

Report No. 1022-KE

FILE COPY

Republic of Kenya: Appraisal of the Wildlife and Tourism Project

March 31, 1976

Tourism Projects Department

FOR OFFICIAL USE ONLY



Document of the World Bank

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS ^{1/}

Currency Units	=	Pound (K£)
	=	Shilling (K Sh)
US\$1.00	=	K£0.4025
	=	K Sh 8.05
1 K£	=	US\$ 2.484
1 K Sh	=	US\$0.124
1 million K£	=	US\$2,484,500
1 million K Sh	=	US\$124,220

The official unit of currency in Kenya is the Kenya Shilling (K Sh). However, in accordance with the practice of the Kenyan Government, some large values in the report are expressed in Kenya Pounds (K£ = K Sh 20).

WEIGHTS AND MEASURES EQUIVALENT

1 meter (m)	=	3.28 feet
1 kilometer	=	0.62 miles
1 square meter (m ²)	=	10.76 square feet
1 hectare	=	2.47 acres
1 kilogram	=	2.205 pounds

ACRONYMS AND ABBREVIATIONS

MTW	=	Ministry of Tourism and Wildlife
MOW	=	Ministry of Works
MOE	=	Ministry of Education
MOWD	=	Ministry of Water Development
MLG	=	Ministry of Local Government
MNR	=	Ministry of Natural Resources
MOH	=	Ministry of Health
KTDC	=	Kenya Tourist Development Corporation
KNP	=	Kenya National Parks
UNDP	=	United Nations Development Program
FAO	=	Food and Agriculture Organization
WCK	=	Wildlife Clubs of Kenya
CAWM	=	College of African Wildlife Management
CIDA	=	Canadian International Development Agency
WCMS	=	Wildlife Conservation and Management Service
KREMU	=	Kenya Rangeland Ecological Monitoring Unit
WPU	=	Wildlife Planning Unit
IMD	=	Livestock Marketing Division
GMRW	=	Guaranteed Minimum Return from Wildlife
IUCN	=	International Union for the Conservation of Nature

GOVERNMENT OF KENYA FISCAL YEAR

July 1 - June 30

^{1/} As from October 27, 1975, the Kenyan Shilling is officially valued at a fixed rate of K Sh 9.66 to the SDR. The US Dollar/Kenya Shilling exchange rate is, therefore, subject to change. Conversions in this report were made at US\$1.00 to K Sh 8.05, which is close to the short-term average exchange rate.

TABLE OF CONTENTS

	<u>Page No.</u>
<u>SUMMARY AND CONCLUSIONS</u>	i - ii
I. <u>INTRODUCTION</u>	1
II. <u>BACKGROUND</u>	
A. General	2
B. Kenya's Tourism and Wildlife	2 - 7
III. <u>THE PROJECT</u>	
A. Objectives	7
B. Project Description	7 - 14
C. Project Cost	14 - 15
D. Procurement	16 - 17
E. Disbursement	17
F. Accounts and Audit	18
IV. <u>ORGANIZATION AND MANAGEMENT</u>	18
V. <u>JUSTIFICATION</u>	19 - 26
VI. <u>RECOMMENDATIONS</u>	27 - 28

ANNEXES:

1	Project Cost Estimates
2	Tourism in Kenya
3	Game Park/Reserve Improvements, and Park Headquarters
4	Wildlife and Fisheries Training Institute
5	Wildlife Planning Unit
6	Game-proof Barriers
7	The Wildlife Clubs of Kenya
8	Study of Very Large Herbivores
9	Anti-poaching Measures
10	Economic Justification
11	Project Implementation and Supervision
	Statistical Appendix
	Map, IBRD # 11845R

This report is based on the findings of an appraisal mission in July 1975 consisting of Messrs. Hayman, Calkins, Hechtenberg, Mitchell, and Lamprey (Consultant, IUCN). Water and sewage components were appraised by Mr. E. LaBahn. Mr. J.F.A. Russell of the Resident Mission assisted in the preparation of the project. Ecological studies of the project areas were made for the appraisal by Consultants, D. Western and M. Rainy. Game park/reserve costs and benefits were estimated with the help of a computer model developed by the resource economist of the UNDP/FAO Wildlife Management Project, Mr. P. Thresher.

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

K E N Y A

WILDLIFE & TOURISM PROJECT

SUMMARY AND CONCLUSIONS

- (i) Kenya maintains Game Parks and Reserves primarily because under proper management they can generate much higher returns to land than any currently feasible alternative use. This project would conserve wildlife resources and develop attractions for foreign and local tourists, increase impacts of tourism on rural incomes, support the establishment of more thorough planning for wildlife development, provide training facilities, aid efforts to eliminate poaching and assist conservation education in secondary schools.
- (ii) Outstanding beach and wildlife attractions and a sophisticated tourist industry have established Kenya as a major destination, attracting 332,000 foreign visitors in 1974, the great majority of them on holiday. Future prospects for the industry are favorable, given reasonable political stability and effective management of wildlife resources. The survival of large herds of wildlife in some areas is seriously threatened by rising human populations, conflicting land uses, and poaching. Government has identified programs to deal with these problems, which the project would support.
- (iii) Responsibility for management of Kenya's wildlife resources has rested with the Game Department of the Ministry of Tourism and Wildlife (MTW), the Trustees of the Kenya National Parks (KNP), and those County Councils which administer Game Reserves. A Bill came into effect in February 1976 to create an integrated Wildlife Conservation and Management Service (WCMS) under the MTW to incorporate all functions of KNP and the Game Department. Government also intends to take over management of former Game Reserves (now designated "National Reserves") on behalf of County Councils in order to ensure higher standards of management of these areas.
- (iv) The project would be implemented over five years and would include investments to increase the tourist capacity and amenity of three major areas -- Amboseli National Park and its dispersal area, Masai Mara National Reserve and its dispersal area, and several Reserves within the Inner Northern Circuit (Samburu, Buffalo Springs, Shaba, and the Marmar Ranch, and their dispersal areas). Modest but urgent works for protection of the paleontological attractions of Lake Turkana National Park would also be included. A Wildlife and Fisheries Training Institute would be established at Lake Naivasha to provide basic and upgrading training for Government and private sector personnel in the wildlife and fisheries fields. Game-proof barriers between valuable wildlife and agricultural activities would be constructed. The project would also include funding for its first five years of a Wildlife Planning Unit in the MTW. The Government is also concerned that adequate

attention be given to defining policies for management of wildlife outside the project areas, and for pricing of tourist services in Kenya, and the project would include funds for studies on these matters as well as detailed planning studies for some proposed tourist circuits. Funds are provided to assist the Government in taking more effective measures against poaching. Small-scale assistance would be provided to the Wildlife Clubs of Kenya for buses to take Kenya residents to and around Parks and Reserves.

(v) The project as outlined above is estimated to cost about US\$36.4 million, including physical contingencies of US\$2.0 million and price contingencies of US\$ 8.8 million. US\$17.0 million would be foreign exchange. The greater part of the project cost would be related to the specific wildlife areas covered in the project, and for the training component.

(vi) Major equipment and vehicles would be procured under international competitive bidding in accordance with Bank guidelines. Most civil works are located in remote areas and are not expected to attract serious international interest; local bidding is expected to be genuinely competitive within the very active Kenyan construction industry. Minor works would be implemented under force account, or, in the case of game-proof barriers, locally negotiated contracts.

(vii) It is recognized that the project will be difficult to implement and will initially require a major supervision effort.

(viii) It is estimated that the economic rate of return on the investments proposed for the Amboseli National Park, the Masai Mara National Reserve, and the Inner Northern Circuit would be of the order of 22%. These estimates do not take account of important unquantifiable net benefits.

(ix) The project is expected to generate direct employment by 1980 of 840 and indirect employment of a similar number. Total employment generated by the project is estimated at over 5,600 by 1990. Net foreign exchange earnings generated by the project are estimated at US\$2.0 million in 1980, rising to US\$14.5 million per year by 1990. Perhaps the most significant benefits of the project, however, derive from its assistance to the Government in its efforts to ensure the long-term survival of Kenya's potentially valuable but seriously threatened wildlife resources. The project should have a favorable ecological impact by bringing about improved wildlife resource management.

(x) The project is suitable for a loan through the Third Window of US\$17.0 million equivalent.

K E N Y A

APPRAISAL OF THE WILDLIFE AND TOURISM PROJECT

I. INTRODUCTION

1.01 A Bank mission concerned with identifying pre-investment studies visited Kenya in November 1970. The first priority was seen as the comprehensive master planning of a major new resort on the coast. The Bank has advised the Government in its commissioning of consultants to carry out this work, which was completed in December 1975. Other proposals included studies for development of various wildlife attractions and circuits based on them.

1.02 An agricultural sector mission which visited Kenya in the fall of 1972 highlighted the potential of the wildlife resource as well as the ecological problems which, along with inadequate planning, threaten it. The Government decided that a project to develop wildlife tourism should assume the first priority and accordingly established an inter-ministerial Working Party which, with assistance from the Bank's Regional Mission in Eastern Africa, prepared a Project Identification Report in July 1974. This was reviewed by a pre-appraisal mission in November 1974, at which time specific project items were selected for further preparation.

1.03 The project provides for improvements to a National Park and three National Reserves, training for wildlife and fisheries, a planning unit and policy planning studies, game-proof barriers, and minor items to assist the Government in its conservation efforts.

1.04 The second IDA Livestock Project (Credit No. 477KE) contained some items (water supplies, census and monitoring unit) to assist wildlife management. This project would, however, represent the first Bank loan to Kenya exclusively for wildlife and tourism.

II. BACKGROUND

A. General

2.01 Kenya has an area of 583,000 km² (of which 8,000 km² is water), which supports a population of some 12.9 million (mid-1974), growing at about 3.3% per year. Its varied climate, topography, and soil range from a limited Afro-Alpine zone in the center to a tropical coastal strip, and from near desert in the north to high rainfall forest in the southwest. Only some 18% of the total land area has a high or medium agricultural potential. Some 90% of the population live in rural areas, where the average annual per capita income is estimated at K Sh 480 (US\$60) as against K Sh 1,290 (US\$160) for the country as a whole. Agriculture is the single most important sector, employing some 90% of the labor force and contributing 34% of GDP. Most of the 1.2 million smallholders are engaged in subsistence farming, which still accounts for over half of agricultural value added. Exports consist mainly of agricultural commodities with coffee the principal product, earning K Sh 769 million in 1974. Earnings from tourism ranked second in 1974, yielding K Sh 530 million ^{1/} equal to 7% of total receipts on the current account of the balance of payments.

B. Kenya's Tourism and Wildlife

Tourism

2.02 Kenya's is one of the most highly developed tourist industries in Africa. The country's attractions of climate, magnificent scenery, fine sand beaches and clear seas, cultural diversity and rich wildlife constitute a range of attractions which can be matched by few other destinations.

2.03 Tourism has been an important economic activity in Kenya for over 50 years. Current patterns in the industry evolved from the mid-1960s, when reductions in airfares and rising incomes in Western Europe and North America brought within the reach of increasing numbers of people holidays to this destination, hitherto associated in the popular mind with luxury safaris by the rich and the famous.

2.04 Since the mid-1960s, visitors from outside East Africa^{2/} have increased from about 65,000 (in 1964) to 257,000 in 1974, an average growth rate approaching 15% annually. Growth was maintained until 1972; since then, with the onset of the world recession and the increases in transport costs

^{1/} Excluding receipts from visitors on transport account. The estimating procedure used underestimates receipts from tourists on inclusive tours by K Sh 60 to 80 million.

^{2/} Here defined as Kenya, Tanzania and Uganda.

associated with the large increase in oil prices, visitor numbers from outside East Africa have remained practically unchanged. The large increases in visitor arrivals over the last decade were matched by comparable increases in the supply of accommodation capacity and other visitor facilities. Hotel capacity capable of accommodating foreign visitors increased from 3,470 rooms in 1965 to some 9,400 rooms in 1974. ^{1/} A dynamic private sector, including resident and foreign firms, responded rapidly to investment opportunities, and the Government assisted in creating such opportunities through the provision of infrastructure, promotion of the industry, and the development of wildlife attractions with the creation of new National Parks and Game Reserves.

2.05 The most rapid growth in tourist arrivals has been of persons on holiday. Among these, the fastest growth has been from Europe, North America, Japan and Oceania. Persons visiting friends and relations (especially from the U.K., India and neighboring East African countries) are still important, however, as are demands by residents of Kenya for hotel accommodations. Thus 52% of total visitor nights in Kenya were spent outside commercial accommodation in 1974, and residents took 30% of total hotel bednights occupied in that year.

2.06 Holiday visitor flows to Kenya have remained high in the past two years, despite recession in the main tourist-generating countries. Excluding visitors from East Africa, holiday visitors ^{2/} rose by 1.8% between 1972 and 1973, and fell by only 0.4% in 1974, as compared with a fall of about 5% in world tourist arrivals in that year. Sharp falls in visitors from Britain and North America were compensated by continued increases from most European countries and the Far East. Hotel bednights spent by non-residents of East Africa increased by 4.5% and 9.5% in 1973 and 1974. They held up better than visitor flows for a variety of reasons: more extended wildlife viewing in Kenya rather than in neighboring countries, higher airfares (leading to longer lengths of stay), and a decline in prices of services in Kenya relative to overseas price levels. The recent devaluation of the Kenya shilling should continue the latter trend.

2.07 With the likely levelling off of increases in transport costs, and economic recovery in the main tourist-generating countries in the next several years, renewed rapid expansion in tourist flows to Kenya can be expected. Returns for the first quarter of 1975 show a growth in bednights spent by non-residents of East Africa of 11% over the first quarter of 1974. Bookings have been very heavy for the 1975/76 season, particularly at the coast. By the early 1980s, growth of visitor numbers by about 8-10% annually may reasonably be expected, provided that the necessary investments in new capacity are made and that measures to safeguard Kenya's endangered wildlife resources are carried out.

^{1/} Average rooms available during the year. Capacity installed is slightly greater.

^{2/} Arrivals of persons who have not visited Kenya within the last 30 days. Total arrivals were some 14% higher, since they include the multiple entries of persons who also took excursions to neighboring countries.

Wildlife

2.08 In the last century, great herds of wild herbivores and their associated predators ranged over almost every part of Kenya. In the past 75 years, they have disappeared from areas of high and medium agricultural potential. The initial reductions were associated with European agricultural settlement of the former "white highlands". More recently, they have been associated with the encroachment of subsistence agriculturists into ever more marginal land. In the rangelands which cover 70-75% of Kenya, wildlife is threatened by a combination of growing livestock numbers, bred to provide subsistence for a pastoral population rising by over 3% per annum, changes in land tenure, and illegal hunting.

2.09 From the beginning of this century, the Government of Kenya has attempted to preserve the wildlife, both for aesthetic reasons and also because it felt that this resource might later yield high economic returns. It has relied upon two main lines of policy to achieve this. The first was to pass laws requiring licenses for all hunting of game animals for sport or profit. These laws were and are administered and enforced by the Game Department (now the Wildlife Conservation and Management Service). Not all killing of game was prohibited. Possessors of alienated land (freehold, or on leasehold from the State) could kill wildlife in defense of property, including grass and water. That the wildlife survived in the commercial ranching areas was due in part to the preference of commercial ranchers to carry some wildlife on their estates, in part to lack of intensive management. Some commercial ranchers successfully eradicated game, however. The legal situation was entirely different in the majority of the rangelands which were held in trust for, and used in common by, subsistence pastoralists. There, unlicensed killing of wildlife, except in defense of human life, was prohibited. This prohibition probably had its main effect in restricting hunting by non-pastoralists. Among the pastoralists themselves, the traditions which had accounted for the survival of wildlife in pre-colonial days continued to operate. Specifically, having no right to exclude others from using the range, no group could hope to secure for itself benefits in increased forage from the costly and organizationally demanding tasks of eradicating wildlife from a particular area. Moreover, the pastoralists ranged seasonally over much larger areas than those under the control of any well-knit social or political unit. More positively, many pastoral people regarded the wildlife as their "second cattle", which provided emergency food supplies in the event of periodic (every one to two generations) decimations of cattle through drought and disease.

2.10 A second and more recent policy was the declaration of Game Reserves (within which hunting was prohibited) and National Parks (in which all activities in conflict with wildlife preservation were prohibited). ^{1/} Reserves and parks were established in areas harboring high densities of wild animals whose survival was believed to be threatened by other land uses. Most Game Reserves were on Trust Lands. They were established by decisions

^{1/} The first National Park, at Nairobi, was gazetted in 1947.

of the County Councils in which the Trust Land was vested. ^{1/} National Parks and National Reserves were the responsibility of the Trustees of the Kenya National Parks, a statutory body which derived its revenues from entry fees, private donations and Government grants. Prior to February 13th, 1976 there were 8 County Council Game Reserves, 3 National Reserves, and 14 National Parks. Under legislation coming into effect on that day, former Game Reserves have been designated as National Reserves.

2.11 Many parks and reserves (and all of those included in the proposed project) are not self-contained ecological units. Most of their herbivores disperse during the rains to surrounding pastoral areas several times the size of the parks themselves. Maintenance of the large herds of herbivores, which provide subsistence for large predators and are the prime attraction for tourists, therefore depends upon their continued access to the dispersal areas. The traditional mechanisms which secured the survival of wildlife in the dispersal areas are rapidly eroding. The dispersal areas are being divided into ranches held by small groups of families on freehold, largely in order to provide the basis for higher livestock productivity through controlled stocking rates and range improvement. These efforts are being supported by the Bank Group and other donors. Having now the legal right to eradicate wildlife on their lands, pastoralists have the incentive to attempt to do so. Moreover, preservationist game laws are causing pastoralists to re-define the wildlife as no longer "our second cattle" but instead "the Government's cattle", a change reinforced by the exclusion of domestic stock from parks and reserves.

2.12 Perhaps the most immediate threat to the country's wildlife is the apparent expansion of previously limited harvest quotas of commercially valuable species, and weak enforcement of such quotas as remain, with the result that some valuable herds are being seriously depleted. This has occurred at least in part due to the very high prices fetched by some game products in recent years (especially ivory), and the inability of the administration to withstand the pressures for higher exploitation. The sources of this pressure, and the beneficiaries, are not, however, the pastoralists who must bear the costs of the wildlife. The pressures are frequently from other parts of the country, and the inhabitants of wildlife areas have little or no incentive to resist them.

2.13 Another threat to wildlife arises from serious visitor congestion in some parks and reserves, reflecting inadequate and badly-sited road networks, and extensive off-track driving with serious adverse effects on the vegetation of the area and eventually on its animal carrying capacity. These problems are particularly acute in the case of some National Reserves, where growth in visitor numbers has been much more rapid than in National

^{1/} Government advised Councils on these matters, and the legal notice declaring the Reserve and the by-laws were issued by the Minister for Tourism and Wildlife under the Wild Animals Protection Act. Government also supported Reserves financially, through small grants for capital works and, in some cases, through the secondment to Councils of Game Department officers to act as Wardens.

Parks, but where investment in tourism infrastructures has been less. Inadequately designed road networks also limit unnecessarily the tourist capacity of some parks as well.

2.14 The Government is aware of these problems. It has set out a series of policies designed to overcome them in its latest Development Plan (1974-1978) and in Sessional Paper Number 3 of 1975 (Statement on Future Wildlife Management Policies in Kenya). A fundamental policy is to encourage landowners (pastoralists) to harbor wildlife on their land by enabling them to earn direct returns from it. The returns may come from consumptive utilization (hunting, cropping) or from tourism (rentals from lodges and campsites, for example). In the dispersal areas of parks and reserves, the Government will seek formal agreements with landowners under which the landowners will undertake to follow ranching practices consistent with continued wildlife migrations, and under which the Government will be committed to assisting landowners to earn direct returns from their wildlife and to paying ranchers such sums as are necessary to enable them to earn a Guaranteed Minimum Return from Wildlife (GMRW). The conclusion of such agreements, after review by the Bank, would be a condition for disbursement for project components in the wildlife areas included in the project.

2.15 To halt the damage to the ecology of the parks and reserves which tourism growth has brought about, the Government intends to provide more careful planning of parks and reserves, and more sensitive development of track networks. In some parks, employment of qualified guides will play an important role in limiting damage to the ecology and in raising visitor carrying capacity. New administrative buildings and staff housing are to be placed outside the boundaries of reserves and parks, and new rural centers established. Besides protecting ecological and amenity values, these measures will give access to a wider range of social services to staff of parks and lodges, services to which local inhabitants of the wildlife areas will also have access, and are expected to create local markets for the sale of produce, thus enabling parks and reserves to provide more stimulus to the local economy than is now the case. To improve the standard of administration of Reserves (which also requires substantial capital investments), the Government intends to undertake their management on behalf of County Councils, paying the Councils a share of receipts, and ensuring that Councils receive no less (in real terms) in the future than the surpluses they earned in the past.

2.16 In an attempt to limit the poaching of ivory in the short run, the Government has issued a legal notice abolishing private trade in raw ivory. In the longer term, the administration must be strengthened to enforce the relevant laws and also to define and implement viable policies. To guide it in establishing comprehensive policies for the management of very large herbivores, including elephant, the Government will commission a special study by consultants. The Government is also embarking on a number of other research activities related to detailed definition and implementation of its policies. For example, the Kenya Rangeland Ecological Monitoring Unit (KREMU) established with the assistance of CIDA will provide authoritative and up-to-date information on stocking rates by species and

area, habitat changes, location of agriculture in the pastoral areas, and other data, from early 1976 on. Wildlife research capacity is also being strengthened. Funds are to be provided under the project for direct support of anti-poaching activities.

2.17 The Government realizes that if its policies are to be implemented, the administration of wildlife must be strengthened. The Wildlife (Conservation and Management) Act to replace the Wildlife Animals Protection Act and the National Parks of Kenya Act, which came into effect on February 13, 1976, provides for the merger of the Game Department and the Kenya National Parks into a single Wildlife Conservation and Management Service (WCMS), within the Ministry of Tourism and Wildlife. The fundamental objective of this Act is to adapt the administration of wildlife to the ecological situation where the health of Parks and Reserves depends as much upon what happens outside as inside their boundaries. The appointment of competent officials to the key positions in the new Wildlife Service will be critical to its success, and the Government has indicated that the merger will be accompanied by the appointment of personnel with the ability to secure a major improvement in the administration of wildlife policies.

