

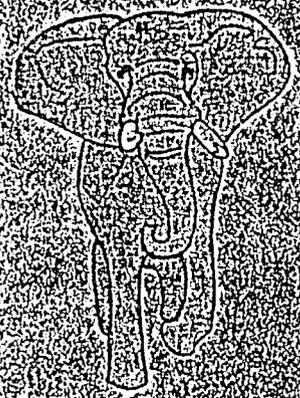
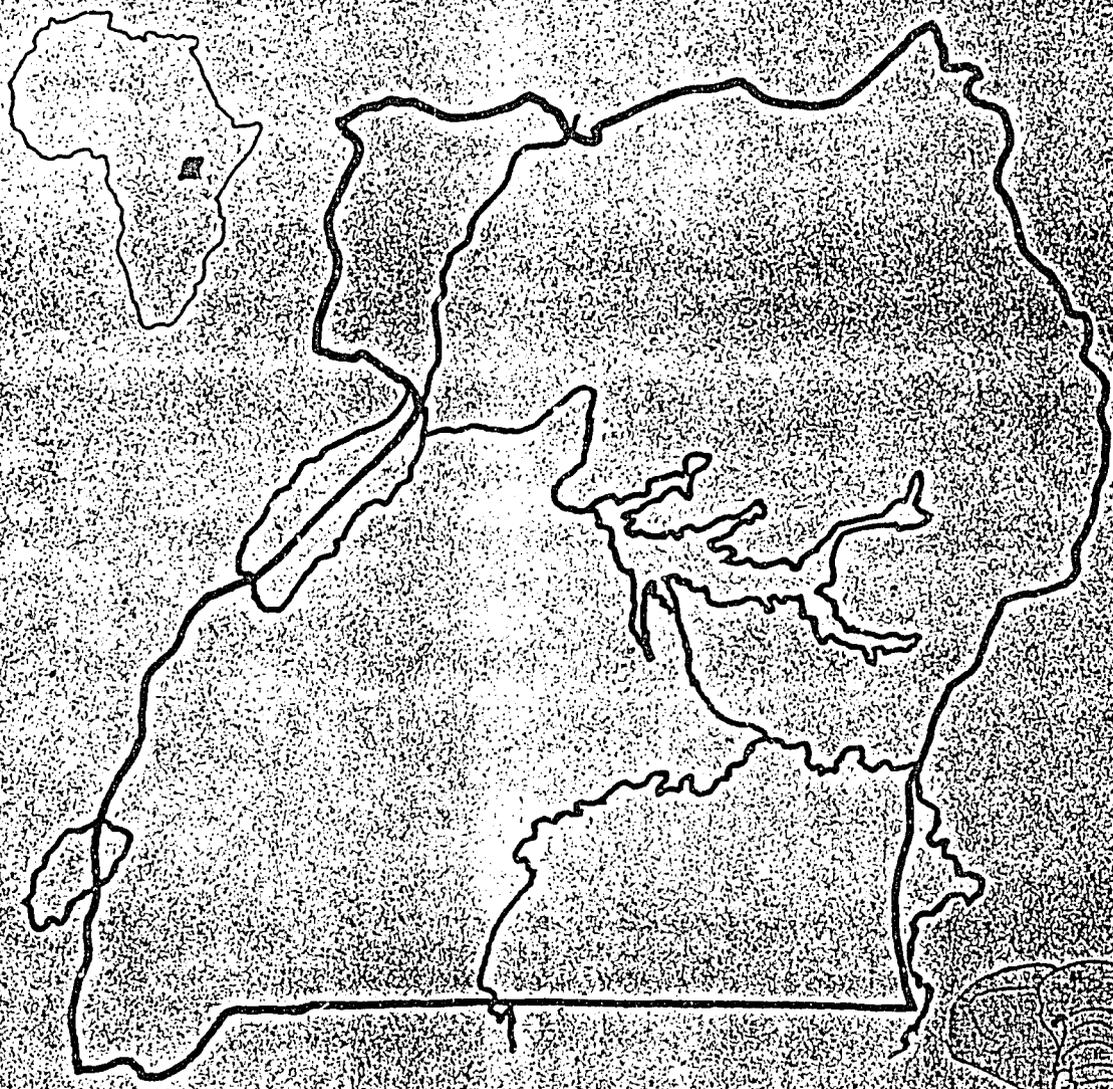
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ELEPHANT CONSERVATION

PLAN

UGANDA



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October 1991

Uganda National Parks
Plot 107, 6th Street,
Industrial Area, PO Box 3530
Kampala

ELEPHANT CONSERVATION

PLAN

for

UGANDA

October 1991

Uganda National Parks,
Plot 107 6th Street,
Industrial Area, PO Box 3530,
Kampala



UGANDA NATIONAL PARKS

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18th October, 1991

Dr. S. Cobb,
African Elephant Conservation
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Dear Sir,

Elephant Conservation Plan for Uganda

Thank you for your telefax of 16th October 1991 addressed to the Director, Uganda National Parks.

Dr. Edroma has asked me to pass on his endorsement for the entire Elephant Conservation Plan for Uganda, together with his thanks for your efforts in helping put it together. We now have great hopes for assistance in its implementation.

Yours faithfully,
UGANDA NATIONAL PARKS

Dr. R. S. D. Olivier
ELEPHANT MANAGEMENT ADVISER

RCDO/jmks

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BACKGROUND TO THE PRODUCTION OF ELEPHANT CONSERVATION PLANS

The 1980's were a devastating time for the African elephant over most of the continent. One principal problem was that wildlife management, particularly through government agencies, was woefully underfunded.

The AECCG was created in partial response to this problem: to provide a means for improving the flow of funds into elephant conservation. The AECCG produced, in 1989, an African Elephant Action Plan, which established a broad view of continental priorities. The original Plan was reviewed informally by African States meeting in Gaborone, Botswana in July 1989, and at Lausanne, Switzerland in October 1989, and it became clear that their priority was to translate the continental generalities of the Action Plan into specific plans for each of their countries.

Because of this, the AECCG and its members have assisted nearly 30 African nations to create elephant conservation plans, with an emphasis on projects that can attract foreign assistance. These projects are intended to complement each country's existing programme of conservation activities. In this regard, it should be noted that the principal supporters of elephant conservation in Africa, are the African governments themselves.

The Elephant Conservation Plans are not exclusively concerned with benefits to elephants, but aim also to promote wider conservation goals in areas where elephants are but one of the species in need of active support.

The plans follow a common format, so that the structure of this plan is generally similar to that of other countries. The plans are being produced so that they may be circulated to potential donor organisations in advance of the meeting being hosted at UNEP headquarters, Nairobi, between 19th - 22nd November 1991, at which elephant range states will present their needs to the donor community.

In addition to producing country plans, the AECCG has established a computerised database of elephant-related projects. Information on projects throughout Africa is compiled from all possible sources. Using the database, the AECCG periodically produces a summary of project information. Its principal purpose is to help define the needs of elephant conservation that can be met by donor assistance. Donor agencies wanting to fund elephant conservation projects can use the database in conjunction with Elephant Conservation Plans to determine for any one country, region or type of conservation activity, what projects are being planned or carried out, and which projects are currently in need of funding. The fourth edition of the database summary will be distributed to international donors and government wildlife departments towards the end of October 1991, prior to the Range States' and Donors' Meeting.

The needs of each country and each region have in turn been summarised and analysed in a document called "The Elephant Conservation Review", which replaces its predecessor the African Elephant Action Plan. The analyses in this document are based upon project information appearing in the database as well as other elephant conservation information found in the Elephant Conservation Plans. This document will act as an overall aid to determining where needs are greatest for each type of activity. It too will be distributed just prior to the Range States' and Donors' Meeting.

For any further information about the plan, the projects within it, or the process of which it is a part, please contact either:

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This plan was produced with assistance from the African Elephant Conservation Coordinating Group (AECCG) with financial support from the US Agency for International Development (USAID), the European Commission (EC), the World Wildlife Fund (WWF), and the US Fish & Wildlife Service (USF&WS).

While this plan was produced with the assistance of the AECCG, the views expressed in the plan reflect the conservation beliefs of the government and technical staff within Uganda, and are not necessarily the views of individual AECCG members.

AECCG members include: the African Wildlife Foundation (AWF), the EC (DG XI), the World Conservation Union (IUCN), TRAFFIC International, USF&WS, Wildlife Conservation International (WCI), the World Wide Fund for Nature (WWF) and the World Conservation Monitoring Centre (WCMC). The CITES Secretariat is an observer.

The principal author of the plan, Dr Keith Eltringham, wrote it as part of a mission to Uganda in April 1991, supported by the EC National Parks Project. He wishes to thank Dr Eric Edroma, Director of Uganda National Parks, and Dr Robert Olivier, EC Conservation Adviser, for their collaboration during this work.

The production process of the plan was coordinated by Stephen Cobb with the assistance of the AECCG editorial team: Ilyssa Manspeizer, Helen de Jode, Megan Parry, Sarah Lyne, Georgina Dasilva and Clare Shorter.

ELEPHANT CONSERVATION PLAN FOR UGANDA

SUMMARY

The elephants

Both the forest and savanna sub-species of elephant occur in Uganda, although their former, almost countrywide, range is now severely restricted. Uganda had an elephant population of approximately 60,000 about thirty years ago, but by the end of the 1980s only a few thousand remained. Since 1974 poaching for ivory has caused a drastic reduction in elephant numbers, resulting from a breakdown of law and order, availability of firearms, corruption, and poverty. Aerial surveys carried out in 1991 for this plan gave a population estimate of between 1,200 – 1900 elephants in Uganda, mainly in three national parks and one forest reserve. Evidence of atypical elephant behaviour and a possible population recovery were also observed. There is no apparent illegal ivory trade in Uganda at present.

The problems and policies

The government is trying to restore its tourist industry and protected areas, after almost two decades of revolution and political instability. The country's capacity to manage its wildlife resources effectively will increase as its infrastructure is rebuilt. Programmes to conserve elephants in Uganda will also benefit a wide variety of plants and animals in a range of habitat types. The National Rehabilitation and Development Plan includes provision for integration of wildlife management with rural development, and environmental education. Wildlife legislation is being revised and national conservation policy is to be reviewed.

The projects

The Elephant Conservation Plan makes three recommendations for elephant management: enforcement of protection by improving anti-poaching activities in the three national parks; conservation of elephant habitat, particularly forests where they are found; and monitoring of surviving populations. Five projects which require funding are presented:

Main Activity	Number of Projects	Funding Status	
		Funds Raised (US\$)	Funds Needed (US\$)
Institutional support	1	43,000	163,000
Research/Monitoring	2		30,000;
			93,000
Security	1		187,000
Park Management	1		410,000
		TOTAL	US\$ 883,000

At present, government financial resources for wildlife conservation are very limited in Uganda; support from the EEC and UNDP/FAO programmes may shortly be reinforced by programmes from these other donors.

This plan is available in English only.

