,540
2.7.3 Procure weather Monitoring equipment	Procuring, proposal development	Equipment procured	By 2019	UWA, WCS, AWF, research institutions,	45,560
2.7.4 Regularly monitor weather in elephant range PAs as well as changes in habitat	RBDC	Records on weather	On-going	UWA, Partners	6,950
2.7.5 Monitor impact of climate change on elephant ecology and ranging patterns	Research study, Consultative	Report on impacts	By 2022	UWA, WCS, AWF, research institutions,	43,560

Objective 3: Mitigate Human-Elephant Conflict (HEC)

Target 3.1: Human-Elephant Conflicts reduced by 50% by 2023

Rationale

Scattered settlements surrounded by bush are more vulnerable to crop depredation by elephants than are consolidated "barriers" of agricultural land. In one Kenyan study, government records indicated that levels of human injury and mortality were accentuated during times of drought (Thouless, 1994). This may reflect heightened levels of conflict between elephants and pastoralists over access to scarce water points (Thouless, 1994) as well as competition over grazing on high quality forbs (Young & Gadd, 2005). All these examples highlight the importance of land-use planning that takes account of the needs of wildlife in the context of human livelihoods and future development being urgently needed, and not only for the maintenance of elephant populations but also for biodiversity more generally in order to predict and manage human–elephant conflict.

Elephants, once outside of protected areas tend to raid crops, and become a problem to manage. A number of elephant corridors are increasingly being settled and cultivated. Elephant crop raiding, one of the most negative interactions for people living in the vicinity of protected areas, is not only the result of more palatable and nutrient-rich food, but has also been attributed to damage caused during elephant movements between habitats (Narayana 2015). Crop raiding remains a big challenge in many of the

elephant ranges in Uganda. This is being attributed to the increase in the number of elephants, fragmentation of forest fringes, increasing human population and lack of buffer zones between the PAs and the communities. This increases the human-elephant interface.

Lives have been lost and farmlands continue to be destroyed as a result of elephant migrations/movements and confrontations. Adjumani, Amuru and Otze/Dufile, for example, lie along the migratory route of elephants from Southern Sudan through East Madi to Murchison Falls National Park. During migration, elephants often roam in community land destroying crops and threatening human life. Their pattern of migration was interrupted in the past decades, but with relative peace in Northern Uganda and Southern Sudan, elephants are trying to re-establish their routes.

During the last quarter of the year South Sudan is reportedly dry. During this same period the Ugandan territory has a lot of fruit resources that are a preferred food of elephants. This causes elephants to trek from Nimule National Park in South-Sudan to Uganda and back in search for food and water. Whereas it has been easy to control incursions in Arinyapi Sub County, the major challenge is in Dzaipi (Mokoloyoro and Pagirinya villages). Mokoloyoro village is divided into three sectors of Pawinyo, Mokolo and Pakwai and it is the sector of Pakwai that has experienced ample crop raids. In the months of September, elephants moved from Nimule National park up to Olamnyu village in Paboo Sub County towards East Madi and in December 2012, a herd of elephants crossed from South Sudan in Nimule National Park to villages of Pagirinya and Mukoyoro in Adjumani District and razed crops. These are known wildlife corridors but the increasing human population has forced people to settle in the corridors causing serious human-wildlife conflicts. Other areas often affected are Ogolo, Elegu, Arinyapii, Panyjala and Bibia which are experiencing crop raids and threats to human life.

In KVPA elephants have always been a problem in Sub Counties of Karenga, Kapedo, Lobalangit and Lolelia Kaabong District; Lapono, Paimol, Omiapachwa and Adilang Sub Counties in Agago District; Tikao village in Orom Sub County in Kitgum District; Alerek and Abim Sub counties, Abim District; and Kaicheri in Kotido District.

Incidences of crop raiding by elephants around QEPA increase as a result of an influx of elephants from the neighbouring Parc National de Virunga in Democratic Republic

of the Congo into QENP in Uganda. Elephants are in close contact with people and cultivation. The lack of a buffer zone along the boundaries of the protected area, coupled with the cultivation of palatable crops, is the key causative factor to crop destruction by elephants in Ishasha sector and along the Kichwamba escarpment in QEPA. Also crop-raiding in other PAs is reportedly increasing due to the closeness of crops, and settlement to the boundaries of the park and the destruction of the habitats that would otherwise be buffering the PA. We need to explore strategic means of controlling elephant raids. Various deterrent measures are being used which include elephant deterrent trenches and scare shooting. For example, in Uganda, where the elephant range has decreased from 70% to less than 7% of the country between the 1920s and 1990s there has been a concomitant decline in the area at risk from crop raiding by elephants (Naughton-Treves, 1997).

Part of this plan should focus on forest habitats and forest regeneration projects, engaging stakeholders for continued monitoring. A number of methods were being used to control HEC and they include; use of Mauritius thorns, applying capsicum, chili, digging trenches (Fig. 19) among them. These have gone a long way in minimizing the conflicts. However, these measures will also be reinforced with vuvuzella, miripiri bombers and other innovations that are geared towards reducing conflict.
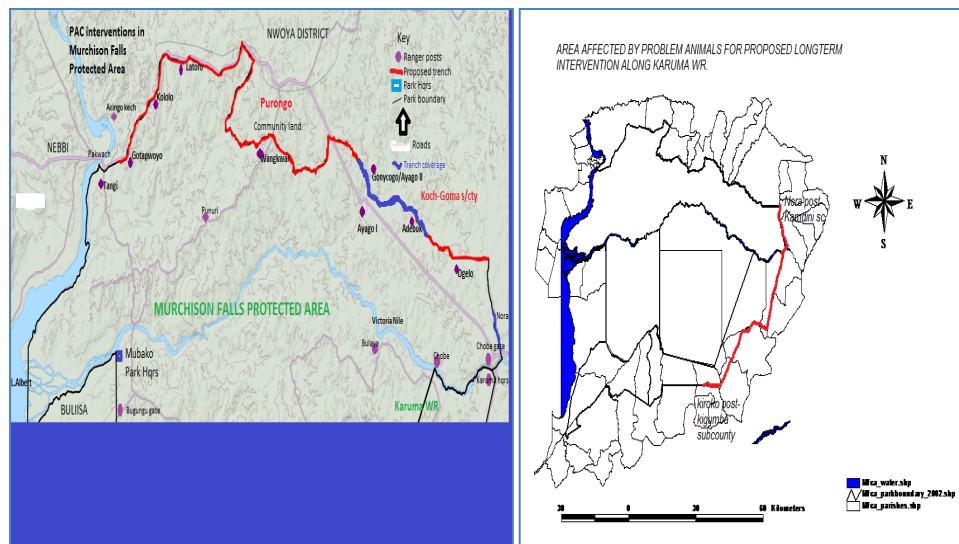
Figure 19. Red line shows potential areas for placement of elephant trenches or an electric fence

Table 3.1: Activities required to achieve Target 3.1

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
3.1.1 Conduct regular systematic monitoring /inventories of human-elephant conflicts sites	Baseline inventory and mapping	Comprehensive report on human-elephant conflicts	By 2017	UWA, Communities	4,360
	Regular inventory and mapping	Report indicating human-elephant conflicts hot spot	On-going	UWA, LG, Communities	47,500
3.1.2 Establish central data base and monitoring systems	Exposure retreats, Consultancy, monitoring protocols,	Data base and its hard and soft ware, monitoring system	By 2019	UWA, WCS, AWF	66,087
3.1.3 Establish committee structures in communities for human-elephant conflicts	Concept approval, consultative	Functional committees at different levels	By 2019	UWA, MTWA, Communities	4,150
3.1.4 Assess, review and recommend appropriate land use in specific human-elephant conflicts areas	Consultative reviews/ assessments	Land use report	By 2020	UWA, MTWA, LG MLHUD, AWF, WCS, CSOs, GEF, Communities	125,230
3.1.5 Training of UWA staff in human- elephant conflicts management	Training	Number of UWA staff (ToT) trained, number of modules covered	Years 1,3,6,9	UWA, NGO, Katwe wildlife institute, MUK, Tanzania	PP UG2
3.1.6 Establish a human- elephant conflicts management structure at UWA level	Concept approval	Number of established positions and filled with personnel	On-going	UWA	300,000
3.1.7 Implement forest habitat and regeneration projects	Re-a forestation	Size of land planted with trees, size of PA eliminated of invasive and exotic plants	On-going	UWA, partner institutions, NGOs	375,342
3.1.8 Develop stakeholders' engagement strategies	Stakeholder platform/ consultative meetings	Audit reviews, number of stakeholders reached, number of consultative engagements held, reflection of human-elephant conflicts in stakeholders plans, budgetary allocation by different stakeholders on human-elephant conflicts	By 2019	UWA, LGs, Stakeholders	70,000
3.1.9 Establish a compassionate budget for injuries and death outside the protected area by elephants	Consultative budgetary process	Actual amount in the fund, number of beneficiaries, number of engagements	By 2022	MTWA, UWA,	70,000

3.1.10 Establish working relationship with other agencies such as NFA in addressing human-elephant conflicts	Meetings	MoUs in place, number of meetings	By 2019	UWA, other agencies	3,500
3.1.11 Develop a detailed toolkit to address human-elephant conflicts in all protected areas	Consultancy	Tool kit document	By 2020	UWA,MTWA, AWF,UCF, partners	42,670
3.1.12 Translocate problem elephants *where appropriate*	Translocation process	Number translocated, number of problem incidences reported	On-going	UWA,UWEC ,MTWA, MAAIF, KWS	125,000
3.1.13 Create buffers between PAs and communities disturbed by elephants	Zoning, mapping	Buffers in place	Years 3,4,5,6,7, 8	UWA,IGCP, AWF,WCS	12,500
3.1.14 Hold meetings with elders and political leaders to strengthen traditional and local approaches of HEC mitigations.	Meetings	Number of awareness meetings, attendance	On-going	UWA, Local/politica l leaders	42,540
3.1.15 Train rapid-response teams to deal rapidly with cases of problem elephants.	Training	Trained rapid-response teams in place, reports	Years 2,4,6,8	UWA, partners	157,342
3.1.16 Lobby the local communities and District leaders of the affected communities to re-establish elephant corridors	Meetings	Number of meetings, reports on resolutions, area of corridors re-established	On-going	MTWA, UWA, LG, UCF,GEF,U NDP, AWF	433,785
3.1.17 Establish elephant fences *where appropriate*	Community engagement meetings and dialogue, assessment, dig trenches/fences	distance covered in Km by fence (260km-Karuma, Nwoya, Kiryandongo) and others approximately 300km	On-going	UWA, MTWA,CSO s, Communities and partners	7,736,885
		Number of trenches established, distance covered in Km by trench (roughly 300km)			1,363,636
3.1.18 Excavate and maintain elephant trenches	Excavate 200 km of trench along boundaries of MFNP, QENP, and KNP. Negotiate formal agreements on roles and responsibilities by community groups. Routine trench clearance	Km of trench excavated, no. of formal agreements signed, number of km of trenches maintained at intervals of 2 years	2021	UWA, MTWA, LGs, Communities , CSOs and CBOs	PP UG2
3.1.19 Increase community vigilance and train communities in use of simple and adoptable	Scouting groups	Number of groups established	On-going	UWA, Communities ,CSOs and	PP UG2

				CBOs	
methods to enable them address HEC on their own	Place beehives, thunder bullets, miripiri bombers, crack guns, apply capsicum, vuvuzella, whistles, bells and drums	Incidences recorded, # beehives placed, etc.	2021		
3.1.20 Planting of unpalatable crops along the boundaries of protected areas	Stakeholder Meetings	Land identified, acreage planted with unpalatable crops	On-going	LG, Communities, NGOs, Private sector	PP UG2
3.1.21 Monitor elephant crop raiding patterns and trends	Collaring, surveillance	Number of family leaders collared	On-going	UWA, WCS, partners	75,000
3.1.22 Acquire knowledge on what other PAs and countries are doing to control/ reduce elephants related conflicts	Study tours, trainings	Number of study tours and people, Number of elephant conflicts attended too,	By 2022	UWA, Partners	120,000

Objective 4: Effectively protect elephants through awareness and sound management

Target 4.1: By 2026 conservation awareness programs strengthened

Rationale

Many people generally have inadequate knowledge of, or indifference to elephant conservation. Civil servants, politicians, community leaders and ordinary farmers are often unaware of the legislation governing the hunting of elephants and possession of ivory. Some are aware of the legislation but do not understand the reasons for it and so they ignore it. The solutions to the problems of elephant management must involve various levels of responsibility. Therefore this plan must promote a greater understanding amongst rural communities, town and city dwellers (especially the middle class), and the civil servants and politicians who will facilitate the adoption of conservation policies and the implementation of field programs. Media stories about the life of elephants (e.g. their social behavior) are an effective means of influencing the general public.

The public must be reached through schools, villages, radio, television, and newspapers. Knowing the benefits will promote ownership and encourage people to be positive about elephant conservation. Many poor people will spend most of the time cultivating in case it is the cheapest way to sustain a livelihood and will spend less time to attend conservation meetings unless a per diem is involved to compensate for the lost time farming. Conservation meetings need to be packaged in a manner that will ensure

maximum participation by all stakeholders and the communities around elephant ranges. We also need Indigenous Knowledge as a critical factor for sustainable development. Indigenous or Traditional knowledge (TK) is used at the local level by communities as the basis for making decisions pertaining to food security, human and animal health, education, natural resources management and other vital activities (Nicolas Gorjestani 2000).