III. THE PROJECT

A. Objectives

3.01 The proposed project is designed to support Government in implementing its policies for wildlife-based tourism as described above. These policies are in line with the recommendations of the Bank's 1973 Agricultural Sector Review. ^{1/} There are several actual or potential impediments to implementation of these policies, however. These include administrative inertia, insufficient number of personnel with the skills required, and lack of finance to carry out some of the most urgent capital investments. The proposed project is designed to help overcome the most serious of these impediments. It would do so through financial support of certain staffing, training, and investment activities.

B. Project Description

3.02 The project would consist of a coordinated package of capital and some incremental operating expenditures on:

^{1/} Agricultural Sector Survey, Kenya, December 20, 1973 (25/4a-KE).
See especially Annex 15, Wildlife and Tourism in Rural Development.

- (i) facilities to increase the tourist capacity and local development impacts of the Amboseli National Park, the Masai Mara National Reserve, and the Reserves of the Inner Northern Circuit comprising Samburu National Reserve, Buffalo Springs National Reserve, Shaba National Reserve, and the Marmar Ranch;
- (ii) improvements at Lake Turkana (formerly Lake Rudolf) National Park;
- (iii) game-proof barriers;
- (iv) a Wildlife and Fisheries Training Institute;
- (v) buses for the Wildlife Clubs of Kenya;
- (vi) a Wildlife Planning Unit;
- (vii) policy and feasibility studies on wildlife and tourism development;
- (viii) support for anti-poaching activities, subject to agreement in detail between the Bank and the Government; and
- (ix) a Project Management Unit.

Development of Selected Wildlife Areas

3.03 Amounting to K Sh 149 million out of a project total of K Sh 293 million, the developments proposed for the selected wildlife areas would constitute the largest component of the project. The areas covered would include the 390 sq. km. Amboseli National Park and its dispersal area, the 1,550 sq. km. Masai Mara National Reserve and its dispersal area, and the Reserves of the Inner Northern Circuit, totalling in all about 310 sq. km. The project would include some improvements on the approximately 200 sq. km. of the Marmar ranch once it has been acquired by Government, and to the Samburu group ranches in its dispersal areas on the Leroghi Plateau, thereby extending the variety of attractions on the Inner Northern Circuit.

3.04 The developments for these areas would include some minor facilities within the parks (blinds for animal and bird viewing, entrance gates, protection and display of archaeological sites (Turkana), site museums, sign posting, etc.), and major expenditures on construction of tracks, and of park headquarters, housing for staff of parks, and of community facilities in centers near the parks to service park staff and their families, some lodge staff, and the local inhabitants of the wildlife areas. The park headquarters and community centers would be located at Kimana ^{1/} for Amboseli, Migwara for the Masai Mara, and Archers Post for Samburu, Buffalo Springs, and Shaba.

^{1/} Two alternative locations, Kimana and Lemongo, are currently being studied.

3.05 Although many of the 25 Parks and Reserves in Kenya require improvements, those chosen for this project exhibit characteristics requiring priority attention. Amboseli, Mara, Samburu and Buffalo Springs have all been run as County Council Game Reserves, and provide striking examples of the consequences of lack of planning, insufficient investment, and amenity-destroying urbanization. They are also among the most attractive wildlife areas in Kenya and have enjoyed the largest visitor growth of all Kenya's Parks and Reserves in the last ten years. In Amboseli, the problems are more acute than elsewhere, since the low visitor carrying capacity resulting from past neglect compounds the substantial ecological damage by tourists. Destruction of forage by tourist vehicles crossing the grasslands away from the established tracks exceeds the trampling effect of the 40-50,000 animals (mostly domestic) 1/ which graze there. The areas chosen also merit priority since their viability is completely dependent upon continued survival of wildlife in their respective dispersal areas, and hence upon the successful implementation of Government's new policies to induce group ranchers to maintain the wildlife.

3.06 Shaba is a new Reserve, located close to Samburu and Buffalo Springs. It is included in the project since the park headquarters and community center to be established at Archers Post would also conveniently serve it; it will increase the range of attractions on the Inner Northern Circuit, and relieve some of the visitor pressure on Samburu and Buffalo Springs. The development of the Marmar Ranch for tourism would fill a gap in the Inner Northern Circuit, and so would be complementary to the reserves on this circuit. The ranch is currently privately owned, but after its acquisition by the Livestock Marketing Division (LMD) of the Ministry of Agriculture, LMD would manage it for tourism as well as livestock. If such management proves successful, it might be copied by private ranches in the future.

3.07 The improvements proposed for Lake Turkana (Rudolf) differ from those in the other areas in that they consist of conservation of paleontological sites rather than maximization of economic returns from wildlife-based tourism. The main priority would be to protect exposed deposits from trampling by animals and disturbance by visitors. There would be minor expenditures on signposts and exhibits near excavated sites.

1/ Amboseli was placed under the administration of Kenya National Parks in November, 1974. The domestic stock which traditionally grazed within the Park will continue to do so until the alternative sources of water and grazing being constructed by Government (with the financial assistance of the New York Zoological Society and IDA Credit KE 477) are completed and accepted as adequate compensation by the traditional users of the area.

3.08 Track construction and maintenance would be carried out by three road units allocated respectively to Amboseli, Mara, and the Inner Northern Circuit. Since the location of viewing tracks, taking full account of ecological characteristics and visitor preferences, is probably the most important factor in maximizing returns from park development, it is essential that these units follow plans prepared by the Wildlife Planning Unit and approved by the Ministry of Tourism and Wildlife. Assurances were obtained during negotiations that the Government would submit these plans to the Bank for approval prior to the start of construction. It is possible that the Planning Unit would be able, within a short time of its establishment, to approve and elaborate upon the layouts formulated for the Amboseli National Park on the basis of several years' ecological studies and in the light of visitor surveys carried out in that Park. Similar work has not yet been done elsewhere, however, and it is unlikely that road construction could commence before the second year of the project in the other areas.

3.09 The project would provide equipment for each road unit, and would meet the maintenance and running costs of the equipment for four years as well as labor and materials required for road construction. Housing for the labor of these units is included in the park headquarters.

3.10 The headquarters consist of offices, maintenance shops, store-rooms, etc., plus housing, utilities and community facilities such as primary schools, dispensaries, and community halls, depending upon existing facilities in each center. These proposals have been prepared with the assistance of the Department of Urban and Rural Physical Planning and meet the standards established for the development of rural centers in Kenya. Assurances were obtained during negotiations that the Government would submit plans for each headquarters to the Bank for approval prior to the start of any construction.

3.11 Due to the importance of wildlife access to the dispersal areas for the viability of the Amboseli National Park and the Masai Mara National Reserve, a condition for disbursement for park improvements, roads, and park headquarters in those areas would be conclusion of satisfactory agreements with group ranchers there. The same condition would apply to developments undertaken in the Marmar Ranch. In the case of the Masai Mara, Samburu, Buffalo Springs and Shaba National Reserves, disbursement would also depend upon conclusion of agreements under which Government would manage these reserves on behalf of the local County Councils.

Game-proof Barriers

3.12 In areas where the highest valued uses of adjoining land units are agriculture (or forestry) and wildlife, the most cost-effective method of avoiding game-damage to crops, and killing of wild animals by cultivators, is the construction of game-proof barriers. Depending upon the terrain and the animal species, such barriers consist of high tensile wire fence, or game ditches. The proposed project would finance construction of some 500 km. of

such barriers on the boundaries of the Aberdares, Mount Kenya, and Meru National Parks, the Shimba Hills National Reserve (where the game is in conflict with smallholder agriculture), and at the northern limit of the Mara dispersal area near Narok (where the conflict is with large-scale wheat schemes). During negotiations assurances were obtained that adequate budgetary provision would be made for the maintenance of game-proof barriers included in the project, to amount to not less than K Sh 2,000 per kilometer per year in 1976 prices.

The Wildlife and Fisheries Training Institute

3.13 The project would finance the capital costs of an Institute at Naivasha mainly to train staff of the Wildlife Conservation and Management Service and of the Fisheries Department. The Game Department, Kenya National Parks, and Fisheries Department had 3,169 established posts in 1975/76. The main emphasis would be on basic and upgrading training for junior and intermediate staff, but there would be special courses for all levels of staff. The Institute would also provide policy and administrative orientation courses to staff entering at senior levels who have completed their basic technical training at other institutions such as the University of Nairobi, the College of African Wildlife Management at Mweka in Tanzania, and universities abroad. This training component is particularly important in view of the requirements for more intensive management of wildlife and fisheries, including extension efforts. The Institute would also provide courses for guides of private tour operators and for other private sector personnel engaged in production and marketing activities related to wildlife and fisheries.

3.14 Capital costs are based on preliminary engineering studies and the assumption that the Institute would accommodate 175 trainees initially. Since most of the trainees would be government employees, the Institute may be a government training institute. There may be advantages, however, in setting up the Institute as a statutory body under the control of a board of governors. Assurances were obtained during negotiations that, should the Institute be established in such a way as not to be under the direct control of the MTW, an agreement satisfactory to the Bank would be made between the MTW and the Institute for the management and operation of the Institute. This agreement would be concluded before the facilities at Naivasha would be made available for the Institute's use. Assurances were also obtained that the appointment of the principal and vice principal would be made after prior consultation with the Bank, and that other qualified staff would be provided as needed, perhaps with the assistance of other donors. Assurances were also obtained that the Bank could review plans for the construction of the Institute, its staffing, and curricula.

Wildlife Clubs of Kenya

3.15 The Wildlife Clubs of Kenya is a non-governmental association of member clubs in many of the secondary schools of Kenya supported by grants from the Ministry of Tourism and Wildlife and private donors (Annex 7). The Clubs encourage an interest in wildlife conservation through field visits,

a newsletter, a roving cinema van, and guest lectures. Public awareness of the issues involved in wildlife conservation is probably the most fundamental requirement for its success. The Clubs are a modest beginning in stimulating such awareness and they have met with an enthusiastic response. The project would include finance for the purchase of three 40-seat buses to transport Kenyan residents to Parks and Reserves. During negotiations, assurances were obtained that the Government would ensure that the Clubs have resources adequate for the operation and maintenance of the buses.

Wildlife Planning Unit

3.16 The Wildlife Planning Unit, for which finance would be provided for its initial five years, is a critical element of the project (Annex 5). The Unit would have two major responsibilities:

- detailed planning of individual parks and reserves and their dispersal areas (commencing with those for which the project would fund improvements) to ensure that visitor capacity is maximized and the amenity of parks preserved. In order to carry out this function, the Unit will include economists, physical planners, ecologists, and a cartographer (who would also serve KREMU); and
- assistance to other Government officers with formulation of proposals and negotiation of agreements with landowners (on the continued access of wildlife from parks and reserves into the dispersal areas) and with County Councils (for the management of their reserves by Government).

Administratively, the WPU would form part of the MTW planning function under the Principal Planning Officer, but would maintain close links with the WCMS. Due to the importance of planning for the timing of many project components, Government expects to seek staff for and to establish the WPU at the earliest possible date. During negotiations, assurances were obtained that Government would consult the Bank on the qualifications and experience of candidates for the post of Head of the WPU, whose appointment would be made not later than August 31, 1976.

3.17 In order that the WPU staff can devote themselves exclusively to wildlife planning, assurances were obtained that adequate staff for other MTW planning activities would be provided, and the project would also include finance for a four-year period for an economist to assist the Senior Planning Officer of the MTW in non-wildlife policy and planning tasks.

Policy and Planning Studies

3.18 The project would include finance for two main type of studies: studies on urgent policy questions and feasibility and planning studies of future projects. The most urgent policy question requiring attention is the future management of the very large herbivores, including elephant. Much ecological and economic information exists on these animals, but it has not

been analyzed from the point of view of formulating a rational long-run management policy. The proposed study would make detailed policy recommendations; it should be commissioned within six months of the date of loan signing, and be completed within 18 months of commissioning. The Bank would review and agree with the Government on the recommendations of the study and the measures for implementation.

3.19 Another policy area requiring attention is that of pricing for tourist services. Prices of such services in Kenya have not kept pace with inflation elsewhere. For example, the real cost to foreign tourists of park entry fees is presently only 48% of its 1968 level (taking account of exchange rate changes and rises in the cost of living indices of the main tourist-generating countries). Current park pricing takes no account of different pressures of demand on different parks, or at different periods of the year. Less is known about evolution over time of prices for other tourist services, although these are all subject to varying degrees of Government control. Since prices are of critical importance for the benefits to be secured from tourism, this subject requires more focussed attention than it has secured to date. Although the Wildlife Planning Unit may be able to handle the problems of park pricing, other aspects of this problem may have to be studied by consultants. ^{1/} During negotiations, assurances were obtained that Government would arrange for such a study to start within 12 months of loan signing.

3.20 The Wildlife Planning Unit would arrange for the carrying out of the necessary master planning and feasibility studies for development of all new circuits and attraction areas. Of particular importance here are the development of the Nguruman Escarpment area including the completion of a proposed new circuit linking Nairobi and the Mara via Lake Magadi and Nguruman and the formulation of a tourism and wildlife development strategy for the Tana River, Garissa, Lamu area. During negotiations, it was agreed that the terms of reference and the choice of consultants for any study costing more than K Sh 150,000 (US\$18,600) should be acceptable to the Bank.

Anti-poaching Activities

3.21 The project provides funds for the establishment, equipping and operating of up to three anti-poaching units - to supplement the one unit now operating in the Samburu/Isiolo area. During negotiations, it was agreed that the Government would provide, by September 30, 1976, a program in such detail as the Bank may require, setting out the justification for each of such units, their organization, staffing, location, capital and recurrent budgets, and arrangements for training of personnel and maintenance and operation of equipment. The Government has prohibited the private trade in ivory, and plans to consider other aspects of the poaching problem - as for example, the illicit trade in wildlife products. During negotiations, it was agreed that the Head of the anti-poaching section would be made after consultation with the Bank.

^{1/} Annex 10 (especially paras. 39-43) identifies several pricing issues which need attention.

Project Management Unit (PMU)

3.22 The initial responsibilities of the Project Management Unit would be to coordinate the implementation of the present project. The Ministry of Tourism and Wildlife would, however, intend to retain the unit later to coordinate other development projects. Assurances were received during negotiations that the Head and Deputy Head of the PMU would be appointed after consultation with the Bank. Appointment of the Head would be a condition of effectiveness of the loan.

Land Acquisition

3.23 Assurances were received during negotiations that the Government would acquire all land as and when needed for the project.

C. Project Cost

3.24 Total project cost is estimated at K Sh 293.3 million (US\$36.4 million), with the foreign exchange requirement estimated at US\$17.0 million. Detailed cost estimates are given in Annex 1, and are summarized below:

KENYA: WILDLIFE AND TOURISM PROJECT

ESTIMATED PROJECT COSTS

	Kenya Shillings (millions)			U.S. Dollars (thousands)			% of Baseline costs
	Local	Foreign	Total	Local	Foreign	Total	
<u>Amboseli National Park and dispersal area, Lemongo</u>	<u>15.6</u>	<u>8.3</u>	<u>23.9</u>	<u>1,941.0</u>	<u>1,035.2</u>	<u>2,976.2</u>	<u>11.6</u>
Civil Works	13.1	5.5	18.6	1,626.3	688.5	2,314.8	9.0
Equipment	0.8	1.6	2.4	93.8	199.4	293.2	1.2
Professional services	1.7	1.2	2.9	220.9	147.3	368.2	1.4
<u>Masai Mara and dispersal area, Migwarrur</u>	<u>14.4</u>	<u>7.6</u>	<u>22.0</u>	<u>1,788.1</u>	<u>949.3</u>	<u>2,737.4</u>	<u>10.7</u>
Civil Works	12.3	5.5	17.8	1,532.8	684.8	2,217.6	8.7
Equipment	0.5	1.1	1.6	64.6	137.4	202.0	0.8
Professional Services	1.6	1.0	2.6	190.7	127.1	317.8	1.2
<u>Samburu, Buffalo Springs, Shaba, Marmar and dispersal areas, Archers Post</u>	<u>13.1</u>	<u>6.5</u>	<u>19.6</u>	<u>1,641.0</u>	<u>802.5</u>	<u>2,443.5</u>	<u>9.5</u>
Civil Works	11.4	4.5	15.9	1,417.8	561.1	1,978.9	7.7
Equipment	0.4	1.1	1.5	55.7	129.7	185.4	0.7
Professional services	1.3	0.9	2.2	167.5	111.7	279.2	1.1
<u>Lake Turkana National Park</u>	<u>0.7</u>	<u>1.3</u>	<u>2.0</u>	<u>84.9</u>	<u>159.8</u>	<u>244.7</u>	<u>1.0</u>
Civil Works	0.4	0.3	0.8	54.5	38.4	92.9	0.4
Equipment	0.2	1.0	1.2	30.4	121.4	151.8	0.6
<u>Road Construction Units</u>	<u>6.4</u>	<u>24.3</u>	<u>30.7</u>	<u>794.6</u>	<u>3,015.6</u>	<u>3,810.2</u>	<u>14.9</u>
<u>Game-proof barriers</u>	<u>9.3</u>	<u>3.0</u>	<u>12.3</u>	<u>1,146.3</u>	<u>382.1</u>	<u>1,528.4</u>	<u>6.0</u>
<u>Wildlife and Fisheries Training Institute, Naivasha</u>	<u>16.6</u>	<u>12.9</u>	<u>29.5</u>	<u>2,063.3</u>	<u>1,600.3</u>	<u>3,663.6</u>	<u>14.3</u>
Civil Works	11.9	5.9	17.8	1,470.1	738.8	2,208.9	8.6
Equipment	2.2	5.3	7.5	279.7	652.5	932.2	3.6
Professional Services	2.5	1.7	4.2	313.5	209.0	522.5	2.1
<u>Wildlife Clubs of Kenya</u>							
Equipment	0.1	0.4	0.5	11.4	45.2	56.6	0.2
<u>Anti-poaching Units</u>	<u>14.2</u>	<u>17.4</u>	<u>31.6</u>	<u>1,758.0</u>	<u>2,162.7</u>	<u>3,920.7</u>	<u>15.3</u>
Civil Works	8.1	3.4	11.5	1,015.2	417.9	1,433.1	5.6
Equipment & Running Costs	4.9	13.2	18.1	596.1	1,646.4	2,242.5	8.8
Professional Services	1.2	0.8	2.0	146.7	98.4	245.1	0.9
<u>Wildlife Planning Unit and Studies</u>	<u>9.5</u>	<u>14.7</u>	<u>24.2</u>	<u>1,182.0</u>	<u>1,825.5</u>	<u>3,007.5</u>	<u>11.7</u>
<u>Project Management Unit</u>	<u>5.7</u>	<u>4.2</u>	<u>9.9</u>	<u>700.1</u>	<u>524.5</u>	<u>1,224.6</u>	<u>4.8</u>
Baseline Cost	105.6	100.6	206.2	13,110.7	12,502.7	25,613.4	100.0
<u>Contingencies:</u>	<u>50.9</u>	<u>36.2</u>	<u>87.1</u>	<u>6,324.8</u>	<u>4,497.3</u>	<u>10,822.1</u>	<u>42.3</u>
Physical Increase	10.6	5.8	16.4	1,326.6	715.6	2,042.2	8.0
Price Increase	40.3	30.4	70.7	4,998.2	3,781.7	8,779.9	34.3
<u>GRAND TOTAL</u>	<u>156.5</u>	<u>136.8</u>	<u>293.3</u>	<u>19,435.5</u>	<u>17,000.0</u>	<u>36,435.5</u>	

3.25 The cost estimates for civil works and equipment are based on preliminary engineering for the project components in December 1975 prices. Physical contingencies of 15% are included, with the exception of Archers Post Park Headquarters where 20% was used because the preliminary engineering data available for the site were still incomplete. Price escalation has generally been calculated at 15% overall in the first year, 12% each in the second and third years and 10% each in the fourth and fifth years. Road construction equipment and vehicles are expected to be procured in the first year or at the beginning of the second year, and a price increase of 20% over end-1975 is assumed. Costs include duties and sales tax, amounting to about K Sh 24.3 million (US\$3 million) in total.

3.26 A loan through the Third Window of US\$17 million is proposed, amounting to about 47% of total costs. The balance, including provision for any cost overruns, would be provided by the Government.

D. Procurement

3.27 Major equipment and vehicles, estimated to cost in total about US\$5 million, in orders exceeding the equivalent of \$100,000 would be procured under international competitive bidding in accordance with Bank guidelines; orders would be bulked to the extent possible. In evaluating bids domestic manufacturers would be allowed a preferential margin of 15% of the c.i.f. costs of competing imports or the prevailing level of customs duty, whichever is lower. Orders of less than \$100,000 equivalent would be obtained under Government procurement procedures which are satisfactory.

3.28 Park Headquarters will be located in remote rural areas, and civil works there are not expected to attract international bidding. Contracts for these and for the Wildlife and Fisheries Training Institute would be awarded under local competitive bidding and the well-established building industry is expected to provide adequate competition. Minor Park and Reserve civil works estimated to cost not more than \$20,000 equivalent would be carried out on force account.

3.29 Local contractors would construct the game-proof barriers. The contracts would be locally advertised but in remote locations where competition is unlikely, they would be negotiated by wardens in charge of the area. Works should be carried out under the direction and supervision of the game or forest warden in charge of the respective park or reserve. The wardens would be guided and assisted by the engineer of the Project Management Unit and subject to park/reserve plans prepared or approved by the Wildlife Planning Unit.

3.30 The game-viewing tracks to be constructed in Parks and Reserves would be executed by departmental forces (force account) with the road construction equipment provided under the Project. The tracks would be laid out according to Wildlife Planning Unit plans and constructed under the supervision of the warden with the assistance of the Project Management Unit. Since these works are simple, require little engineering preparation, and the quantities of work cannot be well defined, force account would be the most effective method of execution. In addition, implementation by park personnel under direct supervision of the park wardens would best protect the environment of the parks.

3.31 Responsibility for advertising requests for tenders, issuing tender documents, evaluating bids and awarding contracts for each of the project components would be that of the Ministry of Works in coordination with the other specialized ministries and with the Central Tender Board where applicable (see Annex 11). Overall coordination of all such activities would be exercised by the Project Management Unit.

E. Disbursement

3.32 Disbursement from the Loan Account would be made as follows:

- (a) 100% of c.i.f. cost of imported equipment, 100% of ex-factory cost of locally manufactured, or 70% of locally procured but imported equipment and furniture;
- (b) 40% of total expenditures on civil works;
- (c) 100% of foreign exchange cost, or 50% of total expenditures for studies and Professional Services and of operating costs of the Project Management Units.