Elephant Conservation Plan
for
Uganda

PART A:
INTRODUCTION
&
BACKGROUND

October, 1991

Uganda National Parks,
Plot 107 6th Street,
Industrial Area, PO Box 3530,
Kampala

1 BACKGROUND

Uganda's position in the centre of East Africa, provides a wide diversity of geological features, vegetation and wildlife. Species and sub-species more typical of the Central and Western Regions (such as gorillas and forest elephants) and those commonly associated with the Eastern Region are often found in Uganda, which is also a centre of North-South and East-West migration routes for many animals.

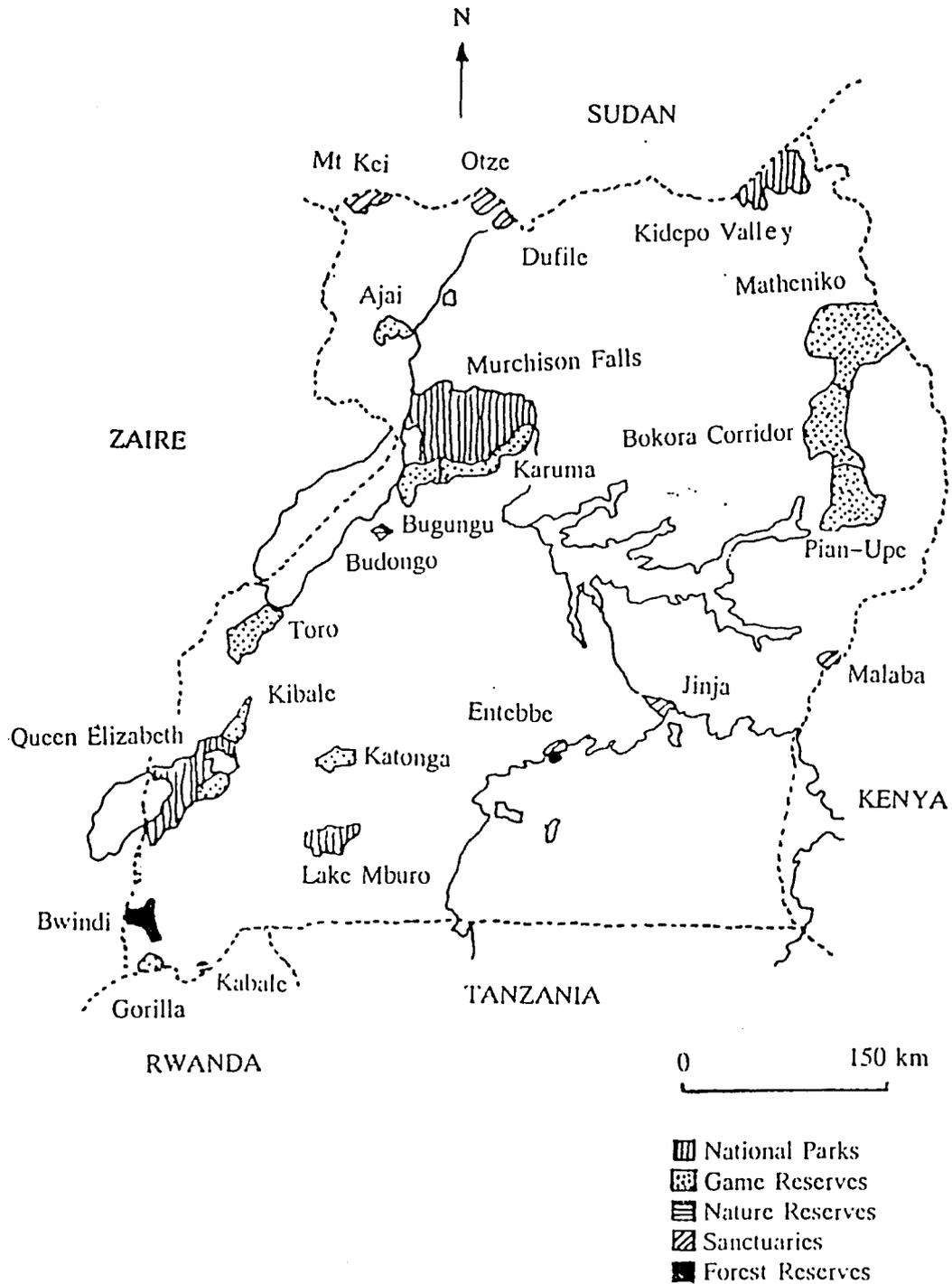
In the past Uganda had a thriving tourist industry based around its spectacular national parks and game reserves, but a series of bloody revolutions and political instability for almost two decades has taken its toll of Uganda's wildlife and tourist industry. With little law and order, widespread corruption, poverty and ownership of firearms, poaching and encroachment into protected areas was rampant.

Although the effects of this period are still being felt, since 1986, when President Museveni came to power, the situation in Uganda has improved tremendously, and real efforts are being made to restore the protected areas and the tourist industry which depends upon them. As Uganda rebuilds its infrastructure, so the country's capacity to manage its wildlife resources effectively will grow. Protection and management of elephants obviously has an important role in this process: schemes directed at elephants will benefit many other forms of wildlife. Since Uganda has populations of both the savanna (*Loxodonta africana africana*) and forest (*L.a.cyclotis*) sub-species, a wide diversity of plant and animal species from both habitat types will also be conserved.

Uganda once had a large elephant population. Although no accurate counts were made estimates of the number present in the country as whole in the early 1960s were in the region of 60,000. There was also evidence that numbers were rising and the culling of elephants in some areas had been proposed (Laws, Parker & Johnstone, 1970). However, the situation changed radically between 1973 and 1974, when a drastic reduction in numbers was recorded in two of the national parks. Subsequent aerial surveys in 1975 and 1976 confirmed the decline was real and continuing (Eltringham & Malpas, 1980). Attempts to combat poaching were frustrated by the general breakdown in law and order following the abortive invasion of Uganda in 1972 and by the fact that much of the poaching was carried out by the army. By the end of the 1980s, it was doubtful whether more than a few thousand elephants remained, although only limited counts had been carried out since 1980.

More recent counts in the three National Parks in which elephants are still found suggest that populations may be beginning to recover, although this is likely to be a slow process, and there is some evidence of a breakdown in the normal social behaviour of elephants. This Conservation Plan considers the conservation status of elephants in Uganda based on these recent counts, and makes recommendations for the future management of the species. Emphasis is placed on three main areas of management: the enforcement of the legal protection of the species by enhancing anti-poaching activities within protected areas; conservation of elephant habitats, particularly the forests; and continued monitoring of surviving populations.

Figure 1 Protected Areas in Uganda



2 THE PROTECTED AREAS SYSTEM IN UGANDA

2.1 Protected Areas

Six types of protected areas are recognized in Uganda: National Parks, Nature Reserves, Game Reserves, Sanctuaries, Forest Reserves and Controlled Hunting Areas (Table 1). Altogether, these areas cover more than 50,000 sq. km – approximately 25% of the area of Uganda. Non-hunting reserves comprise about 2,000 sq. km – just less than 10% of the country's area (Figure 1) (IUCN 1986). These reserves include mountains, plains and lake environments, forests and savanna, and hence have considerable potential for effective conservation of wildlife resources in Uganda.

2.2 Parks and Reserves Legislation

The National Parks Act of 3 April 1952 provides for the establishment of National Parks for the purpose of preserving wild animals and vegetation. National Parks may be created or abolished only through an act of parliament, but all other conservation areas may be gazetted (or degazetted) by the Minister responsible for wildlife. Controlled Hunting Areas, Game Reserves and Sanctuaries are governed by the Game Preservation and Control Act. The Forest Act (1962) provides for the gazettelement of Forest and Nature Reserves.

Settlement and other forms of land use are forbidden in National Parks and Game Reserves, but settlement and grazing of domestic stock are permitted in game sanctuaries and controlled hunting areas.

2.3 Parks and Reserves Administration

National Parks are under the control of a board of trustees (comprising nine to twelve officers), which runs a parastatal body, Uganda National Parks.

Responsibility for conservation and control of wildlife elsewhere in the country falls to the Game Department, under the Chief Game Warden. Both the Game Department and the Uganda National Parks are part of the Ministry of Wildlife and Tourism.

Conservation and reafforestation of indigenous forests, Forest and Nature Reserves are the responsibility of the Forest Department, within the Ministry of Agriculture and Forestry.

Table 1 Protected Areas in Uganda

	Area (Hectares)
<i>National Parks</i>	
Kidepo Valley	134,000
Lake Mbuo	53,600
Murchison Falls	384,000
Queen Elizabeth	197,800
	Subtotal: 769,800
<i>Nature Reserves</i>	
Budongo	1,041
<i>Game Reserves</i>	
Ajai	15,800
Bokora Corridor	205,600
Bugungu	52,000
Gorilla	2,900
Karuma	82,000
Katonga	20,800
Kibale Forest Corridor	56,000
Kigezi	33,000
Kyambura	15,700
Matheniko	160,000
Pian-Upe	231,400
Toro	55,488
	Subtotal: 930,688
<i>Sanctuaries</i>	
Dufile, Otze & Mount Kei	48,200
Entebbe	5,200
Jinja	800
Kazinga	20,700
Malaba	3,100
Zoka Forest Elephant	20,700
	Subtotal: 99,400

Forest Reserves

Bugoma	36,497
Bwindi (Impenetrable)	31,000
Itwara	9,000
Kalinzu	14,000
Kasyoha-Kitomi	40,000
Lake Shore	22,050
Mabira	30,721
Maramagambo	44,000
Ruwenzori	100,000
Semliki	22,000

Subtotal: 349,268

Controlled Hunting Areas

Buhuka	1,773
East Madi	174,940
Kaiso Tonya	22,656
Karuma	24,061
Katonga	227,297
Lipan	89,856
Napak	22,451
North Karamoja	1,667,604
Sebei	253,084
Semliki	50,319
South Karamoja	897,164
West Madi	83,123

Subtotal: 3,514,328

2.4 Levels of Disturbance Within Protected Areas

The degree of protection enjoyed by game and forest reserves varies. Bwindi Forest Reserve is probably the best protected and is managed on the level of a national park. Elephants survive there but in modest numbers. Kyambura Game Reserve is also well protected despite some encroachment in the south-east. It has the support of the local people, who have been organised by the Mweka-trained game assistant into a wildlife club. Nevertheless, no elephants were found there during aerial surveys made in July 1989 and April 1991. The Gorilla Game Reserve is small but is effectively patrolled with a Game Department biologist and a visiting scientist in the area. Kigezi Game Reserve benefits from the protection given to the contiguous Queen Elizabeth National Park but there are social problems due to people who were inadvertently allowed to settle in the eastern part of the reserve in 1959 and who now total some 3,000 or more families. A further 400 families have permits to reside in the west of the reserve close to the national park. The Kibale Forest Corridor Game Reserve is heavily settled and is probably the least protected reserve. The Kibale Forest Reserve was also heavily settled but there have been some recent evictions and encroachment is now peripheral. Bukumi-Bugungu Controlled Hunting Area shares the protection given to the neighbouring Murchison Falls National Park but there is a cattle grazing problem. Few of the eastern reserves receive any protection at all due to difficulties in patrolling but game guards operate within the Pian-Upe Game Reserve.