Table 4.1: Activities required to achieve Target 4.1

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
4.1.1 Conduct conservation meetings among stakeholders and communities on the importance of wildlife and the need to fight poaching, illegal killing and trafficking of wildlife	Meetings	Number of inter-agency awareness seminars and workshops with law enforcement agencies, number of community and other stakeholders meetings, Report	On-going	UWA, UWEC, LG, AWF, GEF, Communities	192,465 PP UG2
4.1.2 Develop elephant conservation awareness/ education materials/ programs in schools	Training/ consultancy	Conservation awareness materials available	By 2019	UWEC, UWA	48,768
4.1.3 Develop and implement a national awareness raising program focused on the importance of wildlife in particular elephant conservation	Consultative, budgetary process	National awareness raising program in place	On-going	UWEC, UWA, GEF	20,500
4.1.4 Conduct training courses at the national/local level for ranger staff.	Training/ consultancy	Number of staff trained, course modules, Report	Years 3,5,7,9	UWA, WCS, Education institutes	125,000
4.1.5 Support Wildlife Clubs in schools in order to nurture a culture of conservation among the youths in Uganda	Trainings, retreats to PAs, incentive to club members	Trainings, number of retreats to PAs, incentives to club members	On-going	UWA, UWEC, MTWA, CARE, CSOs	137,500
4.1.6 Spearhead indigenous knowledge base on wildlife conservation and its implementation	Concept, consultancy	Report	By 2020	UWEC, UWA, Universities, CSOs, CBOs	58,567
4.1.7 Support conservation education programs around elephant range PAs	Drama groups, films	Number of groups participating in conservation programs	On-going	UWEC, UWA, CSOs, CBOs	192,256
	Media outreach	Number of media outreach conducted	On-going	UWEC, UWA, LG, GEF, partners	218,400
	Workshops, ranger meetings, study tours, sports	Number of planned programs, recorded attitude change incidences /reports	On-going	UWA, UWEC, partners, Private sector	189,825

4.1.8 Develop and improve community resource centers in elephant ranges	Study tours/retreats, Procurement procedures, consultancy	10 well equipped resource centers furnished with conservation materials	By 2026	UWA, LG, CARE, partners	5,000,000

Objective 5: Strengthen research on elephant conservation issues

Target 5.1. By 2026 gap on elephant knowledge filled

Rationale

To some extend there is limited understanding of elephant ecology in terms of population structure, carrying capacity and knowledge of the different habitats where elephants survive in Uganda. Surveys to establish elephant population size and their distribution have been frequently conducted for numerous PAs, though a lot still has to be done in other areas, especially in forested and fragmented habitats. Studies have been conducted on elephants but this has also come with gaps in some areas to the extent that the studies need to be updated to match recent developments. There is need for capacity building in UWA to undertake special elephant studies in most of the elephant range.

Each habitat in the park should have a range of acceptable 'natural' elephant population levels. For example, given the current protected areas, is it possible for the elephant population to sustainably be maintained at pre-1973 levels without harming other species or the habitat? Carrying capacities that are in line with other management plans (e.g. forest regeneration) should be considered. Since data on this does not exist, a target should be set and in the meantime a research and monitoring project should be launched to accurately assess realistic carrying capacities. In Kruger National Park, van Aarde *et al*. (1999) found that density dependent regulations started at 0.37 elephants/km²; accordingly this mechanism may be expected to start in sites like

Kidepo NP, where the population estimate of 502 elephants (Wanyama 2012) gives a density of 0.35 animals/km² (In: Aleper 2013). Agent based models would provide a much more informative structure when planning complicated management issues - e.g. if we know an elephant breaks so many trees a year and suppresses so many saplings, etc, we could test the differences in forest regeneration rate at different elephant population densities.

Table 5.1: Activities required to achieve Target 5.1

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
5.1.1 Map and document all elephant ranges in Uganda	Mapping and surveys	Report on ranges, elephant database in place	By Dec. 2019	UWA, NFA, UWEC	2,750
5.1.2 Conduct surveys to estimate population numbers in data deficient sites thought to have a minimum of 15 elephants	Surveys, RBDC	Survey/ census reports	By 2019	UWA, NFA, WCS, researchers	PP UG1
5.1.3 Monitor population numbers in data deficient sites thought to have a minimum of 15 elephants	Surveys	Survey/ census reports	On-going	UWA, NFA, WCS, researchers	PP UG1
5.1.4 Train staff in the use of modern technologies for data collection, entry and analysis	Training	Number of trainings, Reports	Years 2,4,5,6,8, 10	UWA, WCS, GEF, AWF	PP UG1
5.1.5 Conduct studies to establish population structure and carrying capacity of elephants in each range	Field study, consultancy	Report on young, juveniles, sub-adults & adults	On-going	UWA, WCS, researchers, research institutions	114,540
5.1.6 Conduct genetic studies on diversity of elephants in Uganda	Scientific study, consultancy	Report on genetic diversity in the elephants of Uganda known	By 2020	UWA, WCS, MUBFS, ITFC, UWEC, researchers, research institutions	35,754
5.1.7 Conduct genetic studies to determine taxonomic status of forest and savanna elephants; determine whether Ugandan elephants are intermediate or separate species.	Scientific study, consultancy	Report on genetic relationships	By 2021	UWA, WCS, MUBFS, ITFC researchers, research institutions	66,960

5.1.8 Conduct counts at regular intervals for priority sites with more than 50 elephants to establish trends.	Surveys	Report on surveys	Years 2,4,5,6,8, 10	UWA, WCS, researchers	171,500
5.1.9 Estimate survival probabilities of small populations with the age structures and sex ratios determined.	Field study, consultancy	Report	By 2022	UWA, WCS, researchers	69,765
5.1.10 Monitor seasonal elephant movements	Monitoring study	Report , monitoring equipment (GSM camera traps, radio tracking, collars, GPS) in place	On-going	UWA, WCS	152,250
5.1.11 Estimate natality rates and natural mortality rates and construct models to predict trends and effects of different management options.	Field study	Report on natality and natural mortality rates per year and trend models	By 2022	UWA, WCS, researchers, research institutions	51,500
5.1.12 Behavioral ecology study	Field study	Feeding habits, Inter and intra species Interaction, Human-Elephant interaction, communication behavior known	By 2024	UWA, WCS, researchers, research institutions	60,000
5.1.13 niche ecology study	Field study, niche models	Climatic conditions and species associations, and other known	By 2022	UWA, WCS, researchers, research institutions	75,500
5.1.14 Monitor vegetation in areas frequented by elephants to evaluate their effects on the growth and survival of trees and other vegetation	Field study	Reports	On-going	UWA, WCS, researchers, research institutions	34,000

Target 5.2: By 2026 diseases that affect elephants in Uganda are established and managed

Rationale

Some of the elephants have developed strange diseases that have often gone unnoticed or that wildlife managers have little or no knowledge about. This situation complicates elephant conservation and it is a threat to elephant survival. In addition, snaring may also occur, resulting in the loss of trunks or limbs- a large number of elephants in MFPA have deformed trunks resulting from extensive snaring. Some of the diseases affecting elephants cannot clearly be explained and this will need specialized studies and veterinary interventions to control and manage the spread of diseases. In QENP several elephants have been found with a rotting tail and the cause is still not known despite samples having been collected for testing at laboratories outside Uganda (Plate 1).

Plate 1. Elephant with rotting tail . *A. Plumptre/WCS*

Table 5.2: Activities required to achieve Target 5.2

Activities	Methods	Indicators	Timeline	Actors	Cost estimates ($)
5.2.1 Carry out disease Surveillance in elephants	Surveillance	Number of surveys, number of sick elephants treated, elephants diseases and causes identified, data base and publications on elephant diseases in Uganda available	On-going	UWA, WCS, MAAIF, research institutions	326,570
5.2.2 Develop protocols for epidemiological studies	Consultative process	Epidemiological studies protocol available	By 2019	UWA, MAAIF, private sector	21,754
5.2.3 Develop a Bio- data bank for elephants	Consultative, case study retreats	Bio-data bank available and operational	Year 3	UWEC, UWA, WCS, partners	35,756
5.2.4 Build the institutional and human resource capacity for disease management and prevention	Training, recruitment, acquire equipment	Control measures to handle elephant diseases in Uganda available, number of staff trained to implement the control measures, facilities and equipment for treatment and prevention of elephant diseases available	By 2020	UWA, MAAIF, WCS, private sector	162,500
5.2.5 Build and strengthen stake holders networks and partnerships for disease management and prevention	Consultative process	Partnerships and networks for elephant disease management and prevention existing and operational, multi-sectoral rapid response team established and operational	On-going	UWA, MAAIF, MoH, WCS, research institutes , private sector	125,000

Objective 6: Strengthen cooperation between range states

Target 6.1a: By 2023 National stakeholder collaboration/coordination and mandates ensured

Rationale

As outlined in previous sections, encroachment on protected areas (PAs) is a major threat to elephants. Despite national laws, local government and community leaders may see PAs as wastelands and want to incite colonial factors that their ancestors were evicted brutally without compensation at the time when parks were established. These leaders may even encourage their constituents to encroach on protected areas. This is fueled by inconsistent political statements from national leaders 'today it is get out tomorrow it is wait and do not chase my people'. Therefore, it will be prudent that we identify and mobilize key stakeholders as well as clarifying upon their mandates to improve coordination and collaboration. Perhaps the local councils should be guided and supported more actively.

The mandates for local councils, district councils, members of parliament and the conservation coordinating agencies need to come out very clearly. For example, what would be the role of the 'Environmental Police' in cross-border trade monitoring? The later notwithstanding, there is also need to strengthen collaboration and coordination to improve monitoring of elephant movements and anti-poaching activities between law enforcement stakeholders at a national level.

Table 6.1a: Activities required to achieve Target 6.1a

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
6.1a.1 Conduct stakeholder meetings	Meetings	No of stakeholders meetings conducted	On-going	UWA, Stakeholders	236,578
6.1a.2 Develop MoUs/agreements for collaboration	Consultative process	No of MoUs in place	On-going	UWA, Stakeholder	405
6.1a.3 Review regularly MoUs with stakeholders	Consultative process	No of MOUs reviewed every 4 years	Years 4,8	UWA, Stakeholders	284
6.1a.4 Strengthen collaboration with other law enforcement agencies to fight illegal ivory trade and other wildlife related crimes	Meetings	Task force in place, No of meetings, Number of joint operations, protocol in place and implemented	By 2023	Customs, Police, the National Army, INTERPOL, and LATF	122,500

Target 6.1b: By 2026 regional collaboration/coordination to conserve elephants strengthened

Rationale

The East African Community (EAC) countries including the Democratic Republic of Congo (DRC) and the Republic of South Sudan need to work together, because these neighboring countries face similar problems of elephant management. Elephants move back and forth across international borders and poachers often take advantage of this. Several aerial surveys conducted by UWA and WCS for QEPA and PNVi showed that elephants are concentrated at the border with Uganda, where they probably represent animals migrating into PNVi from QEPA, and near the Semliki River, north of Lake Edward. The same applies to South Sudan and Uganda between Otze Dufile in Uganda and Nimule National Park in South Sudan.

The current political and economic framework provided by EAC needs to be utilized to increase the profile of elephants. By speaking with one voice on elephant and ivory issues the region will be able to gather consensus for support. The African Elephant Specialist Group can play an important role in promoting information exchange and

contacts between specialists in the EAC and other regions. There is need to strengthen communication to improve monitoring of elephant movements and anti-poaching activities between DRC, South Sudan and Kenya. There is need to use EAC as a platform.

Table 6.1b: Activities required to achieve Target 6.1(b)

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
6.1b.1 Conduct regular meetings to strengthen collaboration/coordination between Uganda and South Sudan for management of elephants between Otze Dufile in Uganda and Nimule national park in South Sudan then QENP and Virunga park in DRC, Mt Elgon NP in Uganda and Kenya	Meeting	Bi-annual meetings, Report	On-going	UWA, MTWA, Nimule National Park, ICCN in DRC, KWS	81,400
6.1b.2 Create contacts and cooperative agreements between EAC and non EAC countries for elephant management (EAC as a platform for coming up with strategies that will enhance monitoring and reducing ivory trafficking within the EAC region)	Consultative meetings	Number of agreements, MoUs in place, Strategies in place	On-going	MTWA, Ministry of Foreign Affairs, UWA	39,030
6.1b.3 Facilitate technical exchanges and create contacts between elephant specialists so that lessons learnt in one country can be applied elsewhere within the sub-region as a tool to curb ivory syndicate	Periodic meetings, retreats	Report, Number of meetings, trainings and retreats	On-going	UWA, WCS, AWF, IUCN, KWS,TANA PA, research institutions, MIKE	87,520
6.1b.4 Sign MoUs and establish trans-boundary collaboration/coordination in important elephant populations	Meetings	Trans-boundary meeting reports for Kidepo and GV Landscapes	By 2022	Ministry of Foreign affairs, UWA, KWS, Southern Sudan, ICCN, EAC	4,100
6.1b.5 Strengthen cross-border collaboration/coordination among law enforcement	Meetings	patrol report, number of meetings successfully held, reduced incidents of cross-border poaching	On-going	LATF, UWA, KWS, ICCN, South Sudan, IGCP	150,000
6.1b.6 Conduct simultaneous elephant censuses in cross-border habitats to understand elephant population trends in a wider habitat	Censuses	Reports	Regularly, every three years	NGOs, wildlife Authorities	32,760

Target 6.2. Multilateral Environmental Agreements (MEAs) ratified and domesticated

<u>Rationale</u>

Concerns at the international level over destruction of shared ecosystems, loss of biodiversity, and negative impacts on the environment in general have increasingly necessitated international means of redress. Response comes in form of intergovernmental treaties or other agreements that constitute international environmental law. Such agreements govern cooperation among states on environmental matters of mutual interest or concern that one country cannot address alone. Often these agreements are between more than two countries, and are hence referred to as multilateral environmental agreements (MEAs) (Njogu 2012). The total number of such MEAs has steadily risen (UNEP 2001). Over the years, the scale of problems to be addressed has widened from local to global, and the number of sovereign states that participate in the negotiation of such legal arrangements has grown. Moreover, new concerns and principles—precaution, inter- and intra-generational equity, scientific uncertainty, and sustainable development—have also arisen in recent years and now need to be factored into negotiation processes (Njogu 2012).