3.33 Percentages of expenditures would be adjusted as necessary to ensure continued disbursement throughout the construction period.

3.34 Disbursements against (a) above and the foreign exchange items of (c) would be fully documented. Disbursements for local expenditures under (b) and (c) would be made against certificates of expenditures certified by the Project Manager and approved by the Ministry of Finance, the documentation of which would not be submitted but would be retained by the borrower for review during project supervision. Conditions of disbursement are as outlined in para. 3.11.

3.35 Retroactive financing for expenditures incurred after March 1, 1976 not exceeding \$50,000 is recommended to cover initial expenditures.

3.36 The estimated schedule of disbursements under the Loan is shown in Annex 1, Table 1.4.

F. Accounts and Audit

3.37 A system of records and accounts acceptable to the Bank should be set up by the Project Management Unit within three months of loan effectiveness. Project accounts would be audited annually by independent auditors acceptable to the Bank, and audited accounts would be submitted to the Bank no later than six months following the close of the financial year.

IV. ORGANIZATION AND MANAGEMENT

4.01 It is recognized that the project will be difficult to implement, since it involves the negotiation of numerous agreements with rural landowners, the construction of facilities in relatively remote areas, and the application of new techniques of wildlife planning, which will be accompanied by major organizational changes within the MTW. A major supervision effort will therefore be needed, at least initially.

4.02 The project would be implemented by the Ministry of Tourism and Wildlife. The Project Management Unit would coordinate and supervise the execution of the various project components and maintain proper cost records of the entire project. The Unit would be directed by a Project Manager based in Nairobi who would report directly to the Deputy Director of Administration of the WCMS, and have access to the Permanent Secretary of the MTW for guidance on policy matters. A schedule of implementation and a table showing responsibilities for different phases of project implementation are shown in Annex 11.

4.03 The Project Management Unit would include an Assistant Project Manager, who may be an expatriate if no suitable Kenyan is available; a Finance Officer who would be responsible for cost accounting; a Project Engineer, three Clerks of Works, and supporting staff.

4.04 The appointment of the Project Manager would be a condition of effectiveness of the loan; other staff should be appointed within three months thereafter.

4.05 Operation and maintenance of the facilities to be provided under the Project would be the responsibility of the relevant ministries, departments of government and of the Wildlife Clubs of Kenya. The National Museum would be responsible for the paleontological sites at Lake Turkana. The Ministry of Water Development would be responsible for water supply, the Ministry of Health for clinics, and the Ministry of Education for schools at the Park Headquarters. Operation of the Wildlife and Fisheries Training Institute, if established as a Government training institution 1/

1/ See para. 3.14.

would be the responsibility of the Ministry of Tourism and Wildlife. The appointment of the Principal and Vice Principal would be made after consultation with the Bank.

V. JUSTIFICATION

Growth of Demand

5.01 The growth of Kenya's tourist industry, and its future potential are reviewed in Annex 2. Even on rather conservative assumptions, receipts from foreign tourism may be estimated to rise from K Sh 530 million in 1974 to around K Sh 900 million a year in the early 1980s (in 1974 prices). Such growth, however, presupposes major improvement in the management of the wildlife resource as a whole, and of individual parks and reserves. The benefits of the project therefore have to be seen in the context of its contribution to the long-term future of an industry expected to become Kenya's leading source of foreign exchange.

5.02 The project will provide the means whereby the capacity of the three wildlife areas can be increased. Capacity is defined in terms of the maximum number of vehicles that can be accommodated on a busy day, within acceptable limits of environmental impact and visitor satisfaction. The best estimate growth rates in visitor arrivals are:

<u>Years</u>	<u>Amboseli and Masai Mara</u>		<u>Inner Northern Circuit</u>	
	<u>% p.a.</u>		<u>% p.a.</u>	
	<u>Non-resident</u>	<u>Resident</u>	<u>Non-resident</u>	<u>Resident</u>
1	5	0	10	0
2-4	17	0	22	0
5-9	12	5	15	5
10 - until capacity is reached	8	5	8	5

Only modest growth is assumed in resident visitors due to increases foreseen in the prices they pay for park entries. This may be over-conservative in view of a widening appreciation for wildlife among Kenyans and the continued growth of Nairobi as an international business center with a large resident expatriate community. 1/

1/ No account is taken of entries by school children and Kenyan groups on subsidized tours since the revenue implications of these visitors are insignificant.

5.03 Amboseli and Masai Mara are outstanding attractions on established tourist circuits. The project would provide for an improved level of visitor satisfaction and also an increase in the visitor "capacity" of these parks. The growth rates in visitors that have been assumed for Amboseli and Masai Mara are considered attainable and are, in fact, less than has been achieved in the southern game areas in the recent past; bednights occupied by non-residents $\frac{1}{2}$ in the southern game areas grew at an average rate of nearly 19% p.a. between 1970 and 1973.

5.04 The Inner Northern Circuit represents a somewhat different case from Amboseli and Masai Mara. Its development is in response to a demand from tour operators for a different attraction to complement those of the south, and one which forms a logical extension to the well-established circuit around Mount Kenya and the Aberdares. As present visitor numbers are small compared with the southern parks, a somewhat higher growth rate assumption appears justified. Bednights of non-residents $\frac{1}{2}$ in Kenya's 'North' area grew between 1970 and 1973 at 34% per annum.

5.05 The rapid growth in non-resident $\frac{1}{2}$ bednights in the wildlife areas of the Project does not require equivalent rates of growth in total visitor arrivals in Kenya. Non-resident bednights in the three project areas were about 5% of Kenya's total non-resident bednights in 1974 as contrasted with 0.9% in 1966. On the best estimate assumptions, this share would rise to 7.6% in 1985 if all non-resident bednights rise at only 8% per year, or to 6.4% of the total if the overall non-resident growth rate is 10% per year.

Economic Justification

5.06 In the three project areas, the main benefits of the project consist of:

- (a) the incremental receipts to Kenya from wildlife-viewing tourism due to these developments;
- (b) the incremental returns from other wildlife activities in the dispersal areas (hunting, cropping of animals, etc.) based on the herds conserved there due to the project; and
- (c) the social and economic benefits from the creation of new park headquarters and community centers to the local populations (improved educational and health facilities, recreational facilities, creation of a larger market for locally produced foodstuffs, etc.).

$\frac{1}{2}$ i.e. residents of countries other than Kenya, Uganda, or Tanzania.

Although all three types of benefits are in principle quantifiable, it has in practice been possible to make systematic estimates only for the first.

5.07 The gross benefits resulting from the investment program in each of the three game-viewing areas would be the incremental expenditures by non-resident tourists in each area plus the opportunity cost of the items of expenditure of residents in the absence of the project. The economic boundaries of each project area include both the park or reserve itself and the surrounding area into which the wildlife disperses during certain parts of the year and within which the bulk of the private sector investments (such as those for accommodation facilities) are expected to be made. Because the growth of wildlife tourism complements the development of beach-oriented tourism, and because of the capacity constraints which currently affect each game park or reserve, the receipts generated by the project would not represent any significant diversion of non-resident demand away from other destinations within Kenya and may, therefore, be considered as incremental to the economy as a whole. The adjustment for residents switching from other activities was assumed to be insignificant (given the unimportance of resident expenditures in the total).

5.08 Although it is not possible precisely to predict the future course of wildlife tourism without the project, recent trends are both clear and alarming: the near elimination of certain animal species in important game-viewing areas; serious environmental deterioration in the more frequented game parks (e.g. Amboseli); and marked declines in the level of visitor satisfaction in particular parks as a result of congestion. It is reasonable to assume, therefore, that without the project the country would suffer a decline in visitors and the economic benefits currently being derived from wildlife tourism. In order to be conservative in estimating the incremental net benefits resulting from the project, however, it is assumed that the current level of net revenue from wildlife tourism would be maintained without the project.

5.09 The average receipts per visitor in parks, reserves, and their environs have been estimated, in 1975 prices, at around US\$40.00 for non-residents and US\$15.00 for residents. 1/

1/ These receipts include park entry fees, guide fees, payments for transport within the park/reserve, and expenditures on shopping, meals and beverages, and accommodation net of commissions. The figures vary somewhat from one park/reserve to another, depending upon the importance of day as contrasted with overnight visitors. The substantially lower figure for residents is largely a result of their preference for staying in bandas (self-service cottages) or camping, as contrasted with the fully catered lodges which accommodate the vast majority of non-residents. In addition, a larger proportion of resident than non-resident entries consists of children, who spend less than adults. The detailed estimates on visitor expenditures, lengths of stay, types of accommodation used, etc., are set out in Annex 10.

5.10 The 14% devaluation of the Kenya shilling in October 1975 will undoubtedly result in some price changes. If short-term leads and lags are ignored, however, these changes will affect the economic return of the project only to the extent that the devaluation is effective in causing a permanent change in the prices of domestic factors relative to foreign exchange. The economic benefits of the project are calculated on two alternative assumptions: first, that the devaluation is ineffective in changing relative prices; second, that it is completely effective. ^{1/} The outcome would probably lie between the two.

5.11 Operating costs of each park or reserve have been derived from projected requirements for staff, equipment, and administrative facilities. Operating costs for transportation, shopping, meals, and accommodation have been estimated on the basis of financial results of existing commercial operations. Capital costs for improvements to each game-viewing area are derived from project cost estimates, while the private sector investment program is based on recent construction cost estimates for similar facilities in each area. All costs and revenues have been adjusted for taxes, duties, and subsidies and are based on 1975 prices, except park entry fees which are assumed somewhat higher than current levels, although still below their 1968 levels in constant prices.

5.12 In calculating the "best-estimate" economic rate of return on investments in the wildlife areas, shadow exchange rates of 30% and 15.34% higher than the official rate have been used in the ineffective and effective devaluation cases respectively. A shadow wage rate of 25% below the market wage rate for unskilled labor has been used. In calculating the rates of return on the three areas combined, the costs of the Project Management Unit and half the costs of the Wildlife Planning Unit have been included. The costs of the Training Institute, game defenses, anti-poaching and the small investments at Lake Turkana and in the Wildlife Clubs of Kenya have been excluded, as have their benefits.

5.13 With an estimated economic life of the project of 25 years, the internal economic rates of return are as follows:

	<u>Amboseli</u>	<u>Masai Mara</u>	<u>Inner Northern Circuit</u>	<u>Three areas combined (inc. PMU and half costs of WPU)</u>
<u>Ineffective devaluation</u>				
Without shadow prices	18.9	15.7	16.1	15.7
With shadow prices	28.0	24.9	24.6	n.c.
<u>Effective devaluation</u>				
Without shadow prices	18.6	15.7	16.2	15.6
With shadow prices	24.3	21.2	21.5	n.c.

n.c. = not calculated

^{1/}See Annex 10, paras. 10 and 34.

The use of a shadow wage rate makes a difference of only about one percentage point in the rate of return. The use of a shadow exchange rate makes a much more significant improvement since foreign exchange is a larger proportion of receipts than of costs. It should be noted that the lower "best estimate" internal economic rate of return with "effective" devaluation is somewhat counterbalanced by reducing the risk attached to the demand forecasts.

5.14 These rates of return do not reflect the net benefits listed under paragraph 5.06 (b) and (c) above, nor do they reflect "offsite" benefits and costs of the investments in wildlife areas (such as additional expenditures and costs in Nairobi hotels and shops, in coast hotels, on East African Airways, and from additional embarkation taxes) which the additional traffic to the wildlife areas is likely to bring.

Distribution of Net Benefits

5.15 The project's net benefits would accrue to five main groups:

- (i) the national government which will receive the profits on operating parks and reserves, and taxes on related tourist expenditures;
- (ii) the local County Councils which will receive a share of revenue surpluses of reserves;
- (iii) the group ranchers ^{1/} within the dispersal areas who will receive in addition to returns from hunting, revenues from rentals of lodges and campsites;
- (iv) private sector investors; and
- (v) employees receiving more from tourism employment than in their best alternative occupations.

In addition, consumers' surpluses accruing to Kenya citizens (including school children and organized groups entering parks and reserves on concessionary terms) would be part of the real economic benefits of the project. However, consumers' surpluses accruing to foreigners would benefit the Kenya economy only indirectly if at all.

5.16 The Government would receive the net benefits generated by the operation of the parks and reserves and tax receipts generated by tourist spending on accommodation, transportation, and shopping. On a discounted cash flow basis, the financial rate of return to the Government on its investments in the wildlife areas is estimated at 14.7%. ^{2/}

^{1/} Group ranches are lands held on freehold by groups in which families hold equal undivided shares. On ranches registered in Kajiado, the average holding is 175 hectares per member.

^{2/} See Annex 10, Table 4.

5.17 The local County Councils and the group ranchers would receive the concession fees paid by operators of lodges, campsites, shops, and petrol stations. These concession fees are quite substantial, and, by the time the game-viewing areas have reached their estimated capacities, the Government, County Councils, and group ranchers together are expected to receive 70% of the net operating benefits generated by the project, with the balance accruing to private sector investors. Depending on the location of new accommodations (whether on group ranches or County Council land), the concession, together with hunting fees, could yield relatively large sums to group ranchers (Annex 10). Although only a very rough estimate is possible, annual yields to group ranchers in the three areas of the project might well be over US\$500,000 equivalent by 1985, or over US\$0.50 per ha. per year.

Employment and Balance of Payment Effects

5.18 For the three areas together, the direct employment generated in game park or reserve operations and in the accommodation, shopping, and transportation facilities would amount to 840 new jobs by 1980 and 2,800 new jobs by 1990. Indirect employment created in the production of handicrafts, agriculture, and related supporting sectors is estimated to equal direct employment, raising the total to 5,600 in 1990. These estimates of new jobs relate only to increases in traffic after 1975 and do not take account of employment in construction, nor in anti-poaching operations.

5.19 The proposed project is expected to earn about US\$3.9 million in foreign exchange by 1980 and about US\$16.7 million per year from 1991, when capacity is reached in all three areas. To give some idea of the "size" of the project, total tourist receipts to Kenya in 1974 came to an estimated US\$74 million. 1/

5.20 Net foreign exchange earnings from the project areas, after deducting the import content of operating and investment costs (including the Project Management Unit and one-half of the cost of the Wildlife Planning Unit), are forecasted at around US\$2.1 million in 1980 and at over US\$14.5 million in 1991 and following years. These figures may be compared with the largest cumulative foreign exchange deficit on account of non-financing flows during the investment phase of the project, which would reach its maximum of about US\$3 million in 1977. In fact, if financing flows are included (the proposed Bank loan and likely additional loans which would at least cover the foreign exchange element of the accommodation investment program), the project might involve no net foreign exchange cost, although the net foreign exchange earnings in later years would be lower by the amount of debt service payments (see Annex 10, Table 6).

1/ The forecasted receipts (and also the costs in the next paragraph) are in 1975 dollars.

Social Impacts

5.21 Enhanced respect for wildlife laws would have positive social implications. The project is not expected to have any other substantial social impacts over those implied by the improvements in living standards of lodge and park staff, and of inhabitants of the wildlife areas. Because wildlife tourists are relatively isolated from local populations, the chances for social friction between tourists and residents are minimized, as are the opportunities for socially valuable interchange. Masai and Samburu manyattas ^{1/} will have some contact with tourists who enter them to take photographs and observe the 'pastoralist's way of life', but provided that this activity is systematically organized under the control of the manyattas themselves, it would not entail any adverse social impacts which might offset the economic gains from fees paid.

Environmental Impacts

5.22 One basic objective of the project is to assist the Government in introducing better management of the country's wildlife resources. Ecological studies have indicated that more intensive development of tourism in the parks and reserves would involve some environmental deterioration compared with less intensive use. But they also indicated that the choice lay between, on the one hand, environmental deterioration due to present levels and types of park use and management, rapid depletion of the wildlife resource and ecological degradation through continuation of current trends of land use in the dispersal areas, and declining returns from tourism; and, on the other hand, more effort devoted to planning parks and tourism, larger economic returns, distribution of a larger share of those returns to inhabitants of the wildlife areas, and reversal of the trend to depletion of the large migratory wildlife herds.

5.23 A major ecological problem is caused by rapid growth of human population, consequent increases in subsistence herds of cattle, sheep, and goats, and then deterioration in the range as stocking rates exceed long-term carrying capacity of the land. It is believed that the ultimate solutions to this ecological problem will lie in securing additional sources of employment for local populations and in shifting from subsistence production to production for the market, which will enable an increasing proportion of food to be purchased from other areas. Evidently, these shifts involve a whole series of interrelated policies and programs and presuppose a far-reaching series of adjustments in technologies, institutions, and life styles. The IDA Livestock Loans are concerned with aiding some aspects of these changes. The current project would also have some impact, both through creation of additional 'non-traditional' employment opportunities in the range areas and through providing a new source of income, thus reducing local inhabitants' dependence on subsistence stock.

5.25 Safeguards against environmentally deleterious consequences of tourism are, by comparison, relatively easy to implement. Tourist numbers may be effectively limited by appropriate pricing policies. The track networks to be planned and constructed under the project would also ensure the

^{1/} "manyatta" - traditional homestead of pastoral people, usually comprising a number of huts within a circular stockade. Also applied to the corresponding social organization.

best possible dispersal of vehicles within project areas. Trained and disciplined guides and drivers will also be able to reduce disturbance to wildlife and damage to the environment.

5.25 Safeguards against poaching are more difficult to establish. The payment of direct financial returns to inhabitants of the wildlife areas, when they have previously received only indirect returns to compensate them for the direct costs of wildlife, should go some way towards inducing them to husband their wildlife and to oppose its illegal exploitation by outsiders. The training activities of the Wildlife and Fisheries Training Institute should also produce staff better able to carry out extension efforts necessary to this end, to say nothing of producing more efficient anti-poaching personnel. These policies will only have their full effect over a long period of time, however. In the short run, perhaps the main requirement is to secure a greater degree of organization and discipline in the WCMS than in its predecessor organizations, and here the intention of Government to ensure that the WCMS is competently administered from its commencement will be crucial. In addition, the anti-poaching component of the project may be expected to reduce the poaching threat to the continued survival of the wildlife resource.

5.26 When account is taken of all of the above factors, the environmental impact of the project is expected to be highly positive.

Risks

5.27 The main risks associated with the net benefits expected from this project lie not on the side of tourist demand or investor interest in the tourism facilities; they consist, instead, of the uncertainties connected with the shift in values, institutions, and management practices in the range areas in response to the various policies being followed by the Government and also of the uncertainty which surrounds the ability of the Government to implement these policies. It is quite clear that the effectiveness of the director of the WCMS will be of critical importance in ensuring that those policies have a significant chance of working.

VI. RECOMMENDATIONS

- 6.01 During loan negotiations, assurances were obtained that:
- (i) agreements to be reached between Government and the landowners in game dispersal areas would be reviewed with the Bank (para. 2.14);
 - (ii) plans for park and reserve development and for park headquarters would be approved by the Bank (para. 3.08 and 3.10);
 - (iii) plans for the Wildlife and Fisheries Training Institute, staff schedules, the program of training courses, and the plans for administration of the Institute should be reviewed by the Bank (para. 3.14);
 - (iv) the terms of reference, and the consultants chosen, for studies costing more than K Sh 150,000 to be financed under the project should be acceptable to the Bank (para. 3.20);
 - (v) studies of Very Large Herbivores and of Pricing in the Tourist Industry will be commissioned within 6 months and 12 months of loan signing, respectively (para. 3.18 and 3.19);
 - (vi) a system of records and accounts acceptable to the Bank would be set up by the Project Management Unit not later than three months after effectiveness (para. 3.36);
 - (vii) all land needed for the project would be acquired as and when necessary (para. 3.23);
 - (viii) project accounts would be audited annually by independent auditors acceptable to the Bank and audited accounts would be submitted to the Bank no later than six months following the close of the financial year (para. 3.36);
 - (ix) the Head of the Wildlife Planning Unit and the Principal and Vice Principal of the Training Institute would be appointed after consultation with the Bank (paras. 3.16 and 3.17);
 - (x) the Project Manager and the Assistant Project Manager, would be appointed after consultation with the Bank (para. 4.05);
 - (xi) the Head of the anti-poaching section would be appointed after consultation with the Bank (para. 3.21);

- (xii) the Finance Office and the Project Engineer would be appointed within three months of the date of effectiveness of the loan (para. 4.04);
- (xiii) qualified staff to operate the water supply systems, clinics and schools at the park headquarters to be established under the Project would be appointed by the Government as required (para. 4.05);
- (xiv) adequate budgetary provision would be made for the maintenance of game-proof barriers (para. 3.12);
- (xv) adequate provision would be made for the operation and maintenance of the buses to be provided for the Wildlife Clubs of Kenya (para. 3.15); and
- (xvi) the Head of the Wildlife Planning Unit would be appointed not later than August 31, 1976 (para. 3.16).

6.02 A condition of effectiveness of the proposed loan would be the appointment of the Project Manager (para. 4.04).

6.03 Conditions for disbursement for civil works on project components in each project area would be:

- (i) the signing of agreements between the Government and competent authority (i.e. group ranchers or County Councils in cases where land is not adjudicated) in the dispersal area of that area providing for guaranteed minimum wildlife returns (GMWR) in return for compliance with specific livestock and wildlife management practices (para. 3.11);
- (ii) the signing of agreements between Government and the relevant County Council for the management by Government of National Reserves in that area and included in the project (3.11); this provision would apply to developments at Archers Post (where the relevant County Councils are the Samburu and Isiolo Councils), Samburu National Reserve (Samburu County Council), Isiolo Buffalo Springs and Shaba National Reserves (Isiolo County Council), and to the Park Headquarters and other facilities for the Mara area (Narok County Council).

6.04 A condition of disbursement for anti-poaching activities would be agreement with the Bank on a detailed plan of operation and rationale for the proposed program, to be submitted not later than September 30, 1976 (para. 3.21).

