



# ENVIRONMENT AND NATURAL RESOURCES REPORT SERIES

## Enhancing Wildlife's Contribution to Growth, Employment and Prosperity



UNDP-UNEP POVERTY - ENVIRONMENT INITIATIVE



**Citation**

Title: Enhancing Wildlife's Contribution to Growth, Employment and Prosperity.

Editors: Kaggwa, R., Hogan, R., and Hall, B.

Publisher: UNDP/NEMA/UNEP Poverty Environment Initiative, Uganda.

Year: 2009.

Place: Kampala.

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Forest walks are a lucrative ecotourism enterprise.

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Sipi Falls in Kapchorwa district, a favorite tourist destination.

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Habitat destruction is threatening Uganda's national bird, the Crested Crane.

Photo credit: NEMA archives.

The Uganda Kob, an endemic species, grazing in Queen Elizabeth National Park.

Photo Credit: Andreas Sorenson

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## **Acknowledgements**

This report would not have been possible without the invaluable efforts of many institutions, groups and individuals who contributed in various ways. The National Environment Management Authority (NEMA) therefore wishes to acknowledge the contribution of these groups and individuals.

Special thanks and appreciation go to the Fund Director, Belgo-Ugandan Study and Consultancy Fund, Keith Muhakanizi, Deputy Secretary for the Treasury, Ministry of Finance, Planning and Economic Development, and Koen Goekint, Co-Director of the Fund and Resident Representative, Belgium Technical Cooperation (BTC), Ms. Rose Athieno Kato, BTC Uganda and Mr. Alain Schmitz, Attaché for Development Cooperation, Embassy of Belgium.

NEMA is particularly grateful to the following members of the Environment and Natural Resources (ENR) Sector Paper Drafting Committee for the National Development Plan: Mr. Eugene Muramira, Mr. Ronald Kaggwa and Ms. Margaret Lwanga, NEMA; Ms. Rose Hogan, UNDP-UNEP Poverty and Environment Initiative (PEI); Mr. Daniel Omodo-McMondo, UNDP Uganda; Mr. Cornelius Kazoora, Sustainable Development Centre; Dr. Bob Ogwang, Green Belt Consult; Mr. James Kaweesi, Ministry of Water and Environment (MWE); Mr. Joshua Zaake, Environment Alert; Ms. Solveig Verheyleweghen, Royal Norwegian Embassy; Ms. Harriet Namara, Uganda Wildlife Authority; Ms. Norah Namakambo, Wetland Inspection Directorate; Mr. Stephen Khaukha, NFA; Ms. Sandra Kirenga, National Planning Authority NPA; Mr. Achilles Byaruhanga, Nature Uganda; Mr. Bashir Twesigye, ACODE; and Mr. Stephen Magezi, Department of Meteorology (MWE).

NEMA is especially grateful to the consultants Enviro Consultancy League (ECL) for their innovation and dedication to this task.

This report was made possible through the financial support of the Belgo-Ugandan Study and Consultancy Fund UGA/01/004. Editing and printing was supported by the UNDP-UNEP PEI. NEMA greatly appreciates all these contributions.

## Foreword

Uganda is developing a National Development Plan (NDP) for the period 2009/10 – 2014/15 to replace the Poverty Eradication Action Plan (PEAP) as the country's national development framework. The theme of the NDP is “**Growth, Employment and Prosperity**”. This wildlife report has been written as contribution to the Environment and Natural Resources sectoral submissions to the NDP process. Wildlife comprises the flora (plants) and fauna (animals) of both aquatic (water-based) and terrestrial (land-based) habitats. The wildlife sub-sector makes substantial contributions to Uganda's GDP through; tourism and bio-trade, as a bank for the country's biodiversity which earns tourism revenues and enhances household incomes and livelihoods and waged employment. Wildlife is also a very valuable contributor to the rich cultural heritage, the spiritual well-being and the physical health of Uganda's diverse ethnic groups. The wildlife sub-sector is therefore important for the country's development and its people's quality of life, including the attainment of the Millennium Development Goals (MDGs) especially on eradicating extreme poverty and hunger, promoting gender equity and ensuring environmental sustainability.

Uganda ranks among the top ten countries in the world in terms of terrestrial and aquatic animal and plant diversity (MTTI, 1999). More than 1,585 species of terrestrial vertebrates were recorded as of the year 2002 (Pomeroy et al., 2006). Uganda has 11% of the world's bird species and more than half of the world's mountain gorillas. Wildlife is the main tourism attraction in Uganda contributing significantly to the nation's revenue and foreign exchange earnings. Tourism revenues rose from US\$113 million in 2000 to over US\$ 400 million in 2007.

However, this biodiversity richness has been declining with 25% of wildlife becoming extinct over the decades (International Institute for Sustainable Development, 2005). This loss has been attributed to deforestation for fuel and timber supply and for agricultural expansion, population growth and human encroachment and poaching. This is partly because many poor rural communities who live near areas protected for plant and animal biodiversity conservation are yet to gain enough direct benefits from wildlife protection to act as an incentive for their commitment to wildlife protection. Enhancement of the contribution of wildlife to the reduction of poverty is an important priority for Government.

Key strategies for this priority area are to:

- Contribute to local and national development through building the capacity of land owners and communities to manage and benefit from wildlife and through development of wildlife-based enterprises in Protected Areas and wildlife outside Protected Areas; including sport hunting, ostrich farming, Helmeted Guinea Fowl farming, butterfly farming, wildlife ranching, taxidermy, wild meat processing and marketing.
- Tourism development including improvement of tourism infrastructure, facilities and services, diversification of tourism products, eco-cultural and educational tourism.

- Ensure that current policies and laws are reviewed and that new policies and laws are developed and enforced.
- Strengthen institutions responsible for wildlife management and development both in Protected Areas and outside Protected Areas.
- Strengthen collection, analysis and use of management oriented information and data.

The NDP process provides an opportunity to develop and implement the above-mentioned strategies in order to enhance the contribution of the wildlife sector to environmental protection and national development.

When these priority interventions are effectively implemented under the new National Development Plan, the negative ecological trends will be steadily reversed and the sub-sector will make even more substantial contributions to growth, employment and prosperity. I therefore urge all central and local government agencies, civil society organizations, the private sector, communities, individuals and development partners, to support the implementation of these priority interventions.

Dr. Aryamanya-Mugisha, Henry (PhD)  
Executive Director  
National Environment Management Authority (NEMA)

## Acronyms and Abbreviations

BINP	Bwindi Impenetrable National Park
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DRC	Democratic Republic of Congo
EIA	Environmental Impact Assessment
ENR	Environment and Natural Resources
FACE	Forests Absorbing Carbon Dioxide Emissions
GDP	Gross domestic product
IUCN	The World Conservation Union
IISD	International Institute for Sustainable Development
LMNP	Lake Mburo National Park
MDG	Millennium Development Goal
MENP	Mt. Elgon National Park
MERECEP	Mount Elgon Regional Ecosystem Conservation Programme
MFNP	Murchison Falls National Park
MTTI	Ministry of Tourism, Trade and Industry
NDP	National Development Plan
NEMA	National Environment Management Authority
PACU	Problem Animal Control Unit
PEAP	Poverty Eradication Action Plan
QENP	Queen Elizabeth National Park
RMNP	Ruwenzori Mountains National Park
SIP	Sector Investment Plan
UEPB	Uganda Export Promotions Board
UIA	Uganda Investment Authority
UTB	Uganda Tourism Board
UWA	Uganda Wildlife Authority
UWEC	Uganda Wildlife Education Centre



## Executive Summary

The Poverty Eradication Action Plan (PEAP) was Uganda's comprehensive development framework to guide national action to eradicate poverty. Its completion in July 2008 provided an opportunity for the wildlife sub-sector to review its performance and put in place strategies to assist in consolidating gains to date, as well as address challenges and constraints faced during its implementation. The development framework theme for the new five-year National Development Plan (NDP) is ***Growth, Employment and Prosperity***. A study focusing on the wildlife sub-sector and the development framework was carried out to ensure that the sub-sector strategies were in line with the Government's priority focus on national development.

Uganda's vision for the environment and natural resources (ENR) sector is given in the Sector Investment Plan (SIP) of 2007 as:

***a sustainable, productive natural resource base and healthy environment for improved livelihoods, poverty eradication and economic growth.***

The SIP gives the basic investment framework for the ENR sector and sets out strategic objectives and required strategies to ensure sub-sector policy action for the attainment of the sector vision. Consequently, the overall aim for conserving wildlife is in line with the sector vision and is stated as:

***To promote the long-term conservation of the country's wildlife and biodiversity in a cost-effective manner that maximizes the benefits to the people of Uganda.***

Uganda Wildlife Authority (UWA) is the national agency charged with wildlife management, both inside and outside of protected areas. Based on the policy goal, the following strategic goals for the sub-sector were developed within the organizational strategic plan for the 2007–2012 period:

- a) Ensure an efficient and effective management to preserve the integrity of wildlife protected areas in Uganda.
- b) Effectively and efficiently manage wildlife outside the protected areas in collaboration with stakeholders.
- c) Promote conservation-led business and investments that will contribute to local and national development.
- d) Strengthen the capacity of UWA to become a self-sustaining organization.
- e) Strengthen relationships with communities in order to reduce human-wildlife conflicts and enhance benefits from wildlife conservation and protected area management.

Uganda is a country of exceptional biological diversity, due to its position in the zone of overlap between the East African savannas and the West African rain forests. The country has varied habitats that support a diversity of plant and animal life, ranking it among the top ten countries in the world in animal and plant diversity, and specifically, of mammalian species (MTTI, 1999). As of 2002, more than 1,585 species of terrestrial vertebrates have been recorded in the country (Pomeroy et al., 2006). Uganda has 11 percent of the world's bird species and more than half of the world's mountain gorillas. It has critically important wetlands that provide habitats and raw materials. However, this biodiversity richness has been in decline; 25 percent of wildlife has become extinct over the decades. This loss has been attributed to deforestation, human population growth, human encroachment, poaching and agriculture (International Institute for Sustainable Development, 2005). However, according to information from Pomeroy, et al. (2006), the downward trend in wildlife population seems to have been halted for most of the key taxa. Aerial surveys indicate that the number of some of the large mammal species is either stable or increasing. However, this might be a temporary trend, since the pressures on wildlife remain.

As one of the strategies for conserving wildlife, Uganda has encouraged non-consumptive use through tourism. In 2001, consumptive use through trophy hunting and wildlife trade was also re-introduced on a pilot basis. The wildlife resource will only be conserved if valued by the near resource communities and will be used sustainably only if the current supportive policies are maintained and/or improved, and more effort is put into addressing rural poverty levels.

The Ministry of Tourism Trade and Industry (MTTI) is the parent ministry for the wildlife sub-sector. Its overarching objective for the sub-sector is to *conserve, preserve and ensure sustainable development of Uganda's unique natural heritage*. The Ministry's oversight role in wildlife conservation is carried out by the Department of Wildlife. In line with the ministerial objective, plans have been underway to develop a National Wildlife Conservation Plan that would guide developments in the sub-sector. Overall, the wildlife sub-sector has registered some achievements:

- development of a strategic plan for the implementation of the tourism policy;
- infrastructural developments of the Uganda Wildlife Education Centre and UWA;
- capacity building through training and equipment supply;
- surveying and marking boundaries of wildlife protected areas;
- establishing a trust fund for Uganda Wildlife Education Centre and an endowment fund for UWA.

Some of the constraints and challenges encountered included:

- increasing human populations and poverty, resulting in increased pressure on wildlife resources;
- containing wildlife-human conflict;
- sustained wildlife management and protection of threatened and endangered species;
- effective involvement of other stakeholders in the active management of wildlife;
- establishment of a framework for the management of wildlife outside protected areas;
- monitoring and research programmes that directly contribute to decision-making.

In addressing the above challenges, the sub-sector aims at enhancing the contribution to the national economy and the Government's 'growth, employment and prosperity' vision. To this end, there has been marked recovery due to improved management. As a result, the tourism industry is regaining its position as the highest foreign exchange earner, surpassing coffee. Wildlife is the main tourism attraction, and wildlife areas continue to be the hubs of the tourism industry, thus contributing to national economic development. Tourism revenues rose from US\$113 million in 2000 to over US\$400 million in 2007.

Private sector reforms, such as privatization leading to increased public private partnerships (PPPs), were envisaged to create opportunities for increased tourism and business development, increased cost effectiveness, improved service delivery and good governance.

The wildlife sub-sector has provided Ugandans with the opportunity to derive benefits from protected areas. This is particularly true for communities neighbouring these areas. Over 600,000 Ugandans living in parishes surrounding national parks have benefited from projects supported by revenue-sharing funds accruing from tourism. A total of US\$1.7 million has been collected since 2000, of which, US\$896,000 has been disbursed.

The pilot sport hunting project around Lake Mburo National Park yielded an average annual revenue of US\$91,000. In addition, the wildlife trade contributed approximately US\$3 million per year in national revenues, and apiculture, approximately US\$17 million per year.

Some of the hotels and lodges within the protected areas are under concession agreements with UWA and some neighbouring the protected areas are under agreement with the communities. This aims to serve the tourism industry, benefiting communities through direct employment and provision of goods and services. Also benefiting from the wildlife sector are transport companies and tour operators, airlines, arts and crafts malls, mobile phone companies, hotels and restaurants. In 2004, wildlife-based tourism directly employed over 70,000 people. This was expected to have grown with the increasing tourist activity to approximately 80,000 people by 2008. Priority interventions were identified and their implementation will be coordinated through UWA, which is responsible for wildlife conservation. The priorities identified emphasize:

- maintenance of the integrity of the wildlife protected areas;
- the contribution to local and national development through the development of wildlife-based enterprises;
- support to economic development through tourism development.

Their achievement calls for improved coordination of all stakeholders at the national, district and lower government levels. It also calls for increased collaboration with local communities, the private sector, civil society organizations (CSOs) and development partners. The investment cost required to attain the identified priorities is estimated at U Sh24 billion over the next five years (2009-2014).

# 1. Background

The Poverty Eradication Action Plan (PEAP) is Uganda's comprehensive development framework to guide public action to eradicate poverty. Its completion in July 2008 provided an opportunity for the wildlife sub-sector, among others, to review its performance to date and put in place strategies that could assist in consolidating gains realized to date, as well as to address challenges and constraints faced during its implementation. The development framework theme for a new five-year National Development Plan (NDP) was set as '*Growth, Employment and Prosperity*'.

## 1.1 Purpose of the Study

This study on the wildlife sub-sector in Uganda was carried out to inform the formulation of the NDP. The study consisted of:

- carrying out a self-assessment and situation analysis of the sub-sector;
- conducting a critical analysis of the linkage between wildlife and national development;
- outlining a five-year sub-sector development plan indicating strategies for implementation of identified priorities.

The study relied heavily on literature and the opinions of experts within the wildlife sub-sector. This study follows the guidelines, for writing Sector Working Papers for the NDP, which were provided by the PEAP revision secretariat of the Uganda government in October 2007.