While African elephants have been hunted for several centuries, the exploitation of elephant herds on a massive scale began in the 1970s. Threatened with extinction, the elephant has been protected since 1989 from international trade by its listing on Appendix I of CITES. The enforcement of this ban, the level of compliance adhered to by CITES parties, the response of non-CITES members, as well as the policy question as to how trade "interventions" best serve the environmental objective of species preservation, are all key concerns that fuel the dispute over whether to ban trade in elephant ivory. Therefore, as new concerns arise we will need to ratify and domesticate these agreements relevant to elephant conservation where appropriate. This will be done through the relevant ministries like Ministry of Foreign Affairs, Ministry of Tourism, Wildlife and Antiquities and Ministry of Water and Environment.

Objective 7: Improve community cooperation by increasing benefits

Target 7.1. By 2021 tourism revenue sharing programs enhanced

Rationale

The communities adjacent to PAs bear the greatest cost of existence of these areas and yet the benefits from the PAs accruing to them are minimal. The cost for communities living adjacent PAs with elephants is high. There are many potential means to reduce this cost and to increase benefits, and one of these is Revenue Sharing (RS), in which a PA shares its income with communities located in its vicinity. Over the years, UWA has allocated 20% of the revenue from PA entrance fees to community programs for those communities adjacent to PAs.

Some of the projects implemented as a result of Revenue sharing by UWA include; construction of schools, digging of elephant trenches to prevent crop raiding elephants. However, some gaps were realised to the effect that these adjacent communities were not benefiting as much as they should from this program. This prompted a review of the RS Policy and the need to develop and implement the RS Policy guidelines. In particular this suggests that revenue should target those communities receiving the brunt of the costs of conservation, of which elephant crop raiding is a major issue.

Table 7.1: Activities required to achieve Target 7.1

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
7.1.1 Fast track implementation of the RS Policy guidelines	Consultative meetings/ workshops	Number of policy guidelines adhered to	By 2021	UWA, MTWA, LG, CSOs	32,406
7.1.2 Review the tourism Marketing strategy *where appropriate*	Consultative meetings/ workshops	Strategy in place, number of meetings	By 2018	UTB, UWA, AUTO	31,150
7.1.3 Promote and improve community based tourism and increase benefits to frontline communities	Training, retreats	Number of tourism packages, Number of beneficiary communities	On-going	UTB, UWA, Communities, Private sector	345,000

Target 7.2. Enhance resource access programs by 2022

Rationale

Resource access programs, once managed well, can improve community livelihood and park-community relations. In a number of elephant PA ranges, resources are accessed through MoUs between UWA and the communities with no clear guiding principles. Currently, there is no binding policy framework in place to streamline resource access programs in these areas yet users need to be guided.

The existing MoUs have often faced a multitude of challenges in their implementation given that each PA has its own program on resource access under an MoU arrangement with varying guidelines. Also challenges exist in monitoring this trade-off. For example, in one occasion in Bwindi Impenetrable National Park, snares were found in sites designated for resource access despite the signing of a MoU with community resource users to access honey in the National Park.

There is need to develop a resource access policy and strengthen the resource access monitoring systems. There is need for a systematic institutional arrangement for community exchange and training activities that span a broad range of programs/projects.

Table 7.2: Activities required to achieve Target 7.2

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
7.2.1 Develop a resource access policy	Consultative meetings	Resource access policy in place	By 2019	MTWA, UWA, LG, Communities	26,752
7.2.2 Strengthen resource access monitoring	RBDC, Surveys, meetings	Monitoring reports/ feedback reports on availability, regeneration, sustainability	On-going	UWA, ITFC, WCS, researchers, research institutions Communities	173,040

Target 7.3. Adopt community enterprise development best practices in all elephant dispersal areas

Rationale

Frequently we refrain from reflecting on adopting the lessons learnt from successful community based enterprise models. Once the project is phased out, there is laxity for continuation. Many communities are still grappling with lack of enterprise development skills, inadequate ability to run community enterprises to sustainable levels despite availability of opportunities and resources accruing from elephant conservation. We need to extrapolate the positive and workable solutions to other areas. In 2003, the Food and Agricultural Organization of the United Nations (FAO) pioneered a project called "Community-based commercial enterprise development for the conservation of biodiversity in Bwindi World Heritage Site, Uganda" through a community NGO MBIFCT (Mgahinga and Bwindi Impenetrable Forest Conservation Trust). Its immediate objective was to establish community-based enterprises that provide sustained income to community members living in the areas surrounding the site.

Some of the project components include; 1) improving local capacity to develop and manage natural resource-based enterprises in a sustainable manner; 2) ensuring that promising products and services for potential enterprises were selected in a participatory manner, taking into account environmental, economic, social and technical criteria; 3) developing business plans for selected enterprise options for community members, including finance and business support strategies; 4) establishing viable tree and forest product enterprises that can be operated independently by

community members; and 5) documenting lessons learned and best practices for sharing with other WHS and high-value biodiversity areas.

Another case scenario by IFAD as a solution to problems of poverty and environmental damage, the Environmental Monitoring Group (EMG) facilitated a community-to-community exchange for sixteen Rooibos tea-growing farmers in Suid Bokkerveld. The farmers visited neighboring communities for discussions on crop quality, processing and marketing. On their return, the farmers shared what they had learned and established a farmers' cooperative. In addition, they improved their post-harvest processing, registered as organic producers and established the Heiveld Small Growers Cooperative to process and market the tea. They have been granted contracts for tea export to Europe and are now reaping the benefits of improved incomes. The program has been able to provide seed money and has even led to the establishment of a community-based tourism business. These are good baseline examples that can be emulated elsewhere in the elephant ranging areas that will enhance conservation.

Table 7.3: Activities required to achieve Target 7.3

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
7.3.1 Identify and fund potential enterprises in each elephant range communities	Consultancy	Number of fundable enterprises	On-going	UWA, FAO, IFAD, GEF, MBIFCT	30,500
7.3.2 Establish a Project Appraisal Committee to handle in coming proposals quickly	Consultative	Committee in place	By 2019	UWA, IFAD, Partners	6,000
7.3.3 Improve Eco-tourism products	Consultancy community-to-community exchanges	Number of new products introduced	On-going	UTB, UWA, Partners	157,500
7.3.4 Training in (enterprise development, proper selection, customer care, proposal writing)	Training modules, Consultancy,	Number of people trained/ reports	Years 2,3,6,9	Enterprise Uganda, UWA, LG, partners	253,850
7.3.5 Marketing eco-tourism products	Market appraisal, consultative	Marketing materials produced, trade shows and exhibitions attended, increased revenue reflections	On-going	UTB, UWA, LG, partners	506,785

Objective 8: Effectively implement the Elephant Conservation Plan for Uganda

Target 8.1. Elephant Conservation Action Plan for Uganda effectively implemented by 2026

Rationale

The Uganda Wildlife Authority (UWA), in partnership with stakeholders and the communities, is responsible for the control and oversight of management strategies/plans for wildlife species in Uganda. UWA will establish an elephant task force by 2018 that will be responsible for coordination and management of activities regarding implementation of the elephant conservation action plan.

Table 8.1: Activities required to achieve Target 8.1

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
8.1.1 Appoint NEAP Coordinator and Steering committee	Director UWA	Coordinator and Steering Committee in place	2018	Director UWA	NA
8.1.2 Publicize NEAP and determine priority actions	Circulate to stakeholders and government institutions	NEAP circulated	2018	Director UWA	NA
8.1.3 Organize regular implementation meetings between stakeholders and relevant government	First meeting upon publication of NEAP to coordinate activities and funding	First meeting minutes circulated	2018	Director UWA	US$6,300

institutions					
8.1.4 Clarify roles for each government institution through MoUs	Meetings and regular communication	Minutes	2018	Director UWA	NA
8.1.5 Develop procedures for monitoring and evaluation of NEAP implementation	Procedures developed by UWA	Procedures circulated	2018	Director UWA	NA

2. Summary of high-priority actions that require funding

The following are the priority areas for funding to fast track the implementation of this action plan;

1. Population survey programs in fragmented forests and in forested national parks like KNP and BINP to narrow the information gap in elephant numbers within the country.

2. Capacity to tackle poaching and illegal trade in elephant products through training as well as provision of surveillance equipment e.g. planes/drones, cameras, vehicles, GPS is essential.

3. Funding the canine project in UWA to strengthen the anti-poaching and illegal trade in elephant products

4. Funding of elephant crop raiding interventions like digging and maintenance of trenches or fencing critical crop raiding sites in MFCA.

5. Funding of research activities in the areas of elephant ecology, habitat assessments, carrying capacities and adoption of new survey techniques is as important as narrowing the knowledge gaps.

6. Funding of community livelihood projects around elephant conservation ranges and capacity building of the communities in entrepreneur skills to manage these projects on their own. However, this will also require design and implementation of programs targeting changing community attitudes towards conservation.

7. Capacity building for disease management programs as well as provision of diagnostic facilities like laboratories for quick analyses of samples will go a long way in ensuring the health of elephant populations in their ecosystems.

8. Provision of equipment to monitor elephant movements in their ranges is key to managing elephant conflicts and understanding their ranging patterns for effective monitoring and protection.

9. Funding resettlement programs for communities in elephant corridors/ranges is vital to increasing elephant ranging.

10. Funding mechanisms for establishment of an elephant conservation fund is a step in the right direction to provide timely facilitation to implement activities as envisaged in the plan.

11. Funding of trans-boundary activities and collaboration in important elephant ranges for better management of this trans-boundary resource.

12. Funding a consultancy to develop a detailed tool kit to address HEC in elephant protected areas.

13. Funding the development of a national awareness program on elephant conservation in Uganda is a milestone on its own.

14. Since the dynamics of domestic trade are not properly understood, studies in ivory trade are essential.

Key Assumptions:

1. Peace and security within the region prevails
2. Regional and international partnerships are harmonious
3. Financial support is increased and sustained
4. Legal and regulatory frameworks are robust and enabling
5. Population growth rate is checked
6. Wildlife habitats are respected
7. There is a shared purpose for conservation of wildlife across the country.

3. Conclusion

The emphasis of this plan is on implementation of the activities and identified actions to ensure that the objectives envisaged are adequately addressed. The stakeholders and their roles as mentioned will be pivotal in achieving the targets. Some of the activities in this plan were being implemented on an adhocracies and may require additional funding now that the plan has been streamlined. Other activities will require funding for their initiation and operationalization. For too long, many fragmented elephant habitats have attracted limited attention, and now with this plan, they will need

immediate focus. The fact that Ugandans and development partners are conservation oriented gives hope that they will engage with and implement this plan.

The future and survival of elephants in Uganda will not depend on UWA's efforts alone. As a fact, the neighbors to the protected areas will always play a key role in elephant conservation. The local communities therefore need to be brought on board in whichever way possible and incentives created to deter ivory traffickers from taking advantages of the poverty levels amongst the protected area and elephant range neighbors. Together, we shall achieve a sustainable population within our means.

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PERSONAL COMMUNICATIONS

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Appendix I: SWOT Analysis

Internal Strengths (S)	External Opportunities (O)
1.Availability of complementary regulatory frameworks (Wildlife Act Cap 200 of 2000, National environment Act 1995) **2**.Measures for investigation of offences in elephant trophy available **3**. Stable institution **4**.Trained staff **5**.Availability of guidelines for accessing Pas **6**.Over 80% of PA boundaries are known **7**.Existence of complementary policies (Wildlife policy, Climate change policy e.t.c)	**1**.Existence of International and regional frameworks on elephant species conservation **2**.Existence of Peace and security within the country **3**. Existence of Wildlife development partners and NGOs (for example, IFAW, WWF, AWF, GEF, ACF, WCS, UWS, LGs). **4**.International support for countries in development of regulatory bodies **5**.Existence of international conventions, protocols and regulations **6**.Regional and International collaboration and partnerships **7**.International concern on elephant poaching
Internal Weaknesses (W)	**External Threats (T)**
1.Legal frameworks not robust enough to enforce the law **2**.Inadequate monitoring and coordination **3**.Inadequate resources: financial, human, technological and technical **4**.Inadequate infrastructure: buildings-outposts, roads etc **5**.Inadequate motivation **6**.Inadequate coordination between institutions **7**.Lack of standard operating procedures **8**.Poor management of wastes (elephants feeding at waste sites in KVCA and MFCA **9**.Porous borders that allow for illegal access and transfer of elephant trophies **10**.Weak regulatory frameworks **11**.Insufficient inspection measures at entry and exit terminals **12**.Inadequate knowledge on Ivory and its trade dynamics (law enforcement) **13**.Inadequate control of invasive species	**1**.High poverty rates **2**.Finances (insufficient finances due to competing demands by government) **3**.Insecurity in neighbouring countries (DRC, West African countries, South Sudan) **4**.Poaching **5**.High population growth (pushing people to Protected areas) **6**.Thriving contraband in ivory (Ready markets due to increasing demand in east Asia) **7**.Climate change **8**.Increase in alien species **9**.Developments in parks (Oil, limestone mining, roads among others) **10**.Fires **11**.Mortality and natality rates **12**. Low reproduction rates

ANNEXES

ANNEX 1: Project Proposal Law Enforcement (UG1)

Country:	**Uganda**
Lead Institution:	**Uganda Wildlife Authority**
Duration of Project:	**3 years**
ECAPU Objectives & Activities:	**Objectives 1& 5; Activities 1.2.2/3/4 & 10 ; 1.3.16 ; 5.1.2/3 & 4**

Project Title: Strengthening Law Enforcement to Protect Elephant Populations in Uganda.