6.05 The proposed project is suitable for a loan through the Third Window of US\$17.0 million equivalent.

KENYA: WILDLIFE AND TOURISM PROJECT

Project Cost Estimates 1/

1. The total project cost is estimated at US\$36.4 million. Minor adjustments to this figure may be required when design is complete for the Parks Headquarters. Also, detailed plans for expenditures on anti-poaching are to be prepared by the Government not later than September 30, 1976. Revised schedules of expenditure will be prepared when this information is available.
2. Costs of vehicles and road equipment are based on December 1975 prices from suppliers in Nairobi. Costs of the Naivasha training institute have been prepared by consultants, based on recent experience of a very similar building which they supervised near Nairobi.
3. Total contingencies amount to US\$10.8 million, or 30% of total project cost, excluding minor specific contingencies applicable to some project items (as for example, to allow for encountering black cotton soil, or for unforeseeable requirements for the fisheries station at Lake Naivasha). Physical contingencies amount to about 8% on base line costs, which is considered reasonable given the extent of design work and experience of similar works in Kenya, and given that no physical increases are to be envisaged for road equipment, vehicles, professional services for technical assistance and project administration (which all together account for about 47% of baseline costs).
4. Price contingencies are inevitably more uncertain, but the estimated 32% on the total of baseline costs plus physical contingencies is considered reasonable. This is partly because major expenditures, on vehicles and road equipment, will be made early in the project. For the purposes of estimating project price increases, an inflation rate of 15% for the first year, 12% p.a. for the next two years, and 10% p.a. has been assumed. A 20% increase over end-1975 prices has been assumed for vehicles and road equipment.
5. The foreign exchange component, estimated at 47% of the total project cost, is defined as the sum of direct payments made in foreign currencies for building materials, equipment, consultants and contractors, plus estimates of the import component of goods and services that are currently paid for in Kenya currency.

1/ Costs are for the project, as described in sections (i) - (viii) of para. 3.02 of the main text, i.e., excluding anti-poaching and Kongo-Diani preparation.

Project Cost Estimates

1. General Cost Estimates

Table 1.1	Breakdown of Total Project Cost
1.2	Breakdown of Costs by Project Items
1.3	Schedule of Expenditures by Project Items
1.4	Forecast of Disbursement
1.5	Contingency Allowances

2. Detailed Cost Estimates

Table 2.1	Amboseli National Park Improvements
2.2	Masai Mara Game Reserve Improvements
2.3	Samburu/Buffalo Springs/Shaba Game Reserves Improvement
2.4	Lake Rudolf National Park Improvements
2.5	Amboseli National Park Headquarters
2.6	Masai Mara Parks Headquarters (Migwarrur)
2.7	Samburu/Buffalo Springs/Shaba Parks Headquarters (Archers Post)
2.8	Road Construction and Maintenance Unit
2.9	Game-Proof Barriers
2.10	Wildlife and Fisheries Training Insititute
2.11	Wildlife Clubs of Kenya
2.12a)	Wildlife Planning Unit
	b) Study of the Management of Very Large Herbivores
	c) Project Management Unit
2.13	Anti-poaching Unit

KENYA: WILDLIFE AND TOURISM PROJECT

BREAKDOWN OF TOTAL PROJECT COST

Exchange Rate: US\$1.00 = KSh. 4025

	<u>Civil Works</u>	<u>Equipment and</u>	<u>Professional</u>	<u>Physical Facilities</u>		<u>Technical</u>	<u>Project</u>	<u>TOTAL PROJECT COST</u>	
	<u>KSh(000)</u>	<u>Running Cost</u>	<u>Services</u>	<u>KSh(000)</u>	<u>US\$(000)</u>	<u>Assistance</u>	<u>Admin.</u>	<u>KSh(000)</u>	<u>US\$(000)</u>
I. Amboseli National Park Area	931.7	118.0	148.1	1,197.8	2,976.4			1,197.8	2,976.4
II. Masai Mara Game Reserve Area	892.6	81.3	127.9	1,101.8	2,737.4			1,101.8	2,737.4
III. Samburu, Buffalo Springs, Shaba Game Reserves Area	796.5	74.6	112.4	983.5	2,443.5			983.5	2,443.5
IV. Lake Rudolf National Park	37.4	61.1		98.5	244.7			98.5	244.7
V. Road Construction and Maintenance Units		1,533.6		1,533.6	3,810.2			1,533.6	3,810.2
VI. Game Proof Barriers	615.2			615.2	1,528.4			615.2	1,528.4
VII. Wildlife and Fisheries Institute	889.1	375.2	210.3	1,474.6	3,663.6			1,474.6	3,663.6
VIII. Wildlife Clubs of Kenya		22.8		22.8	56.6			22.8	56.6
IX. Anti-poaching Units	576.9	902.7	98.7	1,578.3	3,920.7			1,578.3	3,920.7
X. Wildlife Planning Unit and Studies						1,210.4		1,210.4	3,007.3
XI. Project Administration							492.9	492.9	1,224.6
<u>Base Costs</u>	4,739.4	3,169.3	697.4	8,606.1	21,381.5	1,210.4	492.9	10,309.4	25,613.4
Physical Increase	710.8	111.2		822.0	2,042.2			822.0	2,042.2
Price Increase	<u>2,186.4</u>	<u>1,145.8</u>		<u>3,332.2</u>	<u>8,278.2</u>	<u>127.6</u>	<u>74.1</u>	<u>3,533.2</u>	<u>8,779.2</u>
<u>Total Contingencies</u>	2,897.2	1,257.0		4,154.2	10,321.1	127.6	74.1	4,355.9	10,822.1
<u>GRAND TOTAL</u>	7,636.6	4,426.3	697.4	12,760.3	31,702.6	1,338.0	567.0	14,665.3	36,435.5
<u>Foreign Exchange Component</u>									
Percentage	28.1	76.2	40.0	45.5	45.5	59.7	42.8	46.66	46.66
Total	2,147.3	3,375.0	279.0	5,801.3	14,413.2	798.5	242.7	6,842.5	17,000.0

February 1976

KENYA: WILDLIFE AND TOURISM PROJECT

BREAKDOWN OF COSTS BY PROJECT ITEMS ^{1/}

Exchange Rate: US\$1.00 = KSh.4025

CODE	ITEM	Civil Works	Equipment	Contingencies	Prof. Services	Total Cost		Foreign Exch. Component		Year I	Year II	Year III	Year IV	Year V
		KSh(000)	KSh(000)	KSh(000)	KSh(000)	KSh(000)	US\$(000)	KSh(000)	US\$(000)	KSh(000)	KSh(000)	KSh(000)	KSh(000)	KSh(000)
Park Improvements:														
A	Amboseli National Park	259.2	67.0	210.1	--	536.3	1,332.4	163.3	405.7	66.6	88.9	146.0	114.4	120.4
B	Masai Mara Game Reserve	316.8	21.4	225.2	--	563.4	1,399.8	147.1	365.5	35.1	163.2	135.2	109.5	120.4
C	Samburu/Buffero Spr./Shaba Game Res.	281.0	31.6	206.0	--	518.6	1,288.4	139.9	347.6	38.3	99.8	136.9	123.3	120.3
D	Lake Rudolf National Park	37.4	61.1	34.2	--	132.7	329.7	81.9	203.5	71.2	29.5	32.0		
Park Headquarters:														
E	Amboseli (Kimana)	672.5	51.0	561.7	118.2	1,433.4	3,561.2	502.7	1,248.9	91.2	294.1	457.8	430.2	160.1
F	Masai Mara (Miguara)	575.8	59.9	454.0	127.9	1,217.6	3,025.1	466.4	1,158.7	78.7	257.8	386.2	362.7	132.2
G	Samburu/Buffero Springs	515.5	43.0	400.3	112.4	1,071.2	2,661.4	364.3	905.1	69.2	227.7	339.2	318.6	116.5
H	Road Construction Units	--	1,533.6	444.6	--	1,978.2	4,914.8	1,566.9	3,892.9	1,028.2	237.5	237.5	237.5	237.5
I	Game Proof Barriers	615.2		351.6		966.8	2,402.0	211.7	600.6	203.3	227.9	255.0	280.6	
J	Wildlife & Fisheries Institute	889.1	375.2	713.2	210.3	2,187.8	5,435.5	978.5	2,431.1	268.0	625.1	958.5	336.2	
K	Wildlife Clubs of Kenya		22.8	4.6		27.4	68.1	21.8	54.2	27.4				
L	Anti-poaching Units	576.0	902.7	548.7	98.7	2,127.0	5,284.5	1,126.8	2,799.5	500.1	631.5	634.8	171.6	189.0
Technical Assistance:														
M	Wildlife Planning Unit			127.6		799.7	1,986.8	439.1	1,090.8	213.3	166.6	172.1	139.5	108.2
N	Studies					538.2	1,337.1	359.4	893.0	129.3	209.7	66.4	66.4	66.4
Project Administration														
O	Project Management Unit			74.1		567.0	1,408.7	242.7	603.0	124.8	101.2	107.3	113.5	120.2
GRAND TOTAL						<u>14,665.3</u>	<u>36,435.5</u>	<u>6,842.5</u>	<u>17,000.0</u>	<u>2,944.7</u>	<u>3,360.5</u>	<u>4,064.9</u>	<u>2,804.0</u>	<u>1,491.2</u>

^{1/} Costs are for the project, as described in sections (i) - (viii) of para. 3.02 of the main text, i.e., excluding anti-poaching and Kongo-Diani preparation.

February 1976

ANNEX 1
Table 1.2

KENYA: WILDLIFE AND TOURISM PROJECT

SCHEDULE OF EXPENDITURES BY PROJECT ITEMS 1/
(US\$'000)

Code	Item	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	200	Total	Code
Park Improvement																							
A.	Amboseli National Park		30.0	65.0	70.5	50.0	50.0	55.0	65.9	90.0	90.0	92.7	90.0	70.0	70.0	72.1	72.1	74.0	74.0	75.0	76.1	1,332.4	A.
B.	Masai Mara Game Reserve			27.2	60.0	100.0	102.5	103.0	100.0	90.0	90.0	85.0	70.9	70.0	69.1	66.0	67.0	70.0	74.0	75.0	80.1	1,399.8	B.
C.	Samburu Game Reserve		10.0	30.2	55.0	60.0	50.0	61.0	64.0	80.0	90.0	90.0	80.1	77.0	76.5	76.5	76.3	74.0	74.0	75.0	75.8	1,288.4	C.
D.	Lake Rudolf National Park			88.5	88.4	18.0	18.0	18.5	18.8	20.0	20.8	19.8	19.7									329.7	D.
Park Headquarters:																							
E.	Amboseli				100.0	160.0	200.0	235.2	270.0	275.0	275.0	267.7	260.0	255.0	256.6	255.0	200.0	150.0	33.5			3,193.0	E.
F.	Masai Mara				100.0	150.0	179.9	180.0	200.0	240.0	240.0	236.8	220.0	220.0	220.0	204.3	170.0	100.0	46.3			2,707.3	F.
G.	Samburu				100.0	130.0	138.9	170.0	201.3	201.3	201.3	201.3	200.0	200.0	180.0	179.3	150.0	80.0	48.8			2,382.2	G.
H.	Road Construction Units		200.0	1,000.0	1,354.5	147.5	147.5	147.5	147.5	147.5	147.5	147.5	147.6	147.5	147.5	147.5	147.6	147.5	147.5	147.5	147.6	4,914.8	H.
I.	Game Proof Barriers		100.0	160.0	245.1	113.1	113.1	116.0	116.0	158.4	158.4	158.4	158.4	174.4	174.4	174.3	174.0					2,102.0	I.
J.	Wildlife and Fisheries Institute			100.0	228.4	300.0	350.0	400.0	436.7	500.0	600.0	600.0	590.9	450.0	200.0	157.0						4,913.0	J.
K.	Wildlife Clubs			28.1	40.0																	68.1	K.
L.	Anti-poaching Units		100.0	400.0	652.9	353.3	353.3	353.3	353.3	394.3	394.3	394.3	394.3	106.6	106.0	106.0	106.6	117.4	117.4	117.4	117.4	5,099.3	L.
M/N.	Technical Assistance	10.0	80.0	380.5	380.6	250.0	250.0	217.5	217.4	150.0	147.5	147.5	147.5	130.0	127.2	127.2	127.2	110.0	108.0	108.0	107.8	3,323.9	M/N.
O.	Project Administration	20.0	40.0	150.0	100.1	62.8	62.9	62.9	62.9	66.6	66.6	66.7	66.7	70.5	70.5	70.5	70.5	74.6	74.6	74.7	74.7	1,408.7	O.
X.	Professional Services	70.0	161.4	390.0	399.4	75.0	80.0	79.9	80.2	55.0	55.1	55.1	55.1	35.0	35.0	35.0	34.6	15.0	15.0	7.1		1,732.9	X.
Total by Quarter		100.0	721.4	2,819.5	3,674.9	1,859.7	2,057.3	2,160.3	2,271.9	2,423.1	2,575.7												
Total Year I					7,315.8																		
Total Year II									8,319.2														
Total Year III												10,099.1											
Total Year IV																	6,966.6						
Total Year V																						3,708.2	
Total (Accumulative)																							36,495.5

1/ Costs are for the project, as described in sections (i) - (viii) of para. 3.02 of the main text, i.e., excluding anti-poaching and Kongo-Diani preparation.

KENYA: WILDLIFE AND TOURISM PROJECT

FORECAST OF DISBURSEMENT

IMPLEMENTATION QUARTER	DISBURSEMENT				UNDISBURSED BALANCES	
	QUARTERLY US\$(000)	%	CUMULATIVE US\$(000)	%	US\$(000)	%
	1	-	-	-	17,000	100.0
FIRST	2	40	40	0.2	16,960	99.8
YEAR	3	335	375	2.2	16,625	97.8
	4	1,600	1,975	11.6	15,025	88.4
	5	2,200	4,175	24.6	12,825	75.4
SECOND	6	820	4,995	29.4	12,005	70.6
YEAR	7	910	5,905	34.8	11,095	65.2
	8	950	6,855	40.4	10,145	59.6
	9	1,000	7,855	46.3	9,145	53.7
THIRD	10	1,070	8,925	52.6	8,075	47.4
YEAR	11	1,135	10,060	59.3	6,940	40.7
	12	1,130	11,190	65.9	5,810	34.1
	13	1,110	12,300	72.4	4,700	27.6
FOURTH	14	885	13,185	77.6	3,815	22.4
YEAR	15	770	13,955	82.1	3,045	17.9
	16	745	14,700	86.5	2,300	13.5
	17	665	15,365	90.4	1,635	9.6
FIFTH	18	530	15,895	93.5	1,105	6.5
YEAR	19	445	16,340	96.1	660	3.9
	20	350	16,690	98.2	310	1.8
SIXTH	21	310	17,000	100.0	0	0.0
YEAR						
TOTAL		17,000	100.0			

KENYA: WILDLIFE AND TOURISM PROJECT

Contingency Allowances

	<u>Civil Works</u>		<u>Equipment</u>		<u>Prof. Services</u>		<u>Tech. Assistance</u>		<u>Proj. Administration</u>		<u>TOTAL</u>
	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	
<u>Allowance for Physical Increase</u>		15.0%				n.a.		n.a.		n.a.	
<u>Allowance for Price Increase</u>		42.1%		42.1%		n.a.		10.6%		14.8%	
<u>Total Project Cost Before Contingencies</u> (US\$ millions)	8.26	3.51	1.93	5.95	1.04	0.69	1.18	1.83	0.70	0.52	25.61
<u>Allowance for Physical Increase</u> (US\$ millions)	1.24	0.53	0.07	0.20		n.a.		n.a.		n.a.	2.04
<u>Sub-Total</u> (US\$ millions)	9.50	4.04	2.00	6.15	1.04	0.69	1.18	1.83	0.70	0.52	27.65
<u>Allowance for Price Increase</u> (US\$ millions)	3.65	1.31	1.09	2.23		n.a.	0.16	0.16	0.10	0.08	8.78
<u>TOTAL, including contingencies</u>	13.15	5.35	3.09	8.38	1.04	0.69	1.34	1.99	0.80	0.60	36.43

February 1976

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: AMBOSELI NATIONAL PARK IMPROVEMENTS

Rate of exchange: US\$1.00 = KSh.4025

CODE	Unit Cost KSh (000)	Civil Works KSh (000)	Equipment KSh (000)	TOTAL COST		Foreign Exch. Component		Year I KSh (000)	Year II KSh (000)	Year III KSh (000)	Year IV KSh (000)	Year V KSh (000)
				KSh (000)	US\$ (000)	KSh (000)	US\$ (000)					
A.1				(270.7)	(672.5)	(63.4)	(157.6)					
A.1.1	0.8	240.0		240.0	596.3	48.0	119.3	60.0	60.0	60.0	60.0	60.0
A.1.2	2.7	8.1		8.1	20.1	2.4	6.0			5.4	2.7	
A.1.3	0.054	9.7	1.1	10.8	26.8	4.3	10.7			10.8		
A.1.4			10.4	10.4	25.8	8.3	20.6			10.4		
A.1.5	1.4	1.4		1.4	3.5	0.4	1.0			1.4		
A.2				(55.6)	(138.0)	(44.4)	(110.3)					
A.2.1	4.9		4.9	4.9	12.2	3.9	9.7	4.9				
A.2.2	4.0		8.0	8.0	19.9	6.4	15.9	8.0				
A.2.3	3.8		7.6	7.6	18.9	6.1	15.2	7.6				
A.2.4	2.6		7.8	7.8	19.4	6.2	15.4	7.8				
A.2.5	12.5		25.0	25.0	62.1	20.0	49.6	25.0				
A.2.6	1.1		2.2	1.2	5.5	1.8	4.5	2.2				
Sub-Total		259.2	67.0	326.2	810.5	107.8	267.8	55.5	60.0	88.0	62.7	60.0
CONTINGENCIES				(210.1)	(522.0)	(55.5)	(137.9)					
Physical Increase (15% on Works)				40.6	100.9	9.5	23.6		9.0	13.2	9.4	9.0
Price Increase (on Works)				158.4	393.5	37.1	92.2		19.9	44.8	42.3	51.4
Price Increase (20% on Vehicles)				11.1	27.6	8.9	22.1	11.1	-	-	-	-
TOTAL COST				536.3	1,332.4	165.3	405.7	66.6	88.9	146.0	114.4	120.4

December 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: MASAI MARA GAME RESERVE IMPROVEMENTS

Rate of exchange: US\$1.00 = KSh 4025

CODE	Unit Cost KSh (000)	Civil Works KSh (000)	Equipment KSh (000)	TOTAL COST		Foreign Exch. Component		Year I KSh (000)	Year II KSh (000)	Year III KSh (000)	Year IV KSh (000)	Year V KSh (000)
				KSh (000)	US\$ (000)	KSh (000)	US\$ (000)					
B.1	<u>Game Reserve/Dispersal Area</u>											
B.1.1	1.0	240.0		240.0	596.3	48.0	119.3		60.0	60.0	60.0	60.0
B.1.2	5.9	35.4		35.4	88.0	10.6	26.3	5.9	17.7	11.8		
B.1.3	0.08	9.6		9.6	23.8	2.9	7.2	3.2	6.4			
B.1.4	2.1	4.2		4.2	10.4	1.3	3.2		2.1	2.1		
B.1.5	6.7	6.7		6.7	16.6	2.0	5.0		6.7			
B.1.6	1.6	9.6		9.6	23.8	2.4	6.0		4.8	4.8		
B.1.7	3.7	3.7		3.7	9.2	1.1	2.7		3.7			
B.1.8		2.6	4.0	6.6	16.4	4.6	11.4		6.6			
B.1.9	0.55	2.8		2.8	7.0	0.6	1.5		1.1	1.7		
B.1.10		2.2		2.2	5.5	0.9	2.2		1.1	1.1		
B.1.11	4.9		4.9	4.9	12.2	3.9	9.7	4.9				
B.1.12	12.5		12.5	12.5	31.1	10.0	24.8	12.5				
		316.8	21.4	338.2	840.3	88.3	219.3	26.5	110.2	81.5	60.0	60.0
	<u>Contingencies:</u>			(225.2)	(559.5)	(58.8)	(146.1)					
	Physical Increase (15%)			50.7	126.0	13.2	32.8	4.0	16.5	12.2	9.0	9.0
	Price Increase			174.5	433.5	45.6	113.3	4.6	36.5	41.5	40.5	51.4
	<u>TOTAL COST</u>			<u>563.4</u>	<u>1,399.8</u>	<u>147.1</u>	<u>365.4</u>	35.1	163.2	135.2	109.5	120.4

December 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: SAMBURU/BUFFALO SPRINGS/SHABA GAME RESERVES IMPROVEMENTS

Rate of exchange: US\$1.00 = KSh0.4025

CODE	Unit Cost KSh (000)	Civil Works KSh (000)	Equipment KSh (000)	TOTAL COST		Foreign Exch. Component		Year I KSh (000)	Year II KSh (000)	Year III KSh (000)	Year IV KSh (000)	Year V KSh (000)	
				KSh (000)	US\$ (000)	KSh (000)	US\$ (000)						
C.1				(284.6)	(707.1)	(62.1)	(154.3)						
C.1.1	Game Viewing Tracks (240 km.)	1.0	240.0	240.0	596.3	48.0	119.3		60.0	60.0	60.0	60.0	
C.1.2	Entrance Gates (4 ea.)	5.9	23.6	23.6	58.7	7.1	17.6		5.8	17.8			
C.1.3	Accommodation at Gates (120 m ²)	1.6	6.4	6.4	15.9	1.9	4.7		1.6	4.8			
C.1.4	Airstrip, gravel (1,000 m)	11.0	11.0	11.0	27.3	2.2	5.5				11.0		
C.1.5	Tentage and Equipment	3.6		3.6	8.9	2.9	7.2	3.6					
C.2				(28.0)	(69.5)	(22.4)	(55.6)						
C.2.1	Five-ton Truck, 4 x 4, open-sided (1 ea.)	12.5		12.5	31.0	10.0	24.8	12.5					
C.2.2	Landrover, LWB S/W (1 ea.)	4.9		4.9	12.2	3.9	9.7	4.9					
C.2.3	Landrover, Pick-up (2 ea.)	4.0		8.0	19.9	6.4	15.9	8.0					
C.2.4	VW 1200 (1 ea.)	2.6		2.6	6.4	2.1	5.2	2.6					
	Sub-Total		281.0	31.6	312.6	776.6	84.5	209.9	31.6	67.4	82.6	71.0	60.0
	<u>CONTINGENCIES</u>				(206.0)	(511.8)	(55.4)	(137.7)					
	Physical Increase (15%, Works)			42.7	106.0	9.3	23.1	0.5	10.1	12.4	10.7	9.0	
	Price Increase, Works			157.7	391.8	41.6	103.4	0.6	22.3	41.9	41.6	51.3	
	Price Increase, Vehicles (20%)			5.6	13.9	4.5	11.2	5.6					
	<u>TOTAL COST</u>			518.6	1,288.4	139.9	347.6	38.3	99.8	136.9	123.3	120.3	