3 THE STATUS OF ELEPHANTS IN UGANDA

3.1 Historical Background

Although in the past most of Uganda contained elephants, there has been progressive reduction in the species' distribution during the present century. By the 1950s, elephants were largely confined to the west of the country and some forested regions, such as Mount Elgon, in the east. This was probably due to the Game Department, which had originally been set up by Government as an elephant control department – with the result that there was an increase in the frequency of elephant/man contacts, interpreted as an increase in the number of elephants. The annual reports of the Game Department in the 1930s are full of remarks about the burgeoning number of elephants and how the Department was barely able to keep them under control. In truth, the elephants were almost certainly suffering a rapid decline both in numbers and in range.

Ivory from culled elephants was sold on the open market but there was probably also an illegal trade based on poaching. Elephants in the national parks escaped because a high level of anti-poaching activity was maintained and because there were still enough elephants outside the parks to satisfy the demand for ivory. It is likely that by 1973, the supply was becoming exhausted, which led to poachers turning their attention to the parks.

Unfortunately, this coincided with the rise of political disturbances in the country, (particularly in 1972, 1979 and 1980). As a result, effective anti-poaching could no longer be maintained, especially as many of the poachers were army personnel with high-powered weapons. The consequence was a sustained slaughter of elephants within the national parks during the 1970s.

3.2 Recent Status of Elephants in Uganda

3.2.1 National Parks

Information on the numbers of elephants in the national parks has been taken from a number of published and unpublished sources including Buss & Savidge (1966), Buechner et al. (1963), Edroma (1980), Eltringham (1977), Eltringham & Malpas (1980), Malpas (1980), Olivier, Edroma & Campbell (1989) and UIE (1980).

3.2.1.1 Murchison Falls National Park

The figures for the Murchison Falls National Park suggest an increase in the number of elephants took place in the mid-1960s. As the sector north of the Nile has not been surveyed as frequently as the southern sector, the two regions are dealt with separately here.

3.2.1.2 Murchison Falls National Park South

It appears that elephant numbers here and in surrounding game reserves were approximately 7,000 during the 1950s and early 1960s. When there was an apparent increase in 1966 a cull was carried out, following which the population remained at about 9,000 until 1974. A count then revealed a substantial decline, to less than half the previous year's total. This reduction was not confined to the southern region of the park, and a similar drop occurred in the north. By 1980 the population had dwindled to near extinction, with only 172 elephants present (Table 2).

Table 2 Summary of aerial counts of elephants made in Murchison Falls National Park and vicinity south of the River Nile.

The counts have been placed in the respective seasons on the basis of the calendar month and not on rainfall data. The figures refer to total counts unless otherwise indicated.

Date	Number of Elephants	
	Wet Season	Dry Season
Jan 1957		4,153
Jul 1957		4,172
Sep 1957	5,556	
Dec 1957	8,318	
May 1969*	9,364	
Sep 1973*	9,624	
Sep 1975*	1,061	
Mar 1976	1,731	
Mar 1980	172	
Mar 1991		28

* Sample count.

3.2.1.3 Murchison Falls National Park North

The results of aerial counts of elephants in Murchison Falls National Park north of the Nile are given in Table 3. The first aerial counts took place in 1963 and 1964 (Buss & Savidge, 1966), with an estimated population of about 1,900. The next survey, in 1971, produced a figure of 3,551 – suggesting there had been a significant rise in numbers. This, however, was followed by the collapse in numbers already noted for the southern sector of the park, and by 1976 only 975 elephants remained (Eltringham & Malpas, 1980).

A survey in 1980 recorded a total of 1,248, suggesting that the 1976 population had increased somewhat, but by 1982 only 999 elephants were found in the whole of the park, probably mostly in the north.

Table 3 Summary of aerial counts made of elephants in the Murchison Falls National Park north of the Nile.

Counts are placed in the respective seasons on the basis of the calendar month and not rainfall data. Figures refer to total counts unless otherwise indicated.

Date	Number of Elephants	
	Wet Season	Dry Season
Oct 1963	1,170	
Mar 1964		1,903
May 1964	1,894	
Jan 1971*		3,551
Sep 1975*		1,185
Mar 1976*		903
Mar 1980		1,248
Mar 1991		280

* Sample count. * Estimate only.

3.2 1.4 Queen Elizabeth National Park

The results of aerial counts of elephants in the Queen Elizabeth National Park are given in Table 4. Regular counts instituted in 1966 suggested an upward trend. The highest total reached was 4,139 in May 1967, following which there was a gradual but pronounced decline to a figure of about 3,000 in the wet season and 1,700 in the dry, although by 1970, numbers had tended to stabilise. The 1974 count, however, revealed a collapse of the population similar to that in Murchison Falls National Park. By 1976, only 704 elephants remained (Eltringham & Malpas, 1980), and numbers declined further to 150 by 1980 (Malpas, 1980). Subsequent counts in 1987 and 1988 produced totals of several hundred - suggesting that a recovery has taken place.

It is likely, however, that this increase is as much due to animals moving into the park as from population growth. Elephants from Zaire are known to cross over the Ishasha River, which forms the southern boundary of the park.

Table 4 Summary of aerial counts of elephants made in the Queen Elizabeth National Park.

Date	Number of Elephants	
	Wet Season	Dry Season
Jul 1963		1,758
Oct 1963	1,398	
Mar 1964		1,295
Sep 1966	3,884	
May 1967	4,139	
Aug 1970		1,543
Sep 1973*	2,864	
Sep 1975	1,047	
Sep 1976	704	
Mar 1980	150	
Aug 1982	446	
Nov 1987	230	
Mar 1991	324	

* sample count.

3.2.1.5 Kidepo Valley National Park

Fewer counts of elephants have been made in Kidepo Valley National Park than in the other two national parks due, no doubt, to its remoteness but annual aerial surveys were carried out between 1975 and 1978 in the peak of the dry season.

Douglas-Hamilton's team flew surveys in 1981 and 1982. The results are given in Table 5. Unless otherwise stated, the surveys made in Kidepo were total counts.

The mean of the first three counts is 388, which is probably not significantly different from the mean of 446 for the 1975/78 counts, despite the apparent rise in numbers.

3.2.1.6 Lake Mbuoro National Park

Lake Mbuoro National Park was until recently a game reserve, which was reduced in size when gazetted as a national park in 1983. An aerial survey in 1982 failed to reveal any elephants, although they were known to have been present in the 1930s.

Table 5 Summary of counts of elephants made in Kidepo Valley National Park.

Unless otherwise stated, these were total counts made during the dry season.

Date	Number of Elephants
1967	277
1968	417
1971	470
Feb 1975	333
Feb 1976	463
Mar 1977	492
Feb 1978	497
May 1982	397
Apr 1991**	212

** wet season.

3.3 Game Reserves and Other Protected Areas

3.3.1 Aswa-Lolim Game Reserve

The Aswa-Lolim Game Reserve, now degazetted, lies to the north of the Murchison Falls National Park and, with the East Madi Controlled Hunting Area, constituted an elephant sanctuary. Some aerial total counts have been made in the two regions and the results are given in Table 6.

3.3.2 Karuma Game Reserve and Karuma Falls Animal Sanctuary

These two reserves lie to the south-east of the Murchison Falls National Park and are adjacent to it. The elephants in the reserve move in and out of the park and their numbers have been counted at the same time as those within the park. The totals are included in the figures given in Table 2.

Table 6 The number of elephants recorded in the Aswa-Lolim Game Reserve and East Madi Controlled Hunting Area during aerial surveys made at the same time as those in Murchison Falls National Park (North).

Date	Number of Elephants	
	Wet Season	Dry Season
Oct 1963	2,339	
Mar 1964		4,788
May 1964		5,284
Jan 1971		8,395
Mar 1976*		300
Mar 1980*		42

* Estimate only.

3.3.3 Kigezi Game Reserve

Kigezi Game Reserve forms a southern extension to the Queen Elizabeth National Park and its elephants form part of the park population. The aerial surveys of the national park usually extended over the reserve and the totals given in Table 3 include its elephants. Most of the elephants were found close to the park's borders for the eastern part of the reserve is heavily settled.

3.3.4 Kyambura Game Reserve

The Kyambura (Chambura) Game Reserve adjoins the Queen Elizabeth National Park, of which it is virtually an extension. It has always held a substantial elephant population and has been included in most of the counts made in the park. The reserve was surveyed by aerial transect sampling in March 1982 and July 1989. No elephants were recorded on either occasion suggesting that the species became extinct in the reserve as a result of heavy poaching in the 1970s.

3.3.5 Toro Game Reserve

The Toro Game Reserve, which lies to the south of Lake Albert, contained 138 elephants in 1969 according to Kyeyune (1978) and the species was still present in 1978 although not counted (Vernier, 1978). An aerial survey of the reserve made in 1982 did not record any elephants. The elephants in this reserve appeared to belong to the forest race, *Loxodonta africana cyclotis*, although they lived out on the grasslands.

3.3.6 Other Protected Areas

Several game reserves and other protected areas previously contained elephants in addition to those already mentioned. These included Kibale Forest Corridor, Katonga and Gorilla Game Reserves but no elephants have been sighted in them recently.

Bukumi-Bugungu Controlled Hunting Area adjoins Murchison Falls National Park and elephants used to move between it and the park but none was sighted during the 1980 survey. Bwindi Animal Sanctuary and Forest Reserve, the Impenetrable Forest, contained elephants until very recently and may still do so. Many of the forest reserves of Uganda held substantial elephant populations although no precise counts were ever attempted. The western forests of Budongo, Bwindi, Kibale and Ruwenzori as well as the slopes of Mount Elgon in the east were well known for their large populations. Most of the eastern game reserves and controlled hunting areas once contained elephants but there was no sign of any during the aerial surveys made in 1983 by Eltringham and Malpas.

3.4 The Present Situation

The reason for the rapid decline in elephants over the past fifteen years is undoubtedly poaching for ivory. This level of poaching has now ceased, partly due to the lack of elephants to poach and partly to international pressure, which has caused the African elephant to be placed on Appendix I of CITES, with the aim of closing the market for ivory.

Population sizes remaining in Uganda in 1980 should have been adequate to allow for the recovery of the species. The 1,200 or so then present north of the Nile should have been viable and the evidence of immigration into Queen Elizabeth Park from Zaire since 1980 gives some hope that the species could recover in that park as well. Aerial surveys, arranged to provide information for the Conservation Plan, have provided the following information:

3.4.1 Murchison Falls National Park

A total count of the elephants in the park was carried out from the air from 8th to 14th March 1991. Visual estimates made at the time were revised downwards to 308. Of these, 280 in 16 groups were recorded north of the Nile and 28 in one group were seen in the south. This is a disappointing result since it seems that only about a fifth of the 1,420 present in 1980 has survived, representing an average rate of decline of just under 2% per annum. However, it is possible that the decline was arrested some years ago and that the population is now increasing. Support for this optimistic view is provided by the fact that no carcasses or white bones were seen, suggesting that there has been no recent killings. Further, it is known that another group of elephants exists in the south of the park although it was not found during the survey. This group was seen near the Rabongo Forest in June 1990 by several people including M. Wilson of the EEC/Parks Roads Unit, J. Otekat, the Chief Warden, and some of the rangers. Estimates of the number ranged from 200 to 1,000. Even the lower estimate represents a substantial proportion of the park's population. The group was searched for diligently on the 1991 aerial survey and in view of the open country and excellent visibility, it is unlikely that it was simply missed. It is more likely that the elephants were within the nearby Budongo Forest and that they move between the forest and park from time to time.