Background: African elephants *(Loxodonta africana and Loxodonta cyclotis)* are threatened mainly by poaching for ivory, which has drastically reduced their numbers and eroded the genetic diversity and adaptive potential. The Uganda Wildlife Authority (UWA) has the responsibility to protect wildlife and it collaborates with the research institutions in promoting wildlife conservation and ecosystem management in order to preserve Uganda's natural biodiversity.

In line with its mandate, the proposed project is aimed at combating elephant poaching and ivory trafficking and build prosecutorial capacity of UWA through; a) building forensic laboratory capacity to monitor elephant poaching, b) train first response staff on elephant scenes in crime management to secure court admissible evidence, hence leading to increased convictions, c) enhancing the capability of the newly established Wildlife Forensic and Genetics laboratory in Queen Elizabeth National Park to extract DNA from ivory and genotype samples collected to construct the Ugandan elephant genetic library and d) to support existing anti-poaching teams with regular aerial support and surveying, using specialized Drones / UAVs / RPAS's.

The main impact of this project will be the conservation of elephants, ecosystems and natural biodiversity of Uganda and of cross-border conservation areas. In turn, this will lead to sustainable growth in the tourism sector through improved UWA revenue collection.

Rational: In recent years, wildlife crimes, especially poaching and wildlife trafficking, have been on the rise in Uganda. For example, several large seizures were registered in 2015 alone, including 500 kg of ivory packed in drums disguised as Shea butter, 912 kg of ivory seized at Entebbe destined for Singapore and 2,791 kg of ivory intercepted at Entebbe airport. Additionally, during the period May to June 2016, The Natural Resource Conservation Network (NRCN) confiscated 26 pieces of elephant ivory.

This information reflects the seriousness and intensity of wildlife crime in the country, especially given that only about 1% of poachers are apprehended. The illegal ivory trade is driven by high profit margins and, in many cases, the high prices paid by rich individuals and cartels to those who wouldn't otherwise be tempted. Vulnerable elephants are pushed further to the edge of extinction when nature can't replenish their stocks to keep up with the rate of human consumption.

Tourism is of growing economic importance in the world. The importance of wildlife resources is directly linked to the role of the tourism sector nationally, but also globally. In Uganda, the total contribution of Travel & Tourism to GDP was 6,888.5 billion Uganda Shillings (USD 1,913.9 million), 7.3% of GDP in 2017, and is forecast to rise by 6.0% in 2018, and to rise by 5.7% pa to 12,654.9 billion Uganda Shillings (USD 3,516.1 million), 7.1% of GDP in 2028. In 2017, the total contribution of Travel & Tourism to employment, including jobs indirectly supported by the industry was 6.3% of total employment (605,500 jobs). This is expected to rise by 3.8% in 2018 to 628,000 jobs and rise by 3.6% pa to 898,000 jobs in 2028 (6.2% of total) (World Travel and Tourism Council, 2018).

The project will support and improve existing elephant monitoring and anti-poaching in Murchison Falls National Park (MFNP), Queen Elizabeth National Park (QENP) and Kidepo National Park (KNP) using aerial technology (either fixed wing, or multi-rotor), combined with thermal (infra-red) sensors and optical sensors. This will improve existing elephant monitoring and anti-poaching in the greater area surrounding MFNP (2,500 km²), the greater area surrounding QENP (1,978 km²) and the corridor between Kotido and KNP (1,600 km²).

The project will also increase the threshold of evidence required to sustain litigation. Under the current Ugandan Law, morphological methods of identification are insufficient to secure a conviction. DNA evidence is increasingly becoming a minimum standard for litigations, and UWA has embraced the use of wildlife molecular genetics as a forensic tool for sample identification. Consequently, UWA recently (2018) set up a forensic and genetics lab to provide court admissible scientific evidence to support prosecutions of wildlife crimes. However, the UWA laboratory currently has no capacity to extract DNA from bone and other samples and this poses a challenge and hinders prosecution of ivory traffickers. There is an urgent need to further develop the laboratory and human resource capacity for analyzing ivory samples. It is also important to establish protocols for recovering high quality DNA from such samples. Therefore, UWA will optimize protocols for extracting and genotyping of ivory samples for reliable and sustainable sample processing and to facilitate prosecution.

Scope:
a) Monitoring and mapping the areas of incidences of elephant poaching in MFNP, QENP and the corridor between KNP and Kotido using drones. The project will combine efforts with existing teams on the ground in these three geographic areas and support the teams with information and data.

b) Increasing the threshold of evidence required to facilitate litigation in Uganda.

Division of Work: Ministry of Tourism, Wildlife and Antiquities, Uganda Wildlife Authority, Local Government Authorities, Uganda Police Force, Uganda People's Defence Forces, and Ministry of Finance Planning and Economic Development. Ministry of Tourism and its agencies have a direct mandate of conservation and sustainable development of the wildlife resources of Uganda. The other mentioned Ministries and Agencies play complementary roles in law enforcement concerning illegal activities against wildlife. For the others, it's important that their sector policies, plans and programmes mainstream wildlife conservation and management. Private sector enterprises with business interests in the wildlife sector will be involved, for example Ndege Skies, which uses Drones and Cutting Edge Sensors to deliver improved accuracy of animal counts and anti-poaching solutions.

Objectives:

a) To improve efficiency and effectiveness of anti-poaching teams in identifying potential poaching events for immediate response,

b) To improve the tracking, population estimation and identification of elephants,

c) To improve the speed of data collection for use by headquarters,

d) To improve the monitoring of Human/Elephant conflict (HEC),

e) To build human resource capacity of anti-poaching teams to monitor poaching, and to collect, handle and preserve court admissible evidence,

f) To enhance the capability of the Wildlife Forensic and Genetic Laboratory in Queen Elizabeth National Park to extract and analyse DNA from ivory and other samples.

Expected outcomes:

a) Improved speed of identifying potential poaching events for immediate anti-poaching team's response,

b) Improved tracking, population estimation and identification of elephants,

c) Improved speed of data collection for use by headquarters,

d) Improved monitoring of human encroachment on elephant habitats,

e) Improved monitoring of Human/Elephant conflict (HEC),

f) Strengthened prosecution by providing molecular forensic evidence for the prosecution of ivory poachers and traffickers,

g) Well trained enforcement officers in monitoring of illegal killing of elephants, chain of custody procedures in the collection of forensic samples, and securing scene of crime following legally acceptable procedures,

h) Fully functional Wildlife Forensic and Genetic Laboratory in Queen Elizabeth National Park to extract DNA from ivory and other samples.

Relationship to the AEAP, any NEAP, and the EPI: This proposal addresses priority Objectives of the African Elephant Action Plan (AEAP) and is therefore aligned to the AEAP and NEAP.

Actions/activities and methods: In order to support and improve existing elephant monitoring and anti-poaching in MFNP, QENP and KNP, aerial technology (either fixed wing, or multi-rotor), combined with thermal (infra-red) sensors and optical sensors will be used. Drones which will be airborne for 115 minutes equipped with infra-red sensors accurate to 0.1c will be procured and used. A team comprising of pilots, data analysts, and trained foot patrols based will be established in each park area. Each team will be operationally independent, but will report directly to The Uganda Wildlife Authority Headquarters in Kampala. The team will drive to a pre-designated area (whether that location is randomized or otherwise chosen), set up the ground stations and other relevant

equipment to launch operational flights. When one of the pre-agreed triggers is detected, an alert will be sent to the local anti-poaching team and to relevant departments in Kampala for immediate response. The aircraft will remain in a holding pattern, using it's sensors to monitor and map the surrounding areas, to provide the anti-poaching team with as much information as possible before it arrives.

Activities for increasing the threshold of evidence required to sustain litigation in Uganda will include:
a) Planning meeting: One day planning and inception meeting.
b) The collaborating scientists from UWA and Government of Uganda Laboratory will hold a two day meeting to plan and schedule the implementation.
c) One day training of project staff, associates and other personnel handling requisition of laboratory and field materials and expenditure, on procurement and grants management.
d) Procurement: Procurement of project items and supplies.
e) Build human resource capacity to monitor poaching, collect, handle and preserve court admissible evidence,
   • Preparation of scenes of crime protocols, monitoring, and training manuals,
   • Training of frontline field officers on the scene of wildlife crime management including use of forensic bags for exhibit collection, and on monitoring illegal killing of elephants.
f) Enhance capability of the Wildlife Forensic and Genetic Laboratory in Queen Elizabeth National Park to extract DNA from ivory samples,
   • Train personnel in molecular DNA extraction and analysis,
   • Train UWA forensic laboratory personnel on Bioinformatics analyses that include assignment analyses and provenance matching.
g) Construct the Ugandan elephant genetic library by genotyping ivory stock piles,
   • Additional sampling of tissue of poached or diseased elephants using the network of Mobile Wildlife Veterinary units and UWA security,
   • DNA extraction from ivory and tissue,
   • Genotyping of all samples at 20 micro-satellite loci for ivory stockpiles and additional samples recovered from natural mortality, problem animal control and from ivory recovered from poached elephants of known location within Uganda,
   • Sequencing of ivory at three mitochondrial gene loci,
   • Integrating the new data and expanding the library held at the Uganda Wildlife Forensic and Genetic Laboratory to create a large sample size for the determination of random match probabilities and tracking the provenance of illegally trafficked ivory within Uganda,
   • From the large mitochondrial and microsatellite loci library generated, establish a spatial genetic structure of the East African elephant populations using a spatial and landscape genetic approach, to aid in the determination of ivory provenance and hotspots of elephant poaching within Uganda and patterns of local ivory trafficking within Uganda and the East African region.
h) Strengthening the capacity of law enforcement, intelligence, investigations and prosecution,
   • Acquisition of equipment (4 vehicles for rapid response with regard to poaching and crop raiding in Murchison Falls, Kidepo, Queen Elizabeth and Kibale National Parks,
   • Build capacity through training of law enforcement, intelligence, investigations and prosecution staff to combat elephant poaching and illegal ivory trade.

10. Timelines (Operational Plan):

Activity		Year 1	Year 2	Year 3
Appointment of Consultants		X		
Procurement of relevant equipment including drones		X		
Selection of staff for training		X		

Orientation of Staff		X	X	
Development of protocols between teams		X	X	
Agreement of flight corridors with Air Force, Uganda People Defence Force and other security organs		X		
Agreement of flight corridors and operational parameters with Civil Aviation Authority		X	X	
Location of staff accommodation selected		X		
Location of equipment storage selected		X		
Staff training in Kampala		X		
Staff training in situ				
Deployment in locations		X	X	
Trial runs/test data		X		
Data collection and processing		X	X	X
Integration with existing teams		X	X	X
Continuous training and supervision		X	X	X
Increasing the threshold of evidence required to sustain litigation in Uganda				
Planning Meeting	Planning Meeting	X		
	Training of UWA staff	X		
Procurement	Procurement of project items and supplies.	X		
Building human resource capacity for UWA staff	Preparation of scenes of crime protocols and training manuals.	X		
	Training of frontline UWA staff	X		
Enhancing capability of UWA forensic laboratory to extract DNA from ivory	Optimising of Extraction and Genotyping Protocol		X	X
	Train UWA Forensic Activity and Laboratory Personnel on Bioinformatics	X	X	
Establish the Ugandan elephant genetic library by genotyping ivory stockpiles.	DNA extraction from elephant ivory and tissue	X	X	X
	Genotyping of all samples at 20 micro-satellite loci	X	X	X
	Sequencing of Elephant ivory	X	X	X
	Integrating data and establishing a library at UWA		X	X
	Establish a spatial genetic structure of East African elephants		X	X
Evaluation and Reporting	Final Project Evaluation (M and E will be a		X	X

	periodic activity).			
Final reports	Preparation of final report to Elephant Protection Initiative (EPI) and publication in reputable journals.			X

Targets:

a) Improved speed of identifying potential poaching events by the end of the project.

b) Increased tracking, population estimation and identification of elephants by the end of the project.

c) Improved speed of getting data collection to headquarters by the end of the project.

d) Improved monitoring of human encroachment on elephant habitats.

e) Improved monitoring of Human / Elephant conflict (HEC).

f) Fully functional Wildlife Forensic and Genetic Laboratory in Queen Elizabeth National Park to extract DNA from ivory and other samples by the end of the project.

g) Training of enforcement officers in monitoring of illegal killing of elephants, chain of custody procedures in the collection of forensic samples, and securing scene of crime following legally acceptable procedures.

h) Acquisition of the technology to extract molecular forensic evidence from ivory and other difficult samples, bioinformatics analyses, and improved training of frontline officers involved in detection and monitoring of wildlife trafficking on scene of crime management by the end of project.

i) Reduction of elephant poaching and trafficking of elephant products (ivory) by at least 50% by the end of the project.