## 1.2 Wildlife Policy Objectives

Uganda's vision for the environment and natural resources (ENR) sector is given in the Sector Investment Plan (SIP) of 2007 (Greenbelt Consult, 2007):

*a sustainable, productive natural resources base and healthy environment for improved livelihoods, poverty eradication and economic growth*

SIP provides the basic investment framework for the ENR sector in Uganda and sets out the key result areas, their strategic objectives and the required strategies to ensure sub-sector policy action for the attainment of the sector vision. The overall aim for conserving wildlife is in line with this vision and is stated in the Uganda Wildlife Policy draft of 1999 as follows:

*To promote the long-term conservation of the country's wildlife and biodiversity in a cost effective manner that maximizes the benefits to the people of Uganda.*

This policy provides a framework for the management of Uganda's wildlife resources. Its implementation is guided by the following general principles that build on the Government's national development priorities of poverty eradication and good governance:

- **Wildlife conservation:** Biodiversity status and ecosystem integrity should be maintained in order to ensure continued natural processes and functioning for the benefit of present and future generations.
- **Sustainable development:** Sustainable development based on sound conservation practices should be promoted. Uganda's wildlife should be managed in such a way as to meet the current needs without compromising those of future generations.
- **Poverty reduction:** Livelihoods should be improved through the contribution of wildlife conservation. The protected area network and its associated landscapes must be conserved in order to enhance community benefits.
- **Partnerships in governance:** Relationships and good will among partners and stakeholders should be built through public-private partnerships to enhance efficiency and professionalism, and ensure transparency and accountability.

- **Gender and equity:** Active participation of, and affirmative action for, all women and men, in particular disadvantaged groups, should be promoted.
- **Cultural and traditional values:** Culture and indigenous knowledge should be integrated through conservation efforts within the wildlife sub-sector.
- **Wildlife valuation:** The value of wildlife should be recognized in national development needs.

Uganda Wildlife Authority (UWA) is the agency charged with wildlife management both inside and outside protected areas. Based on the policy goal and guiding principles, strategic goals for the sub-sector together with their performance indicators were developed within the UWA Strategic Plan for 2007–2012 and listed below:

- a) Ensure an efficient and effective management to preserve the integrity of wildlife protected areas in Uganda.
  - At least 80 percent of wildlife protected areas with either stable or at least a 10 percent increase in populations of key wildlife species by the end of the Plan period.
  - All protected areas with no encroachment by the end of the plan period.
- b) Effectively and efficiently manage wildlife outside the protected areas in collaboration with stakeholders.
  - At least 50 percent of local governments in the Kafu Basin and the Karamoja Region integrating management of wildlife outside protected areas into their development programmes by the fifth year of the plan.
  - Ten wildlife-based enterprises developed outside protected areas by the fifth year of the plan.
- c) Promote conservation-led businesses and investments that contribute to local and national development,
  - Ten wildlife-based enterprises developed outside protected areas by the fifth year of the Plan.
  - At least 80 percent of all planned business investments in protected areas implemented as per general management plans by the end of the Plan period.
- d) Strengthen the capacity of UWA to become a self-sustaining organization.
  - UWA's internally generated revenues increased to at least U Sh15 billion by the end of the Plan period (from U Sh10.8 billion as of 2006/07).
  - UWA funding at least 80 percent of its optimal operational budget from the current 55 percent by the end of the plan period.
- e) Strengthen relationships with communities in order to reduce human-wildlife conflicts and enhance benefits from wildlife conservation and protected area management.
  - Institutions within community protected area will be operational throughout the protected areas by the fifth year of the plan.

## 2 The Current Situation Within the Sub-Sector

### 2.1 The Wildlife Resource Base in Uganda

Wildlife<sup>1</sup> is an important resource base for food, recreation, education and scientific research and the mainstay for tourism development. Considerable effort has been invested in management of wildlife protected areas. Uganda currently has ten national parks, 12 wildlife reserves, 13 wildlife sanctuaries and five community wildlife areas. These cover approximately 11 percent of the Uganda's land area of 241,000 km<sup>2</sup> (Greenbelt Consult, 2007).

Due to its position in the zone of overlap between the East African savannas and the West African rain forests, Uganda is a country of exceptional biological diversity, Plumptre *et al.* (2003). It has varied habitats that support a diversity of plant and animal life, ranking it among the top ten countries in the world for animal and plant diversity, and specifically, of mammalian species (MTTI, 1999). As of 2002, more than 1,585 species of terrestrial vertebrates were recorded in Uganda (*Biodiversity Report of 2002*, cited in Pomeroy *et al.*, 2006).

Data on many of the taxa are scarce, and knowledge of them is highly localized. For example, according to Plumptre *et al.* (2003), the Albertine Rift is the most species-rich region in Africa for vertebrates, with over 50 percent of the mainland's birds, 39 percent of its mammals, 19 percent of its amphibians and 14 percent of its reptiles. It contains many endemic and threatened species, and is therefore an area of particular conservation concern (**Table 1**).

**Table 1: Species richness and level of threat in the Central Albertine Rift**

Taxa	No. of species		
	Richness	Endemic	Threatened
Mammals	402	34	35
Birds	1,061	41	25
Reptiles	175	16	2
Amphibians	118	34	16
Butterflies		117	
Fish		366+	
Plants	5,793	567	40

*Source:* Data from Plumptre *et al.*, 2003

From the first estimate in 1989 to 2003, the number of chimpanzees has increased from 4,000 to 4,950 (Plumptre *et al.*, 2003). Not all the bird species known to Uganda have been surveyed. The few species for which there is sufficient data indicate that they are increasing rapidly, such as the pied kingfisher. Other species have remained fairly constant, such as the fish eagle and the pink-backed pelican. The most recent census of mountain gorillas in Bwindi Impenetrable National Park (BINP) shows that from 2002 to 2006, they have also increased from 320 to approximately 340. In addition, from 1989 to 2003, the population in the Virungas increased from 324 to 380 (**Table 2**).

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<sup>1</sup> Although the definition of wildlife as per the Uganda Wildlife Act Cap 200 is wider than this, this paper only focuses on fauna, excluding fish.

**Table 2: Mountain gorilla population estimates**

Year	Estimate	Year	Estimate
<i>The Virungas</i>		<i>Bwindi Impenetrable National Park</i>	
1959–1960	400–500	1979	95–130
1971–1973	260–290	1981	116
1976–1978	252–285	1985	146
1981	290	1987	280–300
1984	242–266	1994	257
1986	293	1997	292
1989	324	2002	320
2003	380	2006	340

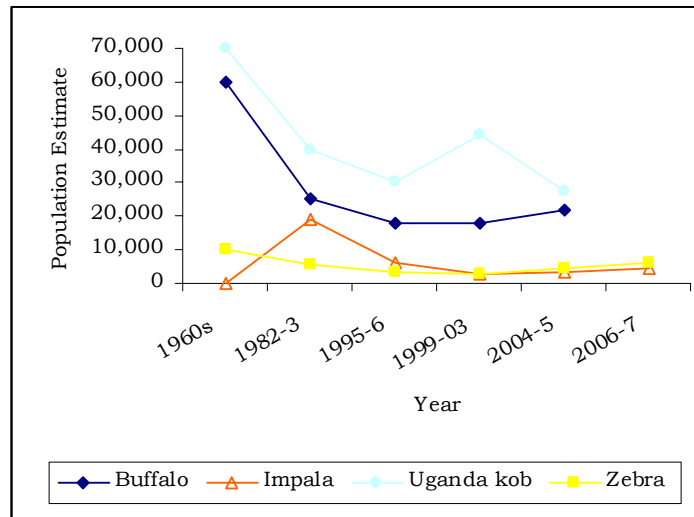
Source: Government of Uganda, 2004

Aerial surveys indicate that some of the mammal species are either stable or increasing, e.g. elephants and buffalos, zebra and impala. Nevertheless, populations of most of these species remain well below carrying capacity (Pomeroy et al., 2006). **Table 3** shows population estimates for some key species across the country from 1960 to 2007.

**Table 3: Population estimates for some key mammal species, 1960–2007**

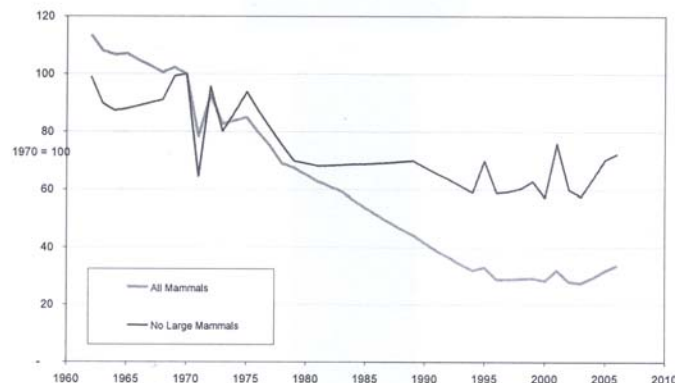
Species	1960s	1982–1983	1995 – 1996	1999–2003	2004–2005	2006 – 2007	Status in Uganda
Buffalo	60,000	25,000	18,000	17,800	22,031		Population slowly recovering.
Burchell's zebra	10,000	5,500	3,200	2,800	4,374	5,967	In 2006, population count increasing only in Lake Mburo National Park (LMNP)
Elephant	30,000	2,000	1,900	2,400	3,860		Population low, but slowly increasing.
Giraffe	2,500	350	250	240	259		Population low but stable.
Hartebeest	25,000	18,000	2,600	3,400	4,439		Population increasing.
Hippo	26,000	13,000	4,500	5,300	5,006		Population stable.
Impala	*	19,000	6,000	3,000	3,300	4,705	Population low but increasing.
Topi	15,000	6,000	600	450	602	1,669	There was an influx from the Democratic Republic of Congo (DRC) at the time of counting (2006) in the Queen Elizabeth Protected Area.
Uganda kob	70,000	40,000	30,000	44,000	27,308		Population seems to be decreasing.
Waterbuck	10,000	8,000	3,500	6,000	5,814		Population stable

**Figure 1: Population trends for some key mammal species**



Source: UWA data compiled by the author in 2008

**Figure 2: The Species Population Index for Mammals**



Source: Pomeroy et al., 2006

The downward trend in the population seems to have been halted for most of the key taxa in Uganda. Figure 1 and 2 show this clearly for mammals, while **Figure 3** shows it for fruit bats, antelopes and other herbivores, which began to reverse in the mid-1990s and swung upwards around 2004.

*Trends in wildlife use*

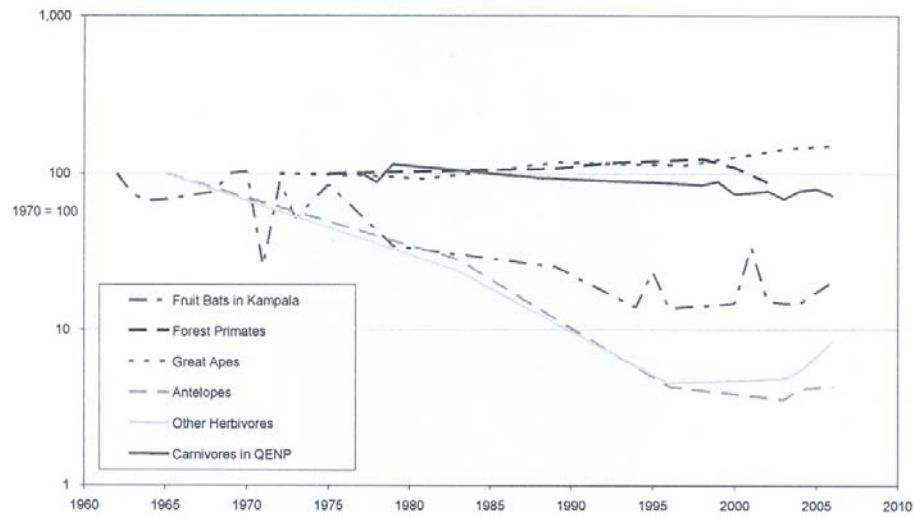
Uganda has encouraged non-consumptive use through tourism since the colonial days of the 1960s. Consumptive use was only re-introduced on a pilot basis at the beginning of this century.

**2.1.1 Tourism**

Since the early 1980s to 2007, visitor numbers to Uganda in general and to the wildlife protected areas in particular, have increased from an estimated 13,000 to over 600,000 (**Figures 4 and 5**).

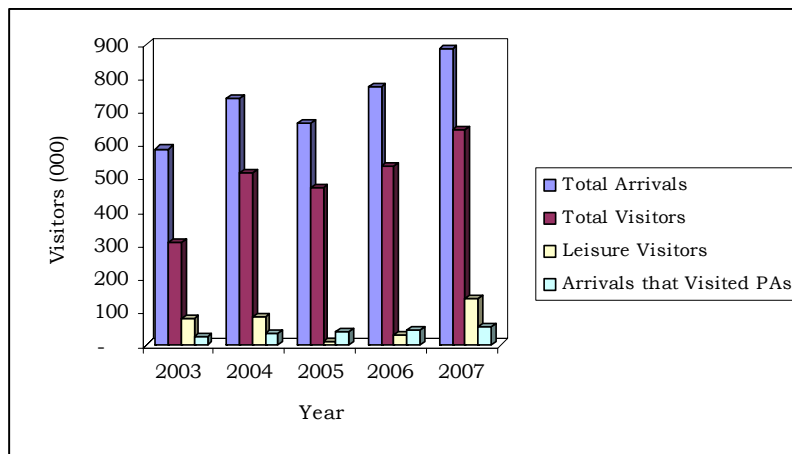


**Figure 3: Data from population counts from seven data sets of birds and six of mammals**



Source: Pomeroy et al., 2006

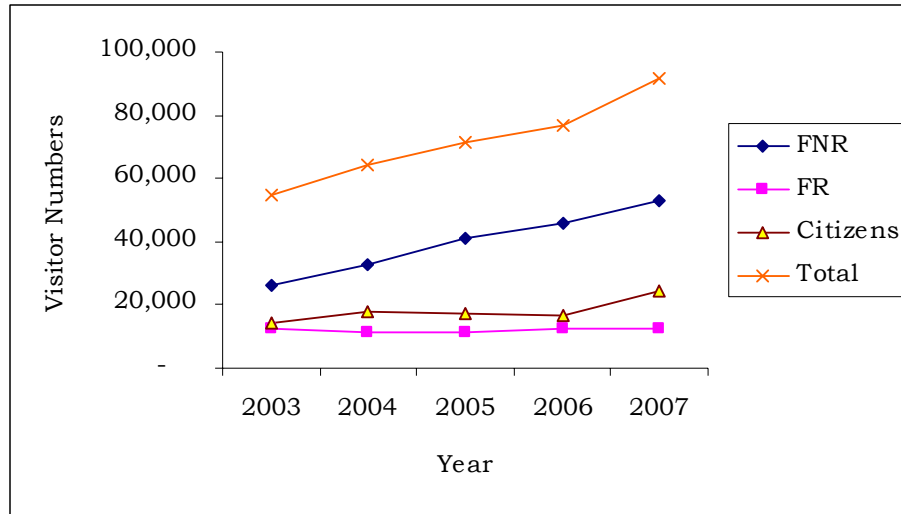
**Figure 4: No. of Visitors to Uganda, 2003–2007**



Source: Data obtained from the Uganda Bureau of Statistics (UBOS), 2008

It is important to note that the number of foreign non-residents who actually visited the wildlife protected areas was very low compared to the total arrivals that visited the protected areas and the total number of visitors that entered the country, as shown in **Figure 4**.

**Figure 5: Trends in visitor numbers into wildlife protected areas**



*Note: \* excluding local communities, students and VIPs.*

The visitors gave a number of reasons for coming to Uganda, as indicated in **Table 4**. A comparison of **Figure 4** and **Table 4** shows that even those who indicated that they were coming to Uganda for leisure and recreation did not all visit the wildlife protected areas. This indicates a potential market that can easily be tapped to increase the number of visitors to these areas by careful marketing, providing information at entry points and improving facilities and services.