3.4.2 Queen Elizabeth National Park

A total count from the air was made in the Queen Elizabeth National Park between 28th March and 3rd April 1991. Simultaneous counts were made in the morning of the 2nd April on both sides of the Ishasha River, which forms the boundary between Uganda and Zaire. The surveyed area included the whole of the non-forested Kigezi Game Reserve. A separate survey of the Kyambura Game Reserve was carried out on 6th April but no elephants were seen there. The counts from photographs taken on these surveys revealed a total of 324 elephants in the park with 190 in three groups north of the Kazinga Channel and 134 in six groups in the southern regions of the park. Most of those in the north were present in two herds, one of about 150 on Mweya Peninsula and the other on the lake shore north of Kasenyi. The elephants south of the channel but north of the

Maramagambo Forest were seen close to the shoreline. Repeated counts reached a consensus of about 70 animals. A herd of that number was counted from the ground about a month later near the Ishasha River in more open country and may have been the same group. Only 30 elephants were counted on the Zaire side of the river to add to the three seen in Uganda. It is possible that elephants were missed in the thick forest cover or that they have moved deeper into Zaire but if not, there has been a distinct decline in numbers since 1988 in this sector of the park.

3.4.3 Kidepo Valley National Park

An aerial count of elephants in the Kidepo Valley National Park was made on 20th April. A total of 212 elephants were counted in two groups, one of which consisted of five bulls in close proximity to the other group. This contained elephants of both sexes and of all age classes. They were located along Losigiria tributary of the Narus River about 4 km due north of the Park H.Q. at Apoka. This total was less than expected since local informants were insistent that at least 400 had been present during the dry season and that many had moved out recently across the border either into Kenya or Sudan. If this is so, the total has not declined since the previous count in 1982, when 397 elephants were recorded.

3.4.4 Other Protected Areas

The only certain record of elephants in game reserves within recent times is that for the Toro Game Reserve, where two groups, of 8 and 38 respectively, were seen by game guards in November 1990. Elephant tracks were also present. It is likely that these elephants have recolonised the reserve since 1982, when none was recorded during an aerial survey. The reserve is well-protected with an observatory on high ground equipped with a high-powered telescope and in radio communication with Semliki Lodge. Any potential poachers are likely to be spotted and reported to the authorities. Hence the prospects of the elephants surviving seem good.

It is unlikely that the Kibale Forest Corridor Game Reserve has been used by elephants for some time, but the Kibale Forest itself still contains an appreciable number: an observation was made of some 200 animals in an open area in 1990. Budongo Forest also appears to have retained a sizeable population.

In summary, it seems that the national parks are now the only protected areas to hold potentially viable elephant populations although there are probably some forest reserves with sufficient elephants to ensure their long-term survival. Minimum estimates for numbers in the three National Parks with elephant populations and Toro and Kibale and Budongo Forest Reserves, suggest that as few as 1,290 elephants may remain in Uganda (Table 7). It is possible that the species is returning to the Toro Game Reserve, but elsewhere in the country, the future of the elephant seems bleak.

Table 7 Minimum Estimates of Current Elephant Populations in Uganda

Murchison Falls National Park	308*
Murchison Falls National Park/Budongo Forest Reserve	200*
Queen Elizabeth National Park	324
Kidepo National Park	212
Toro Game Reserve	46
Kibale Forest Reserve	200
Bwindi Forest Reserve	18
Mt Elgon	30
Kalinga Forest	20
Total	1,218-1910

- * The Director of Uganda National Parks reported to the African Elephant and Rhino Specialists Group meeting in Gaborone in July 1991, that the Murchison population may be as high as 12000.

4 THE IVORY TRADE

Table 8 shows the amount of ivory and ivory products imported into Uganda between the years 1980 and 1986 and Table 9 gives the figures for the trade in ivory of which the country of origin was Uganda. The figures are taken from data produced by the Wildlife Trade Monitoring Unit. In some cases the returns were given as numbers of tusks and in others, in terms of weight of tusks. Also some records were of pieces of ivory by weight and, for simplicity, these have been included with tusk weights in the tables.

The trade seems to have been declining even before the Appendix I listing of the African elephant in January 1989 and there is no apparent illegal ivory trade nowadays, due, no doubt, as much to a shortage of elephants as to any other factor.

Table 8 Ivory imported into Uganda 1980-1986.

The records were sometimes given as numbers of items and sometimes as weights. The latter are not the weights of the numbers shown. No imports were reported in 1987.

Year	Carvings		Tusks	
	Numbers	Weight (kg)	Numbers	Weight (kg)
1980	5			17,551
1981	1		4	27,328
1982				1,957
1983	10		1	
1984	1		25	
1985	10	5,078		
1986			4	

Table 9 Trade in ivory which originated in Uganda.

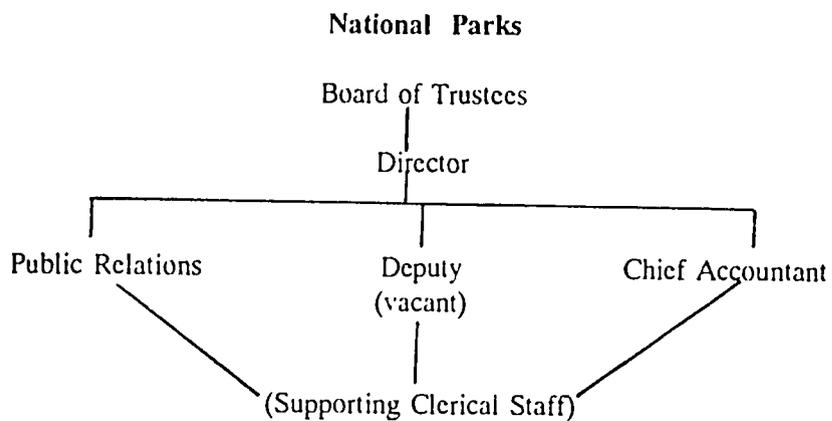
Figures without a unit of weight refer to numbers. Some of the tusk weights include pieces of unworked ivory.

Year	Imports		Exports	
	Carvings	Tusks	Carvings	Tusks
1980		500	118kg	7,461kg
1981	87,786	18,663kg	58 1 set	507kg
1982	4	7,882kg	2kg	3,243kg
1983	175,270	10,199kg 20 pieces	29kg	28kg 92
1984	2,190 452kg	42,972kg	22	24,598kg
1985	70,376 624 sets 1,585kg	334 16,360kg	84 72 sets 21kg	15,522kg
1986	337,991 63 sets 1,121kg	2	216 18kg	
1987	236 91kg		181 12 sets 12kg	4kg

5 RESOURCES FOR CONSERVATION

No park is up to strength in its senior staff but the ranger force is adequate. There are shortages in certain classes of vehicle, particularly in graders and tourist minibuses. The principal weakness lies in the quality and quantity of weapons available for anti-poaching. All the parks and the Headquarters in Kampala are chronically short of funds.

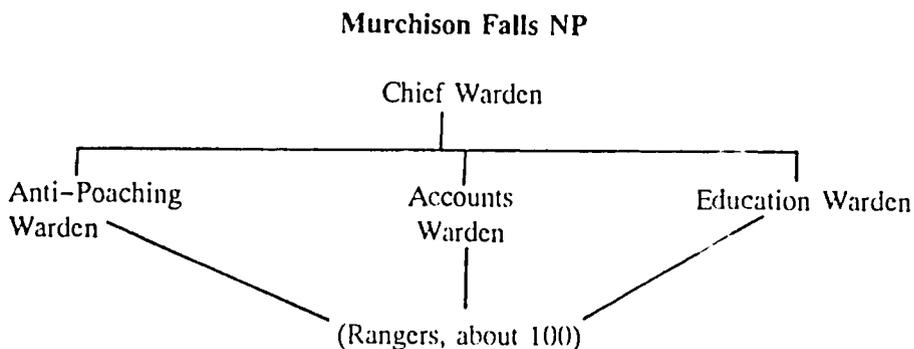
5.1 National Parks



Resources available:

4 Vehicles and EC Lorry

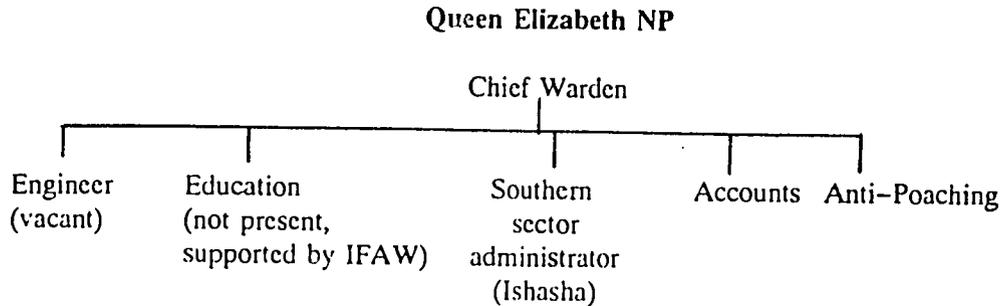
5.1.1 Murchison Falls National Park



Resources available:

New Lorry, Pick-up, Landrover, Tractor, Trailer (donated EC), Large Truck (donated by IFAW)

5.1.2 Queen Elizabeth National Park

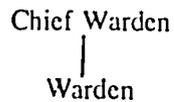


Resources available:

Grader, Tourist Minibus (donated by EC), 4 Large Trucks (donated by IFAW), Landrover and 2 old Short-Wheel-Base Landrovers

5.1.3 Kidepo Valley National Park

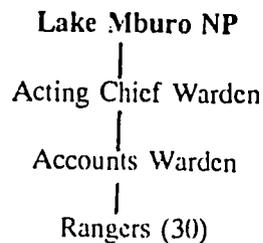
Kidepo Valley NP



Resources available:

2 Landrovers

5.1.4 Lake Mburo National Park



Resources available:

Tipper Lorry, 3 Motorcycles, Tractor (donated by EC), Landcruiser (donated by UNDP/FAO) Old Pick-up, Landrover

5.2 The Game Department

The Game Department Headquarters are in Entebbe. Staffing consists of a Chief Game Warden with a Deputy Chief Game Warden, under whom are four Senior Game wardens, the Senior Game Biologist, with a staff of three Game Biologists, a Senior Game Warden (H.Q.) and two Regional Senior Game Wardens. Distributed throughout the country are seventeen Game Wardens who are responsible for the day-to-day running of the reserves. More junior staff include a variable number of Assistant Game Wardens, Senior Game Assistants, Game Assistants, Junior Game Assistants and Game Guards.