Budget:

S/N		Item	#	Unit Cost ($US)	Total ($US)	Year 1	Year 2	Year 3
Monitoring and mapping areas of incidences of elephant poaching in the PAs using drones.								
1	Capital	Drones	3	121,000	363,000	363,000		
		Thermal Sensors	3	33,000	99,000	99,000		
		VR Headsets	3	550	1,650	1,650		
		Shipping		660	6,600	6,600		
		Team Kit (tents etc)	8	9,900	9,900	9,900		
		Memory Cards	8	66	528	528		
		Hard drives	3	1,100	3,300	3,300		
		High end Desktop (live View)	1	4,400	4,400	4,400		
		Laptops (processing)	3	3,300	9,900	9,900		
		Software		66,000	66,000	66,000		
		Generator Back up		990	990	990		
		Solar Panels	3	1,650	4,950	4,950		
		Secure Storage Facilities	3	4,950	14,850	14,850		
		Maintenance		60,000	60,000	20,000	20,000	20,000
		Insurance		21,000	21,000	7,000	7,000	7,000
2	Training	Facilitator		9,000	9,000	9,000		
		Food/drinks		54,000	54,000	54,000		
3	Sensitization	Community sensitization		39,000	210,000	20,000	190,000	
4	Transport	Fuel		32,000	32,000	16,000	8,000	8,000
5	Consultancy	Data processing		28,000	28,000	10,000	9,000	9,000
6		Data Connection/link		16,200	16,200	16,200		
7		Consultancy fee		410,000	410,000	300,000	60,000	50,000
		Subtotal (US$)			**1,425,268**	1,037,268	294,000	94,000
Increasing the threshold of evidence required to sustain litigation in Uganda								
8	Project planning and inception meeting		18	100	1,800	1,800		

#	Activity	Detail						
9	Training of project staff and associates on procurement and grants management		30	10	300	300		
10	Preparation of scenes of crime protocols, monitoring, and training manuals				2,900	2,900		
11	Additional sampling of tissue and poached or diseased elephants	Forensic sample collection in five key elephant conservation areas (Queen Elizabeth, Kibale, Murchison Falls, Kidepo and Bwindi Impenetrable National Parks).	192	100	19,200	9,600	9,600	
		Car fuel and vehicle maintenance	1	600	600	300	300	
		Consumables for field sample collection at five elephant conservation areas	1	2,000	2,000	1,000	1,000	
12	Training of frontline field officers on the scene of wildlife crime management including use of forensic bags for exhibit collection, and on monitoring illegal killing of elephants	Training of 120 frontline field officers in five National Parks.	120	75	9,000	9,000		
		Trainers accommodation and meals	100	100	10,000	10,000		
		Car fuel and vehicle maintenance	5	600	3,000	1,000	1,000	1,000
		Training materials	5	300	1,500	1,500		
		Procurement of forensic evidence bags for processing elephant scenes	100	60	6,000	6,000		
13	Optimizing DNA extraction and genotyping protocol for Ivory samples	Optimization reactions; Genotyping of 2500 samples @ 6.4 per sample; Bioinformatics analyses	2,500	6	16,000	8,000	8,000	
		Procurement of laboratory homogenizer	1	1,500	1,500	1,500		

		Procurement of pipettes	1	500	500	500		
		Procurement of a computer	1	1,000	1,000	1,000		
		Genotyping software	1	1,000	1,000	1,000		
14	Procurement of law enforcement vehicles	Double cabin land cruisers	4	95,000	380,000	380,000		
15	Staff capacity building	In country Training			200,000	100,000	50,000	50,000
		Outside the country			350,000	200,000	150,000	
16	Project management	Project communication costs	24	50	1,200	400	400	400
		Administrative overheads	1	47,895	47,895	15,965	15,965	15,965
		Subtotal (US$)			**1,055,395**	751,765	236,265	67,365
		Grand Total (US$)			**2,480,663**			

ANNEX 2: Project Proposal Human-Elephant Conflict (UG2)

Country:	Uganda
Lead Institution Name	Uganda Wildlife Authority (UWA).
Duration of the project	Two years
NEAP Objectives & Action:	Objective 2: Activities 2.6.1/2/3/4 & 5; Objective 3: Activities 3.1.5/18/19 & 20; Objective 4: Activity 4.1.1.

Project Title: Mitigation of Human-Elephant-Conflict around Murchison Falls, Kibale and Queen Elizabeth National Parks.

Rationale: Human wildlife conflict is a situation where the needs and behaviour of wildlife impact negatively on the goals of humans or when the goals of humans negatively impact the needs of wildlife. In Uganda, Human-Elephant Conflict (HEC) is increasingly threatening the survival of elephants and other wildlife species around Murchison Falls, Kibale and Queen Elizabeth National Parks. In some areas, attacks by elephants attract retaliatory killings that ultimately impact on the survival of the species. Similarly, poaching, encroachment, invasive species and climate change are considered threats to the very existence of these parks. Crop raiding is also one of the major causes of conflict between farmers and elephants. An increasing human population without land increase has resulted into people settling and cultivating up to the boundaries of protected areas and encroachment on elephant habitats, leading to increased competition for resources between elephants and other wildlife species and people. This has intensified conflict between people and elephants. Climatic change and invasive species have resulted into habitat changes and reduced water both for humans and wildlife. Changes in habitat have been one of the factors influencing movement patterns of elephants and other wildlife species through migrations and distribution causing increased animal - people interactions thereby intensifying the conflict. The elephant is the most problematic species as it causes extensive damage and large amounts of crop losses, destruction of property and in some cases human fatalities. In Uganda, rural communities adjacent to protected areas depend on subsistence agriculture and livestock keeping as their most important sources of livelihoods. Studies in Kibale National Park show that 73% of households around protected areas are adversely affected by crop raiding with estimated household losses of at least USD 76 million per annum (Mackenzie, C.A, Ahabyona, P, 2012). In focus group discussions, respondents reported that crop raiding had caused food insecurity and increased school dropout. Residents adjacent to protected areas have been asking for compensation of crop losses, property and human injury. However, there is no policy on compensation in Uganda and the lack of compensation has been called unjust. Due to increased human wildlife conflict, the Ministry of Tourism, Wildlife and Antiquities and Uganda Wildlife Authority have received numerous petitions from communities and local authorities over time. Most of the petitions relate to lives lost and crop destruction by elephants.

Several interventions have been implemented including trenches, stone walls, Mauritius thorn fencing, and bee keeping among others to contain elephants inside the parks and management of invasive species to enhance elephant habitat quality and extent inside the national parks. These have generated varying degrees of effectiveness. The proposed project therefore seeks to replicate and scale

up current and tested interventions, and to monitor and enhance effectiveness. The project will also support field monitoring and data collection to enhance understanding of elephant raiding patterns and effectiveness of implemented HWC mitigation measures.

Scope: The interventions to be undertaken are those that promote the protection and conservation of elephants while at the same time enhancing local community livelihoods. These interventions will mainly focus on improved habitat management such as management of invasive species and barring elephants from destroying human life and property. The mind-set change of communities towards the role of elephants in improving livelihoods will also be targeted through radio programmes.

Division of Work:

a) Government agencies both at the central and local level: Ministry of Tourism, Wildlife and Antiquities, Ministry of Agriculture, Animal Industry and Fisheries, Uganda Wildlife Authority and Ministry of Finance Planning and Economic Development. Ministry of Tourism and its agencies have a direct mandate for conservation and sustainable development of the wildlife resources of Uganda. The other mentioned Ministries and Agencies play complementary roles through their sector policies, plans and programmes to mainstream wildlife conservation and management.

b) Relevant government institutions, experts, public and private entities will be identified and engaged to provide expertise, knowledge and experience in the management of invasive species and to develop, adopt and utilize best management practices to reduce risks and improve the results of control efforts. "Working across fence lines" will on the other hand help foster the public-private relationship which is so important to controlling the spread of invasive plants across the landscape.

c) Also members of the private sector have business interests in the sector which depends on abundance of wildlife for nature-based tourism. These will benefit indirectly in the medium and long term with the boost in wildlife populations. In the short run, benefits will accrue to the few parties involved in supply of goods, works and services during project activity implementation.

d) Local communities peripheral to Murchison Falls, Kibale and Queen Elizabeth National Parks will be mobilised for full involvement and effective participation in project implementation. These will include community wildlife committees, wildlife scouts, resource use groups and former poachers. Local communities depend largely on natural resources obtained from protected areas in terms of food, firewood, water, poles, medicines and other ecosystem services. Where these resources are denied to communities, they become negative to conservation initiatives. Local communities could as well serve as informants to curtail illegal activities. Engagement of former poachers together with other members of peripheral local communities will provide for their alternative livelihoods and keep them away from engaging in illegal activities

Objective 1: To improve protection and conservation status of elephants in Murchison Falls, Kibale and Queen Elizabeth National Parks.

Objective 2: To recover and restore degraded elephant habitats in Murchison Falls, Kibale and Queen Elizabeth National Parks to minimise undesired migrations to neighbouring community farms in search of food and water thereby causing elephant-human conflicts.

Objective 3: To reduce Elephant – Human Conflict around Murchison Falls, Kibale and Queen Elizabeth National Parks.

Expected outcomes:
a) Healthy and stable elephant populations.
b) Improved elephant habitat quality and extent in Murchison Falls, Kibale and Queen Elizabeth National Parks.
c) Reduced incidences of human wildlife conflicts.
d) Increased tourism revenues and enhanced local community's incomes from elephant tourism.

Relationship to the AEAP, NEAP, and the EPI: This proposal addresses priority Objectives of the African Elephant Action Plan (AEAP) and is aligned to the AEAP and NEAP. The proposal is in line with the objectives of EPI – a global initiative to protect elephants and stop the illegal ivory trade.

Actions/activities and methods:

i) **Excavation of an elephant trench:** 200 km elephant trench will be excavated to act as a physical barrier to elephants (70 km along the boundary of Murchison Falls, 70 km along the boundary of Kibale and 60 km along the boundary of Queen Elizabeth National Park).

ii) **Biological and organic deterrents to stray elephants:**

Beehives
Bees are biological deterrents against elephants. Bee keeping also has economic incentives/benefits through sale of honey and other bee products. The project will therefore procure 10,000 Kenya Top Bar (KTB) hives and place them along the boundaries of Murchison Falls, Kibale and Queen Elizabeth National Parks.

*Chilli (**Capsicum frutescent**)*
1,000 Kilogrammes of Chilli will be procured. Chilli concoction and blocks are organic deterrents against elephants. The project will also support communities to grow Chilli as a source of income.

iii) **Wildlife Scouts capacity building:** 4,000 Wildlife Scouts will be identified, selected and equipped with skills, knowledge and information about Human-Elephant Conflict management. The project will also provide the Scouts with uniforms and basic working equipment.

iv) **Raising awareness:** 50 Radio Talk Shows about Human-Elephant Conflict management, poaching and illegal wildlife trade (ivory) will be hosted by a local FM radio station. 10,000 flyers and 5,000 brochures about Human-Elephant Conflict management, poaching and illegal wildlife trade (ivory) will be developed and distributed among communities living adjacent to Murchison Falls, Kibale and Queen Elizabeth National Parks.

v) **Management of invasive species:** Management of invasive species will adopt an integrated approach involving the application and use of mechanical, cultural and classical biological control approaches, on a host of selected priority invasive plant species. The aim of the proposed control strategies is to reduce the density, abundance and spread distribution of the identified priority invasive plant species to keep them below an acceptable threshold or completely eradicate them. The project will be implemented along interlinked components; a) baseline study (mapping and inventories), continuous socio and ecological monitoring and information sharing; b) mobilization and engagement of neighbouring communities, c) classical biological control, d) integrated or mechanical control, f) capacity building of UWA, g) sensitization and awareness raising.

Timelines (Operational Plan):

Phase	Activity	Year 1				Year 2			
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1	Submission of proposal and receipt of funds	X	X						
2	Mobilization of community			X	X				
3	Procurement of tools			X	X				
4	Implementation of project				X	X	X	X	X
5	Monitoring of progress					X	X	X	X
6	Project evaluation				X				X
7	Reporting				X	X	X	X	X

Targets:
a) Elephant crop raiding reduced by the end of the project.
b) Increased harvests and enhanced income from crops.
c) Reduced Elephant – Human Conflict by the end of the project.
d) Improved community attitudes.
e) Improved elephant protection by the local communities.
f) Establishment of elephant raiding patterns and trends and hot spot sections of the boundaries of the parks by the end of the project.
g) 300 acres cleared of invasive species in Murchison Falls, Kibale and Queen Elizabeth National Parks respectively by the end of the project.
h) Inventory and mapping of invasive species in Murchison Falls, Kibale and Queen Elizabeth National Parks by the end of the project.

Budget:

S/N		Item	#	Unit Cost $US	Total $US	Year 1	Year 2
1	Trench excavation	Assorted equipment			15,000	15,000	
		Labour	200,000	4	800,000	400,000	400,000
2	Biological and organic deterrents	Bee hives	10,000	35	350,000	350,000	
		Chilli seeds	1,000	14	14,000	14,000	
3	Equipment for Wildlife Scouts	Overcoats	100	14	1,400	1,400	
		Pairs of Gloves	100	2	200	200	
		Smart phone for data collection	30	220	6,600	6,600	
		Gum Boots	100	8	800	400	400
		Camera traps	30	150	4,500	4,500	
		Batteries for Cameras	1,000	3	3,000	1,500	1,500
4	Livelihood improvement	Construction of the Oyester Mushroom	5,000	125	625,000	625,000	

		Grow Rooms					
		Improved Boer Goats	200	2,500	500,000	500,000	
		Business Development services	5,000	20	100,000	60,000	40,000
5	Training	Staff training			39,700	35,000	4,700
6	Production of awareness and education materials	Development and printing of flyers	10,000	1	10,000	5,000	5,000
		Development and printing of brochures	5,000	2	10,000	5,000	5,000
		Procurement of air time on selected FM Radio Stations	50	300	15,000	7,500	7,500
7	Consultancies	Artwork for flyers	10	600	6,000	6,000	
		Artwork for brochures	10	600	6,000	6,000	
	Subtotals				2,507,200	2,043,100	464,100

		Management of invasive species					
8	Mapping and inventories	Consultancy	1	150,680	150,680	150,680	
9	Mobilisation, sensitization and engagement of local communities, politicians and private sector	Sensitization meetings, selection and recruitment of causal labourer	One sensitization meeting per Protected Area	10,000	30,000	21,000	9,000
			Selection, recruitment and training of 200 causal labours for the 3 protected areas	10,000	30,000	18,000	12,000
		Training Power saws' operators	Training of 90 power saws' operators for the 3 protected areas	10,000	30,000	20,000	10,000
10	Procurements	Procurement of power saws		90	1,400	126,000	126,000	
		Field gears and other assorted equipment				50,000	40,000	10,000
11	Causal labourers	Feeding	200		31,600	15,800	15,800
		wages	200		70,000	35,000	35,000