**Table 4: Visitor numbers entering Uganda by purpose of visit**

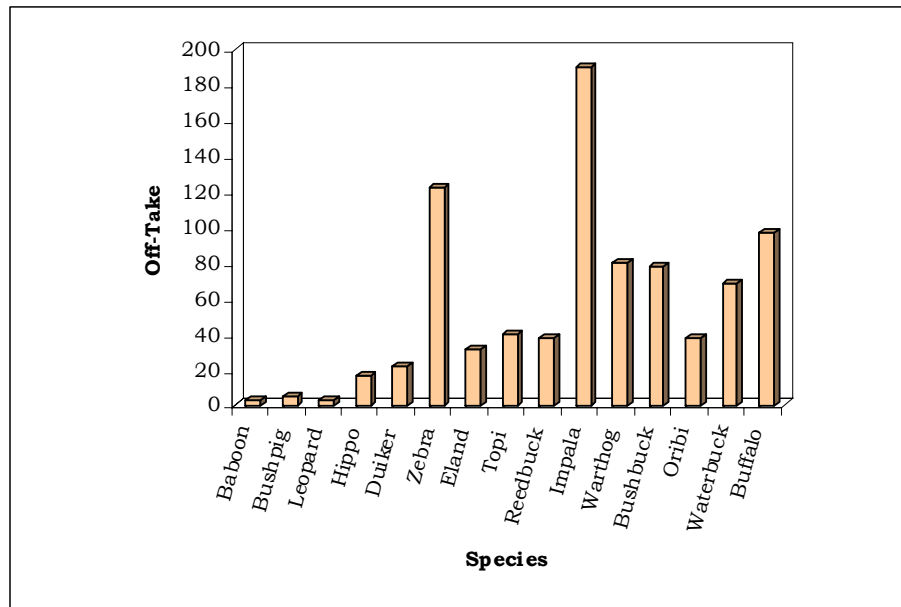
Purpose of visit	Visitor numbers ('000)				
	2003	2004	2005	2006	2007
Leisure, recreation and holidays	77	86	9	30	140
Business and conference	67	81	31	72	110
Visiting friends and relatives	52	71	35	90	272
Other	110	274	393	347	120
<b>Total</b>	<b>306</b>	<b>512</b>	<b>468</b>	<b>539</b>	<b>642</b>

*Source: Data extracted by the author from UBOS in 2008*

### 2.1.2 Trophy hunting

Consumptive use of wildlife has been through legal and illegal off-take, most especially outside of the protected areas. Legal use has been through licensed trophy hunting carried out around Lake Mburo National Park (LMNP). Figure 6 shows the total off-take since the project started in 2001.

**Figure 6: Numbers hunted since 2001**

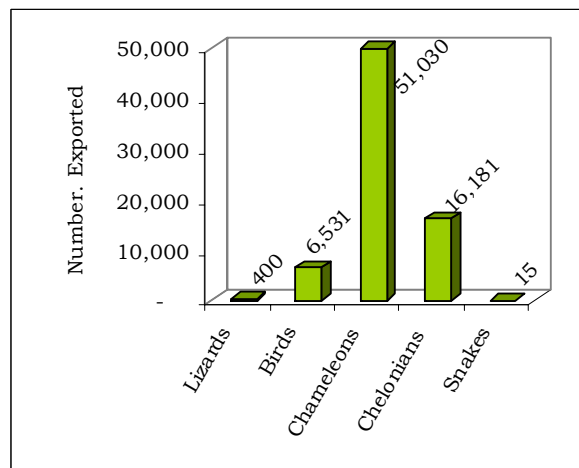


Source: UWA data

**2.1.3 Wildlife Trade**

Wildlife trade in Uganda was initiated in the late 1990s as a strategy to promote wildlife conservation outside protected areas and contribute to national and rural development initiatives. It involved the commercialization of wildlife and wildlife products by commercial enterprises and local communities. The most traded taxa were the reptiles, specifically the chameleons and tortoises (**Figure 7**). According to the United Nations Environment Programme–World Conservation Monitoring Centre (UNEP-WCMC) database, from 2000 to 2007, the highest exports from Uganda were the Leopard tortoise, of which over 15,000 individuals were exported.

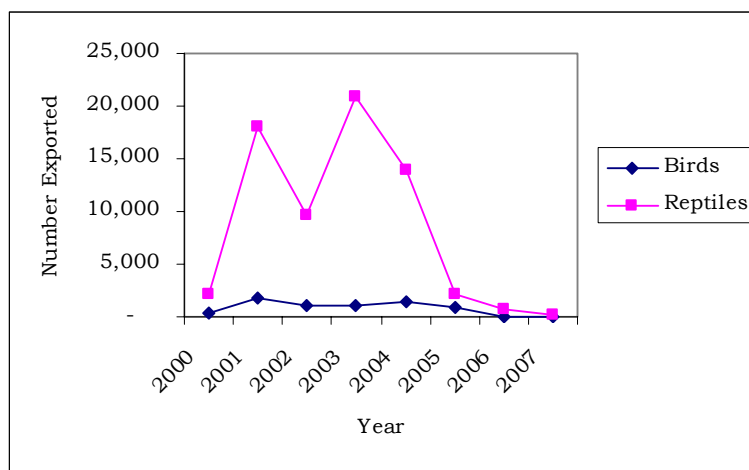
**Figure 7: Live Exports, 2000–2007**



Source: UNEP 2008

Over the years, the number of exports increased and then reduced drastically (**Figure 8**), possibly because the traders' expectations of profit were not met. According to Moyini and Masiga (unpublished), wildlife trade in general had a low level of export value and involved very few traders. For example, the value of trade in birds, reptiles and amphibians worldwide was small, at US\$66 million, compared to other commodities such as ornamental fish and reptile skin products that fetched over US\$750 million. In Uganda, wildlife trade is not big business at the national level. It was therefore not very surprising that the initial surge in the trade gradually tapered off after a few years.

**Figure 8: Trend in Wildlife Trade Exports**



Source: Data from UNEP 2008

Future opportunities for wildlife trade in Uganda lie in farming crocodiles, tortoises, birds, chameleons, etc. (Moyini and Masiga, unpublished). UWA has been exploring opportunities in ranching some of the bird species, such as ostriches and guinea fowl. Several challenges limit development in this direction, especially the insufficient human resource capacity among the traders and business service providers and business regulators, including the Uganda Revenue Authority, the Uganda Export Promotions Board [UEPB] and the Uganda Investment Authority (UIA). There was also inadequate infrastructure in several areas where wildlife farms could be located, poor data management and insufficient monitoring of current trade efforts. In addition, the operational costs were considerably high in a landlocked country, where wildlife trade depends on air transport.

#### 2.1.4 Wildlife Ranching

Game ranching defined by Mossman (1975) is the organized and scientifically based use of free-ranging wild animals to meet human needs. It involves commercial or others incentives. By contrast, game farming involves caged wild animals.

There are currently only two wildlife ranches in Uganda – one of crocodiles (Buwama Crocodile Ranch) and another, of white rhinos (Ziwa Ranch). In 2005, Rhino Fund Uganda and UWA, in cooperation with Kenya Wildlife Services, translocated four white rhinos from Kenya to Uganda. They were sent to Ziwa Ranch in Nakasongola District for a breeding programme.

The crocodile ranch that was moderately active in the late 1990s had almost ceased operations. It did not carry out any breeding activities on the ranch, but rather hatched eggs collected from the wild (Murchison Falls National Park, MFNP). The number of skin exports fluctuated widely, indicating a

problem in management. They were 508 in 2000, 900 in 2001, 302 in 2002, 600 in 2003, 600 in 2004, 900 in 2005 and 300 in 2006 (UNEP–WCMC database).

## **2.2 Degradation of wildlife resources and its economic cost**

Uganda has a high biodiversity rating, including 11 percent of the world's bird species and more than half of the world's mountain gorillas (MTTI, 1999). It has critically important wetlands that provide habitats and materials. This biodiversity richness has been in decline, with 25 percent of the wildlife becoming extinct over the recent decades (IISD, 2005). According to Nampindo *et al.* (2005), over 90 percent of Ugandans rely on the environment for their livelihoods. Uganda's economy relies heavily on natural resources, with more than 50 percent of the country's gross domestic product (GDP) being based on natural resources. Thus, the importance of the ENR sector to Uganda's economic development cannot be overemphasized.

Despite this importance, the level of natural resources degradation is increasing. According to the State of the Environment Report for Uganda (1998), this is thought to be due to a lack of appropriate management skills and low public and private resource investment in the sector. The International Institute for Sustainable Development (IISD, 2005) attributed the loss to deforestation, population growth, human encroachment, poaching and agriculture.

The level of degradation threatens the very livelihoods of millions of Ugandans who are heavily dependent on the natural resource base for their survival. It also impacts negatively on attainment of the national development targets and those set at the international level, such as the Millennium Development Goals (MDGs).

### **2.2.1 Encroachment of the Wildlife Protected Areas**

High population growth rates, estimated at approximately 3.4 percent per year (Ministry of Finance, Planning and Economic Development, 2004) have resulted in immense pressure on forests, wetlands, rangelands and protected wildlife areas. According to IISD (2005), four ecosystem services are under critical stress in Uganda: maintenance of biodiversity; food and fibre provision; water supply purification and regulation; and fuel provision. This stress results from deforestation, wetland conversion, poaching, human encroachment and population growth. Problems emerge due to the stressed systems, e.g. soil degradation, soil erosion, water quality deterioration and forest degradation. This subsequently resulted into low crop yields per hectare, overall loss of soil productivity, decline in food consumption, fuelwood deficits and increased prices for food and fuelwood. This has been observed in the areas adjacent to wildlife areas and other areas across the country, which forced the population to resort to converting conservation areas into agricultural land.

Over the years, Uganda's wildlife protected areas were severely encroached and their wildlife populations decimated through poaching and habitat destruction. Surveys conducted in 1996 by the then Ministry of Tourism, Wildlife and Antiquities revealed over 65,000 people illegally residing inside national parks and wildlife reserves (UWA, 2000). Mt. Elgon forest was increasingly encroached upon as persistent raiding by the ethnic Pian Karimojong forced the ethnic Sabinu up the mountain to occupy the areas immediately adjacent to the forest. With increasing populations, the people began to cultivate within the forest, so that by the late 1980s, over 200 km<sup>2</sup> of the lower level forest had been cleared and most of the larger mammals had been exterminated. About 8 percent of Mt. Elgon National Park (MENP) was encroached and tree cover converted into agricultural land.

Because of the level of encroachment, it was decided to realign the boundaries of some protected areas in order to cut off the encroached areas and improve on management efforts to bar further encroachment. For example, there was some realignment of boundaries of BINP, Queen Elizabeth National Park (QENP) and MENP, Bokora, Pian Upe, Karuma and Bugungu Wildlife Reserves. In addition, all fishing villages in QENP were formally designated as wildlife sanctuaries and their boundaries surveyed and marked.

### Mammal Species Extinction

As a result of the growing human population in the country and increasing levels of poverty, especially in the rural areas, wildlife has been under increasing pressure from poaching both for food and income. A downward population trend for key mammal species began in the early 1980s (Table 3). Five mammal species are now extinct in Uganda – the bongo, giant eland, black rhino, white rhino and the oryx (Pomeroy et al., 2006), reducing the mammal list to 342 as of 2006 (Table 5). Several others are on the verge of extinction, including the greater kudu, the lesser kudu, roan antelope, mountain reedbuck and red-flanked duiker.

**Table 5: Degradation of the Wildlife Resource Base**

Species	1960s	1982–1983	1995–1996	1999–2003	2004–2005	2006 – 2007	Status in Uganda
Black rhino	400	150?	0	0	0	0	Extinct in Uganda
Bright’s gazelle	1,800	1,400	100	50?	0	0	Believed extinct in Uganda
Derby’s eland	300	?	0	0	0	0	Extinct in Uganda
Eland	4,500	1,500	500	450	619	296	Population low, still decreasing
Giraffe	2,500	350	250	240	259		Population low but stable
Oryx	2000	200	0	0	0	0	Extinct in Uganda
Roan antelope	700	300	15	7	0	0	Believed extinct in Uganda
White rhino	300	20?	0	0	0	0	Extinct in Uganda

Source: UWA, 2000. \*Note: – The question marks are from the source.

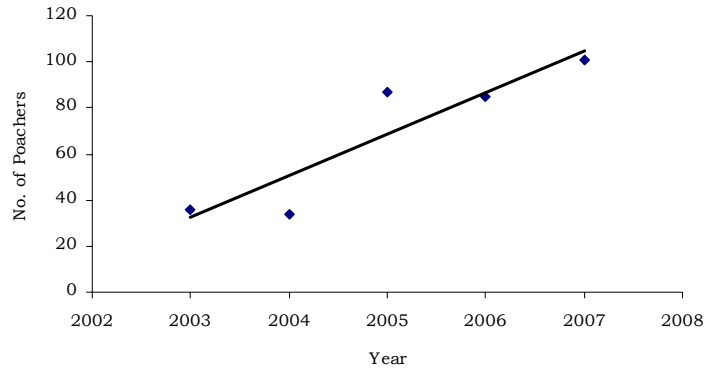
According to the World Conservation of Union (IUCN) Red List for 2007, over 131 of Uganda’s faunal species are under threat: 28 mammals, 17 birds, six amphibians, 54 fishes, ten molluscs and 16 other invertebrates. According to Gowa (2003, cited in the Centre for Resource Analysis Limited (CRA), 2006), in 2004, 15 species were critically endangered, 33 endangered and 44 vulnerable. There was insufficient data for 15 animal species, and details of level of threat were lacking for 1,373 species.

#### 2.2.2 *Illegal Resource Off-take*

Illegal resource off-take is through poaching both within and outside protected areas. Data on illegal use of wildlife were available, but not managed in an easily useable form, since it was scattered in hundreds of quarterly reports from wildlife protected areas. An easily accessible and frequently updated database is needed –so that trends in illegal use can easily be tracked and action taken as required.

According to Williams (2006), poaching slashed elephant numbers in QENP by 90 percent over the past 30 years. The remaining population had a high proportion of juveniles (a third of them under five years old), many of which were orphans. Recent analysis of illegal wildlife off-take in LMNP showed an increasing trend in poaching (**Figure 9**) despite long-standing community-based programmes in the area.

**Figure 9: Wildlife poaching in and around Lake Mburo National Park**



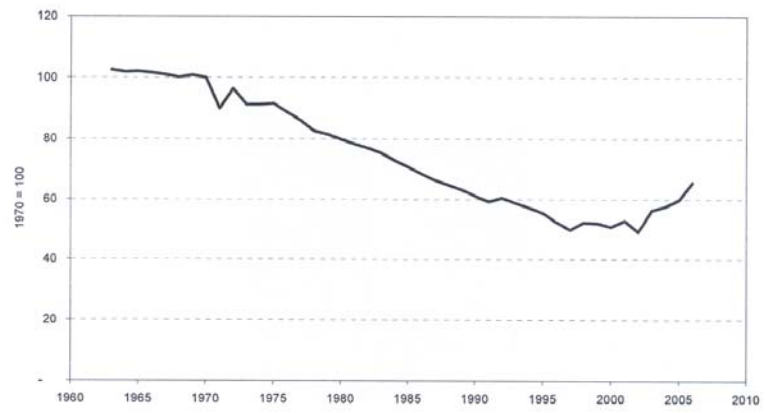
*Source: Atukunda and Namara, 2009*

### 2.3 Sustainability of the Wildlife Resource Base

From the early times, Uganda has been known for its diversity of wildlife. In the 1960s, the country recorded the highest density and diversity of mammal species in Africa. At the time, the Government took advantage of this wildlife endowment and invested in tourism infrastructure and development. Hence, during the 1950s and 1960s, Uganda was the top tourism destination in Africa, while government revenue and foreign exchange from tourism was second to none.