As in the case of the National Parks, the Game Department suffers from a lack of resources, particularly vehicles, for carrying out its duties. The Department has four lorries and four pick-ups, plus the use of two more from FAO, but only one landrover. Hence most anti-poaching action depends on foot patrols by the game assistants and game guards. There is a radio communication system, provided and maintained by FAO, around accessible areas, such as Kyambura Game Reserve. The game guards are equipped with telescopes and binoculars but less than adequately with weapons. There is also a shortage of ammunition. Most of the firearms available have been confiscated from poachers or borrowed from the army or police. Like the National Parks, the Game Department has an insufficient budget to carry out its duties adequately.

5.3 Existing Foreign Aid Programmes

Aerial surveys of the elephants are jointly funded by the EEC and UNDP/FAO as part of their programme for rehabilitating the Uganda National Parks. The EEC has provided the aircraft, fuel and pilot and FAO fuel and an observer.

Considerable assistance and advice is being provided by UNDP/FAO, which has a unit stationed in Queen Elizabeth National Park although it serves all National Parks and Game Reserves. It is essentially concerned with anti-poaching and the training of rangers - two from the National Parks and two from the Game Department are sent each year to the College of African Wildlife Management at Mweka, Tanzania. The FAO team also funds study tours by staff of the Uganda Institute of Ecology to other research institutes within East Africa. Equipment supplied includes radios, vehicles and field equipment such as uniforms, tents, mattresses and cooking utensils.

The vehicles comprise five landrovers of which two are used in the national parks and two in the game reserves while one is retained for the use of the FAO staff. Fuel and maintenance are provided by FAO, which also covers most of the cost of aerial and ground surveys of wildlife in the parks and reserves. The current grant is \$1,900,000 with another \$3,045,745 allocated for the two-year period 1991/92.

A recent development, which will probably be of significance to elephant conservation, is the proposed management of Murchison Falls National Park by the German Government organisation GTZ. A sum of \$2,000,000 has been allocated to the project, which will concentrate on clearing the park of rebels so removing the need to station soldiers in the region.

6 LEGISLATION

6.1 CITES

Uganda is not a signatory to CITES but government policy is to observe CITES regulations.

6.2 Wildlife Legislation

The Game (Preservation and Control) Act 1959, revised in 1964, is the principal wildlife act. The national parks were established by the National Parks Act 1952, revised in 1964, which is presently in the process of further revision as part of a general review of legislation intended to harmonise policies e.g. to avoid situations as in Bwindi Forest Reserve, which is also an animal sanctuary and hence managed by two separate organisations. There are moves to amalgamate the Game Department and National Parks into one institution and to have forestry, fisheries and environment in one ministry instead of several, as at present.

Wildlife outside the reserves is owned by the government but the intended policy is to transfer ownership to the local people for them to manage their wildlife, with government advice, along the lines of the CAMPFIRE project in Zimbabwe. At present, there is a ban on hunting in Uganda and consequently, "big game" hunting as a source of revenue from wildlife is precluded.

6.3 Government Approach to Wildlife Conservation

The latest statement of the Government's attitude to wildlife is embodied in the chapter on Tourism in Volume 1 of the second edition of The National Rehabilitation and Development Plan 1988/89-1991/92 (Ministry of Planning and Economic Resources 1989). The Plan includes a number of proposals relevant to wildlife including the promotion of conservation and management of wildlife in a sustainable manner. It also proposes improvements in the roads and communications in wildlife areas and the integration of wildlife management activities with local rural community development. Provision is made for environmental education and the inculcation of an awareness of the of the natural heritage of the Ugandan people. In pursuance of these aims, there is to be a review of the existing and potential protected areas and of national conservation policy.

BEST AVAILABLE DOCUMENT

Elephant Conservation Plan
for
Uganda

PART B:
PROJECT OUTLINES

October 1991

Uganda National Parks
Plot 107 6th Street
Industrial Area, PO Box 3530,
Kampala

1 INTRODUCTION

Current and proposed projects aimed specifically at elephant conservation or more generally supporting conservation areas and institutions (and therefore contributing to elephant protection) are presented below. Three categories are recognized – those projects which have full funding, those which have partial funding but are seeking further support, and those which have no funding to date.

Only a few projects are proposed in this plan – ie have reached the stage suitable for inclusion as project outlines – but several projects at the concept stage, are also presented. A variety of potential projects are outlined, including research, training and institutional support, which would be beneficial to the conservation of elephants in Uganda. These have not been set out as detailed projects because much of the information required (such as project executives and budgets) has yet to be developed. Donors are invited to consider supporting the development and execution of these projects, as well as those presented as proposals. Some further, general, areas of desirable research are also outlined in Section C.

Uganda is a poor country and resources at present are insufficient to maintain even a minimum level of funding for wildlife conservation. Financial support for necessities (such as vehicles and rangers' uniforms) that governments would normally be expected to cover, is often unavailable. There is therefore a need for institutional support at all levels. In the longer term Uganda must aim to generate revenue which can be fed back into the management of wildlife resources, and projects directed at tourism and other forms of sustainable use of wildlife need to be developed. Although Uganda has potential for attracting more tourists, it is unlikely that sufficient revenue will be available to cover recurrent costs, or to develop and run very large scale conservation programmes.

1.1 How to Use the Project Outlines

All projects are presented in the same two page format on the following pages.

Projects are colour coded according to their funding needs:

Projects **in need of total funding** are printed on **green** pages.

Projects **in need of partial funding** are printed on **blue** pages.

Projects **not in need of any funding** are printed on **yellow** pages.

1.2 How to Pursue the Funding of a Project

Further details of these projects will be available upon request. If a donor would like to fund one of the following projects, there are three possible actions.

First, if the project lists a "Govt/local agency executing project" or a "Project Executant", contact the appropriate person using the address given.

Second, if the above is not listed, contact the government official listed on page v of this document.

Third, if further information is still required, contact the AECCG at the address listed on page v of this document.

2 PROJECT OUTLINES

2.1 Projects Seeking Funding (see green pages)

Project	AECCG Database Number	Title	Project Activity	Budget (US\$)
1	251	Man/Elephant Interactions in Queen Elizabeth NP and Kibale Forest Reserve	Research Monitoring	29,727
2	199	Urgent Elephant Measures for Uganda	Security	187,000
3	59	Queen Elizabeth NP – Satellite Tracking	Research Monitoring	93,100
4	382	Provision of Warden for Kidepo Valley NP	Park Management	409,867

2.2 Projects Seeking Partial Funding (see blue pages)

Project	AECCG Database Number	Title	Project Activity	Budget (US\$)	Funding Required
5	204	Makerere University – Support	Institutional Support	205,504	162,684

2.3 Projects Which Require No Funding (see yellow pages)

Project	AECCG Database Number	Title	Project Activity	Budget (US\$)
6	329	Comparative Ecology of a Critically Reduced Elephant Population	Research	---

2.4 Project Requiring Further Development and Funding

Project	Title	Project Activity
7	Rehabilitation of the Ranger Force	Security
8	Fencing of Villages in Queen Elizabeth National Park	Security
9	Monitoring of Elephant Populations	Monitoring
10	Improving and Updating Tourist Facilities in National Parks.	Tourism
11	Monitoring the Illegal Ivory Trade	Security

Brief outlines of these projects are as follows:

2.4.1 Rehabilitation of the Ranger Force

This project applies both to National Park rangers and to the game guards of the Game Division. These people are directly involved in anti-poaching operations and frequently have to oppose well-armed poachers. A high standard of morale is necessary and this is more likely to be maintained if equipment and other resources are also of a high standard. Much has already been done to supply rangers with uniforms and other equipment, but these wear out and need to be replaced regularly. Modern weapons, radios and transport are perhaps the most important necessities for efficient anti-poaching activities, and more are needed.

2.4.2 Fencing of the Villages in the Queen Elizabeth National Park

The management plan for the Queen Elizabeth National Park (Olivier, 1990) considers the problem of the fishing villages with the park. There are ten of these enclaves, which are essential to the efficient operation of the fishing industries of Lakes Edward and George and the Kazinga Channel. Some, however, have grown to an unacceptable size through immigration of people who are not involved in the fishing industry and have no rights to residence. This problem needs to be addressed. There is also a considerable amount of cultivation around these settlements, which inevitably attracts large herbivores, including elephants, and results in crop damage and retaliation by villagers. These areas should, therefore, be fenced. Solar-powered electric fencing has proved effective against elephants in other parts of Africa.

2.4.3 Monitoring of Elephant Populations

Elephant populations in Uganda are currently under less pressure from poachers, as a result of the ban on ivory trade, and there is some evidence of population growth in certain areas. As this recovery progresses elephants may move from areas of relatively high density – either into former (protected) ranges or into unprotected areas. Alternatively, if dispersal is limited by the surrounding human population, elephant numbers could increase above the carrying capacity of parks, when environmental damage results.

Although the ivory trade ban seems to be effective in reducing demand for ivory and hence makes poaching uneconomic, this situation may not continue – some range states are anxious to resume trading and new illegal channels for ivory may be developed. In such circumstance it is essential that poaching is detected before large scale destruction of elephants has occurred. The first signs of renewed poaching of elephants will be increased numbers of carcasses and changes in population structure.

For these reasons regular monitoring of populations is an essential component of elephant conservation plans. This project advises the establishment of a specialist team equipped with an aircraft for aerial surveys. The airplane is available but funding for operating costs and staff salaries is required.

2.4.4 Improving and Updating Tourist Facilities in National Parks

It is essential that Ugandan wildlife institutions are able to generate revenue for themselves, so that once recovery programme funding has come to an end the improvements made can be supported and continued. Staff salaries and other recurrent costs must be met by Government funding.

Wildlife tourism is a proven method of generating revenue, and Uganda once had a thriving tourist industry. The country has the advantage of a diversity of wildlife and habitats, so that tourists could combine savanna game viewing with forest and mountain experiences, and now that political stability has returned, there should be projects which aim to restore the buildings, camp sites and roads in conservation areas, in order to increase the number and quality of tourist visits.

2.4.5 Monitoring of the Illegal Ivory Trade

Poole (1990) recommends that efforts should be intensified to intercept shipments of ivory from Sudan and Zaire, passing through Uganda to Kenya. Also, as stated above, if the current ban holds there may be renewed smuggling. This may require increasing customs staff at borders. Incentive schemes to supplement staff wages and to prevent corruption might also be considered.

Project Title: MAN/ELEPHANT INTERACTIONS IN QUEEN ELIZABETH NP & KIBALE GR

Database Project No. 251

Date last updated: 07/04/91

Region: EAST

Country: UGANDA

Summary Information

Project Status: PROPOSAL

Fund Raising Status: NIL

Project Objective: A three year project will research into whether or not elephants still move through the Kibale Forest Corridor GR and the status of elephants in Kibale and Queen Elizabeth NP

Project Activities: 1. Research 2. Monitoring 3.