December 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: LAKE TURKANA NATIONAL PARK IMPROVEMENTS

Rate of Exchange: US\$1.00 = KES 0.4025

	Unit Cost KES '000	Civil Works KES '000	Equipment KES '000	Total Cost		Foreign Exch. Component		Year I KES '000	Year II KES '000	Year III KES '000
				KES '000	US\$ '000	KES '000	US\$ '000			
D.1 Works:										
D.1.1 Boundary demarcation		19.8		19.8	49.2	7.9	19.6		9.9	9.9
D.1.2 Site exhibits, sign posts		11.0		11.0	27.3	4.4	10.9		5.5	5.5
D.1.3 Workshop, stores		6.0	1.8	7.8	19.4	3.9	9.7		3.9	3.9
D.1.4 Water well		0.6		0.6	1.5	0.1	0.2		0.6	
Sub-total		<u>37.4</u>	<u>1.8</u>	<u>39.2</u>	<u>97.4</u>	<u>16.3</u>	<u>40.4</u>		<u>19.9</u>	<u>19.3</u>
D.2 Equipment:										
D.2.1 Wind pump/generator	4.0		4.0	4.0	9.9	3.4	8.4	4.0		
D.2.2 Distillation units (3)	1.7		6.8	6.8	16.9	5.8	14.4	6.8		
D.3 Vehicles:										
D.3.1 Landrover pick-ups (2)	4.0		8.0	8.0	19.9	6.4	15.9	8.0		
D.3.2 4 x 4 trucks (2)	13.8		27.6	27.6	68.6	22.1	54.9	27.6		
D.3.3 Water tanker (1)	8.5		8.5	8.5	21.1	6.8	16.9	8.5		
D.3.4 Spares at 10%			4.4	4.4	10.9	3.5	8.7	4.4		
Sub-total		<u>37.4</u>	<u>61.1</u>	<u>98.5</u>	<u>244.7</u>	<u>64.3</u>	<u>159.6</u>	<u>59.3</u>	<u>19.9</u>	<u>19.3</u>
Contingencies:										
Physical increase (15% of works)				5.9	14.7	2.4	6.0		3.0	2.9
Price increase on works				16.4	40.7	5.6	13.9		6.6	9.8
Price increase on equipment and vehicles (20%)				11.9	29.6	9.6	23.8	11.9		
TOTAL COST				<u>132.7</u>	<u>329.7</u>	<u>81.9</u>	<u>203.3</u>	<u>71.2</u>	<u>29.5</u>	<u>32.0</u>

December, 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: AMBOSELI NATIONAL PARKS HEADQUARTERS

Rate of exchange: US\$1.00 = KSh.4025

CODE	No. of Units	Unit Cost KSh (000)	Floor Area/ Unit m ²	Civil Works KSh (000)	Equipment KSh (000)	TOTAL COST		Foreign Exch. Component		Year I KSh (000)	Year II KSh (000)	Year III KSh (000)	Year IV KSh (000)	Year V KSh (000)
						KSh (000)	US\$ (000)	KSh (000)	US\$ (000)					
E.1 BUILDINGS				(472.2)	(22.4)	(494.6)	(1,228.8)	(141.6)	(351.8)					
E.1.1	2	7.0	117	14.0		14.0	34.8	4.9	12.2					
E.1.2	9	5.6	91	50.4		50.4	125.2	15.1	37.5					
E.1.3	107	2.6	37	278.2		278.2	691.2	69.6	172.9					
E.1.4	57	1.34	19	76.4		76.4	189.8	19.1	47.5					
E.1.5	1	3.4	60	2.8	0.6	3.4	8.4	1.0	2.5					
E.1.6	1	12.8	272	12.8		12.8	31.8	3.8	9.4					
E.1.7	1	8.0	150	8.0		8.0	19.9	2.4	6.0					
E.1.8	1	8.3	155	8.3		8.3	20.6	2.5	6.2					
E.1.9	1	26.8	580	21.3	5.5	26.8	66.6	13.4	33.3					
E.1.10		16.3			16.3	16.3	40.5	9.8	24.3					
E.2 INFRASTRUCTURE				(200.3)	(28.6)	(228.9)	(568.7)	(108.0)	(268.3)					
E.2.1				5.5		5.5	13.7	1.1	2.7					
E.2.2				50.0		50.0	124.2	20.0	49.7					
E.2.3				84.8	6.1	90.9	225.8	45.4	112.8					
E.2.4				30.0	2.5	32.5	80.8	6.5	16.1					
E.2.5				30.0	20.0	50.0	124.2	35.0	87.0					
Sub-Total				672.5	51.0	723.5	1,797.5	249.6	620.1		181.0	253.0	217.0	72.5
CONTINGENCIES						(561.7)	(1,395.5)	(193.8)	(481.5)		(98.8)	(184.8)	(196.2)	(81.9)
Physical Increase (20%)						144.7	359.5	49.9	124.0		36.2	50.6	43.4	14.5
Price Increase						417.0	1,036.0	143.9	357.5		62.6	134.2	152.8	67.4
PROFESSIONAL SERVICES						(148.2)	(368.2)	(59.3)	(147.3)					
Final Design and Tender Documents (8%)						91.2	226.6	36.5	90.7	91.2				
Supervision (5%)						57.0	141.6	22.8	56.6		14.3	20.0	17.0	5.7
TOTAL COST						<u>1,433.4</u>	<u>3,561.2</u>	<u>502.7</u>	<u>1,248.9</u>	91.2	294.1	457.8	430.2	160.1

December, 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: MASAI MARA PARKS HEADQUARTERS (MIGWARA)

Rate of exchange: US\$1.00 = KSh0.4025

CODE	No. of Units	Unit Cost K\$ (000)	Floor Area/ Unit m ²	Civil Works K\$ (000)	Equipment K\$ (000)	TOTAL COST		Foreign Exch. Component		Year I K\$ (000)	Year II K\$ (000)	Year III K\$ (000)	Year IV K\$ (000)	Year V K\$ (000)	
						K\$ (000)	US\$ (000)	K\$ (000)	US\$ (000)						
F.1	BUILDINGS			(348.4)	(15.1)	(363.5)	(903.1)	(106.0)	(263.4)						
F.1.1	Senior Staff Houses incl. S/Q	3	7.0	117	21.0	21.0	52.2	7.4	18.4						
F.1.2	Intermediate Staff Houses incl. S/Q	4	5.6	91	22.4	22.4	55.6	6.7	16.6						
F.1.3	Junior Staff Houses (2 rooms)	64	2.6	37	166.4	166.4	413.4	41.6	103.4						
F.1.4	Subordinate Staff Houses	57	1.34	19	76.4	76.4	189.8	19.1	47.5						
F.1.5	Dispensary	1	3.4	60	2.8	3.4	8.4	1.0	2.5						
F.1.6	Primary School (2 class rooms)	1	12.8	272	12.8	12.8	31.8	3.8	9.4						
F.1.7	Community Hall/Canteen	1	8.0	150	8.0	8.0	19.9	2.4	6.0						
F.1.8	Admin. Hqs.	1	8.3	110	8.3	8.3	20.6	2.5	6.2						
F.1.9	Vehicle Workshop/Office	1	26.8	580	21.3	5.5	26.8	66.6	13.4	33.3					
F.1.10	Furniture, Fixtures & Equipment					9.0	9.0	22.4	5.4	13.4					
F.1.11	Tented Camp (50 laborers)					9.0	9.0	22.4	2.7	6.7					
F.2	INFRASTRUCTURE			(227.4)	(44.8)	(272.2)	(676.3)	(136.6)	(339.3)						
F.2.1	External Work for Bldgs.				11.0	11.0	27.3	2.2	5.5						
F.2.2	Roads and Surface Water Drainage				70.0	70.0	173.9	28.0	69.6						
F.2.3	Water Supply, incl. Distribution				47.4	6.3	53.7	133.4	26.9	66.8					
F.2.4	Sewerage				55.0	2.5	57.5	142.9	11.5	28.5					
F.2.5	Electricity				44.0	36.0	80.0	198.8	68.0	168.9					
	Sub-Total				575.8	59.9	635.7	1,579.4	242.6	602.7	159.0	222.5	190.7	63.5	
	CONTINGENCIES						(454.0)	(1,127.9)	(172.6)	(428.8)	(86.5)	(146.5)	(157.2)	(63.8)	
	Foundation in Black Cotton Soil						10.0	24.8	3.0	7.5	10.0				
	Physical Increase (15%)						95.4	237.0	36.4	90.4	23.9	33.4	28.6	9.5	
	Price Increase						348.6	866.1	133.2	330.9	52.6	113.1	128.6	54.3	
	PROFESSIONAL SERVICES						(127.9)	(317.8)	(51.2)	(127.2)					
	Final Design and Tender Documents (8%)						78.7	195.5	31.5	78.3	78.7				
	Supervision						49.2	122.3	19.7	48.9		12.3	17.2	14.8	4.9
	TOTAL COST						1,217.6	3,025.1	466.4	1,158.7	78.7	257.8	386.2	362.7	132.2

December, 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: SAMBURU/BUFFALO SPRINGS/SHABA PARKS HEADQUARTERS (ARCHERS POST)

Rate of exchange: US\$1.00 = KSh.4025

CODE	No. of Units	Unit Cost Ksh (000)	Floor Area/ Unit m ²	Civil Works Ksh (000)	Equipment Ksh (000)	TOTAL COST		Foreign Exch. Component		Year I Ksh (000)	Year II Ksh (000)	Year III Ksh (000)	Year IV Ksh (000)	Year V Ksh (000)	
						Ksh (000)	US\$ (000)	Ksh (000)	US\$ (000)						
G.1	BUILDINGS			(332.4)	(15.1)	(347.5)	(863.4)	(101.9)	(253.2)						
G.1.1	Senior Staff Houses with S/Q	2	7.0	117	14.0	14.0	34.8	4.9	12.2						
G.1.2	Intermediate Staff Houses with S/Q	6	5.6	91	33.6	33.6	83.5	10.1	25.1						
G.1.3	Junior Staff Houses (2 rooms)	65	2.6	37	169.0	169.0	419.9	42.3	105.1						
G.1.4	Subordinate Staff Houses (1-room)	40	1.34	19	53.6	53.6	133.1	13.4	33.3						
G.1.5	Dispensary	1	3.4	60	2.8	0.6	3.4	8.4	1.0	2.5					
G.1.6	School Improvements				12.8	12.8	31.8	3.8	9.4						
G.1.7	Community Hall/Canteen	1	8.0	150	8.0	8.0	19.9	2.4	6.0						
G.1.8	Admin. Hqs.	1	8.3	140	8.3	8.3	20.6	2.5	6.2						
G.1.9	Vehicle Workshop/Office	1	26.8	580	21.3	5.5	26.8	66.6	13.4	33.3					
G.1.10	Furniture, Fixtures and Equipment					9.0	9.0	22.4	5.4	13.4					
G.1.11	Tented Camp for 50 Laborers				9.0		9.0	22.4	2.7	6.7					
G.2	INFRASTRUCTURE			(183.1)	(27.9)	(211.0)	(524.2)	(91.6)	(227.5)						
G.2.1	External Works for Bldgs.				3.5	3.5	8.7	0.6	1.5						
G.2.2	Roads and Stormwater Drainage				50.0	50.0	124.2	20.0	49.7						
G.2.3	Water Supply, incl. Distribution				37.6	7.4	45.0	111.8	22.5	55.9					
G.2.4	Sewerage				69.0	3.5	72.5	180.1	14.5	36.0					
G.2.5	Electricity				23.0	17.0	40.0	99.4	34.0	84.4					
	Sub-Total				515.5	43.0	558.5	1,387.6	193.5	480.7	139.6	195.5	167.5	55.9	
	CONTINGENCIES						(400.3)	(994.5)	(125.8)	(312.6)	(77.3)	(120.6)	(138.1)	(56.3)	
	Foundation in Black Cotton Soil						10.0	24.8	3.0	7.5	10.0				
	Physical Increase (15%)						83.8	208.2	29.0	72.1	21.0	29.3	25.1	8.4	
	Price Increase						306.5	761.5	93.8	233.0	46.3	99.3	113.0	47.9	
	PROFESSIONAL SERVICES						(112.4)	(279.3)	(45.0)	(111.8)					
	Final Design and Tender Documents (8%)						69.2	171.9	27.7	68.8	69.2				
	Supervision (5%)						43.2	107.4	17.3	43.0	10.8	15.1	13.0	4.3	
	TOTAL COST						<u>1,071.2</u>	<u>2,661.4</u>	<u>364.3</u>	<u>905.1</u>	69.2	227.7	339.2	318.6	116.5

December, 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: GAME-PROOF BARRIERS

Rate of Exchange: US\$1.00=KSh. 4025

	Civil Works	Total Cost		Foreign Exchange Component		Year I	Year II	Year III	Year IV
	<u>KSh (000)</u>	<u>KSh (000)</u>	<u>US\$ (000)</u>	<u>KSh (000)</u>	<u>US\$ (000)</u>	<u>KSh (000)</u>	<u>KSh (0000)</u>	<u>KSh (000)</u>	<u>KSh (000)</u>
I. Game-Proof Barriers (350 km)	<u>430.8</u>	<u>430.8</u>	<u>1,070.3</u>	<u>107.7</u>	<u>267.6</u>	<u>107.7</u>	<u>107.7</u>	<u>107.7</u>	<u>107.7</u>
Subtotal	430.8	430.8	1,070.3	107.7	267.6	107.7	107.7	107.7	107.7
<u>Contingencies:</u>		(246.2)	(611.7)	(61.6)	(153.0)				
Physical Increases	64.6	64.6	160.5	16.2	40.2	16.2	16.2	16.2	16.2
Price Increase		<u>181.6</u>	<u>451.2</u>	<u>45.4</u>	<u>112.8</u>	<u>18.6</u>	<u>35.7</u>	<u>54.8</u>	<u>72.7</u>
TOTAL COST		<u>677.0</u>	<u>1,682.0</u>	<u>169.3</u>	<u>420.6</u>	142.5	159.6	178.7	196.6

December 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: WILDLIFE AND FISHERIES TRAINING INSTITUTE

Exchange rate: US\$1.00 = KSh0.4025

CODE	Floor Area sq. m	Civil Works KSh (000)	Equipment KSh (000)	TOTAL COST		Foreign Exch. Component		Year I KSh (000)	Year II KSh (000)	Year III KSh (000)	Year IV KSh (000)	
				KSh (000)	US\$ (000)	KSh (000)	US\$ (000)					
J.												
J.1	Tuition	582	45.0	45.0	111.8	15.7	39.0					
J.2	Administration	481	37.0	37.0	91.9	13.0	32.3					
J.3	Communal Facilities	1,200	88.8	16.2	105.0	260.9	36.8	91.4				
J.4	Museum/Herbarium	290	24.0		24.0	59.6	8.4	20.9				
J.5	Library	150	12.3	3.0	15.3	38.0	6.9	17.2				
J.6	Students' Hostel	1,350	102.2		102.2	253.9	30.7	76.3				
J.7	Staff Housing	4,040	236.1		236.1	586.6	70.8	175.9				
J.8	Medical Unit	106	8.6		8.6	21.4	3.4	8.4				
J.9	Fisheries Field Station	839	85.5		85.5	212.4	25.7	63.8				
J.10	Fisheries Field Station, Water & Sewerage		5.3	2.7	8.0	19.9	4.0	9.9				
J.11	Service Facilities	888	46.5	20.5	67.0	166.4	30.2	75.0				
J.12	Sport/Physical Training	127	54.1		54.1	134.4	16.2	40.3				
J.13	External Works		84.2		84.2	209.2	21.0	52.2				
J.14	Water Supply		19.5	7.3	26.8	66.6	13.4	33.3				
J.15	Sewerage		40.0	5.0	45.0	111.8	9.0	22.4				
J.16	Loose Furniture		66.0		66.0	164.0	56.1	139.4				
J.17	Equipment		53.5		53.5	132.9	37.8	93.9				
J.18	Vehicles		201.0		201.0	499.4	160.8	399.5				
	Sub-Total		889.1	375.2	1,264.3	3,141.1	559.9	1,391.1	100.0	417.2	569.0	178.1
<u>CONTINGENCIES:</u>					(713.2)	(1,771.9)	(334.4)	(830.8)	(32.2)	(181.2)	(353.1)	(146.7)
Physical Increase					159.5	396.3	84.0	208.7	15.0	47.4	70.4	26.7
Price Increase					553.7	1,375.6	250.4	622.1	17.2	133.8	282.7	120.0
<u>PROFESSIONAL SERVICES:</u>					(210.3)	(522.5)	(84.2)	(209.2)	(135.8)			
Final Design & Tender Documents					129.4	321.5	51.8	128.7	129.4			
Supervision					80.9	201.0	32.4	80.5	6.4	26.7	36.4	11.4
TOTAL COST					<u>2,187.8</u>	<u>5,435.5</u>	<u>978.5</u>	<u>2,431.1</u>	<u>268.0</u>	<u>625.1</u>	<u>958.5</u>	<u>336.2</u>

December, 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: WILDLIFE CLUBS OF KENYA

Rate of Exchange: US\$1.00 = KSh0.4025

Code		<u>Unit Cost</u>		<u>Total Cost</u>		<u>Foreign Exchange Component</u>		<u>Year I</u>
		<u>KSh (000)</u>		<u>KSh (000)</u>	<u>US\$ (000)</u>	<u>KSh (000)</u>	<u>US\$ (000)</u>	<u>KSh (000)</u>
K.1	<u>Vehicles:</u>							
K.1.1	Buses (2 x 40 seats)	7.6		22.8	56.8	18.2	45.3	22.8
	Contingencies (20%)			4.6	11.3	3.6	9.1	4.6
	<u>TOTAL COST</u>			<u>27.4</u>	<u>68.1</u>	<u>21.8</u>	<u>54.4</u>	<u>27.4</u>

December 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: a) WILDLIFE PLANNING UNIT: b) STUDY OF THE MANAGEMENT OF VERY LARGE HERBIVORES (VLH)

c) PROJECT MANAGEMENT UNIT

Rate of exchange: US\$1.00 = KSh. 4025

	Personnel Costs		Other Costs		Total Cost		Foreign Exchange Component		Year I	Year II	Year III	Year IV	Year V
	KSh(000)	US\$(000)	KSh(000)	US\$(000)	KSh(000)	US\$(000)	KSh(000)	US\$(000)	KSh(000)	US\$(000)	KSh(000)	US\$(000)	KSh(000)
a) WILDLIFE PLANNING UNIT:													
Personnel costs	504.5		504.5	1,253.3	271.6	674.6	125.95	126.75	120.8	82.6	48.4		
Other costs:													
Subsistence			28.0	69.6	5.6	13.9	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Consultancies, planning studies			332.1	825.1	232.5	577.6	66.4	66.4	66.4	66.4	66.4	66.4	66.4
Aircraft and vehicle maintenance and running			90.0	223.6	58.1	144.3	18.0	18.0	18.0	18.0	18.0	18.0	18.0
Cartographic etc. equipment			15.2	37.8	11.4	28.3	15.2	-	-	-	-	-	-
Vehicles			28.8	71.6	23.0	57.1	28.8	-	-	-	-	-	-
Recruitment expenses			5.6	13.9	5.6	13.9	5.6	-	-	-	-	-	-
Total Cost			1,131.8	2,811.9	671.6	1,668.2	279.65	233.05	238.5	205.9	174.7		
b) STUDY OF VLH:													
Personnel costs	109.3		109.3	271.1	79.6	197.5	23.5	85.8	-	-	-	-	-
Other costs:													
Aerial monitoring			13.5	33.6	10.1	25.2	10.1	3.4	-	-	-	-	-
Vehicle maintenance and running			12.6	31.3	9.4	23.4	3.2	9.4	-	-	-	-	-
Travel outside East Africa			8.5	21.1	8.5	21.1	3.4	5.1	-	-	-	-	-
Travel within East Africa			27.7	68.8	4.2	10.4	11.1	16.6	-	-	-	-	-
Recruitment and miscellaneous			22.6	56.1	6.8	16.9	5.6	17.0	-	-	-	-	-
Total Cost			194.2	482.0	118.6	294.7	56.9	137.3	-	-	-	-	-
c) PROJECT MANAGEMENT UNIT:													
Personnel costs	409.5		409.5	1,017.3	145.4	361.3	81.9	81.9	81.9	81.9	81.9		
Other costs:													
Vehicles - Sedan (1)			4.8	11.9	3.8	9.4							
Landrovers (4)			19.6	48.7	15.7	39.0							
Maintenance and running			54.0	134.2	43.2	107.3							
Aircraft hire			1.6	4.0	1.1	2.7							
Travel			3.4	8.4	1.9	4.7							
Price increase			74.1	184.1	31.6	78.5	6.7	7.5	13.6	19.8	26.5		
Total Cost			567.0	1,408.6	242.7	603.0	124.8	101.2	107.3	113.5	120.2		