Today, the Government's policy objectives in wildlife management include conserving wildlife, generating income and ensuring that the communities neighbouring the protected areas share the benefits derived from them. Due to supportive policies and improved management, the declining trends in wildlife population experienced in the 1970s and 1980s have been controlled, and animal populations are either increasing or stable, especially within the wildlife protected areas (**Figures 10 and 11**).

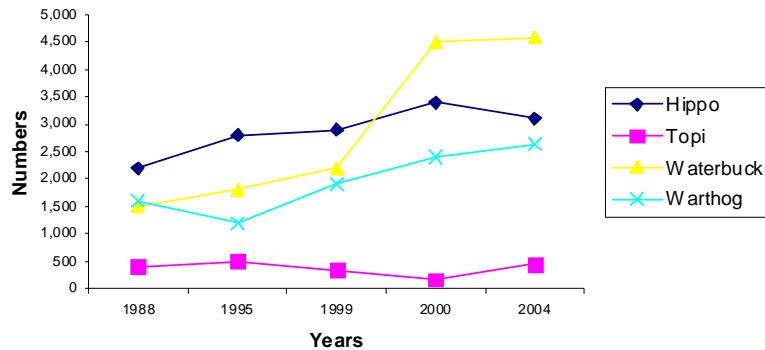
**Figure 10: The Species Population Index for Uganda based on combined bird and mammal data**



Source: *Pomeroy et al., 2006.*



**Figure 11: Population Trends for some Key Mammal Species**



Source: Data extracted from UWA Records, 2008

The wildlife resource base in Uganda can only be sustainable if the current supportive policies are maintained and/or improved, and more effort is put into addressing rural poverty levels. There has been increased awareness that human



(Accessed September 2008)

populations can derive tangible economic benefits from the wildlife and of the importance of their co-existence. To this end, the sub-sector has streamlined policies and strategies for the management of wildlife for the benefit of the people through wildlife use rights, community-based wildlife management programmes and benefit sharing. This will significantly contribute to national efforts to conserve biodiversity, which includes wildlife resources, while meeting development needs, especially of the rural population.

## 2.4 Wildlife and Climate Change

Global warming is considered one of the major threats facing wildlife. Change in climate leads to wildlife habitat change and/or destruction, which may be too rapid for some species to easily adapt. According to Hopkin's Bioclimatic Law, there is a 250 km northward shift in vegetation for every 3°C rise in temperature (Luzira, 2007). Accordingly, some species in Uganda currently may not necessarily adapt in the future as habitats change in response to global warming, and species move or become extinct in response to these changes.

There is little information about the effects of climate change on wildlife in Uganda. However, it has been noted that global warming is affecting the ice caps on the Ruwenzori Mountains in western

Uganda. In addition, the ice caps are said to have receded to 40 percent of their 1955 coverage.<sup>2</sup> They are expected to disappear altogether within the next 20 years. This will have an impact on the wildlife species that inhabit that area, particularly those that depend on cold climate to breed, e.g. the Ruwenzori leopard and the Ruwenzori Red Duiker (*Cephalophus rubidus*) (**Photo 1**), which inhabit colder areas above 3,000 m. There are other unique species in the Ruwenzoris that are also threatened, such as the three-horned chameleon, whose range is shifting upwards as a result of rising temperatures.

Wild animal distribution is dependent on temperature and moisture patterns. Changes in these patterns therefore lead to changes in wildlife distribution and species composition, or even to extinction. According to Luzira (2007), change in climate leads to migration: a coping strategy that helps wildlife to deal with harsh conditions, such as heavy rains. For example, in BINP, three mountain gorilla infants were reported dead from the El Niño floods of 1997/98 and another three during the heavy rains of 2005. Climate change could therefore change distribution patterns of Uganda's wildlife and also lead to extinction of some species.

Uganda's wildlife conservation programmes have not taken climate change into consideration, as it was assumed to be relatively constant. Some level of effort must now be directed to discovering new approaches and innovative strategies to manage wildlife populations and their habitats so as to help species survive and adapt readily to the anticipated changes.

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<sup>2</sup> See [http://english.peopledaily.com.cn/200704/07/eng20070407\\_364588.html](http://english.peopledaily.com.cn/200704/07/eng20070407_364588.html) (accessed September 2008).

## 3 Assessment of Previous Performance

### 3.1 Performance at the Ministerial Level

The Ministry of Tourism, Trade and Industry (MTTI) is the parent ministry for the wildlife sub-sector. Its overarching objective for the sub-sector is to *conserve, preserve and ensure sustainable development of Uganda's unique natural heritage*. The Ministry's oversight role in wildlife conservation is carried out by the Department of Wildlife. A national policy was drafted in 1999, but still awaits tabling and approval of Cabinet. Given that almost ten years have passed since it was drafted, there is urgent need for its review and update to adapt to the current trends in national economic development. Plans have been underway to develop a National Wildlife Conservation Plan that would guide developments in the sub-sector.

In line with international obligations, the Ministry planned to gazette Statutory Instruments for the domestication of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Lusaka Agreement. Draft regulations for wildlife trade, ranching/farming and hunting were prepared and ready for tabling to Parliament. This will be a key milestone in guiding wildlife use within Uganda and in encouraging involvement of the private sector in wildlife conservation.

Performance within the Wildlife Department was hampered by insufficient human resource capacity to handle wildlife issues. There was low achievement of set targets due to insufficient capacity to put planned activities into operation. The staffing within the Department needs to be reviewed and strengthened.

### 3.2 Performance of the Uganda Wildlife Authority

This report looks at the 2002–2007 period with respect to the organizational strategic plan. The 2005 external review of UWA rated performance based on specific strategic programmes and placed it at 50–60 percent. The review noted, *inter alia*, that, whereas the senior staff members of UWA were aware of the goals and strategies laid out in the Strategic Plan, field observations indicated that some field staff were less knowledgeable about the strategic plan, implying that the plan had not been marketed across the organization. An in-house communication strategy to market the Strategic Plan could have improved the level of performance since most activities were carried out in the protected areas.

Performance according to set strategic goals (referred to as 'plan purposes' in the Strategic Plan) is shown below and summarized in **Annex 1**.

***Strategic Goal 1: Establish and maintain efficient and effective management to uplift the conservation integrity of protected areas and wildlife in the country.***

The indicators for achievement of this goal were:

- *Poaching of key species reduced from the initial baseline (year 2000)*

There were no analysed data available on poaching trends in the protected areas or outside. However, a recent study carried out around LMNP (Atukunda and Namara, draft of August 2008) indicated that there was an increased level of poaching within the protected area but a decrease outside it. This was taken as a special case that arose as a result of an ongoing pilot project for sport hunting in the ranches around the park. The benefits accruing to the communities may have led to the reduction in the level of poaching on the community land. The level of poaching inside LMNP may or may not be indicative of the general situation countrywide; it is considered an indicator of the lack of alternative sources of income for the rural households residing in these wildlife rich areas.

- *Population number of key mammal species in Queen Elizabeth, Murchison, Falls and Kidepo Valley National Parks increased by 5 percent within five years.*

From 1995 to 2004, surveys for key mammal species indicated an increase in elephants in the Queen Elizabeth Conservation Area (QECA) from 1,008 in 1995 to 2,497; in topi from 94 individuals to 440; in waterbuck from 1,861 to 3,382; and in warthog from 1,174 to 1,880. On the other hand, the population of the Uganda kob remained relatively stable. The population of hippos in QENP increased from 2,958 in 1995 to 3,400 in 2000, but dropped to 2,632 in 2004 due to an anthrax epidemic.

The number of buffalo increased across the country. The population in MFNP that had dropped from 30,000 in the 1970s to just 1,610 by 1991 (95 percent reduction), reached 11,004 in 2004 (Rwetsiba *et al.*, 2005). From 1995 to 2004, elephants increased by 156.7 percent; hippos by 40.5 percent; Uganda kob by 46.6 percent; and giraffe by 145.0 percent.

In addition, species distributions, once pushed into restricted 'havens' by extreme poaching pressure, have now spread out throughout the protected areas. The upward trend in key mammal species was considered a result of better management efforts within the protected areas. This was attributed to increased financial inflows from internally generated revenues and donor support over the previous five years, which had led to improved capacity to manage.

**Strategic Goal 2: *Strengthen capacity and establish management systems and operating procedures that will enable the Uganda Wildlife Authority to function in an efficient and business-like manner.***

The indicators for achievement of this goal were:

- *Number of staff trained in accordance with training needs assessment.*

A training needs assessment was carried out specifically for research and monitoring. Subsequently, training was provided to staff within the protected areas in basic geographical information systems (GIS), selected computer packages and a Management Information System. Exchange visits and study tours were undertaken to share experiences.

- *Number of management systems and operating procedures established*

A number of policies were developed, including for strategic partnerships, community conservation and animal rescue. The *Wildlife Sub-sector Environmental Impact Assessment (EIA) Guidelines* were finalized and submitted to the National Environment Management Authority (NEMA) for approval. Guidelines for monitoring and research, resource use within protected areas, collaborative management and sport fishing were developed. The National Schedule for Protected Species was developed and approved by the Board of Trustees, subject to consultations with MTTI. The Fire Arms Regulations were formulated as were the Wildlife Use Rights regulations for hunting, farming, ranching and trading, which were drafted and submitted to MTTI.

**Strategic Goal 3: Strengthen the management capacity of the Uganda Wildlife Authority to become a wildlife service-oriented organization that will contribute to the Government's mission of poverty eradication in rural areas.**

The indicators for this strategic goal were:

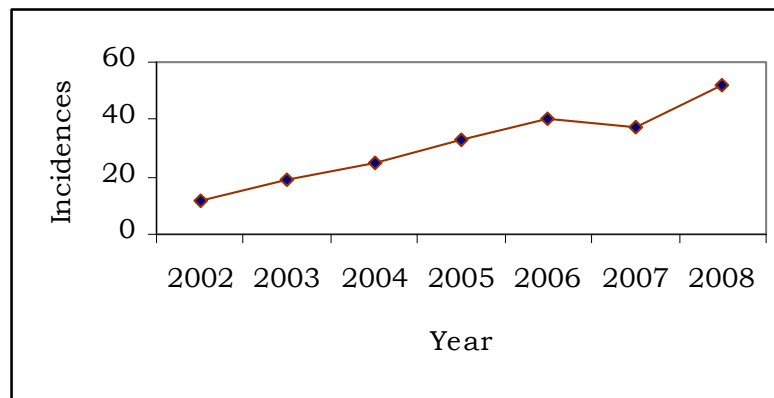
- *Two functional and successful wildlife-based industries functioning properly.*

UWA's operations started from very low levels in the mid-1990s and became a strong organisation in the 2000s. Initially, there were no efforts in developing wildlife use rights and effective involvement of the private sector. However, in August 2001, a pilot project for sport hunting was initiated around LMNP. It brought in over US\$1 billion over its seven years of operation. In addition, wildlife trade was estimated to have earned approximately US\$3 million per year (Moyini and Masiga, unpublished). The Ziwa Rhino Ranch became operational, but its revenue earnings from tourism are not available. There is good potential to build on the achievements made and make even more contributions to national and local economic development through wildlife use rights.

- *5 percent reduction in reported incidents of problem animal-related conflicts and complaints.*

Incidents of human-wildlife conflict continued to rise across the country. Problem animal incidences, as reported to the Problem Animal Control Unit (PACU) steadily rose, are shown in **Figure 12**.

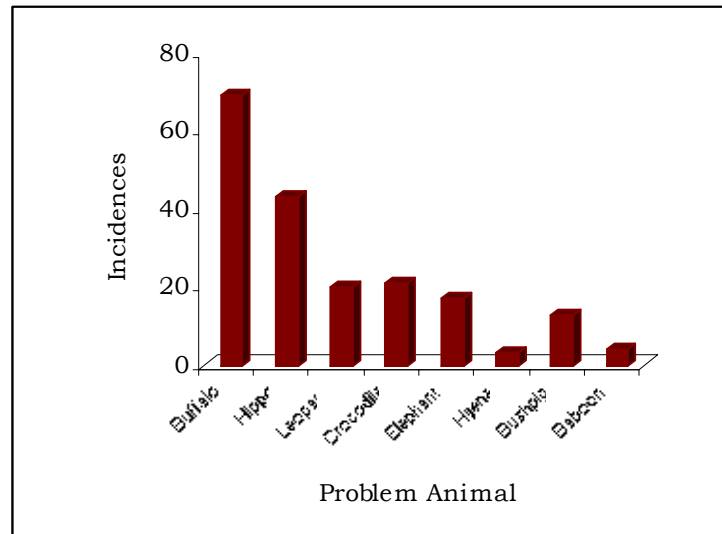
**Figure 12: Problem Animal Incidences, 2002–08**



Source: Problem Animal Control Unit (PACU)

**Figure 13** shows the most problematic animals according to number of incidences reported; the buffalo is the top of the list.

**Figure 13: Problem animal incidences as reported by species**



### 3.3 Use of Non-Budget Resources

The Government is an important player in tourism development, but it is the private sector that invests directly in it. Innovative schemes and mechanisms therefore need to be identified to attract private sector resources to support wildlife programmes, especially those that enhance community-based tourism.

Public-private partnerships would be in the Government's interest for boosting tourism development. Below are some of the non-budget instruments that the Government could use to attract private capital investments to the wildlife sub-sector, especially tourism-related investments:

- requiring the private sector to include community partnerships when bidding for tourism concessions;
- intensifying assistance and guidance to enable greater access to credit through simplified multi-agency financing programmes;
- encouraging innovative financing such as leasing and venture capital activities; providing effective credit guarantee systems;
- encouraging the formation of credit guarantee;
- providing concessional interest rates, lower financing fees that may include incentives for prompt credit payments, and effective substitution of government guarantee cover on loans for lack of collateral of ENR-based enterprises;
- building on the trust/endowment funds, e.g. the Bwindi Mgahinga Conservation Trust and the Uganda Wildlife Education Centre (UWEC) Endowment Fund;
- instituting a wildlife conservation levy or a voluntary contribution from hotel guests.

There are a number of partners and interested parties within the ENR sector. Some of these are NGO and donors with whom collaborative arrangements could be made for wildlife-related programmes, both within and outside protected areas.

### 3.4 Ongoing and Planned Projects and Programmes

There were a number of key projects ongoing within the sub-sector, as highlighted below and detailed in **Annex 2**.

#### **Uganda Wildlife Authority Forests Absorbing Carbon Dioxide Emission (FACE) project**

This is a joint venture between two contracting partners, FACE Foundation of The Netherlands and UWA, implemented in Kibale (KNP) and Mount Elgon National Parks. The objective of the project is reforestation of formerly degraded areas and contribution to absorption of carbon emissions from FACE Foundation programmes. These two functions earn carbon credits for UWA and FACE Foundation.