Funding Start Date: End Date: Further phases ?:

Elephant Population directly affected - Name: Approx Numbers :

Budget Information

Total Budget :- \$ 29,727

Original Currency: US\$

Exchange Rate Used:

Budget Breakdown according to AECCG standardisation

	Yr 1:\$ 8,159	Yr 2: \$ 15636	Yr 3: \$ 5932
	Yr 4:\$	Yr 5: \$	
Technical Assistance:	\$	Infrastructure:	\$
Monitoring & Research:	\$	Local Development:	\$
Staff Costs:	\$	Recurrent Costs:	\$
Training:	\$	Miscellaneous:	\$
Education:	\$	Project Management:	\$
Equipment:	\$	Contingency Provision:	\$

Fund Raising Information :-

Total funds raised:	\$	Funds raised for current year:	\$
Total funds needed:	\$ 29,727	Funds needed for current year:	\$ 8159

Origin of funds - Organisation:	Amount:	\$
Organisation:	Amount:	\$
Organisation:	Amount:	\$

Organisation through which funds are being channelled:

Future donor interest:

Donors actually approached:

Organisations and People Involved with the Project

Govt/Local agency executing project: UNP Address: Plot 107/ 6th Street/ Industrial Area/ P.O.Box 3530/ Kampala

Project Administrator: to be determined Address:

Project Executant: to be determined Address:

Project Originator: F.C.O. Afunduula (CAP) Address:c/o Zoology Dept/ University of Nairobi/ P.O.Box 30197/ Nairobi/ Kenya

Collaborating Bodies: AERSG; WWF; Makerere University

#251

Background: The Kibale Forest Corridor Game Reserve was once an important route for elephants moving between the Kibale Forest and the national park. It has become heavily settled in recent decades and elephants may be reluctant to use it. The southern sector of the forest has also been encroached and the number of elephants present is unknown. The northern part of the national park has also lost its elephants through poaching but recolonisation would be possible through the corridor.

Objectives: The project will address four main issues: the impact of the elephants on the cultivation systems in the Queen-Elizabeth-Kibale Forest economic-ecological region; household and land-use dynamics and the status of elephant migration routes between the two reserves; the effect of the elephant on tourism in Uganda; the consequences and cost of re-establishing the elephant migration corridor between Queen Elizabeth National Park and Kibale Forest Reserve.

Activities: Techniques used will include observations of elephant behaviour, carcass ratio analyses, examination of historical records, vegetation enclosures, interviews, with questionnaires of local residents and analyses of aerial photographs.

Outputs: The work should reveal whether or not elephants still move through the corridor and if they no longer do so, how recently they were present. It should also reveal the economic significance of elephants in the region.

Progress to date:

Project Title: URGENT ELEPHANT MEASURES FOR UGANDA

Database Project No. 199

Date last updated: 03/18/91

Region: EAST

Country: UGANDA

Summary Information

Project Status: CONCEPT

Fund Raising Status: NIL

Project Objective: Funds are urgently required to implement law enforcement activities in QENP. Field rations to rangers and protection for crops in the enclave villages are high priorities.

Project Activities: 1. Security 2. Park Management 3.

Funding Start Date: End Date: Further phases ?:

Elephant Population directly affected - Name: Approx Numbers :

Budget Information

Total Budget :- \$ 187,000

Original Currency: £Sterling Exchange Rate Used: 1.8700

Budget Breakdown according to AECCG standardisation

	Yr 1:	\$ 187000	Yr 2:	\$	Yr 3:	\$
	Yr 4:	\$	Yr 5:	\$		
Technical Assistance:		\$	Infrastructure:		\$	
Monitoring & Research:		\$	Local Development:		\$	
Staff Costs:		\$	Recurrent Costs:		\$	
Training:		\$	Miscellaneous:		\$	
Education:		\$	Project Management:		\$	
Equipment:		\$	Contingency Provision:		\$	

Fund Raising Information :-

Total funds raised:	\$	Funds raised for current year:	\$
Total funds needed:	\$ 187000	Funds needed for current year:	\$ 187000

Origin of funds - Organisation:	Amount:	\$
Organisation:	Amount:	\$
Organisation:	Amount:	\$

Organisation through which funds are being channelled:

Future donor interest: DSFnda

Donors actually approached:

Organisations and People Involved with the Project

Govt/Local agency executing project: UNP Address: PO Box 3530 / Kampala / Uganda

Project Administrator: to be determined Address:

Project Executant: to be determined Address:

Project Originator: UNP Address: PO Box 3530 / Kampala / Uganda

Collaborating Bodies:

#199

Background: Uganda's elephant population has been among the hardest hit by poachers. This is due to the extended period of war, civil unrest, and economic crisis the country suffered throughout the 70s and early 80s, and from which it is only now beginning to emerge. In Murchison Falls National Park alone, numbers declined from an estimated 12,000 elephants in the 70s to some 2-3000 today. In Queen Elizabeth National Park, the population is showing signs of recovery after plunging from an estimated 2,500 in the 70s to 150 in 1980.

Despite the desperate situation in neighboring Sudan, frequent raids by Karamajong warriors through the park and the presence of military personnel in the area, Kidepo Valley National Park's population has remained remarkably stable at 3-400. Meanwhile, outside of national parks elephant populations are threatened by isolation and human encroachment. As in the case of the Kibale Forest and Queen Elizabeth National Park, this prevents elephants from using their established migration routes to other secure areas. It is not clear what the results of a decade and a half of instability have been on these populations, as there have been no elephant censuses in these areas.

Substantial external aid from the EC, UNDP-FAO, and IFAW since the mid-80s, has provided for some rehabilitation of the protected areas' infrastructure; however, major efforts are still desperately needed. Much of the past projects have just come to an end, and any continuation of these activities will not be for more than a year. Specifically, severe problems can be found with extremely low salaries and field rations for national parks staff, inadequate anti-poaching protection, crop-raiding elephants, and the encroachment by humans into migration corridors.

Objectives: To establish security for Uganda's remaining elephants in order that the populations may not only stabilize, but eventually increase in number.

Activities: Elephant conservation and law enforcement activities will be immediately implemented in Queen Elizabeth II National Park, as recommended in the Management Plan.

Crops in the enclave villages in Queen Elizabeth II National Park will be protected against elephant raids. Field staff (especially in the insecure and inaccessible Kidepo National Park) will be provided with a complement to their salaries, in the form of field rations, so as to guarantee an acceptable minimum standard of living. The elephant corridor between Queen Elizabeth II National Park and the Kibale Forest Reserve will be re-established.

Outputs: Improved chances of a strong elephant population for Uganda.

Progress to date: A request for funding has been made to the David Shepherd Foundation.

Project Title: QUEEN ELIZABETH NP - SATELLITE TRACKING

Database Project No. 59

Date last updated: 05/21/91

Region: EAST

Country: UGANDA

Summary Information

Project Status: PROPOSAL

Fund Raising Status: NIL

Project Objective: This project will contribute data to the continent-wide elephant monitoring program developed by the EC. Using 6 satellite transmitters elephant movements will be monitored.

Project Activities: 1. Research 2. Monitoring 3.

Funding Start Date: End Date: Further phases ?:

Elephant Population directly affected - Name: Approx Numbers :

Budget Information

Total Budget :- \$ 93100

Original Currency: ECU

Exchange Rate Used: 1.3300

Budget Breakdown according to AECCG standardisation

	Yr 1:	\$ 93100	Yr 2:	\$	Yr 3:	\$
	Yr 4:	\$	Yr 5:	\$		
Technical Assistance:	\$ 57675		Infrastructure:	\$ 0		
Monitoring & Research:	\$ 0		Local Development:	\$ 0		
Staff Costs:	\$ 0		Recurrent Costs:	\$ 0		
Training:	\$ 0		Miscellaneous:	\$ 0		
Education:	\$ 0		Project Management:	\$ 0		
Equipment:	\$ 26853		Contingency Provision:	\$ 8572		

Fund Raising Information :-

Total funds raised:	\$	Funds raised for current year:	\$
Total funds needed:	\$ 93100	Funds needed for current year:	\$ 93100

Origin of funds -	Organisation: Curr. EDF proj.	Amount:	\$
	Organisation:	Amount:	\$
	Organisation:	Amount:	\$

Organisation through which funds are being channelled: Uganda NP

Future donor interest: CEC

Donors actually approached: CEC

Organisations and People Involved with the Project

Govt/Local agency executing project: UNP Address: Plot 107 /6th Street /Industrial Ave. /PO Box 3530 /Kampala /Uganda

Project Administrator: Address:

Project Executant: UNP Address: PO Box 3530 /Kampala /Uganda

Project Originator: UNP Address: Plot 107 /6th Street /Industrial Ave. /PO Box 3530 /Kampala /Uganda

Collaborating Bodies: Uganda CNRP; CEC;

#59

Background: The regular monitoring of elephant numbers in Queen Elizabeth National Park (QENP) has been sustained for 27 years (since 1963), resulting in one of the longest standing elephant monitoring programmes on the continent. Elephant numbers have crashed from a maximum count of over 4,000 in 1967, to a mere 153 in March 1980. Numbers currently stand at some 230 resident elephants, with a minimum 210 additional elephants moving in and out of the park.

Little is known of the ranging patterns of those elephants apparently resident full time in the centre of the Park, nor of those which move in and out of its northern and southern extremities. In the latter case the animals move across the border with Zaire, where they are held to be an equally valuable asset of the contiguous Parc National des Virunga. In both cases the elephants frequently 'disappear' into closed forests. Since their points of reappearance remain unpredictable, this forces researchers to maintain time consuming and expensive ground searches until they are relocated.

It is for these reasons that an elephant radio-tracking programme became identified as a research and monitoring priority in 'The QENP Management Plan'. However, consideration of the intensity of effort needed to make this really worthwhile in relation to the support available, and of complications such as the difficulty of obtaining military clearance to conduct aerial tracking beyond the Park boundary even within Uganda, let alone across international boundaries, led to the conclusion that what is needed is a satellite tracking programme.

Objectives: To monitor the movements of elephant populations resident in, and moving through, QENP.

Activities: Over a period of 1.5 years, two transmitters are earmarked for Kibale Forest to determine movements between there and the north of QENP via the Corridor Game Reserve; two for the central part of QENP; and two for the Ishasha River elephants. If the transmitters are still active after the project period, arrangements will be made for further data processing services.

Outputs: Improved management of Uganda's elephants by better understanding their movements.

Progress to date: An application has been filed with the EEC for funding. Existing infrastructural support includes aerial reconnaissance, ground transport, drugs and darting equipment, computer hardware, and technical and project management personnel, to be provided through current EDF assistance to the Uganda Institute of Ecology in QENP.

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Project Title: PROVISION OF WARDEN FOR KIDEPO VALLEY NP

Database Project No. 382

Date last updated: 10/15/1991

Region: EAST

Country: UGANDA

Summary Information

Project Status: PROPOSAL

Fund Raising Status: NIL

Project Objective: An expatriate warden/pilot post will be established at Kidepo Valley NP which is currently suffering from acute shortages of funds and severe incursions from armed poachers.

Project Activities: 1. Park Management 2. Security 3.