12	Fuel	For the Excavators, ploughing tractors and lorries			568,420	284,210	284,210
13	First Aid Kits		3	1,000	3,000	3,000	
14	Pasture seeds				54,000	27,000	27,000
15	Biological control	Importation and multiplication of biological control agents			50,000	25,000	25,000
16	Studentship	Stipend for data collection	6		80,000	40,000	40,000
17	Project coordination and management				70,000	35,000	35,000
	Subtotal				**1,343,700**	**840,690**	**503,010**
	GRAND TOTALS PER YEAR					**2,883,790**	**967,110**
	GRAND TOTAL FOR THE TWO YEARS				**3,850,900**		

ANNEX 3: Uganda Implementation Plan & Budget (Medium Term)

Objective 1: Stop poaching of elephants and trade in elephant products					
Target 1.1: Regulatory frameworks to aid elephant conservation are strengthened by 2021					
Activities	**Method**	**Indicators**	**Timeline**	**Actors**	**Cost estimates ($)**
1.1.1 Fast track the revision of the Uganda Wildlife Act to provide for deterrent penalties where appropriate	Consultative meetings and workshops	Revised Wildlife Act in place and enforced	By 2019	MTWA, Cabinet, Parliament	**18,581**
1.1.2 Formulate guidelines and regulations to operationalize provisions of the amended Uganda Wildlife Act to address specific gaps and issues relating to prosecution of wildlife crime offenders	Consultative meetings	CITES domestication orders, guidelines and regulations in place	By 2020	MTWA, Cabinet, Parliament	**32,040**
1.1.3 Draft and enforce operating procedures for wildlife conservation and management	Consultative meetings and workshops	Standard Operating Procedures in place	By 2020	UWA, MTWA,	**14,020**
1.1.4 Review government policies to match the current demands and development in elephant range sites	Consultative meetings	Number of policies reviewed	By 2021	MTWA, UWA, UWS	**57,530**
1.1.5 Develop guidelines on trophy and exhibit disposal	Consultative process	Trophy disposal guideline in place and implemented	By 2019	UWA, MTWA, LATF	**16,075**
1.1.6 Develop a guideline on management of captive elephant (s)	Consultative process	guideline on management of captive elephant(s)	By 2021	UWEC, UWA, MTWA	**17,548**

Target 1.2: Poaching of elephants stopped by 2026					
Activities	**Methods**	**Indicators**	**Timeline**	**Actors**	**Cost estimates ($)**
1.2.1 Improve staffing in PAs.	Recruiting and training	Number of staff recruited and deployed, number of trainings	On-going	UWA	**1,500,000**
1.2.2 Intensify aerial surveillance in PAs to deter elephant killing	Aerial flights,	Number of surveillance flights, decline in reports of incidents	By 2021	UWA	**US$ 2,480,663 Project Proposal UG1 2019-2021**
	Procurement	Three drones & required equipment purchased	By 2021	UWA, WCS, AWF, partners	**PP UG1 See above 1.2.2**

1.2.3 Strategic deployment (e.g. based on hot spots) and provide equipment to field rangers at all sites with minimum of 15 elephants.	Recce Survey, Deployment procedures, Procure	Reports, number of equipment, frequency of deployment, incidences of arrests and annual population status reports	By 2021	UWA, WCS, AWF, GEF Informants	**PP UG1 See above 1.2.2**
1.2.4 Identify and document elephant poaching hotspots and use results for enforcement planning	Surveillance	Annual status report for identified hotspots, number of hotspots	By 2021	UWA, WCS, Informants	**PP UG1 See above 1.2.2**
1.2.5 Ground surveillance - monitoring with SMART	Surveillance (Foot Patrols and vehicle patrols)	Surveillance reports from ground patrols, number of foot and vehicle patrols, number of elephants protected and monitored	On-going	UWA, WCS, AWF,UCF	**3,362,500**
1.2.6 Training of prosecutors, magistrates, Police Judiciary and monitoring cases and exposing corruption and set up offenders database	Training meetings/ Workshops	Reports of training meetings and numbers of prosecutors trained	On-going	UWA, AWF, LATF, MIKE	**93,369**
1.2.7 Review and improve ranger training for Law enforcement	Consultative review meetings,	Training manual in place, reduced incidents of elephants poaching	By Dec. 2019	UWA, LATF and partners	**23,574**
1.2.8 Modernize anti-poaching surveillance and patrol equipment	Procurement procedures	Equipment purchased and training received, number of specialized enforcement units in place, area coverage increased	By 2020	UWA, LATF, MIKE,WCS, AWF	**234,080**
1.2.9 Strengthen UWA legal team to address court cases and ensure arrested poachers are prosecuted effectively and monitored to ensure they remain in prison for duration of their sentence	Consultative meeting, retreats	Proportion of convictions remaining in prison for duration of sentence, reports of prosecuted cases, number of successfully investigated cases	Years 2,4,6,8,10	UWA, Police, DPP, Judiciary	**65,520**
1.2.10 Build human resource capacity of law-enforcement teams to collect, handle and preserve court admissible evidence	Training of staff and development of protocols	Ratio of convictions to prosecutions	By 2021	UWA	**PP UG1 See above 1.2.2**

Target 1.3: Zero ivory seizures by 2026					
Activities	**Method**	**Indicators**	**Timeline**	**Actors**	**Cost estimates ($)**
1.3.1 Develop a strong informant intelligence network within communities to improve information flow to combat elephant poaching and ivory smuggling (recruit community monitors).	Recruit and facilitate informants to counter benefits from ivory	Networks in place with numbers of informants reporting to UWA	On-going	UWA, LATF	750,348
	Intelligence gathering	Quality of informer reports - leading to arrests and prosecution	On-going	UWA, informants	37,500
1.3.2 Strengthen the Intelligence Enforcement Unit at Uganda Wildlife Authority (UWA) to curb the illegal wildlife trade in the country	Recruitment, training	Number of people recruited, number of people trained	On-going	UWA, LATF, MIKE, CMI	87,500
1.3.3 Establish a wildlife law enforcement training academy for UWA	Draft concept	Academy established	By 2026	UWA, MTWA, LATF, partners	1,250,000
1.3.4 Train staff in governance and managerial skills to aid elephant conservation	Training	Number of staff trained, number of trainings	By 2020	UWA, MTAC, Lake Katwe Institute, MUK	73,000
1.3.5 Train judges, customs and police in law-enforcement techniques with respect to ivory.	Training meetings/ workshops	Training report, Attendance lists	By Dec. 2019	UWA, LATF, MIKE	10,850
1.3.6 Conduct studies on the domestic ivory trade in Uganda.	Field study	Report	By 2020	UWA, LATF	6,250
1.3.7 Develop procedure and implement the structure for record keeping of ivory	Ivory stockpile management system	Ivory marking and registration systems in place	By Dec. 2018	UWA, LATF, STOP ivory	8,300
1.3.8 Strengthen the security of the confiscated ivory	Budgetary process	Ivory strong room in place	By 2017	UWA, LATF, MIKE	60,000
1.3.9 Create a National Task Force on illegal ivory and other wildlife contraband	Consultative	Task force in Place	By 2018	Interpol, Kampala Bureau, Uganda Police, URA, Customs, , UWA, CAA CMI and IFAW	11,249
1.3.10 Deploy wildlife law enforcement staff at key/major entry and exit border points	Recruitment, training	Reports on deployment and number of cases of intercepted ivory	By 2026	UWA	83,765

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
1.3.11 Establish mechanisms for feeding Uganda data quickly to the Elephant Trade Information System (ETIS)	Meetings, Consultancy	System in place	By 2018	UWA, TRAFFIC, LATF	**11,589**
1.3.12 Train staff in intelligence to increase their awareness in ivory and its trade dynamics	Training	Report	Years 1,3,6,9	UWA, LATF,MIKE,US Fish and wildlife institute-Botswana	**50,000**
1.3.13 Engage TRAFFIC to coordinate all activities concerning the regulation of the ivory trade.	Consultative engagements	Number of engagements	By 2019	UWA, TRAFFIC	**20,832**
1.3.15 Acquire and deploy sniffer dogs at key transit routes	Lobby platforms, funding proposals	Sniffer dog team at Entebbe in place	By 2017	UWA, African elephant fund, WCS, Maisha, AWF	**107,299**
		Sniffer dog team at other sites in place	By 2026		**569,573**
1.3.16 Enhance the capability of the Wildlife Forensic and Genetic Laboratory in QENP to extract DNA from ivory and other samples	Procurement of laboratory equipment and training of staff & setting up genetic library	Operational laboratory at QENP	By 2021	UWA and partners	**PP UG1 See above 1.2.2**
1.3.17 Carry out inspection of transit materials at entry and exit terminals	Use of inspection teams, sniffer dog teams	Inspection team in place, inspection reports, Inspection Standard Procedures (ISP)in place	On-going	LATF, UWA, Police, Customs	**150,000**
1.3.18 Support the rescue, rehabilitation of injured, abandoned or orphaned baby elephants	Trainings	Number of rescued, rehabilitated of injuries, abandoned or orphaned elephants, number of people trained in rescue mechanisms	On-going	UWEC, UWA, partners	**75,000**
1.3.19 Support the translocation and introduction of rehabilitated and reintegration of baby elephants	Trainings Establish Elephant re-integration structures in the PAs	Number of staff with skills in the processes Establish one elephant re-integration structure/holding facility in QEPA	On-going	UWEC, UWA, partners	**300,000**

Target 1.4: By 2026 adequate resources for elephant protection secured					
Activities	**Method**	**Indicators**	**Timeline**	**Actors**	**Cost estimates ($)**

1.4.1 Lobby funding from partners	Lobby platforms	Amount of funds received, percentage amount of funds allocated to elephant conservation	On-going	UWA, EPI, and other Partners	**50,120**
1.4.2 Diversify and Improve UWA revenue collection	Proposals, consultancy	Number of new products and activities developed, amount of revenue generated	On-going	UWA, partners	**43,000**
1.4.3 Assess staff needs (numbers, training)	Needs assessment, consultancy	No of staff needs identified	By 2019	UWA	**19,456**
1.4.4 Recruit,equip and train staff	Concept	Number of staff recruited, number of equipment procured, Number of staff trained	On-going	UWA, Partners	**432,008**
1.4.5 Efficiently manage funds to implement targeted elephant conservation activities	Financial procedures	Clean audit reports	On-going	UWA	**90,200**
1.4.6 Establish an Elephant Conservation Fund	Concept approval /consultancy	Elephant Conservation Fund in place	By 2020	UWA, Partners	**23,678**
1.4.7 Construct an enclosure for the elephant at UWEC	Fundraising	Amount of funds obtained, Elephant enclosure in place	By 2020	UWEC, partners	**151,040**
Project Proposals*				**Total (US$)**	**2,480,663**
Remaining Budget				**Total (US$)**	**9,907,394**
Total Budget Objective 1 (AEAP/UAP)				**Total (US$)**	**12,388,057**

- **See RMP&B**

Objective 2: Control habitat loss and degradation

Target 2.1: By 2019 regulations on fire use and its management developed

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.1.1 Develop awareness programs on fire and its impacts on elephant conservation	Meetings, media programs, plays, poems	Reports, number of programs, number of meetings	By Dec. 2018	UWA, NEMA, Partners	**36,900**
2.1.2 Review and develop regulations on grazing in elephant PAs.	Consultative meetings	Regulations in place	Year 4	UWA, NEMA communities	**23,375**
2.1.3 Monitor implementation of a fire management plan in all elephant range PAs	Meetings	Reports, fire prevention measures in place	On-going	UWA	**41,505**
2.1.4 Develop and review fire management plans *where appropriate*	Consultations	Reports, number of plans developed and implemented	2019	UWA, NGOs	**57,560**

Target 2.2: By 2020 human activities in the elephant ranges controlled

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.2.1 Lobby to strengthen awareness mechanisms on birth controls for communities around PAs	Lobby platforms, Meetings	Number of meetings	On-going	MoH, private sector, UWA	**12,500**
2.2.2 Monitor spatial and temporal distribution of illegal activity and their trends in gazetted elephant range areas.	Surveillance, Mapping	Reports	On-going	UWA, NGOs, research institutions	**80,450**
2.2.3 Evict illegal settlers and resettle legitimate land owners from protected elephant ranges to control habitat degradation	Eviction notices, Meetings	Settlers evicted, Reports	By 2020	UWA, Police, LGs, MLHUD	**154,000**
2.2.4 Eradicate logging in protected areas that are known to be elephant habitats to control habitat degradation.	Enforcing the law, Arrests	Logging sites restored	On-going	NFA, UWA, NEMA	**38,500**
2.2.5 Engage communities in activities that do not require them to encroach upon protected areas to reduce human-elephant conflicts (e.g. bee keeping around gardens)	Case study, exposure retreats, training	Number of bee hives/ number of bee keepers	By 2020	IGCP, GIZ CSOs, CBOs, UWA, Private sector	**197,300**

Target 2.3: By 2020 waste management protocols in PAs strengthened

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.3.1 Develop, review and implement guidelines on waste management in elephant sites	Consultative meetings/ workshop	Guidelines reviewed	By 2018	UWA, LGs, NEMA, CARE, AWF	**49,510**

2.3.2 Conduct awareness programs on waste management and its effects in PAs	Meetings	Number of programs	On-going	UWA, LGs, CARE, Communities	42,543
2.3.3 Procure incinerators in elephant range PAs to better manage wastes	Proposal, Procurement procedures	14 incinerators in place	By 2020	UWA, CARE NEMA, UNEP, USAID	55,000