#### **Mount Elgon Regional Ecosystem Conservation Programme (MERECEP)**

This transboundary programme between Uganda and Kenya was implemented through Central Government Ministries, districts and agencies responsible for wildlife protected areas. It receives technical backstopping from IUCN.

#### **WWF in Ruwenzori Mountains National Park (RMNP)**

Implemented in villages around RMNP, its objective is to improve people's livelihoods in order to reduce pressure on the national park resources. This is achieved by supporting income-generating activities around the protected area and encouraging sustainable natural resource use.

#### **Cultural values in Lake Mburo National Park and Ruwenzori Mountains National Park**

This project is aimed at integrating cultural values of communities living around RMNP and LMNP into the management framework of the parks.

### 3.5 Stakeholder Roles and Responsibilities

There are a number of stakeholders within the wildlife sub-sector that play varying roles. The proposed focus areas for the key stakeholders in wildlife conservation are shown in **Table 6**, and the detailed roles are given in Annex 3.

**Table 6: Proposed Roles for Key Stakeholders**

#	Stakeholder	Focus Area
1.	Central Government; Ministry of Tourism, Trade and Industry.	Policy and legislation, institutional coordination, capacity building, resource mobilization.
2.	Uganda Wildlife Authority.	Wildlife management, coordination and collaboration, resource mobilization.
3.	Fisheries Department; Petroleum Exploration and Production Department; Ministry of Energy and Mineral Development; Ministry of Lands and Housing.	Joint/coordinated planning, monitoring.
4.	The National Forestry Authority, the Uganda Wildlife Education Centre,	Monitoring, community mobilization, joint/coordinated planning, management of wildlife outside protected areas.

#	Stakeholder	Focus Area
	the Chimpanzee Sanctuary, Lusaka Agreement Task Force (LATF).	

#	Stakeholder	Focus Area
5.	Ministry of Agriculture, Animal Industry and Fisheries and Makerere University's Faculty of Veterinary Medicine.	Disease surveillance and diagnosis, veterinary interventions, control of animal movements.
6.	Ministry of Foreign Affairs, Ministry of Tourism, Trade and Industry (MTTI); East African Community.	Trans-boundary management arrangements, regional cooperation.
7.	Uganda Tourism Board (UTB); Association of Tour Operators (AUTO); Private Sector Foundation, Uganda Export Promotions Board; embassies.	Market research, joint marketing.
8.	The Central Government; MTTI; Uganda Investment Authority (UIA)	Attraction of investors and monitoring of investments.
9.	The Ministry of Works and Telecommunications.	Infrastructure development and maintenance.
10.	Local governments.	Monitoring, community mobilization, joint/coordinated planning, vermin and problem animals' management, resource mobilization.
11.	Civil society and the private sector.	Wildlife management, market research and marketing, enterprise development and investment, publicity/awareness raising, resource mobilization and collaborative management.
12.	Development partners.	Financial resources mobilization and performance evaluation.
13.	The Hoteliers' Association, the media, the Uganda Tourism Association.	Service provision, information dissemination and marketing.
14.	Training institutions and research institutions.	Capacity building and management-oriented research.

### 3.6 Key success areas within the wildlife sub-sector

Overall, the wildlife sub-sector registered some achievements in:

- the development of a strategic plan for implementation of the Tourism Policy;
- infrastructural developments at UWEC and construction of UWA headquarters and other infrastructure within the protected areas;



- capacity building through training and equipment supply, as part of the Protected Areas Management and Sustainable Use (PAMSU) Project;
- surveying and marking of boundaries of the wildlife protected areas;
- establishing a trust fund for UWEC and an endowment fund for UWA;
- training and capacity building, e.g. the community-based tourism study on establishing the scale and scope of the tourism products in order to inform tourism development strategies for the country.

### 3.7 Constraints and challenges faced

The challenges and constraints at the Department of Wildlife in MTTI were mainly related to limited funding, which affected performance. The institutional framework within the Ministry affected performance related to wildlife conservation. After acknowledging these institutional bottlenecks, the then Division of Wildlife was eventually separated from that of Tourism to create a fully fledged Department of Wildlife. Other constraints may be classified as: institutional weakness related to a weak private sector with poorly defined objectives; insufficient support to the sub-sector in terms of sectoral development and marketing, which has not been as rapid as expected due to insufficient finances; and increasing pressure on protected areas, especially from surrounding communities for resource access and from industrial developments, e.g. oil drilling in western Uganda.

The UWA Strategic Plan for 2002–2007 laid out a comprehensive general strategy for conserving wildlife both inside and outside protected areas. Key milestones were clearly established. However, not all of these could be attained due to funding constraints, leading to downsizing of the operational goals. In addition to limited funding, the following constraints were encountered:

**Political instability:** Civil unrest that characterized the region negatively affected management of some of the protected areas and the tourism industry, hence also the national economy. Instability in the Great Lakes Region led to incursion into protected areas by rebel groups and an influx of refugees leading to resource degradation. The situation has greatly improved within the last 2–3 years.

**Increasing populations and poverty:** Increasing populations around the protected areas led to increased demand for resources. Most of the rural communities are poor and dependent on natural resources. They view the protected areas as sources for some of their livelihood requirements. This results in conflicts between wildlife and humans.

**Limited information and awareness:** There is very limited knowledge on the importance of wildlife to economic development. Most of the information available concerns its contribution through tourism, and yet wildlife holds other values relating to ecosystem services as well as its own intrinsic value.

**Wildlife–human conflict:** Considerable wildlife lives outside protected areas in a number of areas. Many landowners perceive it as a destructive and non-productive resource of no benefit to them. They therefore see no need to protect it, but rather, in many areas, encourage poachers to kill the wildlife for the bush meat trade. Wildlife habitats were still being destroyed through human settlement and expansion of agriculture. In turn, wild animals compete with livestock for pasture, water and salt, destroy crops, damage farm structures and can transmit diseases to livestock.

In conserving wildlife, a number of challenges are encountered, including:

- the need to protect *all* areas with high levels of biological diversity that represent the major habitats in Uganda;
- sustained management of Uganda’s wildlife and protection of threatened and endangered species;
- effective involvement of the private sector, local communities, NGOs, and other stakeholders in policy implementation, in particular, active management of the wildlife resources;

- the establishment of a framework for management of wildlife outside protected areas, with district authorities and rural communities playing a central role;
- monitoring and research programmes that directly contribute to decision- making regarding wildlife conservation and protected areas management.

### 3.8 Lessons learned

**Stakeholder involvement** – Management of national parks in colonial times and until recent years has excluded the local population. Today, it is believed that listening to, and discussing and establishing partnership and benefit-sharing relations with the people are key to successful wildlife conservation.

Encouraging domestic tourism – Most tourists who visit the protected areas come from outside the country. There is need to target Ugandans, encouraging them both to enjoy their natural heritage and to learn from it.

In-country marketing – Many visitors come to Uganda and return home without touring wildlife protected areas. There is need to target and to encourage them to visit the protected areas.

Sustainable use of natural resources – Well-regulated sustainable use of wildlife resources is a good approach for making wildlife conservation relevant to local communities and national development.

## 4 Analysis of the Sub-Sector's Linkage to National Development

### 4.1 Wildlife and Socio-economic Development

The wildlife sub-sector aims at strengthening national economic development through the NDP and contributing to the 'growth, employment and prosperity' vision through prudent management of the wildlife estate. The sub-sector's contribution to national development is shown in a number of areas, as indicated in the following sections and summarized in Annex 4.

#### *Wildlife and the Millennium Development Goals*

The Government of Uganda is committed to the fulfilment of the MDGs. While the fulfilment of one or a few specific MDGs does not imply overall sustainable development, there are specific MDGs whose attainment may be a significant contribution to some sectoral developments. In particular, within the wildlife sub-sector, the linkage to MDGs may be specifically related to the attainment of MDG 1 (*Eradicate extreme poverty and hunger*) and MDG 7 (*Ensure environmental sustainability*). The attainment of these MDGs is therefore considered a contribution to wildlife conservation aimed at improving rural livelihoods through community-based programmes such as revenue sharing, controlled resource use and the wildlife use rights programme.

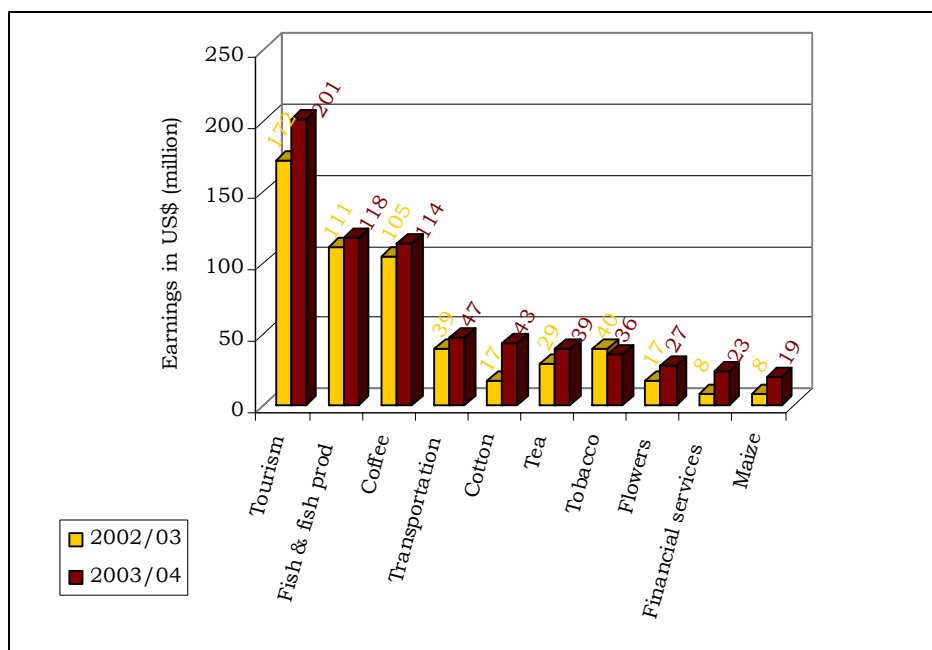
#### *Wildlife, Tourism and the National Economy*

At the time of independence in 1962, tourism was among the highest foreign exchange earners for Uganda. However, the years that followed were years of civil strife, and the breakdown of law and order, which resulted in the complete destruction of the tourism industry. With economic recovery and stability since the 1990s, there has been marked growth in the tourism industry, which has regained its position as the highest foreign exchange earner for the country and taken over from coffee as the country's leading foreign exchange earner. Since wildlife is the main tourism attraction for Uganda (Figure 14), it can rightly be said to be the major foreign exchange earner for the country.

National parks and other wildlife areas have continued to be the hubs of the tourism industry, thus contributing to national economic development. Tourism revenues have been significant, rising from US\$113 million in 2000 to over US\$400 million in 2007 (Table 7). Average per capita expenditure in the country was US\$720 for the last five years (2003–2007).

UIA has not indicated the wildlife sub-sector as one of the key sectors for investment, except for commercial rearing of crocodiles, which was considered a livestock product, rather than a wildlife product. Since tourism has surpassed coffee as the leading foreign exchange earner, the priority focus for UIA needs to shift and include wildlife conservation and entrepreneurship. Forecasts for 2007 to 2016 indicate a favourable growth outlook for the tourism industry, at 5.1 percent annual growth in real terms (MTTI, 2007).

**Figure 14: Tourism earnings in comparison to other key sectors**



Source: Bank of Uganda, cited in The Uganda Tourism Update, June 2005

**Table 7: Visitor expenditures from 2003 to 2007**

Year	Visitors ('000)	Expenditure (US\$ million)	Per Capita Expenditure (US\$ '000)
2003	305	265	869
2004	512	321	627
2005	468	327	699
2006	536	375	700
2007	642	449	699

Source: Uganda Bureau of Statistics, 2007

### ***Wildlife's Contribution to Rural Development***

According to Ruhweza, Kaggwa and Muramira (2004), there are several problems that challenge the value of wildlife as a livelihood asset for poor people. The first is that economic benefits of wildlife are usually captured by the private sector and the Government, rather than the rural poor, who are heavily dependant on resources. The challenge is to find ways of harnessing the significant potential for wildlife-based growth to ensure that it benefits poor people. The second problem is ensuring sustainability of wildlife resources use to avoid overexploitation. Wildlife is a 'public good' whose sustainable management calls for collective action. This action should be guided by increased awareness and consideration of the fact that the direct and indirect costs of wildlife are borne primarily by the poor local communities that live with it.

Based on the conclusions of several studies providing sufficient evidence of wildlife-poverty linkages, Reynolds and Ashley (2000) propose wildlife-poverty-related policies that Uganda has already considered, such as:

- community-based wildlife management for rural development, e.g. through resource access, wildlife-based tourism and trophy hunting;
- development of policies to expand and diversify tourism in ways that increase linkages with neighbouring communities;
- moving beyond a focus on communities as a group to target individuals;
- moving beyond distribution of benefits to creating opportunities to improve individual living standards;
- shifting policy focus from public sector control to entrepreneurship;
- treating wildlife as an economic asset and not just as a resource in need of more sustainable management;
- providing an opportunity for growth and coping strategies for the vulnerable.

In addition to participating in the management of wildlife, the wildlife sub-sector has provided Ugandans with the opportunity to derive benefits from protected areas. This is especially true for the communities neighbouring protected areas. Over 600,000 Ugandans living in parishes surrounding national parks have enjoyed a number of benefits including sharing of revenue accruing from tourism.

The Uganda Wildlife Act provides for 20 percent of all entry fee collections to flow directly to the relevant community. A total of US\$1.7 million was collected between 2000 and 2007, of which US\$896,000 was disbursed to the communities neighbouring protected areas (**Annex 5**). On average, US\$250,000 was collected per annum for revenue sharing with the local communities. These funds were allocated by the communities and used to construct/rehabilitate community infrastructure, e.g. roads, clinics, schools and water sources such as valley dams and bore holes.

The Uganda Wildlife Act also provides for the granting of wildlife use rights, including sport hunting. The pilot project around LMNP yielded a total of US\$638,000 since its launch in 2001, for an average annual yield of US\$91,000. In addition, the wildlife trade contributed approximately US\$3 million per year in national revenues, as estimated by Moyini and Uwimbabazi (unpublished), while apiculture contributed approximately US\$17 million per year.

Through initiatives such as resource access agreements and community concessions, the sub-sector contributed to improving the livelihoods of many rural Ugandans who use the resources. The resource access initiatives gave rural communities access to various resources within protected areas. Agreements were negotiated between the community and park management regarding the type and amounts of resources to collect. In MENP, for example, there were agreements for use of eucalyptus poles planted along the boundary, collection of firewood, mushrooms and medicinal plants, and for the use of park land for the taungya system of forest rehabilitation (where communities could plant food crops among the tree seedlings). In BINP, agreements covered placement of beehives inside the park, collection of firewood and medicinal plants, and harvesting of vines for basketry. In LMNP, there were agreements for fishing and cattle watering.

Proximity to protected areas also enabled some communities to start their own community eco-tourism initiatives. Local communities worked in groups to establish campsites and bandas for tourist accommodation. They also organized community tourist activities where the tourists visited the community and enjoyed several cultural activities. This was particularly successful at Buhoma in BINP, Magombe swamp (Bigodi) near KNP, and Sipi near MENP.