December, 1975

KENYA: WILDLIFE AND TOURISM PROJECT

COST ESTIMATES: ANTI-POACHING UNIT

Exchange Rate: US\$1.00 = KSh 1025

PER UNIT	Unit Cost	Civil Works	Equipment	Total Cost		Foreign Exchange Component		Year I	Year II	Year III	Year IV	Year V
	KSh '000	KSh '000	KSh '000	KSh '000	US\$ '000	KSh '000	US\$ '000					
Structures:				(143.3)	(356.0)	(41.8)	(103.8)					
Senior Staff House (1)	7.0	7.0		7.0	17.4	2.0	5.0					
Intermediate Staff Houses (3)	5.6	16.8		16.8	41.7	4.9	12.2					
Junior Staff Houses (17)	2.6	44.2		44.2	109.8	12.9	32.0					
Subordinate Staff Houses (30)	1.3	40.2		40.2	99.9	11.7	29.1					
Admin. HQ (1)	8.3	8.3		8.3	20.6	2.4	6.0					
Vehicle Workshop and Stores (1)	26.8	-26.8		26.8	66.6	7.8	19.4					
Infrastructure:				(49.0)	(121.7)	(14.3)	(35.5)					
External Works and Utilities		43.0		43.0	106.8	12.5	31.1					
Airstrip (800 m)	6.0	6.0		6.0	14.9	1.8	4.4					
									96.1	96.2		
Vehicles and Equipment:				(128.9)	(320.2)	(100.5)	(249.7)					
Super Cub Aircraft (1)	12.5		12.5	12.5	31.1	9.7	24.1					
4 x 4 Trucks (5)	12.5		62.5	62.5	155.3	48.7	121.0					
LWB Landrover Pickups (5)	4.0		20.0	20.0	49.7	15.6	38.8					
Trailers (5)	0.6		3.0	3.0	7.5	2.3	5.7					
Water Tanker (1200 gals.) (1)	8.5		8.5	8.5	21.1	6.6	16.4					
HF Radio Packsets (5)	1.1		5.5	5.5	13.7	4.3	10.7					
VHF Mobile/Packsets (12)	0.5		6.0	6.0	14.9	4.7	11.7					
Spare Parts (5%)			5.9	5.9	14.7	4.6	11.4					
Tentage & Camping Equipment	5.0		5.0	5.0	12.4	3.9	9.7					
Operating Costs:				(172.0)	(427.3)	(120.4)	(299.1)					
Running and Maintenance (for four years):												
Aircraft	10.0			40.0	99.4	28.0	69.6	10.0	10.0	10.0	10.0	10.0
Vehicles	33.0			132.0	327.9	92.4	229.6	33.0	33.0	33.0	33.0	33.3
Contingencies:				(182.9)	(454.4)	(85.4)	(212.1)					
Physical Increase on Structures and Infrastructure				28.8	71.6	8.4	20.9		14.4	14.4		
Price Increase on Structures and Infrastructure				80.8	200.7	23.6	58.6		31.8	49.0		
Price Increase on Vehicles and Equipment				25.8	64.1	20.1	49.9					
Price Increase on Running and Maintenance				47.5	118.0	33.3	82.7		4.3	9.0	14.2	20.0
Professional Services:				32.9	81.7	13.2	32.8	12.0	20.9			
TOTAL:				709.0	1761.5	375.6	933.2					

KENYA: WILDLIFE AND TOURISM PROJECT

TOURISM IN KENYA

Tourist Resources

1. Kenya has a wealth and variety of tourist resources which, together with an active and sophisticated tourist industry, have enabled her to establish a leading place among Africa's tourist destinations.
2. Within its 583,000 square kilometers, Kenya has as great a diversity of topography, climate, vegetation, scenery, and wildlife as perhaps any other country. There is great human diversity, the modern city of Nairobi contrasting with nomadic pastoralism, agricultural small holdings, plantation and ranching estates, and the Islamic communities and ancient towns of the coast.
3. Kenya's tourist assets can be summarized as follows:
 - (i) Wildlife, mostly accessible to viewers through a system of parks and reserves, and also to be encountered on trips to or from the parks;
 - (ii) Extensive palm-fringed white sand beaches, protected by coral reefs, and enjoying an agreeable climate except during the southeast monsoon in late April through early July;
 - (iii) Dramatic scenery, from deserts to tropical rain forest, including views dominated by the highest mountains in Africa;
 - (iv) The business, shopping and entertainment facilities of Nairobi, Mombasa and Malindi;
 - (v) Paleontological sites of great scientific importance in settings of great natural beauty, which have attached worldwide interest;
 - (vi) Opportunities for a range of sports and hobbies, including hunting, game-fish and trout fishing, golf, mountain climbing, riding, sailing and some of the best bird watching in the world;
 - (vii) A temperate climate throughout the year over much of the country, and only limited and localized health hazards;
 - (viii) Well-developed international communications, an active local tourist industry including hotels and lodges, many operated to high standards, and a well-equipped facility for major international conferences.

The Growth of Demand

4. Tourism has been an important economic activity in Kenya for over 50 years. Until the 1960's, the main foreign tourist flows were by British armed forces' personnel and their families on leave in the Indian Ocean area, tourists coming

by car from southern Africa, the Congo, Ruanda-Burundi, and the neighboring countries of Tanzania and Uganda, and persons visiting friends and relations. Better known abroad were the visits by a tiny minority of millionaires, maharajahs and movie stars who come to hunt in Kenya. Hotels, clubs, and beach resorts were established primarily to cater for the large resident European community, however, rather than tourists. British forces visits, and those from Central and Southern Africa declined in the early to mid-1960's, when reductions in airfares (including introduction of ITC's - inclusive tour charters) and rising incomes in Western Europe and North America brought within the reach of millions holidays to this destination hitherto associated in the popular mind with luxury safaris by the rich and the famous. At the same time rapid expansion of mass tourism to the Mediterranean created familiarity with foreign travel, and demand for more exotic destinations.

5. A number of distinct market segments can be broadly identified. For example:

- (i) People from India, Europe and North America, having personal or family connections with the country or its expatriate residents. Typically such people will visit for a relatively long time, much of which will be spent staying with friends or relatives. Nevertheless, they do visit the tourist attractions of the country, usually with their hosts, and this is one factor which accounts for the high use of parks and tourist hotels by Kenya residents. An important sub-category of such visitors are the children of British expatriates particularly, who spend their school holidays in Kenya. They are a sizeable enough group that expenditures per day of British residents are much lower than those of most other groups;
- (ii) Businessmen from all countries who use city accommodation of higher standards. Some 40,000 persons visited Kenya on business in 1974. The average length of a business trip to Kenya (around 10 days) is much longer than to most countries, suggesting that at least some business visitors take the opportunity for some vacation during their trip, often weekend visits to game lodges;
- (iii) North American holiday makers, generally combining Kenya with visits to other countries and attracted to Kenya primarily by its wildlife. Difficulties in Uganda and Tanzania have led to Kenya being allocated a larger share of these visitors' itineraries within East Africa. On the other hand, East Africa is often one stop on tours travelling the length of the Continent, and the troubles in Ethiopia have had some adverse effect on American tours. "First arrivals" of Americans and Canadians were 55,000 in 1972, 49,500 in 1973, and 45,200 in 1974.

- (iv) European holidaymakers, travelling in groups by charter or ITX arrangements. These visitors are attracted to Kenya's beaches during the European winter. At least one-half of them buy a package including one week on "safari", together with a one or two-week stay at the coast. Most of the remainder take excursions to one or more wildlife areas, usually to Tsavo or Amboseli which are near to the coast. First arrivals on holiday by residents of Europe were estimated at 162,500 for 1974, of which the Germans accounted for 21%, the Swiss for 13%, and the British for 28%. First visits by residents of Europe grew by 2.5% in 1974 compared to 1973, particularly strong growth being noted from Italy (+ 16%);
 - (v) Expatriates resident in neighboring countries, and Ugandan and Tanzanian residents visit Kenya to visit friends and relations, and to shop. Visits by Zambian residents (about three-quarters of which were by expatriates) amounted to some 13,000 in 1974, an increase of about 4% over 1973. Promotional efforts may enable Kenya to attract increasing numbers from the growing expatriate communities of the Middle East where recreational facilities are limited and disposable incomes high, as well as Arab nationals to whom hunting may be a major appeal;
 - (vi) Included in the above are a number of visitors whose specialized motivations put them into distinct categories. Significant among these are those attracted by the wide publicity given to important paleontological discoveries, first in Tanzania and subsequently around Lake Turkana by ornithological safaris, and by summer courses and seminars usually sponsored by North American academic institutions;
 - (vii) Another distinct sub-group are the hunters who spend rather longer in the country than other tourists, spending K.E 70 - K.E 115 per day for safari outfitters services (tenting, guiding, transport to hunting grounds), and considerable additional sums on hotel accommodation, drinks, shopping, ammunition, hunting licenses and fees, and taxidermy. 1,371 game licenses were issued to non-resident hunters in 1974. These persons probably brought well over K.E 2 million into the country in 1974;
6. The main features of foreign travel to Kenya in recent years are shown in the Statistical Appendix and can be summarized as follows:

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Total departing visitors, '000	<u>399.7</u>	<u>428.4</u>	<u>388.1</u>	<u>379.6</u>
of which: <u>Purpose of visit:</u>				
holiday	295.5	345.0	309.0	310.3
business	56.2	42.1	43.7	43.4
transit	<u>47.9</u>	<u>41.3</u>	<u>35.4</u>	<u>25.9</u>
of which: <u>Country of residence:</u>				
Uganda, Tanzania	132.9	131.6	101.1	92.9
Other Africa	36.1	38.0	42.0	42.1
W. Germany	35.6	39.1	36.3	34.9
Switzerland	13.4	17.0	19.2	21.0
U.K.	48.7	52.1	49.0	45.8
Other Europe	41.8	48.4	54.0	60.8
U.S.A., Canada	<u>59.6</u>	<u>71.3</u>	<u>58.1</u>	<u>52.8</u>
of which: <u>Mode of transport:</u>				
Air	<u>257.8</u>	<u>285.7</u>	<u>297.6</u>	<u>301.5</u>

7. The decline in visitors from Tanzania and Uganda is reflected in the falling figures for departures on business, by road, and in transit. Although some markets, such as Italy and Switzerland have grown steadily from a small base, the importance of Kenya's reversing the setback in its main market, North America, is very clear. North American visitors accounted for 14% of foreign departures in 1974, and also for 14% of all hotel/lodge bednights occupied by non-residents. However, North Americans make a relatively much greater use of hotels and lodges in the game areas of Kenya, accounting for 27% of all non-Kenyan bednights in such accommodation in 1974.

8. Tourist flows to Kenya have, however, held up remarkably well in the face of recent increases in airfares, and the recessions in the main tourist-generating countries. Excluding visits from residents of Uganda and Tanzania, "first visits"^{1/} declined by 0.5% in 1973 compared to 1972, but rose again by 0.2% the following year. Visitor departures by air have risen in every one of the last five years. Sharp falls in visitors from Britain and North America were compensated by continued increases from most European countries and the Far East. Foreign (non-E. African) resident bednights, with increases of 4.5% and 9.5% in the same years,

^{1/} Arrivals of persons who have not visited Kenya within the last 30 days. Visitor arrivals were some 14% higher, since they include the multiple entries of persons who also took excursions to neighboring countries.

have held up even better than visitor flows. This is due to several factors: switching from attractions in neighboring countries; higher airfares (the higher the fare, the longer tourists tend to stay in a country): and to a reduction in the real price of the Kenya component of tours.^{1/} With the stabilization of transport prices and recovering of the western economies, renewed rapid expansion can be expected, although this should be dampened somewhat while hotel prices rise again to levels at which investment in those activities becomes as profitable as in the early 1970's. After the "catch-up" phase, one may reasonably expect growth to moderate at rates which, though not matching the explosive expansion of the 1960's and early 1970's could lead to total visitor days increasing at 8-10% p.a. in the late 1970's and early 1980's. In the meantime, there are reports of very heavy bookings for the winter 1975/76 season. The liberalization of regulations governing air charters from the United States, and the possibility of Advanced Booking Charters (ABCs) from points in Europe, may also have favorable implications for the growth of tourism to East Africa.

9. In assessing Kenya's prospects, it is useful also to examine Kenya's share of international tourist flows. The figures in the following table are rough, and, indeed, overestimate Kenya's market shares. Of particular interest are the relatively low shares from France and Germany, two countries which are expected to have faster growth of international tourists in the next 5 years than most others. It would appear that a substantial potential still exists, therefore, for Kenya's tourism to expand faster than total international tourist flows.

	(a) Total estimated foreign holidays, 1973 millions	(b) ^{1/} Departures from Kenya 1973 thousands	(b) as % of (a)
U.K.	8.25	49.0	0.59
France	6.3	9.0	0.14
W. Germany	16.2 _{2/}	36.3	0.22
Switzerland	2.9 _{4/}	17.0	0.59
Italy	1.1 _{4/}	13.7 _{4/}	1.25
U.S.A.	6.9 _{3/}	52.0	0.75
Canada	1.5 _{3/}	6.1	0.41
Japan	2.3	5.8	0.25

^{1/} Including multiple departures of visitors visiting other E. African countries and then returning to Kenya.

^{2/} Swiss nationals.

^{3/} Overseas trips.

^{4/} 1972.

Sources: National Travel Surveys
Kenya Central Bureau of Statistics

^{1/} Average receipts per visitor and per visitor night have declined not only on account of lower real prices, but also due to a reduction in the proportion, if not absolute numbers, of tourists in the luxury category. This latter change is to be expected, and is unlikely to be reversed.

10. Whether or not that potential will be realized depends, of course, upon the provision of appropriate facilities at appropriate prices. Whether it should be realized depends upon whether the benefits less costs of faster expansion exceed those from slower expansion. The question of costs is dealt with, in the context of the economic justification of the present project, in Annex 9. On benefits, it may be noted that tourist receipts are based upon estimates of expenditures of tourists within the country taken from sample surveys (see table below, and statistical annex table 10) plus estimates of Kenya's receipts on account of payment for services by tourists (called 'pre-payments' in the statistics).

<u>Country of residence:</u>	Estimated average expenditure in Kenya per visitor night ^{a/}		1st. quarter 1975
	<u>Holiday</u> KSh/night	<u>Business</u> Ksh/night	<u>Total, inc. transit</u> Ksh/night
E. Africa	44.0	127.7	75.0
U.K.	56.2	150.7	71.6
W. Germany	137.4	344.1	143.8
Other Europe	120.8	163.2	131.4
N. America	<u>148.4</u>	<u>187.4</u>	<u>163.4</u>
All countries	103.0	145.0	115.2

a/ Excluding payments for accommodation, park entry fees, and local transport included in inclusive tour prices.

Source: Central Bureau of Statistics

Expenditures within the country vary considerably according to purpose of visit and residence of visitor, which are in turn correlated with use of commercial as contrasted with private accommodations and lengths of stay. Total receipts from visitors are officially estimated at K. Shs. 530 million for 1974, as compared to K. Shs. 486 million in 1973 and K. Shs. 546 million in 1972. The figure for 1974 underestimates prepayments by perhaps K. Shs. 60 million to K. Shs. 80 million, and actual receipts may have been around K. Shs. 600 million in that year.

11. There are no systematic studies of the price elasticity of demand for Kenya and its competitors. Price may be a less critical factor in the choice of a long-haul destination such as Kenya having a strong combination of attractions that set it apart from the competition, than in the case of Mediterranean countries offering very similar "products". As to Kenya's "price competitiveness", comparisons of prices offered by tour operators for different destinations are useful, but reveal only part of the story. First, definition of the "product" is difficult in terms of the exact services offered (category of hotel, board arrangement, extras included, length of holiday, etc.) and of the "attraction" offered: consequently prices fall within a wide range, even for the same destination. Secondly, individual tour operators price their holidays according to their "marketing" objectives, which may lead them to take losses on destinations where they have yet to become firmly established, and raise margins correspondingly in destinations or markets where they are dominant. Thirdly, pricing policy is influenced by the extent to which marketing, transportation, and accommodation are integrated within

one enterprise. Bearing all of these qualifications in mind, a recent comparison of tour operators' prices for package tours from the main European market countries to the Kenyan coast and to competitive beach destinations such as the Indian Ocean Islands, West Africa, Mexico, the Caribbean, Sri Lanka, and Thailand, showed that Kenya was competitive and even attractive. The tours to other destinations which are "comparable" with tours to Kenya including visits to game parks are more difficult to identify. For each night spent in a game park, there tends to be an increase over the beach tour cost of \$25 - \$33 per night. That is, these tours are considerably more expensive than simple beach tours. For tourists who decide to purchase game viewing excursions after their arrival in Kenya, the increase is even greater, since, depending upon the number of persons in the vehicle, the exact parks visited, and the company chosen, such excursions cost between \$50 and \$90 per night.

12. Kenya appears to be in a rather favorable position as regards the air fares charged for inclusive tour (IT) passengers on scheduled airlines. For example, the cheapest IT fares in effect from November 1975 from three main originating cities show that the airfare component to Nairobi is significantly lower than for most selected competing long-haul destinations. This probably accounts for the competitiveness of Kenya's tour prices noted above, since hotel prices elsewhere are often lower than hotel prices in Kenya.

To:	From:	Index. Nairobi = 100		
		Cheapest IT 1/ fare	November 1975	
		Frankfurt	London	New York
Nairobi		100	100	100
Abidjan		116	119	66
Banjul		104	105	n.a.
Bangkok		165	170	157
Johannesburg		114	126	107
Montego Bay		124	112	n.a.
Seychelles		114	190	n.a.

Source: Airline Passenger Tariff

1/ These fares carry differing conditions for the minimum size of the group, and the minimum duration of stay.

13. Sound pricing policies are essential if economic benefits from tourism are to be maximized. The Government controls the prices charged for services provided by Government or parastatal or community agencies, such as National Park and Game Reserve entries, and airport taxes. Prices of bar items are regulated under the Price Control Act, and accommodation prices and published prices of local tours are controlled by the Tourist Industry Licensing Office. Government also influences other prices through its taxation policies.

14. With some minor exceptions, entry fees for Parks and Reserves remained unchanged in current prices for 1968 to 1975, despite a rise in the cost of living index (adjusted for exchange rate changes in Kenya's main tourist markets) of 92% over the same period. Park and Reserve charges are not used to influence visitor flows between different locations, nor between different seasons or days of the week. Control of bar prices has led to severe difficulties for hoteliers in remote areas who cannot pass on heavy transportation costs. Introduction of new taxes without adequate warning has disturbed the travel trade, which typically advertises and sells tours well in advance, and operates within tight margins. Recognizing these problems, the Government intends to commission a study of pricing issues throughout the industry.

Hotel and Lodge accommodation

15. Kenya has one of the best developed hotel industries in Sub-Saharan Africa, offering on an annual average basis^{1/} some 17,600 beds in 1974. This capacity is largely concentrated in Nairobi and on the beach, the latter having steadily increased its share of capacity. (See Statistical Appendix, Table 5.) The rapid expansion of capacity at the beach has resulted in a slight fall in percentage of bednights occupied, since new hotels typically need a few years to become firmly established in the market, and since a surge of new capacity in 1973 and 1974 coincided with a slackening of demand growth in those years.

16. Although not afflicted by the severe seasonal fluctuations of some destinations, Kenya has a fairly pronounced seasonal pattern, with peaks between mid-December and mid-April, and between July and mid-October, and troughs during the rainy seasons of mid-April through June, and November. All weather roads, special promotional efforts, and appropriate pricing policies may succeed in further reducing the seasonality of flows.

Foreign visitor departures, '000	1974											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Holiday	37.7	29.2	29.5	26.9	15.0	17.2	27.0	31.8	25.1	22.9	24.2	23.7
Business	3.0	3.4	4.1	3.5	3.5	3.9	4.1	2.8	3.8	4.9	3.6	3.0
Transit	2.5	1.9	2.1	1.8	2.8	3.0	2.8	2.1	2.5	2.4	1.1	0.9
Total ^{a/}	43.2	34.5	35.7	32.2	21.4	24.0	33.9	36.7	31.3	34.3	28.8	27.6
Approx. SAF ^{b/}	1.33	1.17	1.10	1.02	.66	.76	1.04	1.13	.99	1.05	.91	.85

^{a/} May not add due to rounding

^{b/} Approximate seasonal adjustment factor: monthly daily occupancies ÷ annual average average daily occupancies

Source: Central Bureau of Statistics

^{1/} i.e., total bednights available per year ÷ 365. This underestimates physical stock to the extent that some capacity is seasonally shut.

17. Analysis of monthly series of bednights occupied in all categories of accommodation shows that seasonality of visits by non-residents of East Africa is partly offset by that of East African residents. Hence, use by residents has greater significance for the profitability of lodges than their share of total occupancies would indicate. Overall seasonality (as indicated by the size of the seasonal adjustment factor of the peak month), has not increased over the period for which monthly data are available. In the "game areas" (accommodations outside Nairobi, the coast and Western Kenya), seasonality has declined significantly. This is at least in part due to the extension of all-weather roads in Kenya, and in part also due to the increasing importance of charter tourism.

	Seasonality - Peak Month Seasonal Adjustment Factor ^{a/} , Bednights ^{b/}					
	Non-residents of East Africa			Total bednights		
	In all Kenya	In beach hotels	In game areas	In all Kenya	In beach hotels	In "game areas"
1969	148.0 (1)	178.5 (2)	161.3 (1)	130.9 (1)	168.5 (1)	142.0 (1)
1970	149.0 (1)	190.9 (1)	160.1 (1)	130.6 (1)	159.7 (1)	139.5 (1)
1971	140.1 (2)	185.3 (1)	159.4 (2)	131.0 (1)	160.3 (1)	138.0 (1)
1972	145.9 (2)	178.8 (2)	143.5 (2)	130.6 (1)	159.9 (1)	132.2 (2)
1973	142.8 (1)	190.0 (1)	146.4 (2)	130.3 (1)	166.6 (1)	130.2 (2)
1974	145.9 (1)	183.7 (1)	148.2 (2)	131.4 (1)	166.7 (1)	129.9 (2)

a/ "Final unmodified seasonal-irregular ratios" of the U.S. Bureau of the Census seasonal adjustment program. The peak month is indicated by its number in brackets (e.g., 1 = January). The seasonal adjustment factor is the ratio of occupancies in that month (corrected for days in the month), to a moving annual average.

b/ In registered accommodation.

18. Over the ten years between 1965 and 1974, the peak in total occupancies has shifted from August to the winter, due to faster growth in demand from foreign visitors tourism from East African residents. In economic terms, this means that accommodating foreign tourists is now more costly than in the mid-1960's, when growth could be accommodated in capacity installed primarily for residents, but available at other times of the year.

19. Figures are not available for the three main project areas for a long enough series for such an analysis. However, the raw figures for 1974 reveal a broadly similar seasonal pattern to that of the game areas as a whole.

Foreign visitor bednights, '000 ^{a/}	1974											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Amboseli	6.7	6.6	5.0	3.6	2.0	3.0	6.6	6.7	4.6	6.3	4.7	5.6
Masai Mara	5.0	5.4	3.6	1.5	1.4	2.6	5.6	5.2	3.9	1.9	3.1	4.4
Samburu	2.8	2.8	1.9	1.4	0.6	1.3	2.1	2.2	1.7	3.2	1.5	2.2
Total	14.5	14.8	10.5	6.5	4.0	6.9	14.3	14.1	10.2	11.4	9.3	12.2
Approx. SAF ^{b/}	1.32	1.49	.96	.61	.36	.65	1.30	1.29	.96	1.04	.88	1.11

a/ Accommodation included is Amboseli: New Lodge, Camp, Serena, Ol Tukai,
Masai Mara: Serena, Keekorok, Governor's Camp
Samburu: Game Lodge

b/ Approximate seasonal adjustment factor.