Target 2.4: By 2021 developments in elephant range regulated					
Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.4.1 Review and harmonize policies to minimize infrastructure development in protected areas *where appropriate*	Consultative meetings/ workshops	Number of Policies reviewed	By 2020	MTWA, UWA, NEMA, MoE, MoWE, NFA	62,256
2.4.2 Conduct regular meetings among agencies to improve coordination	Meetings	Number of coordination meetings, Reports	On-going	UWA, NEMA, NFA	6,000
2.4.3 Review and strengthen regulations to EIA process in PAs	Consultative meetings/ workshops	EIA regulations reviewed	By 2019	NEMA, UWA	33,567
2.4.4 Monitor impact of existing developments	Field study	Reports	On-going	UWA, WCS, Researchers	45,500
2.4.5 Lobby government of commitments to elephant conservation and reduction of developments within PAs	Develop concepts, workshop for policy makers	Reports	By 2021	UWA, NGOs	109,560

Target 2.5: By 2022 mechanisms to prevent encroachment on elephant ranges in place					
Activities	**Method**	**Indicators**	**Timeline**	**Actors**	**Cost estimates ($)**
2.5.1 Study habitat use by populations that once ranged over large areas but are now restricted to small reserves.	Field study	Reports	By 2020	UWA, WCS, research institutions, researchers	12,075
2.5.2 Assess habitat conditions and prepare habitat management plans for each elephant range habitat.	Habitat assessment, consultancy	Reports, habitat management plan in place	By 2021	UWA, WCS, AWF, research institutions, researchers	92,300
2.5.3 Demarcate and secure the boundaries of protected elephant habitats and along corridors to prevent encroachment	Using pillars	Number of Km, report	By 2022	UWA, MLHUD	250,345
2.5.4 Lobby for gazettement to effectively protect elephant habitat, especially migration corridors in cross-border areas.	Meetings	Report	On-going	MTWA, UWA, LG, Ministry of Foreign Affairs,	58,456

					communities	
2.5.5 Establish and manage migratory corridors where agricultural encroachment is prevented.	Concept generation and fundraising Surveillance, mapping corridors	Reports	On-going	UWA, LGs, Communities, partners	**501,567**	

Target 2.6: By 2026 spread of alien and invasive species in elephant ranges controlled

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.6.1 Development of alien and invasive species monitoring protocols	Consultative meetings/ workshops	Alien and invasive strategy in place	2020	UWA, Partners	**US$ 3,850,900 Project Proposal UG2 2019 - 2020**
2.6.2 Map areas covered by alien and invasive species in PAs	Mapping	Maps, Reports	By 2020	UWA, Partners	**PP UG2 See above 2.6.1**
2.6.3 Conduct research on alien and invasive species in PAs and how to eradicate them.	Field study	Reports	Year 4, 5,6	UWA, NFA, WCS, Researchers	**PP UG2 See above 2.6.1**
2.6.4 Create awareness about alien and invasive species for staff and communities around PAs	Awareness meetings	Reports, meetings	On-going	UWA, Partners	**PP UG2 See above 2.6.1**
2.6.5 Develop and implement eradication interventions e.g. uprooting,	Mechanical, biological and chemical means	Report detailing interventions made	On-going	UWA, Partners	**PP UG2 See above 2.6.1**

Target 2.7: By 2026 knowledge base on climate change and its impacts strengthened

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
2.7.1 Develop bye laws to reduce deforestation in elephant ranges *where appropriate*	Consultative meetings	Bye laws in place	By 2020	UWA, LGs MTWA, NFA	**40,875**
2.7.2 Review and strengthen regulations on environmental management	Consultative meetings	Number of regulations reviewed	By 2021	NEMA,MTWA, UWA,	**27,540**
2.7.3 Procure weather Monitoring equipment	Procuring, proposal development	Equipment procured	By 2019	UWA, WCS, AWF, research institutions,	**45,560**
2.7.4 Regularly monitor weather in elephant range PAs as well as changes in habitat	RBDC	Records on weather	On-going	UWA, Partners	**6,950**
2.7.5 Monitor impact of climate change on elephant ecology and ranging patterns	Research study, Consultative	Report on impacts	By 2022	UWA, WCS, AWF, research institutions,	**43,560**

Project Proposals*				Total (US$)	3,850,900
Remaining Budget				Total (US$)	2,125,254
Total Budget Objective 2 (AEAP/UAP)				Total (US$)	5,976,154

- **See RMP&B**

Objective 3: Mitigate Human-Elephant Conflict (HEC)

Target 3.1: Human-Elephant Conflicts reduced by 50% by 2023

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
3.1.1 Conduct regular systematic monitoring /inventories of human-elephant conflicts sites	Baseline inventory and mapping	Comprehensive report on human-elephant conflicts	By 2017	UWA, Communities	4,360
	Regular inventory and mapping	Report indicating human-elephant conflicts hot spot	On-going	UWA, LG, Communities	47,500
3.1.2 Establish central data base and monitoring systems	Exposure retreats, Consultancy, monitoring protocols,	Data base and its hard and soft ware, monitoring system	By 2019	UWA, WCS, AWF	66,087
3.1.3 Establish committee structures in communities for human- elephant conflicts	Concept approval, consultative	Functional committees at different levels	By 2019	UWA, MTWA, Communities	4,150
3.1.4 Assess, review and recommend appropriate land use in specific human-elephant conflicts areas	Consultative reviews/ assessments	Land use report	By 2020	UWA, MTWA, LG MLHUD, AWF, WCS, CSOs, GEF, Communities	125,230
3.1.5 Training of UWA staff in human-elephant conflicts management	Training	Number of UWA staff (ToT) trained, number of modules covered	2020	UWA, NGO, Katwe wildlife institute, MUK, Tanzania	**PP UG2 See above 2.6.1**
3.1.6 Establish a human- elephant conflicts management structure at UWA level	Concept approval	Number of established positions and filled with personnel	On-going	UWA	300,000
3.1.7 Implement forest habitat and regeneration projects	Re-a forestation	Size of land planted with trees, size of PA eliminated of invasive and exotic plants	On-going	UWA, partner institutions, NGOs	375,342
3.1.8 Develop stakeholders' engagement strategies	Stakeholder platform/ consultative meetings	Audit reviews, number of stakeholders reached, number of consultative engagements held, reflection of human-elephant conflicts in stakeholders plans, budgetary allocation by different stakeholders on human-elephant conflicts	By 2019	UWA, LGs, Stakeholders	70,000
3.1.9 Establish a compassionate budget for injuries and death outside the protected area by elephants	Consultative budgetary process	Actual amount in the fund, number of beneficiaries, number of engagements	By 2022	MTWA, UWA,	70,000

3.1.10 Establish working relationship with other agencies such as NFA in addressing human-elephant conflicts	Meetings	MoUs in place, number of meetings	By 2019	UWA, other agencies	**3,500**
3.1.11 Develop a detailed toolkit to address human-elephant conflicts in all protected areas	Consultancy	Tool kit document	By 2020	UWA,MTWA, AWF,UCF, partners	**42,670**
3.1.12 Translocate problem elephants *where appropriate*	Translocation process	Number translocated, number of problem incidences reported	On-going	UWA,UWEC,MTWA, MAAIF, KWS	**125,000**
3.1.13 Create buffers between PAs and communities disturbed by elephants	Zoning, mapping	Buffers in place	Years 3,4,5,6,7,8	UWA,IGCP,AWF,WCS	**12,500**
3.1.14 Hold meetings with elders and political leaders to strengthen traditional and local approaches of HEC mitigations.	Meetings	Number of awareness meetings, attendance	On-going	UWA, Local/political leaders	**42,540**
3.1.15 Train rapid-response teams to deal rapidly with cases of problem elephants.	Training	Trained rapid-response teams in place, reports	Years 2,4,6,8	UWA, partners	**157,342**
3.1.16 Lobby the local communities and District leaders of the affected communities to re-establish elephant corridors	Meetings	Number of meetings, reports on resolutions, area of corridors re-established	On-going	MTWA, UWA, LG, UCF,GEF,UNDP, AWF	**433,785**
3.1.17 Establish elephant fences *where appropriate*	Community engagement meetings and dialogue, assessment, dig trenches/fences	Distance covered in km by fence (270 km - Karuma, Nwoya, Kiryandongo) and others	On-going	UWA, MTWA,CSOs, Communities and partners	**7,736,885**
		Number of trenches established, distance covered in km by trench (300 km)			**1,363,636**
3.1.18 Excavate and maintain elephant trenches	Excavate 200 km of trench along boundaries of MFNP, QENP, and KNP. Negotiate formal agreements on roles and responsibilities by community groups. Routine trench clearance	Km of trench excavated, no. of formal agreements signed, number of km of trenches maintained at intervals of 2 years	2021	UWA, MTWA, LGs, Communities, CSOs and CBOs	**PP UG2 See above 2.6.1**

3.1.19 Increase community vigilance and train communities in use of simple and adoptable methods to enable them address HEC on their own	Scouting groups	Number of groups established	On-going	UWA, Communities, CSOs and CBOs	**PP UG2 See above 2.6.1**
	Place Beehives, Thunder bullets, Miripiri bombers, crack guns, Apply capsicum, vuvuzella, whistles, bells and drums	Incidences recorded, # beehives placed, etc.	On-going		
3.1.20 Planting of unpalatable crops along the boundaries of protected areas	Stakeholder Meetings	Land identified, acreage planted with unpalatable crops	On-going	LG, Communities, NGOs, Private sector	**PP UG2 See above 2.6.1**
3.1.21 Monitor elephant crop raiding patterns and trends	Collaring, surveillance	Number of family leaders collared	On-going	UWA, WCS, partners	**75,000**
3.1.22 Acquire knowledge on what other PAs and countries are doing to control/ reduce elephants related conflicts	Study tours, trainings	Number of study tours and people, Number of elephant conflicts attended too,	By 2022	UWA, Partners	**120,000**
Project Proposals				**Total (US$)**	**0**
Remaining Budget				**Total (US$)**	**11,175,527**
Total Budget Objective 3 (AEAP/UAP)				**Total (US$)**	**11,175,527**

Objective 4: Effectively protect elephants through awareness and sound management

Target 4.1: By 2026 conservation awareness programs strengthened

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
4.1.1 Conduct conservation meetings among stakeholders and communities on the importance of wildlife and the need to fight poaching, illegal killing and trafficking of wildlife	Meetings	Number of inter-agency awareness seminars and workshops with law enforcement agencies, number of community and other stakeholders meetings, Report	On-going	UWA, UWEC, LG, AWF, GEF, Communities	**192,465** **PP UG2 See above 2.6.1**
4.1.2 Develop elephant conservation awareness/ education materials/ programs in schools	Training/ consultancy	Conservation awareness materials available	By 2019	UWEC, UWA	**48,768**
4.1.3 Develop and implement a national awareness raising program focused on the importance of wildlife in particular elephant conservation	Consultative, budgetary process	National awareness raising program in place	On-going	UWEC, UWA, GEF	**20,500**
4.1.4 Conduct training courses at the national/local level for ranger staff.	Training/ consultancy	Number of staff trained, course modules, Report	Years 3,5,7,9	UWA, WCS, Education institutes	**125,000**
4.1.5 Support Wildlife Clubs in schools in order to nurture a culture of conservation among the youths in Uganda	Trainings, retreats to PAs, incentive to club members	Trainings, number of retreats to PAs, incentives to club members	On-going	UWA, UWEC, MTWA, CARE, CSOs	**137,500**
4.1.6 Spearhead indigenous knowledge base on wildlife conservation and its implementation	Concept, consultancy	Report	By 2020	UWEC, UWA, Universities, CSOs, CBOs	**58,567**
4.1.7 Support conservation education programs around elephant range PAs	Drama groups, films	Number of groups participating in conservation programs	On-going	UWEC, UWA, CSOs, CBOs	**192,256**
	Media outreach	Number of media outreach conducted	On-going	UWEC, UWA, LG, GEF, partners	**218,400**
	Workshops, ranger meetings, study tours, sports	Number of planned programs, recorded attitude change incidences /reports	On-going	UWA, UWEC, partners, Private sector	**189,825**
4.1.8 Develop and improve community resource centers in elephant ranges	Study tours/retreats, Procurement procedures, consultancy	10 well equipped resource centers furnished with conservation materials	By 2026	UWA, LG, CARE, partners	**5,000,000**
Project Proposals				**Total (US$)**	**0**

Remaining Budget				Total (US$)	6,183,281
Total Budget Objective 4 (AEAP/UAP)				**Total (US$)**	**6,183,281**

Objective 5: Strengthen research on elephant conservation issues

Target 5.1. By 2026 gap on elephant knowledge filled

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
5.1.1 Map and document all elephant ranges in Uganda	Mapping and surveys	Report on ranges, elephant database in place	By Dec. 2019	UWA, NFA, UWEC	**2,750**
5.1.2 Conduct surveys to estimate population numbers in data deficient sites thought to have a minimum of 15 elephants	Surveys, RBDC	Survey/ census reports	By 2019	UWA, NFA, WCS, researchers	**24,202 + PP UG1 See above 1.2.2**
5.1.3 Monitor population numbers in data deficient sites thought to have a minimum of 15 elephants	Surveys	Survey/ census reports	On-going	UWA, NFA, WCS, researchers	**75,680 + PP UG1 See above 1.2.2**
5.1.4 Train staff in the use of modern technologies for data collection, entry and analysis	Training	Number of trainings, Reports	Years 2,4,5,6,8, 10	UWA, WCS, GEF, AWF	**65,390 + PP UG1 See above 1.2.2**
5.1.5 Conduct studies to establish population structure and carrying capacity of elephants in each range	Field study, consultancy	Report on young, juveniles, sub-adults & adults	On-going	UWA, WCS, researchers, research institutions	**114,540**
5.1.6 Conduct genetic studies on diversity of elephants in Uganda	Scientific study, consultancy	Report on genetic diversity in the elephants of Uganda known	By 2020	UWA, WCS, MUBFS, ITFC, UWEC, researchers, research institutions	**35,754**
5.1.7 Conduct genetic studies to determine taxonomic status of forest and savanna elephants; determine whether Ugandan elephants are intermediate or separate species.	Scientific study, consultancy	Report on genetic relationships	By 2021	UWA, WCS, MUBFS, ITFC researchers, research institutions	**66,960**
5.1.8 Conduct counts at regular intervals for priority sites with more than 50 elephants to establish trends.	Surveys	Report on surveys	Years 2,4,5,6,8, 10	UWA, WCS, researchers	**171,500**
5.1.9 Estimate survival probabilities of small populations with the age structures and sex ratios determined.	Field study, consultancy	Report	By 2022	UWA, WCS, researchers	**69,765**
5.1.10 Monitor seasonal elephant movements	Monitoring study	Report , monitoring equipment (GSM camera traps, radio tracking, collars, GP S) in place	On-going	UWA, WCS	**152,250**
5.1.11 Estimate natality rates and natural mortality rates and construct models to predict trends and effects of different management options.	Field study	Report on natality and natural mortality rates per year and trend models	By 2022	UWA, WCS, researchers, research institutions	**51,500**