### ***Wildlife's Contribution to 'Growth, Employment and Prosperity'***

Wildlife contributes significantly to 'growth, employment and prosperity', both directly and indirectly. The direct contribution may be seen in the context of intangible ecological services, direct benefits from goods and services to which communities surrounding the protected areas have access, and employment generated by the service providers, including hoteliers, insurance agents, tour operators, ticketing agents and airline operators, among others.

The support given to the communities surrounding these protected areas in the form of benefit-sharing projects has contributed to rural development. The sub-sector's contribution to growth could also be assessed in terms of earnings made by the various actors (such as investors, employers and employees) within the sub-sector, as well as the amount of money that tourists spend while in Uganda (**Table 7**). In particular, the sub-sector significantly contributes to growth through the volume of investment in services targeting tourists directly.

Due to the linkage of hotels and lodges to protected areas to serve the tourist industry, communities again benefit through direct employment and the provision of goods and services such as foodstuffs and crafts. Transport companies and tour operators that provide vehicles for hiring and tour services, airlines, crafts shops, mobile phone companies, hotels and restaurants also benefit from this sector.

In 2004, wildlife-based tourism employed over 70,000 people directly (Greenbelt Consult, 2007). This is expected to grow with the increasing tourist activity to approximately 75,000–80,000 people by 2009. UWA alone employs 1,300 permanent staff.

The concessions given to private businesses to operate hotels within the protected areas have also boosted employment opportunities for local people. Hotels such as Mweya Safari Lodge and Jacana in QENP as well as Paraa Safari Lodge, Red Chilli, Nile Safari Camp and Sambiya River Lodge in MFNP among others employ many people, particularly from the surrounding areas, and contribute tax revenue to the national treasury.

#### **4.2 Backward and forward linkages of wildlife to the performance of other sectors**

The wildlife sub-sector provides forward linkages to some of the production and service sectors in the country.

### ***Wildlife Hunting and Trade***

Policy reforms in the wildlife sub-sector reflect a changing paradigm in natural resources management towards greater stakeholder participation. Of particular importance in enhancing ecosystem services are the recent development of tripartite agreements between UWA, the local governments of Hoima and Adjumani Districts, and private businesses for the management of both Kabwoya and East Madi Wildlife Reserves.

Sport hunting was piloted by UWA outside LMNP, in partnership with Game Trails Ltd., a private company, and the local community. Due to the success of the pilot project, several private companies applied for concessions to manage some of the wildlife reserves and community wildlife management areas. Private companies were also involved in the breeding of various wildlife species, particularly reptiles and birds, for direct sale or sale of animal products on the international market.

### ***Tourism***

Uganda's tourism industry is heavily reliant on wildlife. According to UEPB (2006), it plays a key role in leveraging Uganda's export earnings, as shown in 2004 statistics, accounting for 45 percent of the value of service exports, or US\$316.6 million. Considering the role of wildlife in tourism, the sub-sector is definitely recognized as a key to national development.

Some of Uganda's prime tourist hotel facilities such as Paraa Safari Lodge, Mweya Safari Lodge, Apoka and Jacana are located in the national parks. Visitor arrivals stand at over 600,000 as of 2007 per year; the government target is 1,000,000 per year by 2010. Visitor numbers (foreign non-

residents) to protected areas also increased from over 50,000 to almost 100,000 per annum from 2003 to 2007.

### **Education**

Wildlife has contributed to environmental education at the primary, secondary and tertiary school levels. A number of wildlife protected areas operate education centres (e.g. LMNP, MENP, QENP, MFNP), most of which run community education programmes. There are research stations in KNP (Makerere University Biological Field Station) and BINP (Institute of Tropical Forest Conservation) for national and international university students. The number of students visiting the protected areas for educational purposes has steadily increased over the years, with a sharp incline beginning in 2000 (**Figure 15**).

## **4.3 Emerging Issues and Opportunities for National Development**

### **Opportunities**

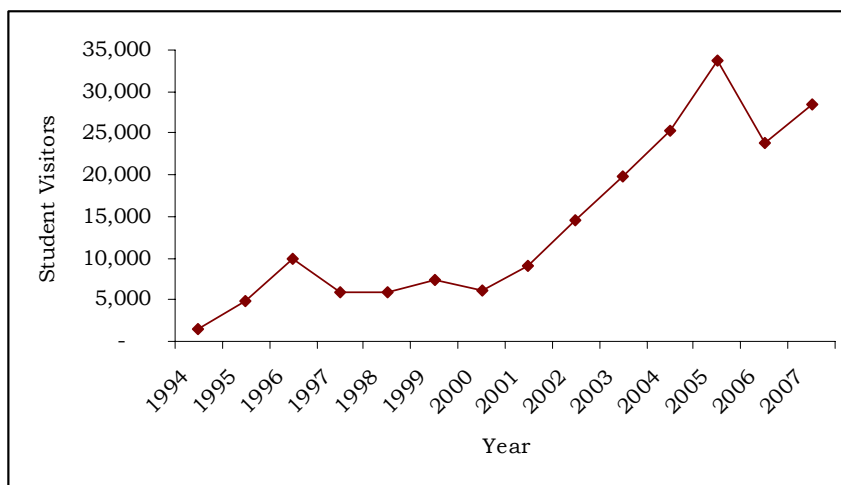
#### *Increasing private sector involvement*

Private sector reforms, such as privatization, have encouraged PPPs, which are envisaged to create opportunities for increased avenues of tourism and business development, increased cost-effectiveness, improved service delivery and good governance.

#### *Transboundary collaboration*

Uganda is centrally positioned in terms of regional ecosystem networks, often serving as a source, sink/outlet, or central distribution centre for ecosystem dynamics. Ecosystems with transboundary elements in the wildlife sub-sector include:

**Figure 15: Students visiting wildlife protected areas since the mid-1990s**



- The Central Albertine Region of western Uganda, including the Virunga ecosystem shared by Rwanda, Uganda and the Democratic Republic of the Congo, harbouring the only remaining populations of the Mountain Gorilla. The three wildlife agencies in the three countries have agreed to collaborate in managing the transboundary ecosystem. They have signed a memorandum of understanding and developed a transboundary strategic plan that will guide implementation of programmes within the shared landscape.

- The Mt. Elgon forest ecosystem covers part of eastern Uganda and the western Kenya highlands, and is a critical watershed for Lake Victoria. Despite the recent interventions such as the Integrated Conservation and Development projects implemented in the 1990s, human pressures continue to escalate, especially on the Ugandan side. It is hoped that the new transboundary ecosystem management approach through MERECEP will help the ongoing efforts by the conservation agencies to address these challenges.
- The Governments of Uganda and Southern Sudan entered into an agreement to collaboratively manage the transboundary protected areas of Otzi (a wildlife sanctuary) and Kidepo National Park in Uganda, and the corresponding Nimule and Kidepo Reserves in southern Sudan.

These transboundary collaborative efforts in wildlife management will not only lead to more effective wildlife conservation, but will go a long way in contributing to peace building in the region and promoting tourism at the regional level. This will consequently contribute to 'growth, employment and prosperity'.

#### *The East African Community*

The trend towards increased regionalization and promotion of economic blocks presents numerous opportunities for an expanded domestic tourism market. There are greater opportunities for regional marketing and improvement in the quality of services and service standardization. Regional cooperation is expected to contribute to more effective marketing of East Africa as a tourist destination. As a matter of policy, the Government of Uganda favours ecotourism. This policy distinguishes Uganda from its other East African neighbours, Kenya and the United Republic of Tanzania, and is expected to position Uganda favourably on the international market, thus attracting high-end spenders.

#### *International Wildlife Trade*

Trade in wildlife is big business at the international level, providing opportunities through new enterprises for Uganda. A number of Ugandans have already started in this industry, and although the effort has not been initially successful, it is hoped that, with capacity building, careful planning and development of the appropriate infrastructure, it can grow enough to contribute significantly to rural and national development.

#### **Issues**

##### *Increasing population pressure*

Uganda's 3.4 percent human population growth rate per annum, together with a fertility rate of seven children per woman, is among the highest in the world. This increasing human population leads to increasing unemployment levels that result in increased demand for land and resources from the protected areas.

##### *Industrial development*

The increasing call for change in land use of some protected areas in favour of industrial development (e.g. de-gazettement of Pian Upe for cotton growing) will significantly impact on the wildlife sub-sector in general; however, the trend and form of impact will greatly depend on how this threat is controlled and how the developments are managed.

##### *Oil in the Albertine Rift*

Although an asset to Uganda's economic development, oil poses a threat to wildlife conservation in the protected areas of the Central Albertine Rift. The negative impacts were already being felt at the exploration stage and are expected to spiral upwards once actual drilling and processing are started in the next few years.



## 5. STRATEGIC FRAMEWORK FOR THE NEXT FIVE YEARS

### 5.1. Sub-sector Priorities and Strategies

Priorities for the wildlife sub-sector were identified in line with the SIP (2007) and the UWA Strategic Plan 2007–2012. Throughout the next five years (2009-2014), the wildlife sub-sector will emphasize the following priorities:

#### a) Maintaining the integrity of wildlife protected areas

Despite trends in wildlife numbers indicating consistent growth and stable populations in some of the key species and the supportive conservation framework, there are still key issues that need to be addressed. These issues include encroachment and conversion of habitats that have led to degradation of the wildlife resource. There is also continued poaching and illegal wildlife trade, extraction of fossil fuels that causes degradation and pollution, and other threats to the integrity of wildlife protected areas. Maintaining the integrity of these areas is an important priority for the Government, which embraces the development and optimal exploitation of the natural resource base, and ensures environmental and economic sustainability as objectives in the NDP. The strategies for this priority area are as follows:

##### *Enhancing animal disease surveillance and monitoring*

Potentially damaging zoonotic diseases such as bird flu, brucellosis, anthrax and scabies continue to threaten the wildlife populations. Systematic disease surveillance will ensure early detection of disease occurrence and thus effective control.

##### *Developing and maintaining park infrastructure and equipment*

The infrastructure within protected areas requires urgent attention. Although some new staff accommodation and offices were constructed in the past few years, much needs to be developed. Staff accommodation needs to be found or maintained.

##### *Ensuring that policies and procedures are developed and logically interpreted*

The Government of Uganda put in place an enabling policy environment for the effective management of natural resources. The Uganda Wildlife Policy 1995 and the Wildlife Act Cap 200 of 2000 are the main policy and legal instruments that guide the operations of the wildlife sub-sector. Uganda has also ratified a number of international conventions and protocols related to conservation of biodiversity, such as the Convention on Biological Diversity and the Convention on Migratory Species, among others. Within the UWA, a number of policies and guidelines have been developed to guide management in its operations. Despite this progress, there are other policies and guidelines that have not yet been developed and that are essential for implementing the Wildlife Act and for efficient management. There are also gaps within the current wildlife law, which make its enforcement problematic. The current operational policies and guidelines need to be updated and their implementation strengthened in order to be responsive to the changing organizational needs and challenges.

##### *Strengthening collection and analysis of management-oriented information*

Information is vital for sound management decisions. Management-oriented information is obtained through research and ecological monitoring. Furthermore, monitoring of impacts of conservation programmes on ecosystems is critical for effective and efficient management of protected areas. Accordingly, the wildlife sub-sector aims at promoting the collection and provision of relevant, accurate and timely information as required for the conservation and good management of Uganda's wildlife resources and biodiversity.

##### *Making UWA a financially self-sustaining organization*

In order for UWA to effectively maintain the integrity of the wildlife resource base, it is important that it meet its financial obligations while reducing dependency on donors. UWA's capacity to fund its operational budget needs to be strengthened. Accordingly, the organization will put in more effort

into identifying business opportunities and undertaking investments that will help in developing a stronger financial base. Efforts in establishing a wildlife endowment fund will be continued and the organization will solicit at least US\$10 million from non-budget resources in order to feed into this fund every year.

**b) Contributing to local and national development through development of wildlife-based enterprises**

There is need to continue applying policies, collaborative management frameworks and partnerships to effectively manage wildlife, both in and outside protected areas, while contributing to national economic growth and poverty eradication, especially in the rural areas. The sub-sector recognizes that the concept of good governance needs to be articulated so that the public understands the values and benefits of conservation. This will be achieved by demonstrating that wildlife can economically contribute to improvement of livelihoods. The sub-sector will therefore continue to implement and support development of wildlife-based initiatives and ventures that enhance the Government's theme of **'growth, employment and prosperity'**, as follows:

*Building the capacity of landowners to manage and benefit from wildlife*

Effort will be put into enabling landowners, including local communities, to manage wildlife on their land, for their own benefit. The approach will be applied through continued revenue sharing and expansion of the hunting programme. In addition, focus will be on the following areas:

1. **Sport hunting** – To date, this has resulted in an average annual yield of US\$91,000 in the rangelands around LMNP. It is anticipated that wildlife can offer significant incomes to landowners with big parcels of land with resident populations of big game. The advantage of hunting over other forms of consumptive wildlife use is the high return to the landowner, for very low off-takes. The hunting industry also provides forward linkages into wild meat processing and the taxidermy industry.
2. **Ostrich farming** –Ruhweza et al., (2006) stated that the demand for ostrich meat in Europe and parts of Asia was so high that only 20 percent of these markets could be satisfied with each kilogram of prime cuts selling for approximately US 8–10. Also, an estimate of revenue from a Kenyan farm put annual revenues at US\$206,880 from annual production outlay of 500 birds per annum. According to Ruhweza et al., (2004), a live bird fetches up to US\$3,000 in Spain, Pakistan, Malaysia and the United Arab Emirates.

There are no commercial farms in Uganda despite good potential for ostrich farming in Karamoja, where ostrich products (eggs and meat) are obtained from the wild.

1. **Guinea fowl farming** – There have been some attempts at captive breeding of the helmeted guinea fowl both in rural and urban areas in Uganda. Ruhweza *et al.* (2004) highlight the case of Yumbe District in northern Uganda, where some farmers keep 20–60 birds (*The New Vision of the Yumbe District Review*; Monday, 22 December 2003). In 2004, the birds sold at U Sh7,500–10,000 each, depending on size. There was also a potential market for eggs of the guinea fowl, which lays up to 100 in its lifetime, and for guinea fowl farming in Luwero, Masindi and Karamoja.
2. **Butterfly farming** –Butterfly farming is a lucrative enterprise in Kenya, for example,. The Kipepeo Project in Kenya, administered by the East African Natural History Society in partnership with the National Museums of Kenya, was set up with support from the UNDP Global Environmental Facility (GEF). The farm combined a commercial approach focusing on the export of pupae, with ecotourism and conservation education. Earnings from 1994 to the end of June 2001 totalled US\$425,320, or an average of US\$56,709 per year. The farm was set up to give farmers around the Arabuko-Sokoke Forest some legitimate income from the forest in part as compensation for crop damage caused by elephants and baboons. Through the conservation educational programme, 46 Wildlife Clubs were formed in schools near the forest, and other schools from within Kenya visited the project on educational tours.

Butterfly farming was initiated in Uganda by some private entrepreneurs. However, this study was not able to find figures on projected earnings.

#### *Development of private sector-driven wildlife-based enterprises*

There is a growing interest from the private sector to engage in collaborative management of protected areas and wildlife outside the protected areas. There is private sector interest in investing in wildlife enterprises through wildlife use rights programmes.