The Organization of Tourism

20. Government responsibility for the sector has been vested, up to February 1976, in three institutions - the Ministry of Tourism and Wildlife (MTW); the Kenya Tourism Development Corporation (KTDC); and the Trustees of the Kenya National Parks (KNP). The main functional divisions of the MTW were between the Tourism Department, responsible for licensing, national promotion, research, and planning; and the Game Department, responsible for control of hunting, assistance to County Councils in the management of the Game Reserves, anti-poaching activities except in National Parks, and wildlife research. The Ministry of Finance and Planning, in addition to its central role in setting priorities between and within sectors, is also responsible for regulation of the industry through the Price Control Act. The KTDC acts as a development bank for tourist projects, and also operates lodges of which it is an owner, and on behalf of others through a hotel management company. The KTDC has special responsibility for Kenyanization of the industry, through providing loans for the purchase of hotels previously owned by non-Kenyans and finance for Kenyan tour operation (mainly loans for vehicles), and for the renovation of hotels. KTDC also owns and operates (through a subsidiary) the Bomas of Kenya which provides displays of traditional dancing and house-types. The KNP are responsible for management of all Kenya's National Parks and National Reserves. In addition, County Councils operate Game Reserves on Trust land for which they are responsible, frequently with Game Department assistance, and also participate in game lodge or self-catering accommodation ventures. Some tourist resources are administered by the National Museum, such as the museums themselves, Fort Jesus, the Gedi ruins, and the fossil sites. Apart from East African Airways, the East African Community has so far played little part in regional tourist activities, but it has a small Tourism Unit at Arusha, and it is understood that the revival of regional East African promotion is under consideration.

21. The organization sketched above is changing with the coming into effect of the Wildlife (Conservation and Management) Act in February 1976. The Bill provides for the establishment of a single Wildlife Conservation and Management Service (WCMS), within the MTW, to combine the functions of the Game Department and the KNP.

Government policy

22. Although the targets for the tourism set out in the 1974-1978 Development Plan have had to be revised downwards substantially in the light of unforeseen increases in petroleum prices and airfares, and economic problems in the tourist-generating countries, the basic policies remain the same. When the Plan was written, too-rapid growth seemed a danger, and emphasis was given to seeking a balance between maximizing economic returns at an orderly rate of growth, and providing employment and investment opportunities for Kenyan citizens. Tourism is expected to become the country's main source of foreign exchange, as well as a major modern-sector employer.

Future Potential

23. International tourism is subject to many unpredictable influences. The broad lines of future development may, however, be sketched with some confidence, provided it may be assumed that the destination remains politically stable and sympathetic to the promotion of tourism, that government policies do not constrain either traffic movements or investment in productive capacity, and that the market generating countries return to broadly similar trends in social evolution, leisure patterns and growth in real per capita disposable income as those that have prevailed prior to recent economic upheavals.

24. It was recognized that the targets of the 1974-1978 Development Plan (formulated in 1973) represented a rate of growth somewhat below that which was at that time generally accepted as achievable. Nevertheless, some downward revision in those targets seems appropriate. At the same time, it should be stressed that, with the exception of one or two markets (mainly visitors from the U.S. and other East African countries) Kenya has maintained tourist traffic over the last years better than many other destinations. This may in part be due to prices being largely frozen (indeed Park entry fees remain at their 1968 level). Bookings for the 1975/76 season are very heavy, and seem to indicate a return to steady growth.

25. As with all long-haul destinations, the ability to tap large middle-income markets depends on reducing the air travel component of holiday prices to a minimum, which can only be achieved through charter operations with high load factors and low overheads. Policy on charters has been somewhat restrictive in order to protect East African Airways, and uncertainties regarding policy may also have retarded the introduction of ABC's.

26. The forecasts below are considered to be no better than reasonable orders of magnitude in the light of the past development of the sector, supportable assumptions about economic recovery in the main markets, and consideration of the constraints imposed by capacity likely to be available in 1978. Rather strong revival is assumed in the North American market.

Visitor days in Kenya '000	Recorded		5-Year Plan target 1978	Mission Projection 1978	Growth rate 1974-1978 %	Growth rate 1972-1978 %
	1972	1974			p.a.	p.a.
<u>Holiday visitors from:</u>						
North America	670	552	1,734	980	15	7
U.K.	709	601	1,313	860	9	3
W. Germany	469	422	1,467	740	15	8
Other Europe	676	909	1,291	1,590	15	16
Other, excluding E. Africa	568	643	832	870	8	7
Total holiday, non-E.Africa	<u>3,092</u>	<u>3,127</u>	<u>6,537</u>	<u>5,040</u>	<u>13</u>	<u>9</u>
Business non - E.Africa	275	280	496	320	3	3
Transit, non - E. Africa	<u>52</u>	<u>37</u>	<u>112</u>	<u>50</u>	<u>8</u>	<u>-</u>
Total non - E. Africa	3,419	3,444	7,245	5,410	12	8
Total E. Africa	1,350	961	1,000	900	-2	-7
GRAND TOTAL	<u>4,769</u>	<u>4,405</u>	<u>8,244</u>	<u>6,310</u>	<u>9</u>	<u>5</u>

Source: 5-Year Plan, Ministry of Tourism and Wildlife and Mission estimates.

27. Beyond 1978, there are a number of reasons for a generally optimistic view to support the assumption of a return to steady growth. Kenya's assets are unparalleled: the tourist industry is solidly established: standards of service enjoy a good reputation, and much infrastructure for tourist development is already in place: and Government recognizes the importance of a soundly planned and expanding tourist industry, and is pledged to its support.

Growth of demand for the project areas

28. The assumptions underlying the projections of visitor bednights in the project areas are given in Annex 10. These were checked against the expected trend in overall visitor arrivals to Kenya, and the likely distribution of the resulting bednights between hotels and lodges as against other forms of accommodation, and between game areas as opposed to Nairobi and the coast.

29. Assuming that there will tend to be an increasing trend towards the use of commercial accommodation, as against private houses and other alternatives; and that the relative share of Nairobi and the coast of total commercial bednights will decline somewhat as game circuits become better established, then the projections used for foreign resident bednights in the project area are compatible with a modest growth rate in total visitor days. Such growth rates are considered to be conservative assumptions, provided no unforeseeable factor, such as a major epidemic or political crisis intervenes.

"Best Estimate" Bednights by Non-residents of E. Africa
in Hotels and Lodges '000

	<u>1972</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
Amboseli	48.0	48.2	90.7	154.1	266.5
Masai Mara	32.0	38.1	71.8	122.0	179.2
Samburu/Buffalo Springs/Shaba	<u>13.5</u>	<u>21.1</u>	<u>48.5</u>	<u>91.6</u>	<u>134.6</u>
Total	93.5	107.4	211.0	367.7	580.3
Bednights by non-residents of E. Africa in hotels and lodges, all Kenya <u>1/</u>	a) 1718 b) 1718	2225 2225	3269 3583	4804 5771	7058 9294
Bednights by non-residents of E. Africa in project areas as % of total for all Kenya	a) 5.4% b) 5.4%	4.8% 4.8%	6.4% 5.9%	7.6% 6.4%	8.2% 6.2%

1/ Bednights by non-residents in all Kenya projected at (a) 8% p.a.,
(b) 10% p.a. from 1975

Sources: 1972 occupancies in Project Area - Central Bureau of Statistics
and Samburu County Council

Hunting and Consumptive Wildlife Utilization

30. Kenya can appeal to many special tourist markets, such as the naturalists, fishermen, ornithologists, and archaeologists. The hunting market represents an opportunity which is under-exploited. That few individuals participate, is clear from the table below:

	<u>1973</u>	<u>1974</u>	<u>Jan-June 1975</u>
Game licenses ^{1/} issued to:			
residents	916	976	501
non-residents	<u>731</u>	<u>1,371</u>	<u>470</u>
Total	1,647	2,347	971

1/ An individual may hold more than one license. Game Department figures show 835 non-residents holding licenses in 1974.

Source: Game Department

Per capita expenditures are high, however, and non-resident hunters contributed over E 2 million to Kenya's foreign exchange receipts in 1974.

31. In addition, Government's hunting revenues have not been insignificant, and taken together with proceeds of sale of trophies, have enabled the same Department to make a net contribution to the Government's budget in each of the last four years (see below). In this, the Department has a much better record than National Parks, which are still receiving subsidies on recurrent and development account.

	KE '000				
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u> ^{2/}
Revenues					
Hunting licenses ^{1/}	172	262	350	468	423
Trophy sales and permits	114	176	400	300 ^{3/}	483
Capture fees ^{4/}	<u>5</u>	<u>10</u>	<u>15</u>	<u>8</u>	<u>14</u>
Total revenues	291	448	765	776	920
Expenditures^{5/}					
	<u>1969/70</u>	<u>1970/1</u>	<u>1971/2</u>	<u>1972/3</u>	<u>1973/4</u>
Recurrent	291	335	465	505	548
Development ^{6/}	<u>113</u>	<u>83</u>	<u>158</u>	<u>208</u>	<u>212</u>
Total expenditures	404	418	623	713	750
Surplus (deficit)	(113)	30	142	63	170

^{1/} Excludes fees paid to County Councils and to landowners for animals actually shot. Controlled area fees collected by Game Department were E138,836 in 1973 and E126,288 in 1974. The decline was due to the ban on hunting of elephant by hunters. Main reason for increase over time is increasing fees rather than increasing numbers of licenses issued.

^{2/} Provisional estimates of revenues.

^{3/} This was a year of record exports of ivory, but this was carried out by private firms and normal Government ivory auctions were not held.

^{4/} Fees for capture of animals for zoos and research.

^{5/} Estimates. In fact, development estimates are usually underspent and the expenditures here therefore overstate the costs and understate the surpluses.

^{6/} Excludes Government grants for development of County Council Game Reserves.

Sources: Kenya, Economic Survey, 1975, and Estimates of Current and Development Expenditures 1969/70-1973/4.

32. Kenya attracts an infinitesimal share of the 16 million U.S. hunting license holders reported by the U.S. Fish and Wildlife Service in 1974. In many states, acute pressure on wildlife resources is developing and hunters are having to travel further afield, at high cost, in pursuit of their sport.

33. Kenya's potential for attracting an increasing number of hunters from Germany seems promising. German controls on hunting licenses - only 250,000 being currently issued for the whole of W. Germany, and stringent regulations on hunting concessions and their high cost, effectively put hunting beyond all but the few. Moreover, game habitats within reach of major towns are frequently crowded with excursionists. The opportunities to hunt the largest species, such as elk, are extremely limited, and reserved in many state forests for only highly privileged guests.

34. Kenya offers excellent opportunities for bird shooting, a sport which is becoming increasingly expensive and hard to get in Europe. Bird shooting safaris, which do not involve contact with dangerous animals, nor the use of heavy rifles, are simpler to organize than game hunting, and could provide another means whereby Kenya's attractions for the foreign visitor are enhanced, and the Kenyanization of the hunting profession accelerated. Bird shooting is now popular mainly with residents, but there seems to be considerable potential for increasing government revenue from bird licenses above the K. Sh. 57,000 in 1974.

35. For Kenya to tap these markets, new methods of safari operation will have to be evolved, and the numbers of professional hunters qualified to lead plains-game hunts greatly increased. This may provide significant employment opportunities for Kenyans from the pastoral areas, thus reducing dependence on subsistence pastoralism. Promotion of this business also presupposes the continued existence of large wildlife herds, the negotiation of appropriate concession agreements with landowners, and a soundly based system of harvest quotas. Hunting agreements have been successfully made on a pilot basis in the Kajiado District, under the UNDP/FAO Wildlife Management Project. The Wildlife Planning Unit, to be established under the project, will draw on this experience, and will have a critical role in ensuring an orderly expansion of soundly conceived hunting programs.

Fisheries

36. The project includes the construction of a Training Institute, primarily for staff of the Ministry of Tourism and Wildlife, which is responsible for sport and commercial fishing.

37. Kenya's lake, river, and deep-sea and farm fish-pond fisheries can probably contribute much more than they do both to food resources and to foreign exchange earnings through recreational fishing, although the potential is far less on a per capita basis than in Uganda. Kenya is currently a net importer of fish and fishery products. Marine catches declined sharply in 1974, just over 3,000 tons being landed, as compared to 7,411 tons in 1972. Landings of freshwater fish, mainly from Lake Victoria, have steadily increased, to over 25,000 tons in 1974.

38. More research is needed to establish the potential, and it appears that some early estimates, notably for the commercial fishing of Lake Rudolf, were much too optimistic. Commercial fishing is mostly by traditional methods which are highly labor-intensive, and it appears that the number of people engaged primarily in fishing for a livelihood is rapidly increasing. A major problem has been excessive off-takes, and non-observance of regulations on mesh sizes of nets, and seasons designed to protect breeding areas. Improvements in the enforcement of these rules are to be sought partly through training of staff so that they are better able to educate fishermen on the rationale for regulations, and partly through expansion in staff members.

39. Possibilities for sport fishing seem promising, but have not yet been systematically evaluated. Fishing for trout in the rivers, for Nile perch and tiger fish in Lake Turkana, and black Bass and Tilapia in Lake Naivasha, and for marlin, sailfish, wahoo and kingfish and shark in the Indian Ocean, has long been popular with residents. Fishing competitions at the coast attract entries from all over the world, and there is a steady demand from holidaymakers at the beaches for fishing expeditions. Many of the trout streams have suffered from neglect and poaching, but could be readily rehabilitated with appropriate staffing.

40. It is expected that the Naivasha Training Institute will play an important role in enabling Kenya to realize her fisheries potential.

KENYA: WILDLIFE AND TOURISM PROJECT

GAME PARK/RESERVE IMPROVEMENTS, AND PARKS HEADQUARTERS

General

1. The project areas are shown on map IBRD 11845R. Both Amboseli and Masai Mara are part of well-established tourist circuits linking them with other game viewing areas in Kenya and Tanzania, and already attract substantial numbers of visitors. The Samburu, Buffalo Springs, and Shaba Reserves are more remote, although road access to them is now good. In time, these three Reserves are expected to develop as a key attraction on what is known as the 'Inner Northern Circuit', which embraces the Aberdares and Mount Kenya National Parks, Meru National Park and with suitable improvements, the Mathews/Ndotos range, Maralal, Marmar, and Lake Bagoria. Lake Rudolf is situated in the remote and arid north, and access will continue to be by air for most visitors or a hardy few travelling in convoys of four wheel drive vehicles.

Game Park/Reserve Improvements

A. Amboseli

2. Situated beneath Mount Kilimanjaro, Amboseli provides a great diversity of animal species in a magnificent setting. Rising visitor numbers have led to damage by vehicles of the fragile vegetation area, and harassment of animals. These have reached serious proportions, requiring urgent management action if the tourist assets are not to be irreparably damaged. Amboseli has, however, been the subject of continuing research in the problems of tourist and wildlife management, which provide a sound basis from which to plan for its regeneration, and for the maintenance of substantially higher volumes of visits with a better standard of amenity.

3. The items to be financed under the project include the construction of an estimated 300 km of game viewing tracks, which will be designed both to minimize ecological damage, and to raise the Park's visitor capacity through the creation of new circuits having minimum intervisibility. Three improved entrance gates would be provided. A small museum to provide visitor information and facilities for conservation education, together with a caretaker's house would be constructed. Vehicles for the transport of Parks staff would be provided, together with a kerosene tank trailer, which would be used for habitat management through fire control.

4. A Parks Headquarters complex would be built at Kimana^{1/} outside the Park boundary, to provide senior staff housing, 107 junior staff houses, and 57 subordinate staff houses. There would also be social services, including a primary school and dispensary. An administrative headquarters would be provided, together with vehicle maintenance facilities.

^{1/} Two alternative locations, Kimana and Lemongo, are being studied.

B. Masai Mara

5. The Masai Mara National Reserve is situated in Southern Kenya on the border with Tanzania between Lake Victoria in the West and the Rift Valley in the east. It abutts on the Serengeti National Park in Tanzania and consists of some 1,500 km² of grasslands, woodlands and wooded and forested hill with acacia communities as the dominant vegetation over the greater part of the region. The general elevation of the region is 5,000 ft. (1,600 m) above sea level with hills rising to 6,500 ft. (2,000 m). The Mara River rising on the Mau Massif is an important feature, being bordered by a superb gallery forest.

6. The Reserve forms part of the Serengeti ecological region (or ecosystem), lying within the migratory range of the enormous herds of wildebeeste and zebra which spend the greater part of the year in the Serengeti Park and the Ngorongoro Conservation Area. In most years some 500,000 wildebeeste and 100,000 zebras enter the Reserve in the months of August, September and October (in dry years in July) and return to the Serengeti Plains to the South with the first rain in October or November.

7. In addition to the great herd of migratory wildebeeste and zebra, the Mara is the habitat of considerable number of resident large mammals including elephant, buffalo, topi, hartebeeste, impala, Grant's and Thomson's gazelle, black rhino, hippotamus, waterbuck, lion, and also herds of zebra and wildebeeste which migrate seasonally to dispersal areas to north and east of the Park. The abundance and diversity of wildlife in the Mara Reserve compare favorably with the best National Parks in Africa and provide an outstanding spectacle.

8. The Reserve is situated 400 km. by road from Nairobi which places it at the outer limit of an acceptable daily trip for tour operators and about an hour flight by light aircraft. With three excellent lodges (one a tented camp), it is one of Kenya's main tourist attractions. It lies on a main visitor circuit of Southern Kenya and northern Tanzania and its development should be considered in conjunction with parallel development in Tanzania so that an unobstructed flow of visitors can be achieved. Nevertheless, provision exists in the Mara for a local circuit which is independent of the Tanzania circuit and which connects up with the Lake Victoria region, the Rift Valley and the Mau Massif in Kenya. A new connection with the Nairobi circuit via the Nguruman Escarpment and Lake Magadi in the Rift Valley, presently a remote region of outstanding natural contrasts and tourism potentials, would provide one of the most spectacular routes in the world. It is intended that some of the funds for studies under the project will be allocated to assessing the feasibility of this development and carrying out design studies.

9. Extensive improvements are proposed for the Masai Mara National Reserve, including tracks, gates, signposts, and vehicles. This would be complemented by a headquarters complex outside the reserve at Migwara, providing 64 junior and 57 subordinate staff houses, plus senior staff housing. The Headquarters would also have common facilities similar to those for Amboseli, but in addition it would provide for a tented camp for up to 50 laborers.

C. The "Inner Northern Circuit"

10. Most game-viewing in Kenya has taken place in Nairobi National Park and on the southern Tsavo, Amboseli and Mara circuits, with links through Tanzania. Mount Kenya, the Aberdares, and Lakes Naivasha and Nakuru, all to the north of Nairobi, have also been long established as tourist attractions. If Kenya's tourist traffic is to expand, "new" circuits must be developed to provide more capacity and a greater variety of attractions. The clearest priority is for the so-called Inner Northern Circuit, which is already for the most part easily accessible by all-weather road from Nairobi.

11. The "circuit" is better described as a collection of attractions within one area, since there are many possible alternative tourist itineraries that can be arranged. The extent to which visitor amenities are developed varies greatly, ranging from famous attractions such as Treetops and the Mount Kenya Safari Club, to newly gazetted game reserves which are as yet virtually untouched by any form of development.

12. The main attractions of the "circuit", or attractions that are reached en route to it, include:

- the Aberdares National Park. Only 100 miles from Nairobi, the Park has dense forest, spectacular scenery, and a variety of game. East Africa's first game viewing lodge, Treetops, is located here. The project provides for some extensions to the system of game proof barriers in the Aberdares.
- the Mount Kenya National Park is some 20 miles to the east of the Aberdares, and provides a variety of scenery, wildlife, and the opportunity to scale the country's highest mountain (17,000 ft.).
- Meru National Park spans the transition between the lush mountain parks and the arid north. The Park offers an attractive variety of scenery and wildlife, and tourist traffic is building up to a significant level since the opening of a catered lodge in the Park.
- Shaba National Reserve has recently been gazetted. The Reserve is located in a barren area, to which animals are drawn by the vegetation surrounding seven major springs. It has no facilities as yet, other than gates and ranger accommodation still under construction. The reserve covers some 130 km², including some 34 km of the south bank of the Uaso Nyiro river. Potential sites for a lodge and bandas have been identified for future consideration as traffic builds up, and a network of tracks passable by two-wheel drive vehicles will be needed. The reserve complements the Samburu and Buffalo Springs reserves which lie a few miles to the west.
- Samburu and Buffalo Springs National Reserves lie on opposite sides of the Uaso Nyiro river which forms the boundary between the Isiolo and Samburu County Council jurisdictions. They are administered jointly by the two Councils, and together make up one wildlife viewing area. There is a game lodge in the Samburu Reserve overlooking the river, and self-help bandas in Buffalo Springs Reserve. The wildlife attractions are largely concentrated along a narrow riverine strip, where the present limited track system results in serious

congestion during peak periods, even though total visitor numbers are still small.

- Marmar Ranch. This ranch is currently in private ownership, but negotiations are under way for its acquisition by the Livestock Marketing Division of the Ministry of Agriculture. When acquired, LMD would expect to exploit the ranch for tourism use as well as livestock.

Occupying some 200 km.², Marmar has considerable diversity of habitat, including savannah grassland, dense ever-green shrubs, and an extensive riverine and lava scarp with mixed grass and acacia bushland, including a number of springs and dams. Marmar carries the Kenya hartebeeste, an attractive animal unique to Laikipia, as well as high densities of groups zebra, eland, buffalo, etc. If the dispersal areas on the Leroghi plateau and in the forests of the Karissia Hills are also taken into account, the Marmar area represents a tourist resource of high potential. For this potential to be fully realized, game conservation management, including appropriate agreements with landowners on newly adjudicated ranches, has to be extended to the dispersal areas. Located between the Samburu/Buffalo Springs/Shaba reserves and Lake Baringo, it also forms a convenient departure point for attractions to the north such as Maralal, Marsabit, or Lake Turkana. Development of Marmar would greatly increase the number of alternative tourist itineraries - one calculation showing over 30 additional routes made possible through the addition of Marmar. The improved road to Lake Baringo and thence Lakes Bagoria and Nakuru will ensure that Marmar secures a large flow of visitors, always provided that the basic resource is sensitively developed.