Funding Start Date: 01/01/1992 End Date: 01/01/1994 Further phases ?:

Elephant Population directly affected -- Name: Kidepo Valley Approx Numbers :

Budget Information

Total Budget :- \$ 409,867

Original Currency: US\$

Exchange Rate Used:

Budget Breakdown according to AECCG standardisation

	Yr 1:	\$	Yr 2:	\$	Yr 3:	\$
	Yr 4:	\$	Yr 5:	\$		
Technical Assistance:	\$ 155600		Infrastructure:	\$ 0		
Monitoring & Research:	\$ 0		Local Development:	\$ 0		
Staff Costs:	\$ 6347		Recurrent Costs:	\$ 79650		
Training:	\$ 0		Miscellaneous:	\$ 0		
Education:	\$ 0		Project Management:	\$ 0		
Equipment:	\$ 168270		Contingency Provision:	\$ 0		

Fund Raising Information :-

Total funds raised: \$ 0

Funds raised for current year: \$ 0

Total funds needed: \$ 409867

Funds needed for current year: \$

Origin of funds - Organisation: Amount: \$
Organisation: Amount: \$
Organisation: Amount: \$

Organisation through which funds are being channelled:

Future donor interest:

Donors actually approached:

Organisations and People Involved with the Project

Gov/Local agency executing project: UNP Address: Uganda National Parks/ P.O. Box 3530/ Kampala

Project Administrator: Address:

Project Executant: Address:

Project Originator: UNP Address:

Collaborating Bodies:

46

382

Background: The Kidepo Valley NP, established in 1962, is found in the extreme north-eastern corner of Uganda along the Sudan border. The park straddles the Kidepo and Larus rivers which flow north into Sudan during the rains, while during the dry season the park contains permanent pools. As a whole the landscape, climate and vegetation are ideally suited for wild animals.

Until the unrest in Uganda in the 1970's, KVNP supported at least 500 elephants. Lawlessness, coupled with the high price for ivory, reduced the elephant population to some 200–250. Since the ivory ban a few elephant carcasses have been reported in the park.

In addition, KVNP is the only protected area in Uganda in which certain species occur. Mammalian species include the lesser Kudu (*Tragelaphus imperbis*), Grant's gazelle (*Gazella granti brighti*), Cheetah (*Acinonyx jubatus*), Black Rhinoceros (*Diceros bicornis*) and many others.

The management of Kidepo Valley National Park however is crippled by many factors:

1. Persistent incursions of well armed poachers from Uganda, Sudan and Kenya.
2. Acute shortage of funds and equipment.
3. Insufficient international donor support due to the park's isolation from Kampala and the occasional disruptions from rebel groups.
4. Low morale of its workers due to poor remuneration.
5. Lack of tourism due to its insecurity and isolation.

With three National Parks created in 1991, the Uganda National Parks are faced with an acute shortage of wardens. There is presently only one warden.

Objectives: To employ an expatriate warden who is a pilot and has considerable experience in park management.

Activities: The warden will be responsible for reversing the present poor management of KVNP. An aircraft, 2 landrovers and office and security equipment will be bought. Funds for food and field allowances for 70 rangers will be made available.

Outputs:

1. A halt to the incursion by poachers.
2. Higher morale amongst rangers.
3. Better management for KVNP.

Project Title: MAKERERE UNIVERSITY - SUPPORT FOR NATURAL RESOURCES INSTITUTE

Database Project No. 204

Date last updated: 07/05/91

Region: EAST

Country: UGANDA

Summary Information

Project Status: CURRENT

Fund Raising Status: PART

Project Objective: WWF support will allow for proper advisory oversight of student researchers and will go towards the creation of a university level scholarship fund.

Project Activities: 1. Training 2. Institutional Support 3.

Funding Start Date: 07/01/91 End Date: 06/30/94 Further phases?: T

Elephant Population directly affected - Name: Approx Numbers :

Budget Information

Total Budget :- \$ 205,504

Original Currency: SFR

Exchange Rate Used: 0.7090

Budget Breakdown according to AECCG standardisation

	Yr 1:	\$ 64412	Yr 2:	\$ 70546	Yr 3:	\$ 70546
	Yr 4:	\$	Yr 5:	\$		
Technical Assistance:	\$ 0		Infrastructure:	\$ 0		
Monitoring & Research:	\$ 0		Local Development:	\$ 0		
Staff Costs:	\$ 0		Recurrent Costs:	\$ 46794		
Training:	\$ 124075		Miscellaneous:	\$ 7799		
Education:	\$ 0		Project Management:	\$ 26836		
Equipment:	\$ 0		Contingency Provision:	\$ 0		

Fund Raising Information :-

Total funds raised:	\$ 42823	Funds raised for current year:	\$ 42823
Total funds needed:	\$ 162684	Funds needed for current year:	\$ 21589

Origin of funds -	Organisation: WWF	Amount:	\$ 42823
	Organisation:	Amount:	\$
	Organisation:	Amount:	\$

Organisation through which funds are being channelled: WWF

Future donor interest:

Donors actually approached:

Organisations and People Involved with the Project

Govt/Local agency executing project: IE&NR Address:

Project Administrator: WWF-I (#3865) Address: Ave du Mont Blanc / CH-1196 Gland / Switzerland

Project Executant: Pomeroy Address:

Project Originator: Address:

Collaborating Bodies:

#204

Background: From 1983–1987 the training of wildlife biologists in Uganda was supported by a joint UNDP/Unesco Project. Despite this program there are still very few qualified Ugandans in senior posts in the fields of wildlife biology and conservation. Meanwhile the need for qualified personnel is increasing from various organisations.

In 1987 Makerere University inaugurated the Institute of Environment and Natural resources. One of its main objectives is to identify areas where more research is needed, and to promote such research. Likewise, the EEC is giving some support to the Ugandan Institute of ecology, which will stimulate research in savanna areas. the present project is therefore concerned with the needs of forest conservation.

Objectives:

1. To identify key areas where research is needed for possible follow up by post graduate students.
2. To ensure that adequate supervision is given to the students sponsored by WWF and other agencies in the fields of wildlife conservation.
3. To provide staff training in supervision.
4. To train postgraduate students in relevant aspects of forest conservation.

Activities: A small advisory committee will be established. The project executant will draw up the schedule of field visits and provide from time to time a list of students supervised through the project. It is expected that a University level scholarship fund for Africa will be created.

Outputs:

1. Students qualified to continue high level activities in wildlife conservation.
2. University staff with much enhanced supervisory experience.
3. Information relevant to wildlife and forest conservation.

Progress to date: (August 1989) Four field training courses have been organised. Ten postgraduates have taken part in this training program, representing the Ugandan Institute of Ecology, the Game Dept, and the Ministry of Environmental Protection.

Project Title: COMPARATIVE ECOLOGY OF A CRITICALLY REDUCED ELEPHANT POPULATION

Database Project No. 329

Date last updated: 10/08/1991

Region: EAST

Country: UGANDA

Summary Information

Project Status: CURRENT

Fund Raising Status: FULL

Project Objective: The objective of this study is to monitor the recovery of the elephants in Queen Elizabeth NP to see whether they are organised into family units using radio collars.

Project Activities: 1. Research 2. Monitoring 3.

Funding Start Date: End Date: Further phases ?:

Elephant Population directly affected - Name: Queen Elizabeth NP Approx Numbers :

Budget Information

Total Budget :- \$

Original Currency: Exchange Rate Used:

Budget Breakdown according to AECCG standardisation

	Yr 1:	\$	Yr 2:	\$	Yr 3:	\$
	Yr 4:	\$	Yr 5:	\$		
Technical Assistance:	\$		Infrastructure:	\$		
Monitoring & Research:	\$		Local Development:	\$		
Staff Costs:	\$		Recurrent Costs:	\$		
Training:	\$		Miscellaneous:	\$		
Education:	\$		Project Management:	\$		
Equipment:	\$		Contingency Provision:	\$		

Fund Raising Information :-

Total funds raised:	\$	Funds raised for current year:	\$
Total funds needed:	\$	Funds needed for current year:	\$

Origin of funds - Organisation:	Amount:	\$
Organisation:	Amount:	\$
Organisation:	Amount:	\$

Organisation through which funds are being channelled:

Future donor interest:

Donors actually approached: EEC

Organisations and People Involved with the Project

Govt/Local agency executing project: UIE Address: Uganda Institute of Ecology/ P.O.Box 22/ Lake Katwe/ Uganda

Project Administrator: EEC Address:

Project Executant: Eve Abe Address:

Project Originator: Eve Abe Address: UIE/ P.O.Box 22/ Lake Katwe/ Uganda

Collaborating Bodies: AWF

#329

Background:

The drastic reduction of the elephant population in the Queen Elizabeth National Park during the 1970s has severely disrupted the social structure of the survivors. The death of most of the matriarchs from poaching has resulted in the loss of leadership and a break in the chain of accumulated experience, which is normally passed on from generation to generation. There is already evidence of a change in the normal social structure in that the elephants north of the Kazinga Channel have collected into one large aggregation rather than separating into family units.

Objectives: The primary objective of the study is to monitor the recovery of a critically reduced elephant population in order to provide information that will be of value in the management of the elephants in the Queen Elizabeth National Park and elsewhere. The project will examine the large group of elephants in the north of the park to see whether it is an amorphous mass or organised into a number of family units.

Activities: The ranging pattern of the elephants will be studied by following the movements of radio-collared animals. The inter-relationships of the members of the aggregation will be elucidated by amassing a card index of individually recognisable elephants. The association between these individuals should reveal whether a conventional family unit system with bond groups still exists within the aggregation. A study of feeding behaviour will form part of the research to ascertain whether or not it has been affected by changes in the floral composition of the vegetation.

Outputs: The results of the work will be of value in assessing the chances of recovery of this elephant population and of those elsewhere in Africa.

Progress to date: Preliminary studies have already begun. The EEC is supporting Miss Abe, who is the person undertaking the research. She has a salary, free accommodation and a vehicle, which will be maintained and provided with fuel. She will also be reimbursed for approved expenses.

Elephant Conservation Plan
for
Uganda

PART C:
POLICY REFORMS
&
STRATEGIES

October 1991

Uganda National Parks
Plot 107, 6th Street
Industrial Area, PO Box 3530
Kampala

1 JUSTIFICATION

As a result of the destruction of elephants over the past few decades, it seems that the only hope for its survival in Uganda lies in those animals remaining in the three National Parks of Queen Elizabeth, Murchison and Kidepo Valley. Following the agreement to ban ivory trading poaching of elephants appears to be much reduced, but as populations recover, and/or the ban is lifted poaching could very quickly become a serious threat once again. There is, therefore, an immediate need to improve security in these Parks, and also the requirement, over the longer term, to develop better facilities and training for Park staff.

The species may also survive in some of the forests and in a few game reserves, but it is to the national parks that most conservation effort should be directed. Any elephants remaining elsewhere can best be protected by ensuring the integrity of their habitats. This is particularly true of those in forests.

As yet little is known of the extent and nature of human/elephant conflicts in Uganda. With the distribution of elephants currently restricted to National Parks and Forest Reserves they are likely to be minimal, and restricted to reserve boundary areas. As the population recovers, however, such conflicts are likely to increase. Research into conflicts and investigations of means of resolving them are required. Community conservation and rural development projects may well evolve from such research.