1. **Game ranching** – Game ranching can therefore be a profitable commercial activity, particularly to private ranchers. It can provide forward linkages to sport hunting and non-consumptive tourism. UWA has already signed co-management agreements for two protected areas (East Madi and Kabwoya Wildlife Reserves) and will continue to develop and strengthen coordination and collaborative management mechanisms with stakeholders and development partners for effective protected areas and wildlife management.

Although, due to management problems, ranching of crocodiles by Uganda Crocs Ltd. has not been a successful venture Ruhweza *et al.* (2004) estimated that, in Kenya, the net revenue from a crocodile farm operating at a 2,000 skins production level per annum at US\$257,225.

**Development of a taxidermy industry** – This industry goes hand in hand with the trophy hunting industry. Local communities will be encouraged to form partnerships with the private sector in order to add value to the trophies through processing and mounting before export.

2. **Meat processing** – According to Elliot (2001), approximately 23 percent of the total world population lives in marginalized rural arid and semi-arid areas. A significant proportion of their food is hunted or collected from the wild. Based on a study in the United Republic of Tanzania, the author estimated that over 1 billion GBP per annum of bush meat alone is consumed in sub-Saharan Africa. It is these same consumers who bear the costs of living with wildlife, particularly in terms of threat to their lives and livelihoods. The potential for wildlife as a source of long-term comparative advantage is usually underestimated. It is important to note that as wildlife increases in scarcity, its intrinsic and commercial value increases, as do the opportunities for the poor to build viable wildlife-based livelihood strategies. There is therefore need for Uganda to explore such opportunities that favour the rural poor.

A pilot study on consumptive use of impalas around LMNP revealed possibilities of leather tanning and wild meat processing as a way of adding value to wildlife (Averbeck, 2001). If combined with the trophy hunting project in the area, this could provide additional income to the local communities. Moyini and Muramira (2000, cited in Ruhweza *et al.* 2004), in a study carried out in the Kafu River Basin, identified price differentials between game meat markets in the Kafu River basin, on the one hand, and Kampala and Entebbe, on the other (**Table 8**). The study identified a large undercover market demand for game meat.

**Table 8: Game meat prices in Kafu, Kampala and Entebbe**

Type	Price (U Sh per kg of dry/smoked weight)		
	Masindi	Kampala / Entebbe	Margin/kg
Bush pig	2,200	3,000	800
Bushbuck	1,600	2,200	600
Hartebeest	2,000	2,500	500
Oribi	1,800	2,400	600
Reedbuck	2,000	2,500	500
Uganda Kob	1,600	2,500	900
Warthog	2,700	3,500	800
Waterbuck	1,500	2,000	500

Source: Ruhweza et al., 2004

These prices are from 2004 when beef prices ranged from U Sh1,500–2,000 per kg. The price of beef has since more than doubled, indicating a similar, if not higher, increase in the price of game meat. These relative prices make the marketing of game meat resulting from trophy hunting a potentially lucrative business enterprise.

### c) Supporting economic development through tourism development

#### *Improvement of tourism infrastructure, facilities and services*

Most of the tourism infrastructure within wildlife protected areas has been in existence for many years and has greatly degraded. The road network, tourism tracks and trails inside protected areas need to be well maintained to ensure good service delivery. Old roads need rehabilitation and new ones need to be opened to facilitate protected area operations and management.

#### *Diversification of tourism products and optimization of revenue earnings*

Over the last five years, tourist numbers have been steadily increasing. However, given the untapped potential for tourism diversification, the increasing private sector investment in accommodation facilities and tourism-related services together with the potential new tourist markets, there could be an increase in arrivals to the country and visitors to the protected areas. Promotion and marketing of wildlife products will focus on attractions that distinguish Uganda from competing destinations. To this end, tourism packages will be developed to provide tourists with a range of different experiences.

#### *Eco-cultural and educational tourism*

In this innovative approach, tourists experience first-hand a combination of wildlife and cultural tourism, e.g. traditions related to the long-horned Ankole cow and the *Bahima* culture, combined with wildlife tourism in LMNP, the Karimojong culture combined with wildlife tourism in Kidepo and Pian Upe Wildlife Reserve. Other cultural attractions that could be combined with wildlife-based tourism should be identified and tourism packages further developed. Effort will be focused on identifying and promoting important cultural heritage and values of protected areas. The cultural aspect of the tourism package can be integrated in an eco-village enterprise. Ruhweza *et al.* (2004) defines an eco-village as a small community of 50 to 2,000 people based on shared ecological, social and/or spiritual values. Eco-villages can contribute to diversifying livelihood options within the rural areas. They can also be used as educational centres, not only for foreign visitors to learn about Ugandan culture, but also for students to become rooted in their own culture.

*Promotion and marketing of tourism in all the wildlife protected areas*

Based on the visitor statistics for the country, the tourism industry in Uganda has potential to grow further. The Government’s drive to attract investments to the country, the demonstrated willingness of the private sector to invest in protected areas and the untapped visitors that come to Uganda without visiting the protected areas present an opportunity for increased tourism business and revenues. Effort will be put into promoting wildlife-based tourism, not only internationally, but also domestically.

*Provision of adequate tourism information*

With the developing tourism industry and increasing numbers visiting the protected areas, there is need to improve tourist communication facilities and quick service delivery and access. Effective tourist information and communication channels will be established and the quality and dissemination of informational, educational and promotional materials will be improved.

**5.2. Priorities and their Contribution to NDP Objectives**

An assessment of how the priorities identified contribute to the national development objectives is given in **Table 9**. Only the relevant objectives have been compared against the sub-sector priorities.

**Table 9: Contribution of wildlife to national development objectives**

<b>Priority</b>	<b>Raise living standards of households</b>	<b>Enhance the quality and availability of gainful employment</b>	<b>Develop and optimally use national resource base and ensure environmental and economic sustainability.</b>
Maintaining the integrity of wildlife protected areas.	Rural communities access various resources within protected areas, which supplements resources produced on their lands.	Over 1,300 staff employed by UWA, most of whom are in protected areas. A further 70,000 people depend on employment in hotels and lodges, tour companies and other private concessions that all depend on wildlife.	This contributes to ensuring the sustainability of the resources base, which is used for local and national development.
Contributing to local and national development through the development of wildlife-based enterprises.	Sport hunting provides income to landowners. Community-based tourism leads to direct earning by the relevant community households involved and revenue sharing contributes to rural development.	Sport hunting and wildlife ranching, trading and farming provide means of livelihood for people both at the national and local levels.	Wildlife use rights provide a means for optimally and sustainably use the wildlife resource base for economic development.
Supporting economic development through tourism	Increased tourism increases income of households around protected areas that are involved in the selling of handicrafts to tourists or	Improved tourism implies more people involved in the sub-sector. Over the years, the number of tourists and tour operators has grown, as well as the	Tourism is based on the non-consumptive use of the wildlife resource base.

<b>Priority</b>	<b>Raise living standards of households</b>	<b>Enhance the quality and availability of gainful employment</b>	<b>Develop and optimally use national resource base and ensure environmental and economic sustainability.</b>
development.	that provide other goods and services Revenue to be shared with communities increases with increased tourism, resulting in more community development initiatives.	number of small enterprises dependent on the protected areas, especially restaurants, campsites and curio shops run by communities, which benefit from the improved tourism	

*Source:* compiled from various sources by the author

### 5.3. Estimated Investment Costs

According to Hansen (2007), investing in wildlife is a real option for generating revenue and jobs for sustainable area management. Several alternative wildlife management schemes have proven beneficial, including wildlife ranching that provides sustainable game and trophy hunting and similar programmes. It is hoped that Uganda's strategies for development of the wildlife sub-sector will lead to increased awareness and interest in wildlife conservation.

There is need for substantial investments in this sub-sector in order to implement the strategies identified under each of the priority areas. The total investment cost is estimated at U Sh24, bn. The detailed annualized investment estimates are given in Annex 6.

Inter-organizational coordination, smooth flow and sharing of information, team work and coherence will be vital elements for achieving set targets in order to successfully implement the priority strategies set out in this plan. This sub-sector will therefore ensure that these important prerequisites for good governance and success will be strengthened and promoted.

Implementation of the identified priority interventions will be coordinated through UWA, which is responsible for wildlife conservation and management of wildlife protected areas. The above responsibility calls for improved coordination of all stakeholders at national, district and governmental levels. It also calls for increased collaboration with local communities, the private sector, CSOs and development partners.

### 5.4. Major assumptions

In order to successfully implement the above-mentioned priorities, the following assumptions apply:

- All parts of the country remain peaceful.
- The private sector and the local communities appreciate wildlife conservation benefits.
- Government efforts to eradicate poverty among local communities succeed.
- The human population explosion is controlled.
- Sufficient financial resources are allocated to the wildlife sub-sector.
- Land use planning efforts by the Government is appropriate and in harmony with wildlife conservation.
- Global support to wildlife conservation is enhanced.

- Political support for wildlife conservation in the country is maintained.

#### 5.5. Risks and strategies to overcome them

The following are the envisaged risks for the sub-sector and strategies to overcome them:

**Risk:** Inadequate security in protected areas

- **Strategies to overcome it:**

- *increased collaboration with security agencies*
- *appropriate training for the UWA Ranger Force*

**Risk:** Increased pressure on wildlife outside of protected areas

- **Strategies to overcome it:**

- *encouraged formation of membership-driven, wildlife sub-sector umbrella organizations*

**Risk:** Inadequate finances

- **Strategies to overcome it:**

- *collaborative management*
- *resource mobilization*

**Risk:** Local pressures for alternative use of the land

- **Strategies to overcome it:**

- *land use planning that takes a landscape/ecosystems approach*

**Risk:** Weak private sector organizations with poorly defined objectives for wildlife management

- **Strategies to overcome it:**

- *capacity building of the private sector for competitive and professional wildlife service delivery.*

## 6 Monitoring and Evaluation

The contribution of the wildlife sub-sector to the NDP will be measured throughout the implementation of the NDP. Each of the key objective areas will be monitored according to identified measurable indicators as shown in **Table 10**.

**Table 1: The Monitoring Framework**

Objective	Indicator	Means of Verification	Responsibility	Frequency of Monitoring
Conserve, preserve and ensure sustainable development of Uganda's unique natural heritage.	<ul style="list-style-type: none"> <li>•National Wildlife Conservation Plan developed in the first year of the National Development Plan (NDP).</li> <li>•Domestication of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and Lusaka Agreement within two years of the NDP.</li> </ul>	<p>Conservation Plan document.</p> <p>Appropriate statutory instruments.</p>	Ministry of Tourism, Trade and Industry.	Once.
Maintain the integrity of wildlife protected areas.	<ul style="list-style-type: none"> <li>•At least 80 percent of wildlife protected areas with either stable or up to 10 percent increase in populations of key wildlife species by the end of the plan period</li> <li>•All protected areas with no encroachment by the end of the Plan period.</li> </ul>	<p>Wildlife survey reports.</p> <p>Aerial photos and satellite imagery.</p>	Uganda Wildlife Authority (UWA)	<p>Biennial.</p> <p>Annual.</p>
Develop wildlife-related enterprises that will contribute to local and national development.	<ul style="list-style-type: none"> <li>•At least 50 percent of the local governments in Kafu Basin and Karamoja region integrating management of wildlife outside protected areas into their development programmes by the fifth year of the plan.</li> <li>•Ten wildlife-based enterprises developed outside protected areas by the fifth year of the plan.</li> <li>•At least 80 percent of planned business investments in protected areas implemented as per general management plans by the end of the plan period.</li> </ul>	<p>District Development Plans.</p> <p>Actual visitation to enterprise location.</p> <p>Annual reports and actual visitation of investment location.</p>	<p>UWA/ local govt.</p> <p>UWA / private sector/ local govt.</p> <p>UWA / private sector.</p>	<p>Once in three years.</p> <p>Once in two years.</p> <p>Annual.</p>



Objective	Indicator	Means of Verification	Responsibility	Frequency of Monitoring
Support economic development through tourism development.	<ul style="list-style-type: none"> <li>• Increase of number of tourists to protected areas by at least 10 percent per year by the end of the Plan period.</li> <li>• At least five relevant private sector entities with marketing contracts for UWA over the Plan period.</li> <li>• At least one new tourism product developed in each conservation area per year and marketed throughout the plan period.</li> <li>• A profile of potential tourism investment opportunities around protected areas produced and publicized within two years.</li> </ul>	<p>Visitor statistics / protected area Reports.</p> <p>Contract documents.</p> <p>Reports and site visits.</p> <p>Profile document and publicity reports.</p>	<p>UWA/ Uganda Tourism Board.</p> <p>UWA</p> <p>UWA / private sector.</p> <p>UWA/ UIA.</p>	<p>Annual.</p> <p>Annual.</p> <p>Annual.</p> <p>Once per two years.</p>

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## ANNEXES

**Annex 1: Assessment of the Sub-sector's Previous Performance**

<b>Sub-sector objective</b>	<b>Set target or outcome indicator</b>	<b>Current level of achievement</b>	<b>Reasons for success/ constraints faced</b>	<b>Level of achievement accounted for directly by Sub-sectors' inputs</b>	<b>Categorisation of constraints / challenges i.e. macro, meso, micro</b>
Conserve, preserve and ensure sustainable development of Uganda's unique natural heritage.	National Wildlife Conservation Plan	Programme of action drawn up informally.	Lack of capacity to handle wildlife issues at MTTI.	Low achievement due to insufficient capacity to operationalize planned activities.	Macro.
	Statutory instruments on domestication of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Lusaka Agreement.	Draft regulations for hunting and wildlife trade use rights in place but in draft form for almost five years.			
Establish and maintain efficient and effective management to uplift the conservation integrity of protected areas and wildlife in the country.	Poaching of key species in patrol area reduced from the initial baseline (year 2000).	No data were available on trends on poaching in the protected areas or outside. However, a recent study carried out around LMNP indicated an increased level of poaching. This may or may not be indicative of the situation countrywide.	Lack of alternative sources for protein and for income. Wildlife not much appreciated by local communities.		Micro.
	Population of key mammal species in QE, MF and KV National Parks increased by 5 percent within five years.	Surveys in these protected areas indicated an increase in some species while others remained stable, e.g. elephants were thought to be increasing in QECA and stable in MFCA and KVNP; buffalo were increasing across the country.	Better management efforts within the protected areas. Increased donor support over the last five years – management capacity improved.	Medium, but with potential to improve. There has been donor support and increased collaboration with stakeholders.	Macro.

Sub-sector objective	Set target or outcome indicator	Current level of achievement	Reasons for success/ constraints faced	Level of achievement accounted for directly by Sub-sectors' inputs	Categorisation of constraints / challenges i.e. macro, meso, micro
Strengthen capacity and establish management systems and operating procedures that will enable UWA to operate in an efficient and business-like manner.	Number of staff trained in accordance with training needs assessment Number of management systems and operating procedures established.	Training needs assessment for research, monitoring and staff training in basic GIS, selected computer packages and MIST for Protected Areas. Exchange visits and study tours undertaken to share experiences. Policies developed, e.g. strategic partnerships, community conservation and animal rescue. The wildlife sub-sector EIA <i>Guidelines</i> finalized and submitted to NEMA for approval. National Schedule for Protected species drafted.	Insufficient funding for training. Staff retention capacity. Need for review of wildlife legislation.	Total.	Meso.
Strengthen the management capacity of UWA to become a wildlife service-oriented organization that will contribute to the Government's mission of poverty eradication in rural areas	Two functional and successful wildlife-based industries functioning properly Reduction of 5 percent in reported incidents of problem animal-related conflicts and complaints.	Sport hunting project initiated around LMNP as a pilot project. Wildlife trade use rights granted to several companies. Zziwa Rhino ranch operational.	New initiatives from UWA – learning by doing. Initial poor reception overcome and supported to a greater extent both at local and national levels. Good potential to improve as programmes advance.	A collaborative arrangement for UWA, local government, communities and the private sector as partners in development.	Meso, micro.