5.1.12 Behavioral ecology study	Field study	Feeding habits, Inter and intra species Interaction, Human-Elephant interaction, communication behavior known	By 2024	UWA, WCS, researchers, research institutions	60,000
5.1.13 niche ecology study	Field study, niche models	Climatic conditions and species associations, and other known	By 2022	UWA, WCS, researchers, research institutions	75,500
5.1.14 Monitor vegetation in areas frequented by elephants to evaluate their effects on the growth and survival of trees and other vegetation	Field study	Reports	On-going	UWA, WCS, researchers, research institutions	34,000

Target 5.2: By 2026 diseases that affect elephants in Uganda are established and managed						
Activities	**Methods**	**Indicators**	**Timeline**	**Actors**	**Cost estimates ($)**
5.2.1 Carry out disease Surveillance in elephants	Surveillance	Number of surveys, number of sick elephants treated, elephants diseases and causes identified, data base and publications on elephant diseases in Uganda available	On-going	UWA, WCS, MAAIF, research institutions	326,570
5.2.2 Develop protocols for epidemiological studies	Consultative process	Epidemiological studies protocol available	By 2019	UWA, MAAIF, private sector	21,754
5.2.3 Develop a Bio- data bank for elephants	Consultative, case study retreats	Bio-data bank available and operational	Year 3	UWEC, UWA, WCS, partners	35,756
5.2.4 Build the institutional and human resource capacity for disease management and prevention	Training, recruitment, acquire equipment	Control measures to handle elephant diseases in Uganda available, number of staff trained to implement the control measures, facilities and equipment for treatment and prevention of elephant diseases available	By 2020	UWA, MAAIF, WCS, private sector	162,500
5.2.5 Build and strengthen stake holders networks and partnerships for disease management and prevention	Consultative process	Partnerships and networks for elephant disease management and prevention existing and operational, multi-sectoral rapid response team established and operational	On-going	UWA, MAAIF, MoH, WCS, research institutes , private sector	125,000
Project Proposals				**Total (US$)**	**0**

Remaining Budget				Total (US$)	1,671,371
Total Budget Objective 5 (AEAP/UAP)		115		**Total (US$)**	**1,671,371**

Objective 6: Strengthen cooperation between range states

Target 6.1a: By 2023 National stakeholder collaboration/coordination and mandates ensured

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
6.1a.1 Conduct stakeholder meetings	Meetings	No of stakeholders meetings conducted	On-going	UWA, Stakeholders	**236,578**
6.1a.2 Develop MoUs/agreements for collaboration	Consultative process	No of MoUs in place	On going	UWA, Stakeholder	**405**
6.1a.3 Review regularly MoUs with stakeholders	Consultative process	No of MOUs reviewed every 4 years	Years 4,8	UWA, Stakeholders	**284**
6.1a.4 Strengthen collaboration with other law enforcement agencies to fight illegal ivory trade and other wildlife related crimes	Meetings	Task force in place, No of meetings, Number of joint operations, protocol in place and implemented	By 2023	Customs, Police, the National Army, INTERPOL, and LATF	**122,500**

Target 6.1b: By 2026 regional collaboration/coordination to conserve elephants strengthened

Activities	Method	Indicators	Timeline	Actors	Cost estimates ($)
6.1b.1 Conduct regular meetings to strengthen collaboration/coordination between Uganda and South Sudan for management of elephants between Otze Dufile in Uganda and Nimule National Park in South Sudan then QENP and Virunga Park in DRC, Mt Elgon NP in Uganda and Kenya	Meeting	Bi-annual meetings, Report	On-going	UWA, MTWA, Nimule National Park, ICCN in DRC, KWS	**81,400**
6.1b.2 Create contacts and cooperative agreements between EAC and non EAC countries for elephant management (EAC as a platform for coming up with strategies that will enhance monitoring and reducing ivory trafficking within the EAC region)	Consultative meetings	Number of agreements, MoUs in place, Strategies in place	On-going	MTWA, Ministry of Foreign Affairs, UWA	**39,030**
6.1b.3 Facilitate technical exchanges and create contacts between elephant specialists so that lessons learnt in one country can be applied elsewhere within the sub-region as a tool to curb ivory syndicate	Periodic meetings, retreats	Report, Number of meetings, trainings and retreats	On-going	UWA, WCS, AWF, IUCN, KWS,TANAPA, research institutions, MIKE	**87,520**
6.1b.4 Sign MoUs and establish trans-boundary collaboration/coordination in important elephant populations	Meetings	Trans-boundary meeting reports for Kidepo and GV Landscapes	By 2022	Ministry of Foreign affairs, UWA, KWS, Southern	**4,100**

				Sudan, ICCN, EAC	
6.1b.5 Strengthen cross-border collaboration/coordination among law enforcement	Meetings	patrol report, number of meetings successfully held, reduced incidents of cross-border poaching	On-going	LATF, UWA, KWS, ICCN, South Sudan, IGCP	**150,000**
6.1b.6 Conduct simultaneous elephant censuses in cross-border habitats to understand elephant population trends in a wider habitat	Censuses	Reports	Regularly, every three years	NGOs, wildlife Authorities	**32,760**
Project Proposals				**Total (US$)**	**0**
Remaining Budget				**Total (US$)**	**754,577**
Total Budget Objective 6 (AEAP/UAP)				**Total (US$)**	**754,577**

Objective 7: Improved community cooperation due to increased benefits

Target 7.1. By 2021 tourism revenue sharing programs enhanced

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
7.1.1 Fast track implementation of the RS Policy guidelines	Consultative meetings/ workshops	Number of policy guidelines adhered to	By 2021	UWA, MTWA, LG, CSOs	32,406
7.1.2 Review the tourism Marketing strategy *where appropriate*	Consultative meetings/ workshops	Strategy in place, number of meetings	By 2018	UTB, UWA, AUTO	31,150
7.1.3 Promote and improve community based tourism and increase benefits to frontline communities	Training, retreats	Number of tourism packages, Number of beneficiary communities	On-going	UTB, UWA, Communities, Private sector	345,000

Target 7.2. Enhance resource access programs by 2022

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
7.2.1 Develop a resource access policy	Consultative meetings	Resource access policy in place	By 2019	MTWA, UWA, LG, Communities	26,752
7.2.2 Strengthen resource access monitoring	RBDC, Surveys, meetings	Monitoring reports/ feedback reports on availability, regeneration, sustainability	On-going	UWA, ITFC, WCS, researchers, research institutions Communities	173,040

Target 7.3. Adopt community enterprise development best practices in all elephant dispersal areas

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
7.3.1 Identify and fund potential enterprises in each elephant range communities	Consultancy	Number of fundable enterprises	On-going	UWA, FAO, IFAD, GEF, MBIFCT	30,500
7.3.2 Establish a Project Appraisal Committee to handle in coming proposals quickly	Consultative	Committee in place	By 2019	UWA, IFAD, Partners	6,000
7.3.3 Improve Eco-tourism products	Consultancy community-to-community exchanges	Number of new products introduced	On-going	UTB, UWA, Partners	157,500

7.3.4 Training in (enterprise development, proper selection, customer care, proposal writing)	Training modules, Consultancy,	Number of people trained/ reports	Years 2,3,6,9	Enterprise Uganda, UWA, LG, partners	**253,850**
7.3.5 Marketing eco-tourism products	Market appraisal, consultative	Marketing materials produced, trade shows and exhibitions attended, increased revenue reflections	On-going	UTB, UWA, LG, partners	**506,785**
Project Proposals				**Total (US$)**	**0**
Remaining Budget				**Total (US$)**	**1,562,983**
Total Budget Objective 7 (AEAP/UAP)				**Total (US$)**	**1,562,983**

Objective 8: Effectively implement the Elephant Conservation Plan for Uganda

Target 8.1. Elephant Conservation Plan for Uganda effectively implemented by 2026

Activities	Method	Indicators	Timelines	Actors	Cost estimates ($)
8.1.1 Appoint NEAP Coordinator and Steering committee	Director UWA	Coordinator and Steering Committee in place	2018	Director UWA	NA
8.1.2 Publicize NEAP and determine priority actions	Circulate to stakeholders and government institutions	NEAP circulated	2018	Director UWA	NA
8.1.3 Organize regular implementation meetings between stakeholders and relevant government institutions	First meeting upon publication of NEAP to coordinate activities and funding	First meeting minutes circulated	2018	Director UWA	**6,300**
8.1.4 Clarify roles for each government institution through MoUs	Meetings and regular communication	Minutes	2018	Director UWA	NA
8.1.5 Develop procedures for monitoring and evaluation of NEAP implementation	Procedures developed by UWA	Procedures circulated	By December 2018	Director UWA	NA
Project Proposals				**Total (US$)**	**0**
Remaining Budget				**Total (US$)**	**6,300**
Total Budget Objective 8 (AEAP/UAP)				**Total (US$)**	**6,300**
Project Proposals Objectives 1 to 8 (3 years)				**Total (US$)**	**6,331,563**
Remaining Budget Objectives 1 – 8 (3 years)				**Total (US$)**	**33,386,687**
Total Budget (Elephant Conservation Action Plan for Uganda)				**Total (US$)**	**39,718,250**

ANNEX 4: Uganda Resource Mobilization Plan & Budget (Project Proposals)

Uganda – Resource Mobilization Plan and Budget (Medium Term)										
Activity	**Project #/Name**	**Target(s)**	**Main Tasks**	**Lead Partner**	**Source of Financing**	**Budget (US$/Yr.)**			**Total**	**Shortfall**
						1	**2**	**3**		
Objective 1: Halt poaching of elephants and trade in elephant products										
Activities										
1.2.2 **1.2.3** **1.2.4** **1.2.10** **1.3.16**	Strengthening Law Enforcement to Protect Elephant Populations in Uganda. **Project Proposal UG1 2019 - 2021**	Improved monitoring of poaching and elephant numbers. Improved response time. Operational laboratory for DNA extraction from ivory. Improved crime scene management. Stronger evidence in court cases. Reduction in elephant poaching and trafficking.	Procurement of drones, sensors and assorted equipment for regular surveillance. Procurement of lab equipment for extracting DNA from ivory and other forensic tasks. Training of lab and law enforcement staff in handling samples and crime scene management.	**UWA**	**External**	**1,789,033**	**530,265**	**161,365**	**2,480,663**	**2,480,663**
					Objective 1: Total	**1,789,033**	**530,265**	**161,365**	**2,480,663**	**2,480,663**
Objective 2: Control habitat loss and degradation										

Activities										
2.6.1 **2.6.2** **2.6.3** **2.6.4** **2.6.5**	Mitigation of HEC around MFNP, QENP and KNP **Project Proposal UG2** **2019 - 2020**	Inventory, mapping and control of invasive species done. Lowered HEC due to elephants remaining in parks for longer periods.	Inventory of all invasive plant species in the 3 parks, followed by mechanical and other control measures.	**UWA**	**External**	**2,883,790**	**967,110**	**-**	**3,850,900**	**3,850,900**
				Objective 2: Total		**2,883,790**	**967,110**	**-**	**3,850,900**	**3,850,900**
Objective 3: Mitigate Human Elephant Conflict (HEC)										
Activity										
3.1.5 **3.1.18** **3.1.19** **3.1.20**	**Project Proposal UG2** **2019 – 2020** **See above 2.6**	Mitigation of HEC	Excavation of 200 km of trenches Application of a variety of deterrents, such as beehives and chilli.	**UWA**	**External**					
				Objective 3: Total		00.00	00.00	00.00	00.00	00.00
Objective 4: Effectively protect elephants through awareness and sound management										
Activity										
4.1.1	**Project Proposal UG2** **2019 – 2020** **See above 2.6**	Raised awareness among communities	Radio shows, flyers and brochures.	**UWA**	**External**					
				Objective 4: Total		00.00	00.00	00.00	00.00	00.00

Objective 5: Strengthen research on elephant conservation issues										
Activities										
5.1.2 **5.1.3** **5.1.4**	**Project Proposal UG1** **See above 1.2**	Improved monitoring of elephant numbers Improved monitoring of HEC Improved monitoring of encroachment	Drone surveillance	**UWA**	**External**					
			Objective 5: Total		00.00	00.00	00.00	00.00	00.00	
Objective 6: *Insert*										
Activity										
			Objective 6: Total		00.00	00.00	00.00	00.00	00.00	
Objective 7: *Insert*										
Activity										
			Objective 7: Total		00.00	00.00	00.00	00.00	00.00	
Objective 8: *Insert*										
Activity										
			Objective 8: Total		00.00	00.00	00.00	00.00	00.00	
			Total NEAP Budget		4,672,823	1,497,375	161,365	6,331,563	6,331,563	