The present plan concentrates more on research and monitoring of elephant populations. The justification for this lies mainly in the need to evaluate the effects of the massive destruction of the populations in the 1970s and to monitor the recovery of the survivors. Poole (1990) considered the priorities for conservation of Ugandan elephants, some of which have already been implemented, such as the aerial survey of Murchison Falls and Kidepo Valley National Parks. She also advocated aerial and ground surveys in some game and forest reserves and identified certain priority areas for study. Furthermore, only when the distribution and movement of elephants in Uganda is established, will it become clear where projects involving local communities should be developed, and what such projects should entail.

Another serious aspect of the problem, apart from the reduction in numbers, is the loss of the ordered social structure of the elephant's society. Elephants normally live in family groups of closely related individuals under the leadership of a matriarch or a number of senior females. Much of their knowledge of migratory routes, dry season ranges and other information is learned and passed on from generation to generation in a form of non-genetic inheritance. The destruction of so many matriarchs – selectively shot for their larger tusks – has broken this chain of traditional knowledge and left the survivors without effective leadership. There also appears to have been an increase in the frequency of abandonment of calves by their mothers, which may be a consequence of a lack of older females for new mothers to learn from, of from an earlier age at first calving.

Poole (1989) recently studied a number of elephant populations in East Africa including that in the Queen Elizabeth National Park. A disturbing observation was the absence of adult males over the age of 35, although elephants in the Queen Elizabeth National Park are breeding well. Almost all females are either pregnant or lactating and the age distribution reveals that the population is expanding. It is important that similar investigations should take place in the other national parks where elephants occur. All elephant populations should be monitored for an indefinite period. Information required include population sizes, sex ratios, age distributions, group sizes and reproductive parameters, but it also essential that the social behaviour of the animals should be studied. This will require a significant escalation in the research programme on the Uganda elephants.

2 IMPLEMENTING THE STRATEGY

2.1 Monitoring

The numbers of elephants throughout their range needs to be assessed at least annually at the same time of year, preferably in the wet season, when more elephants are in open country than during the dry season. Aerial survey is the best technique for large areas of savanna and woodland. The methodology for aerial counting is standard and information is readily available in the literature (e.g. Norton-Griffiths, 1975).

Monitoring also needs to be carried out from the ground. Regular assessment of the sex ratio and age structure of each population is required to follow the hoped-for return to a normal situation. If ratios continue to be skewed, remedial action may have to be considered. The options are not many and are likely to be expensive but they would include such possibilities as translocations. It would be unwise to undertake such action, however, without first consulting international opinion.

The implementation of the monitoring programme will require a team whose members would spend much, if not all, of their time on the project. The aerial surveys might occupy several weeks of flying each year, plus many more in analysing the data, and the ground surveys would involve long periods of field work. The best course would be to set up a monitoring unit, one of whose principal duties would be to follow the fortunes of the elephants. An aircraft is already available but funds would be required for fuel and salaries for a permanent specialist team. Spare capacity in time or personnel could be employed on the monitoring of other large mammals of management importance.

The monitoring of elephants in the forest reserves would also be highly desirable. It is not possible to count forest elephants directly but considerable progress has been made in estimating numbers from counts of droppings (Barnes et al, in press). The technique at least gives a presence or absence answer and allows estimates to be made of the relative numbers in different forests as well as revealing trends over time.

2.2 Ecological Research

It is not possible to draw a sharp distinction between monitoring and ecological research and the two activities must be considered to be complementary. A few projects have been proposed so far and one, by Miss Eve Abe, has already commenced. The following are suggested as research programmes which need developing into project proposals:

2.2.1 Human Sociology

The attitudes of people to elephants, particularly where the two come into contact, needs to be investigated. Assuming that the results show a certain antipathy towards elephants because of their destructive habits, it will be necessary to ensure that the recovery of the species is not jeopardised by thoughtlessly antagonising local people. This can best be achieved by establishing the degree and nature of human–elephant conflicts, and instituting compensation and protection schemes as appropriate, as well as developing conservation education and public awareness campaigns to highlight the importance of elephants to native Ugandans.

2.2.2 Elephant Social Structure

Further research is needed into the composition of elephant groups i.e. do they conform to the traditional family unit? Information required includes the number of groups containing one or more adult females and the ages of the adult females. The latter should indicate whether or not elephants that were orphaned are reforming into family units. Groups containing only young elephants also need to be recorded and followed over a number of years to establish whether the traditional elephant society is becoming re-established. The tendency for all the elephants in parts of the Queen Elizabeth National Park to bunch together into a single group needs investigation and the nature of the aggregation forms the basis of Miss Abe's study.

2.2.3 Reproductive Studies

The elephants appear to be breeding well, at least in the Queen Elizabeth National Park, an area of prime elephant habitat. It seems that the population is entering the exponential phase of population growth and hence providing an excellent opportunity for determining the maximum rate of increase of an elephant population under natural conditions. The absence from the park of male elephants over 35 years of age suggests that the bulls are breeding at a much younger age than usual. The observation that an unusually high number of calves have been abandoned requires an study of mother/calf relations to see if the traditionally high degree of mothering care has been reduced, and if so, to determine the cause.

2.2.4 Tusklessness

The normal level of tusklessness in elephants is 3 or 4% but the survey by Poole (1989) revealed that tusklessness in the Queen Elizabeth population varied from about 9 to 25%, depending on the age group. This is not surprising with the older age groups, for the poachers would tend to leave tuskless elephants alone, but the incidence in young animals is also high. Thus five- to ten-year-olds, who would have been born since the worst of the poaching was over, showed about a 15% level of tusklessness. This suggests that the condition has a genetic basis, an assumption that has usually been made in the past although without much evidence. The study should certainly be extended to other populations. The matter has some management implications for a large tusker is a tourist attraction as well as a lure to poachers and it would also, of course, be important commercially if ivory trading or sport hunting were to be re-established.

2.2.5 Elephant Movements

The movements of elephants in Uganda have been little studied and further research is required. It is known that elephants in the past made wet/dry season movements between the forests and the surrounding grasslands in the national parks. Such movements between the Maramagambo Forest and the Ankole grasslands in the Queen Elizabeth National Park have been documented by Eltringham (1977). Historical records also suggest seasonal migrations between this park and the Kibale Forest in Toro through the Kibale Forest Corridor Game Reserve but there is no recent information. Few, if any, elephants now exist in the northern region of the park but it is still possible that some animals may move down from the forest. The matter is of some management significance and it is important that the present status of the corridor is established. Another important matter is the degree of interchange of elephants across the Ishasha River between the Queen Elizabeth National Park in Uganda and the Virunga National Park in Zaire. Future counts of elephants in this region should follow the precedent set in the 1991 counts, reported above, and be conducted simultaneously in both countries.

A further migration that requires investigation is the movement of elephants between Budongo Forest and the grasslands of north Bunyoro, which extend into the Murchison Falls National Park. The occurrence of several hundred elephants in the park last year in the region of the small Rabongo Forest, suggests that such movements are still significant. A proper understanding of these movements is of obvious importance in the conservation of the elephants.

3 MANAGEMENT ACTION

There are not many positive proposals that can be made to ensure the survival of elephants in Uganda short of providing the remaining populations with full protection. Most are in conservation areas with adequate legal provision for protection and if the existing regulations are enforced, there is a good chance that the elephant population will recover, at least to a viable condition if not to its former abundance. It is doubtful, however, that it could survive another onslaught similar to those experienced in the past. Hence the most important management action is to strengthen the anti-poaching forces in the national parks and other reserves where the species still survives.

The recent banning of the ivory trade has clearly helped the situation: there has been no known case of poaching for nearly two years. There is a strong possibility, however, that pressure from the southern African states will result in the lifting of the ban within a few years, by which time the Uganda elephants may have recovered to a point where ivory poaching will again become profitable. Consequently it is important to plan for such a contingency now by ensuring that the anti-poaching level is maintained and that adequate provision is made for controlling any resumption of the ivory trade, legal or illegal.

The problem of salary structures of personnel responsible for protecting the elephants needs to be addressed. Although the most simple solution might seem to be an increase of salaries across the board by a very considerable amount, this could lead to problems with other Government departments, whose staff would then be on far lower wages than National Parks and Game Department staff, and also leaves the National Parks and Game Department with large salary costs which they cannot meet from their own revenues and Government allocations, once an aid programme is finished. Incentive schemes, staff training leading to promotion (and hence higher salaries) and particularly improved facilities (housing, health centres and schools) provide some alternatives to the problem, and means of improving revenue from Parks and Reserves must be investigated.

Evidence of the survival of considerable numbers of elephants in some forest reserves makes it imperative that the forests should be given absolute protection from encroachment. The most important forests so far identified are Budongo, Bwindi, Kibale and, probably, Ruwenzori.

The monitoring of the surviving elephant populations is another action of high conservation priority. The expense is not high and many of the facilities required are already in place, but further funding will be necessary. Finally, research into the biology of the elephant should be continued and expanded.

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Elephant Conservation Plan

for

Uganda

ANNEXES

1. NAMES AND ADDRESSES OF CONTACTS

2. ACRONYMS USED IN THIS PLAN

October 1991

Uganda National Parks,
Plot 107, 6th Street,
Industrial Area, PO Box 3530,
Kampala

ANNEXE 1 NAMES AND ADDRESSES OF CONTACTS IN UGANDA

Department	Contact Names	Address	Phone	Fax	Telex
Uganda National Parks					
Queen Elizabeth National Park	Dr Eric Edroma, Director	Plot 107 6th Street, Industrial Area, PO Box 3530, Kampala	[256] (41) 256534 or 258351	[256] (41) 233708	telegram SIMBA
	Dr Robert Olivier, EEC Advisor				
Game Department	Chief Game Warden	PO Box 4 Entebbe			
Forest Department		PO Box 1752 Kampala			
		PO Box 31 Entebbe			
Ministry of Environmental Protection					
		PO Box 4544 Kampala	[256] (41) 234733		
Ministry of Tourism and Wildlife					
		Parliament Avenue PO Box 4241 Kampala	[256] (41) 232971		62218

ANNEXE 2 ACRONYMS USED IN THIS PLAN

AECCG	African Elephant Conservation Coordinating Group (consists o AWF, EEC, TRAFFIC, WCMC, WCI and WWF in cooperation with CITES Secretariat)
AWF	African Wildlife Foundation
CITES	Convention for International Trade in Endangered Species of Wild Fauna and Flora
EC	European Commission
FAO	Food and Agriculture Organisation
GTZ	German Technical Assistance Agency
IUCN	The World Conservation Union
NP	National Park
TRAFFIC	Trade Records Analysis of Flora and Fauna in Commerce
UIE	Uganda Institute of Ecology
UNDP	United Nations Development Programme
USAID	US Agency for International Development
USF&WS	US Fish & Wildlife Service
WCI	Wildlife Conservation International
WCMC	World Conservation Monitoring Centre
WWF	World Wide Fund for Nature