**Annex 2: Ongoing and Planned Programmes and Projects**

Programme / Project	Implementing Agency	Total Cost	NDP Objective(s) Met by the Programme / Projects*						Location	Donor	Status
			1	2	3	4	5	6			
Cultural values in Lake Mburo (LMNP) and Rwenzori Mts. (RMNP) National Parks.	UWA and Fauna and Flora International (FFI).		✓						Kiruhura and Kasese.		Initiation stage.
World Wildlife Fund for Nature (WWF) in RMNP.	UWA and WWF.		✓						Kasese.		Ongoing.
Mount Elgon Regional Ecosystem Conservation Programme (MERECEP).	UWA and World Conservation Union (IUCN).					✓	✓		Mbale, Kapchorwa.		Ongoing
Uganda Wildlife Authority (UWA) Forests Absorbing Carbon Dioxide Emissions (FACE) Project.	UWA and FACE.		✓	✓				✓	Mbale, Kapchorwa, Kibale.		Ongoing.
Transboundary wildlife management (the Democratic Republic of Congo, Sudan).	Wildlife Conservation Society (WCS)			✓				✓	Kidepo, Otze.		Ongoing.

\*

1 - *'uplift the standards of living'*

2 - *'enhance the quality and availability of gainful employment'*

3 - *'improve social, economic and trade infrastructure'*

4 - *'develop efficient, innovative and international competitive industries'*

5 - *'develop and optimally exploit the natural resource base and ensure environmental and economic sustainability'*

6 - *'strengthen good governance and improve human security'*

**Annex 3: Proposed Roles for Key Stakeholders**

#	Stakeholder	Role
1.	Central Government; Ministry of Tourism, Trade and Industry (MTTI).	Develop policy to guide wildlife conservation; ensure initiation, review and dissemination of laws related to wildlife; establish mechanisms for coordination of institutions that promote wildlife conservation; build capacity of practitioners, service providers and institutions that promote wildlife conservation; mobilize resources for wildlife management.
2.	Uganda Wildlife Authority (UWA).	Manage wildlife in and outside protected areas; coordinate and collaborate with partners; mobilize resources; seek affiliations with other organizations connected with wildlife for the improvement of wildlife conservation in Uganda.
3.	Fisheries Department; Petroleum Exploration and Production Department; Ministries of Energy and Mineral Development, and Lands and Housing.	Carry out joint/coordinated planning, monitoring and mobilization.
4.	The National Forestry Authority; Uganda Wildlife Education Centre; the Chimpanzee Sanctuary; Lusaka Agreement Task Force	Implement monitoring activity in protected areas, mobilize communities, and conduct joint/coordinated planning and management of wildlife outside protected areas.
5.	Ministry of Agriculture Animal Industry and Fisheries – Livestock; Makerere University-Wildlife and Animal Resources Management Department.	Carry out disease surveillance and diagnosis, interventions and control of animal movements.
6.	Ministry of Foreign Affairs; MTTI; the East African Community.	Formalize transboundary arrangements; facilitate foreign and regional cooperation.
7.	Uganda Tourism Board; Association of Tour Operators; Private Sector Foundation; Exports Promotion Board; embassies.	Carry out joint marketing, market research, implementation of marketing plans and devising marketing mechanisms.
8.	Uganda Investment Authority; Ministry of Works and Telecommunications.	Attract investors, establish infrastructure, rehabilitate and maintain roads and set standards
9.	Local governments.	Implement monitoring activity in protected areas; mobilize communities for wildlife conservation; carry out joint/coordinated planning for wildlife conservation; manage vermin and problem animals; establish appropriate local entities for implementation and management of wildlife outside protected areas; mobilize resources to support wildlife



#	Stakeholder	Role
		management.
10.	Civil society and the private sector.	Carry out wildlife management, market research and marketing; develop wildlife enterprises; publicize, encourage and promote wildlife conservation efforts; mobilize resources for wildlife conservation; invest in wildlife management ventures; collaborate with the Government, other institutions and individuals in ensuring efficient and effective wildlife management
11.	Development partners.	Mobilize financial resources for implementation of the wildlife sub-sector strategic plans; collaborate with the government, other institutions and individuals in ensuring implementation of wildlife conservation programmes
12.	Hoteliers Association, the media, Uganda Tourism Association.	Provide tourism services, disseminate information, and promote marketing.
13.	Training Institutions, research institutions.	Build capacities for wildlife conservation and tourism services, and conduct management-oriented research.

**Annex 4: Framework for Identifying the Linkages between Wildlife and Development**

<b>Parameter</b>	<b>Quantifiable Evidence</b>	<b>Factors promoting the attainment of the parameter</b>	<b>Factors hindering the attainment of the parameter</b>	<b>Emerging opportunities to further improve the parameter</b>	<b>Challenges that must be addressed in next five years</b>
<b>Growth (GDP percent)</b>	2.83 percent – tourism revenue. (Assuming the wildlife sector is the major destination for tourists)	Favourable natural setting and enabling policy environment.	Insecurity and insufficient resources for re-investment in the sector.	Promotion of Uganda as a tourist destination and an international conference venue.	Restoration of peace; increase in budgetary support.
<b>Employment (No.)</b>	80,000 employed: only 1,300 directly employed by the Uganda Wildlife Authority (UWA); the rest estimated as employed within the sector, e.g. tour operations, hotels, restaurants and crafts shops.	Diversification of tourism products, operationalization of use rights, stability within the country.	Policy – lack of employment policies.	Regional integration, private sector interest in wildlife management.	Improvement of tourism infrastructure.
<b>Other livelihoods (State)</b>	US\$638,000 from sport hunting (average annual 91,000). US\$3 million per year from wildlife trade. Apiculture – US\$17 million per annum. Illegal meat.	Effective wildlife conservation outside of protected areas. Involvement of local communities and the private sector.	Competing land use.	Expansion of sport hunting use rights to other areas that have wildlife outside protected areas.	Health issues related to consumption of wild meat.
<b>Potential to capitalize on emerging new markets</b>	East African Community. Chinese tourists. United States market.	Marketing and product development. CNN and the film “Last King of Scotland” have promoted Uganda in the United States.	Inability to market and handle visitors due to a lack of language skills.	China emerging as an economic power.	Development of an effective marketing strategy.
<b>Contribution to</b>	US\$325.6 million from wildlife-	Increased regionalization and	Insecurity and	Promoting Uganda as	Regional

<b>Parameter</b>	<b>Quantifiable Evidence</b>	<b>Factors promoting the attainment of the parameter</b>	<b>Factors hindering the attainment of the parameter</b>	<b>Emerging opportunities to further improve the parameter</b>	<b>Challenges that must be addressed in next five years</b>
<b>foreign exchange (US\$)</b>	based tourism and use rights.	promotion of economic blocks.	insufficient resources for re-investment in the sector.	a tourist destination and an international conference venue.	cooperation; restoration of regional peace and stability, physical infrastructure.
<b>Other backward / forward linkages</b>	Tourism development. Wildlife trade.	Collaboration, public private partnerships; government support for direct foreign investment.	Lack of enabling institutional and policy framework.	Private sector reforms, privatization and public private partnerships envisaged.	Physical infrastructure, enabling policy framework.
<b>Economic empowerment of the vulnerable groups – local communities living adjacent to the protected areas</b>	Revenue sharing – US\$250,000 p.a.	Continued tourism: Uganda as a tourist destination since amounts shared with the community depend on gate entrance fees. [		New tourist markets identified: if effectively tapped, would lead to increased tourism, thus increased earnings.	Capacity to effectively market Uganda as a competitive tourist destination compared to Kenya, the United Republic of Tanzania and Rwanda.
<b>Support to the growth of SMEs/ private sector development</b>	No data but potential for increased private sector involvement in offering tourism facilities and services, e.g. eco-lodges and tour guiding Small and medium-sized	Micro-financing for the SMEs; government support to the tourism industry.		Opportunity to invest in wildlife use rights, i.e. ranching and farming. The opportunity to combine ranching with	Creating a conducive environment that attracts private sector investment in

<b>Parameter</b>	<b>Quantifiable Evidence</b>	<b>Factors promoting the attainment of the parameter</b>	<b>Factors hindering the attainment of the parameter</b>	<b>Emerging opportunities to further improve the parameter</b>	<b>Challenges that must be addressed in next five years</b>
	enterprises (SMEs) – Handcraft, curios, entertainment (Music Dance and Drama groups).			hunting as is done in southern Africa.	this area.
<b>Contribution to regional cooperation and peace</b>	No quantifiable evidence but cooperation among the wildlife protected areas agencies across borders contributes to regional cooperation and peace efforts.	Transboundary efforts in wildlife management. Lake Victoria Basin Commission. Nile Basin Initiative – the Nile Transboundary Environmental Action Project (NTEAP).	All these are still new initiatives that have not yet attained full capacity to take advantage of the cross border nature of wildlife as a resource that can bring cooperation and peace	Peace in northern Uganda. Collaboration with southern Sudan in management of wildlife resources in Kidepo, Otze-Dufile, etc.	Insufficient trust/willingness among the collaborating countries.
<b>The degree of self-financing</b>	Very high.	Autonomy given to UWA to manage its operations, including varying the charges for its services.	Policy and institutional framework and decision making machinery that delays most innovative proposals.	Promotion of Uganda as a tourist destination and international conference venue,	Poor infrastructure, policy to curb corruption; low but steadily increasing numbers and diversity of wildlife.

**Annex 5: Revenue-Sharing Collections and Payments**

<b>Protected Area</b>	<b>Cumulative Collections*</b>	<b>Cumulative Payments*</b>
Bwindi Impenetrable	341,426,543	202,973,700
Katonga Wildlife Reserve	3,188,386	0
Kibale National Park	149,651,374	28,109,132
Kidepo Valley	20,207,926	8,868,000
Lake Mburo Conservation Area (LMCA)	194,659,916	128,110,815
Mghahinga Gorilla National Park	70,894,368	45,514,400
Mt. Elgon	79,721,749	43,496,810
Murchison Falls	1,086,201,163	511,387,796
Pian Upe Wildlife Reserve	16,410	0
Queen Elizabeth	880,022,900	399,441,320
Rwenzori Mountains	76,015,854	15,471,500
Semliki National Park	21,426,413	9,200,000
Semliki Wildlife Reserve	15,242,271	6,239,500
<b>TOTAL</b>	<b>2,938,675,273</b>	<b>1,398,812,973</b>

*\* As at June 2007*

*Source: UWA 2007*

**Annex 6: Proposed Wildlife Sub-sector Priorities and Strategies and Indicative Budget**

Sub-sector Development Objective	Sub-sector Outcome	Sub-sector Strategies	NDP Objective met by Sub-sector Priorities						Responsible Agency	Measurable Output / Target	Annualized Costs (U Sh'000,000)					Total
			1	2	3	4	5	6			Yr1	Yr2	Yr3	Yr4	Yr5	
Conserve, preserve and ensure sustainable development of Uganda's unique natural heritage.	<ul style="list-style-type: none"> <li>Wildlife numbers inside of protected areas increased.</li> <li>Protected area boundaries intact.</li> </ul>	<ul style="list-style-type: none"> <li>Develop the National Wildlife Conservation Plan in collaboration with various partners.</li> <li>Ensure relevant international agreements are nationalized.</li> </ul>	✓	✓		✓	✓	✓		<ul style="list-style-type: none"> <li>National Wildlife Conservation Plan developed in the first year of the NDP.</li> <li>Domestication of CITES and Lusaka Agreement within two years of the NDP.</li> </ul>	60	55	40	35	35	225
Ensure an efficient and effective management to maintain the integrity of wildlife protected areas.	<ul style="list-style-type: none"> <li>Numbers of wildlife inside of protected areas increased.</li> <li>Protected area boundaries intact.</li> </ul>	<ul style="list-style-type: none"> <li>Enhance animal disease surveillance and monitoring.</li> <li>Develop and maintain park infrastructure and equipment.</li> <li>Ensure that policies and procedures are developed and logically interpreted.</li> <li>Strengthen collection and analysis of management-oriented information.</li> <li>Make UWA a self-sustaining organization.</li> </ul>	✓	✓			✓		UWA and MTTI	<ul style="list-style-type: none"> <li>At least 80 percent of wildlife protected areas with either stable or at least 10 percent increase in populations of key wildlife species by the end of the plan period.</li> <li>No</li> </ul>	1,542	1,959.5	1,912.5	1,419	832	7,665

										encroachment of all protected areas by the end of the plan period. <ul style="list-style-type: none"> <li>•UWA funding at least 80 percent of its optimal operational budget from the current 55 percent by the end of the plan period.</li> </ul>						
Support development of wildlife-related enterprises that will contribute to local and national development	<ul style="list-style-type: none"> <li>•Business investment supporting wildlife conservation and protected area management</li> <li>•Wildlife numbers outside of protected areas in target locations protected and conserved</li> </ul>	<ul style="list-style-type: none"> <li>•Build the capacity of landowners to manage and benefit from wildlife.</li> <li>•Develop private sector-driven wildlife-based enterprises.</li> </ul>	✓	✓	✓	✓	✓		UWA The private sector Local governments	<ul style="list-style-type: none"> <li>•At least 50 percent of the local governments in Kafu Basin, Central Uganda and Karamoja region integrating management of wildlife outside protected areas into their development programmes by the fifth</li> </ul>	3944	3635	3033.6	2423.6	2,081.6	15,117.8

	<ul style="list-style-type: none"> <li>• Private sector-driven wildlife-based enterprises developed</li> </ul>									<p>year of plan.</p> <ul style="list-style-type: none"> <li>• Ten wildlife-based enterprises developed outside protected areas by the fifth year of the plan.</li> <li>• At least 80 percent of planned business investments in protected areas implemented as per General Management Plans by the end of the plan period.</li> </ul>						
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Sub-sector Development Objective	Sub-sector Outcome	Sub-sector Strategies	NDP Objective met by Sub-sector Priorities						Responsible Agency	Measurable Output / Target	Annualized Costs (U Sh'000,000)					Total
				✓				✓								
Contribute to economic development through wildlife-based tourism.	Increase visitor numbers to protected areas and keep them longer	<ul style="list-style-type: none"> <li>• Improve tourism infrastructure, facilities and services.</li> <li>• Diversify products and optimisation of revenue earnings.</li> <li>• Promote and market tourism in all the wildlife protected areas.</li> <li>• Provide adequate tourism information.</li> </ul>		✓					UWA and MTTI	<ul style="list-style-type: none"> <li>• Increase of tourist numbers to protected areas by an annual rate of at least 10 percent by the end of plan period.</li> <li>• At least 5 relevant private sector entities with marketing contracts for UWA over the plan period.</li> <li>• At least one new tourism product developed in each conservation area per year and marketed throughout the plan period.</li> <li>• A profile of potential tourism investment opportunities around protected areas produced and publicized within two years.</li> </ul>	302.2	252.2	202.2	152.2	102.2	1,011
															<b>24,018.8</b>	

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