- The Mathews/Ndoto ranges offer spectacular scenery within reach of the Samburu-Maralal road. In the future, an access road would provide the opportunity to develop safaris and treks in "wilderness" surroundings.
- Maralal is situated in the Samburu highlands near Marmar, and offers an invigorating climate and fine scenery. The Game Sanctuary located very near the town contains a simple lodge. The Samburu culture is highly colorful, and of interest to many visitors.
- Lake Bagoria will become more readily accessible from Maralal by a spectacular scenic drive under planned road improvements. An alkaline lake with hot water geysers on its shoreline, populated seasonally with large numbers of flamingos and some bush and game species, and surrounded by rugged escarpments which seem to isolate it from the rest of the world. This lake provides a complete contrast to the neighboring freshwater Lake Baringo, which supports fish and crocodiles. Jonathan Leakey's serpentorium is located here, and there is a small lodge.

13. The project would provide for the construction of viewing tracks at Samburu/Buffalo Springs/Shaba, but is essential that detailed plans are drawn up for each reserve before any major new program of track construction starts. Four entrance gates would be provided, with accommodation at each. The airstrip would be given a gravel surface. Tentage and equipment would be provided for road gangs. The project would further provide for two landrovers, a truck, and a car, for the use of reserves staff.

14. A Headquarters complex would be built at Archers Post, situated on the main Nairobi-Marsabit road, between Samburu/Buffalo Springs and Shaba to serve the staff of all three reserves, and to improve social amenities for the existing population. 65 Junior and 40 intermediate staff houses would be provided. A tented camp would be provided for up to 50 laborers, and a school, dispensary, community hall, administrative headquarters, and a vehicle workshop.

D. Lake Turkana

15. Lake Turkana (formerly Lake Rudolf), lies in the remote arid north of Kenya's Rift Valley system. 250 km. long and a maximum of 56 km. wide, it is the largest alkaline lake in the world. It is fed from the highlands of western Kenya and Ethiopia, through the Kerio, Turkwell, and Omo rivers. It has no outlet, though once connected to the Nile. The lake supports great variety and numbers of birds, and is famous also for its crocodiles and huge Nile perch. There is abundant wildlife along its eastern shore. Most visitors find the lake exceptionally beautiful, and a spectacular experience unlike anything else in Kenya.

16. The scenery and wildlife alone would justify the gradual development of Lake Turkana as a tourist attraction. But near to the present shores of the lake lies one of the largest and most important prehistoric sites yet known in Africa. The discovery there of the remains of earliest man and of countless extinct animals, and evidence of technology going back about 2.6 million years, has been given wide publicity, and an active international research program continues.

17. Some 1,500 km.² on the eastern shore of Lake Turkana were gazetted as a National Park in 1973.

18. The paleontological explorations at Lake Turkana are being supervised by the National Museum authorities. The National Museum has established one permanent camp at Koobi Fora, four temporary camps, and a number of tracks and airstrips to give access to the excavation sites. As of 1974, some 70 people were employed there, including 28 scientists. The National Parks employ about 50 staff at Lake Turkana, and is building a permanent headquarters a few miles north of Koobi Fora.

19. Very few visitors reach the eastern shores of Lake Turkana at present, and accommodation there is limited to the hospitality of the National Museum and National Parks. Some visitors make the trip by boat or air from the lodges on the western shore.

20. Although the visitor volumes to Lake Turkana are expected to remain small for the foreseeable future, the wide international interest created by the discoveries there will bring an increasing demand for travel to the area. However, uncontrolled touring of the fossil sites, and the possible pilfering or accidental destruction of fossils and artifacts cannot be allowed. The project therefore provides for the demarkation of boundaries of the archaeological area, site exhibits, signposts, a workshop, and water supplies. Two landrovers, two trucks, and a water tanker would be provided for the Parks/Museum staff. Museum staff.

Road Construction and Maintenance Units

21. The project would provide equipment for three road construction and maintenance units, to be based in the areas of Amboseli, Masai Mara and Samburu/ Buffalo Springs/Shaba, and would also finance operating costs for 4 years. Each unit would consist of two bulldozers, two motor graders, a front-end loader, four tractors, three four-wheel trailers, loader and blade attachments, one twenty-ton low-load trailer, ten six-ton tipper trucks, two twelve hundred gallon water tankers, two vibrating compactors, a concrete mixer, a landrover, tentage and other equipment. Great importance is attached to the preparation of detailed parks and reserves plans which would govern the use of this equipment, and ensure that the roads and tracks to be built are designed in accordance with ecological and tourist management considerations. No disbursements under the loan for the operating costs of each unit would be made until a detailed plan for the relevant area had been prepared by the Wildlife Planning Unit and reviewed by the Bank, and unless the unit were used to construct roads according to those plans.

KENYA: WILDLIFE AND TOURISM PROJECT

WILDLIFE AND FISHERIES TRAINING INSTITUTE

1. The Institute, to be built near Naivasha, will provide basic training for new junior staff, and rangers and scouts of the Wildlife Conservation and Management Service and the Department of Fisheries; it will upgrade existing staff, and provide a variety of specialized courses for assistant wardens and fisheries officers at the senior level. These departments had a combined establishment of 3,169 persons in 1975, and no regular formal training program. The Institute will therefore fill an important gap. In addition, the Institute will provide formal training for guides and mechanics, and for driver/guides from the private sector.

2. The Institute will lay special emphasis upon courses designed to enable Government staff to deal effectively with local populations in areas where game and/or fisheries may yield substantial returns. Government officers in these resource management departments have two principal relationships with local populations: that of enforcing regulations against poaching, overfishing, etc., and secondly, that of extension agents, advising and assisting local inhabitants to incorporate wildlife/fish into their ranching/farming activities. To a large extent, effective enforcement depends upon public understanding of the purposes of regulations, and hence on extension education. In the past, many game and fisheries staff have not understood these issues, nor have they had much practical knowledge of local agricultural and ranching practices. The Naivasha Training Institute is expected to play a major role in filling this specific need.

3. The schedule of accommodation to be provided, the initial enrollment, and the curricula of courses to be provided, are preliminary and tentative. They have been worked out by the Game Department, Kenya National Parks, and the Department of Fisheries. Architectural consultants, experienced in the design and supervision of a very similar facility recently built near Nairobi, were retained by the MTW for preliminary design and engineering. The Bank's appraisal team included a consultant whose experience included running the College of African Wildlife Management in Tanzania. Nevertheless, detailed designs will only be finalized when the governing body of the Institute has been appointed.

Relationship to Other Training Institutions

5. The College of African Wildlife Management (CAWM), Mweka, Tanzania, provides technical and subprofessional training in a two-year diploma course and a one-year certificate course. It accommodates about 75 suitably qualified students from most English-speaking countries in Africa. Kenya normally sends about eight or ten, divided approximately equally between the diploma and certificate courses. A prerequisite for the certificate course is a "school certificate" or its equivalent. A 1st-class Diploma from Mweka normally qualifies the recipient for admission to universities in East Africa. Diploma holders normally join the KNP or GD ^{1/} as assistant wardens, and certificate holders enter these services as game assistants.

^{1/} KNP and the Game Department were merged, as of February 13th, 1976, in the new Wildlife Conservation and Management Service.

6. At present Mweka cannot train more than half the wardens that the Kenyan Government needs to staff an expanded system of parks and reserves and keep pace with the training of new scouts at the Naivasha Institute. The demand for places at Mweka from other African countries is steadily increasing, and unless accommodation can be expanded it seems likely that the number of places for Kenyans will be reduced even further. It may therefore be necessary to consider a supplementary course for wardens at Naivasha, which would raise the question of withdrawing all Kenyans from Mweka rather than dividing the students. In view of the lack of a reasonable prediction of Mweka's capabilities in three or four year's time, it is not now possible to foretell the exact future demands to be placed on it. Plans for the Naivasha Institute should therefore be flexible enough to make room for a warden's course if necessary. In any event, the Institute should include a course for wardens covering Kenya's policies, laws, administrative practices, etc. This may reduce somewhat the need for training of wardens in aspects of law enforcement at the Police College, Kiganjio.

7. A small number of students take degree courses in wildlife management and related subjects at universities in North America and Europe and return to take up professional appointments in the Kenya Game Department and national parks. The small Pansiani School at Mwanza in Tanzania offers the only formal instruction for junior wildlife conservation staff in East Africa. It trains game scouts for the Tanzania Game Division, and it is unlikely that the Government of Kenya would wish to make use of it.

Fisheries

8. A Fisheries Training Institute has been proposed for some time. The planned combination of wildlife and fisheries training affords economies as compared to establishing two separate institutes. The proposed site of the Institute, at Lake Naivasha, is appropriate for fisheries training, supplemented by the use of existing facilities on the coast.

A. Organization

9. The great majority of students at the Institute will be government employees, staff of the Wildlife Conservation and Management Service. But courses are to be offered for private sector employees, and the nature and quality of training given to government wildlife staff will be a matter of concern to ranchers in the dispersal areas, game lodge operators, and indeed the tourist industry at large. If, as is currently proposed, the Institute be set up as a purely government training institution, then a system has to be established whereby non-governmental interests can

have an appropriate say in its curricula, staffing, and management. It should also be accepted as a principle that commercial enterprises benefitting from the training, including public enterprises such as game reserves, should contribute to the Institute's operating costs.

10. An alternative arrangement under consideration by Government is the establishment of the Institute as a statutory body, with a Governing Council, broadly on the lines of the Egerton Agricultural College. Under such an arrangement the Council would be empowered to approve curricula and regulations, employ and dismiss staff, administer funds, select and dismiss students, set and mark examinations and grant legally valid certificates of competence to successful students. The Council would be the legal custodians of the Institute's facilities. It could sue and be sued and would elect and dismiss members within the legally established framework. Members of the Council would for the most part be ex-officio representatives of organizations to be specified in the law and suggested initially by the Minister of Tourism and Wildlife. There would also be provision for individual membership in the case of certain benefactors.

12. The following organizations, among others, might be considered for membership on such a Governing Council, if established:

- The Ministry of Tourism and Wildlife
- Wildlife Conservation & Management Service
- Fisheries Department
- The Ministry of Natural Resources
- The Ministry of Agriculture
- E.A. Agriculture & Forestry Research Organization
(E.A. Community)
- Department of Zoology and Botany, University of Nairobi
- Kenya Farmers' Association
- Authorized representatives of:
 - dispersal area landowners
 - commercial fishing enterprises
 - hunting, safari, and tour operators
 - the hotel industry
- National and International Conservation Organizations.

Ministerial Responsibility

13. The Institute would be the responsibility of the Minister of Tourism and Wildlife who would be responsible for obtaining the necessary funding from or through the Kenya Government. The Council (if established), would be able to solicit funds from donors for particular needs of the Institute. All fund-raising activities would be coordinated with those of the Wildlife Fund Trustees. 1/

1/ Established under the Wildlife (Conservation and Management) Bill, 1976.

Selection of Students

15. Candidates should be chosen by a Selection Board which would use interviews, examinations and physical tests to select students in every way suited to undertake the course of instruction. Women would be as eligible as men for selection, and the physical facilities of the Institute are to be designed to enable women to be increasingly accommodated as their employment in the sector grows.

Examination Board

16. The Principal of the Institute would be responsible for selecting examiners.

Legal Status of Certificate

17. It is suggested that the Institute be empowered to grant legally recognized certificates of competence to successful students and that the signature of the Principal of the Institute (and Chairman of the Governing Council, if established) be necessary to validate each certificate issued. The certificate should be distinguished from the Mweka subprofessional diploma and may be issued for various grades.

Financing

18. The Institute would be built and equipped by the Government. Assistance in the financing of recurrent costs would be sought from official and private agencies having an interest in the sector. Formulae shall be evolved whereby the full recurrent costs of the Institute shall be recovered, on the principle that enterprises benefitting commercially from the training program bear an appropriate share of such costs.

The Physical Facilities

19. The Institute is to be sited on about 1,200 has. of land approximately $1\frac{1}{2}$ miles southeast of Naivasha town, on the low plateau above the first ridge to the east of Lake Naivasha. It is bounded by a road and a railway.

20. The building complex would occupy about 500 has. The remainder, including a steep rocky escarpment, would be set aside for small demonstration herds of game animals. There is a possibility that about one third of the site, at the western end, may be needed for the Trans-African Highway, as shown in the Naivasha Development Plan of 1974. This would not affect the planned buildings but would reduce the area proposed for game ranching.

21. The main part of the site is about 120 m. above the Lake with magnificent views across the Lake westwards to the Mau Escarpment, northwards along the Rift, and a glimpse of the peak of Longonot over the ridge to the south. The terrain is covered with shrubs and grass, with some rock breaking the surface and local small gullies and undulations. The site slopes gently upwards from north to south and more steeply downwards to the west. The provision of water, sewerage and electricity presents no difficulty.

22. The building complex, designed to blend with the landscape, will include the following facilities: laboratories and lecture rooms, assembly hall, offices, museum and library, common rooms and dining rooms, kitchen, hostel accommodation, sports facilities, workshops, stores, garages, staff housing and appropriate site works.

23. At Lake Naivasha there will be a fisheries-processing building, stores, fish ponds and a jetty.

Administration

Principal:

The field of experience of the Principal, and his academic discipline is less important than his proven ability as an administrator. He should, however, have experience of resource management, which might have been in agriculture, fisheries, forestry, wildlife, or livestock. Proven skill in the handling of public relations would be an asset.

Vice-Principal/Adviser:

The Vice-Principal would also be an experienced administrator, whose background should complement that of the Principal. If the Principal has a strong background in resource management, this will be less of a requirement for the Vice-Principal, and conversely.

The selection of both Principal and Vice-Principal would be made after consultation with the Bank.

Bursar/Administrator:

The Bursar should have substantial experience in the administration of similar institutions.

The administrative staff would be completed by an accountant, secretaries, typists, and clerical officers (estimated at 12 in total).

Lecturers and Instructors

24. The definition of the teaching staff, and the qualifications needed for each post, would be the responsibility of the Governing Council. It is expected, however, that teachers will be mostly graduates having some years practical experience in East Africa, and qualified in zoology, botany, biology, natural history, resource management, ecology, hunting, geology, law and administration, extension services, civil engineering, veterinary science, fishery techniques, fish marketing, etc. There will in addition be a need for vehicle and boat maintenance, field-craft, firearms, and drill instructors. It is estimated that around 20 lecturers/instructors would be needed.

Support Staff

25. Provision would be made for museum, audio-visual, and photographic technicians, and a librarian. Other support staff would include telephone/radio operators, armorers, sports officers, gardeners, drivers, and some 40 junior staff.

Recruitment

26. The Principal and/or the Vice-Principal should be appointed about 18 months prior to the expected opening of the Institute, and provided with a small secretariat. Recruitment for all posts would be based initially on responses to advertisements in Kenya, with the possibility of recruitment of expatriates for any posts for which suitably qualified Kenyans are not forthcoming. To the extent that posts are funded from external assistance, recruitment would follow the practices normally used by the Government and the institution concerned. All posts are expected to be progressively filled by Kenyans.

27. It is expected that the curriculum could be divided into four main categories:

- I Syllabus for scouts, rangers and assistants
- II Advanced courses including education (largely used for guides)
- III Fisheries courses
- IV Seminar courses

Category I would be a regular course for about 55 rangers and scouts divided into four classes and lasting 22 weeks. A very similar course also lasting 22 weeks would be run for park assistants who have not had the benefit of formal training but who need to be brought up to at least the same level of proficiency as the scouts and rangers.

Category II would be a series of advanced courses for wardens and prospective conservation education officers, and where appropriate, fisheries officers. These subjects would be largely administrative and organizational.

Category III, fishery instruction, is sufficiently specialized to need a curriculum of its own and several specialized instructors to teach it.

Category IV covers unspecified seminars and refresher courses that would be organized on an ad hoc basis when a special need arises. It could reach a wide range of people such as teachers and administrators with some contact with wildlife, ecology, land use, planning and fisheries and could be used to disseminate information on wildlife conservation. Short instructional courses could be held for senior school children perhaps in cooperation with the Wildlife Clubs of Kenya, who have already done much to publicize career opportunities in wildlife management.

Recurrent Expenditure - Annual Estimates

	(Provisional) <u>K £</u>
A. Teaching expenses	
Books, equipment, ammunition, stationery, etc.	10,000
B. Workshops & vehicles & boats	12,000
C. Building & grounds maintenance	2,000
D. Domestic & general expenses	
Outstations, medical, uniforms, electricity, gas, catering, food and messing expenses	30,000
E. Aircraft	5,000
F. Fish processing	2,000
G. Administrative expenses	
Salaries	75,000
H. Office and service expenses	
Equipment, stationery, postage, telephone, audit bank charges, shipping and forwarding, legal expenses, insurance	10,000
I. Staff training expenses	
Conference and seminars, research grants and publications	1,000
J. Miscellaneous and contingencies	<u>16,000</u>
<u>ANNUAL RECURRENT GRAND TOTAL</u>	<u><u>K £ 173,000</u></u>

The above preliminary estimates have been adapted from those of the College of Wildlife Management for 1975/76 and adjusted for additional students.

WILDLIFE AND FISHERIES TRAINING INSTITUTE

KENYA: WILDLIFE AND TOURISM PROJECT

ANALYSIS OF ACCOMMODATION AND ESTIMATED COSTS

(Note: Areas shown are total building areas including circulation and walls.)

FUNCTION	m ²	K£
<u>TUITION</u>		
6 classroom to accommodate up to 25 students	312	
2 laboratories, one for 25 students, one for 15 students, including a store and an office	165	
2 group/seminar rooms	75	
Toilets	30	
Total	582	K£ 45,000
<u>ADMINISTRATION</u>		
Principal	25	
Secretary	12	
Waiting and information	25	
Vice-Principal	20	
Administrator/Bursar	15	
Secretary	12	
Accountant	15	
Accounting Office	30	
4 Typists	30	
10 teachers' offices, each accommodating 2 teachers	140	
Conference/teachers' room	25	
Telephone and radio room	10	
Printing room	15	
Stores - stationery, books archives	25	
Visual aids store	12	
Tea and cleaner's room	10	
Toilets	10	
Circulation	50	
Total	481	K£ 37,000
<u>COMMUNAL FACILITIES</u>		
Dining facilities for 250 people	350	
Kitchen for 250 x 3 meals a day, including cold stores, stores, equipment, counters, etc.	180	
Students' common room	100	
Assembly/lecture hall for 300 people including foyer, stage, projection room, adapted for activities such as: lectures, conference, cinema, theatre, ceremonies, etc.	450	

FUNCTION	m ²	K£
<u>COMMUNAL FACILITIES (continued)</u>		
General shop (newspaper, magazines, stationery, toiletry, etc.)	40	
Entrance area and circulation	50	
Toilets	30	
Total	1,200	K£ 105,000
<u>MUSEUM/HERBARIUM</u>		
Main hall/aquarium	60	
Herbarium	15	
Workshop and store	75	
Trophy strong room	15	
Trophy store	50	
Office	10	
Entrance and circulation	15	
Visual aids-darkroom	12	
Studio/Workshop	20	
Office/store	12	
Toilets	6	
Total	290	K£ 24,000
<u>LIBRARY</u>		
for about 5,000 volumes including shelving.		
Main reading hall for 50 students	100	
Book store/binding	25	
Entrance lobby	15	
Office	10	
Total	150	K£ 15,300
<u>STUDENTS' HOSTEL</u>		
6 single story blocks, total 75, double study/bedrooms and service facilities (sitting room, toilets, kitchenette, showers, stairs, washing room, etc. for 150 students	1,050	K£ 78,700
Single story block comprising 25 single study/bedroom and service facilities for postgraduate students	300	23,500
Total	1,350	K£ 102,200

FUNCTION	m ²	K£
<u>STAFF HOUSING</u>		
<u>Senior staff</u>		
1 Principal house, 5 rooms	150	
1 house, 5 rooms	120	
10 houses, 4 rooms each	1,000	
8 houses, 3 rooms each	560	
Subtotal	1,830	K£ 118,400
<u>Junior & Subordinate Staff</u>		
15 houses, 3 rooms each	1,050	
20 flats, 2 rooms each	700	
Subtotal	1,750	K£ 93,600
<u>Staff common room/kitchen</u>	100	7,500
<u>Servants</u>		
12 flats, 2 rooms each	360	16,600
Total	4,040	K£ 236,100
<u>MEDICAL UNIT</u>		
Doctor's office	15	
First aid room	15	
Sick bay for 6 (3 x 2) beds	40	
Medical Store	10	
Servery	6	
Entrance hall and circulation	20	
Total	106	K£ 8,600
<u>FISHERIES FIELD STATION</u>		
(on a site to be determined on shore of Lake Naivasha)		
Boatyard: Workshop	100)	
Engine room	20)	
Fuel store	12)	K£ 7,500
Office	12)	
Teaching facilities:		
Laboratory	50)	
Classroom 25 students	50)	K£ 9,600
Toilets & showers	15)	

FUNCTION	m ²	K£
<u>FISHERIES FIELD STATION (continued):</u>		
10 houses for subordinate staff, 2 rooms each	350	13,500
Total areas	609	
8 concrete lined fish ponds, each 12 x 18 m and .3 to 1. meters deep		15,000
Pontoon/jetty 50 m long		2,700
Slipway 50 m long x 3 m long		2,100
Concrete hardstanding 30 x 18 m		3,800
Sewage system - septic tank, etc.		8,000
External works, landscaping, roads, and electrical services, say		18,200
Fish processing building, open industrial type	230	8,600
5% contingency		4,500
Total	-	K£ 93,500
<u>SERVICE FACILITIES</u>		
Boiler plant room and boilers	30	7,200
Main electrical switchboard room and 50 kw standby generator	20	8,800
Laundry and store and equipment	100	14,400
General stores (housekeeping, furniture, etc.)	150	7,500
Water storage tank 100,000 litres		2,700
Maintenance workshops	60	3,000
Maintenance engineer's office	25	1,200
Armory:		4,200
Arms store	12	
Workshop	15	
Office	12	
Entrance hall and counter	15	
Vehicle workshops:		13,300
Service sheds, concrete paved	150	
Covered car park, tarmac paved	150	
Tools store	15	
Mechanic office	12	
Aircraft hangar 10 x 12 m at the Naivasha airstrip light weight structure, tarmac paved	120	4,700
Total	886	K£ 67,000

FUNCTION	m ²	K£
<u>SPORTS/PHYSICAL TRAINING</u>		
Football/athletics/parade pitch 120 x 80 m		19,130
Swimming pool - for teaching and leisure 25 x 10 m		17,800
1 basketball/volleyball/badminton court		6,900
Squash court	60	4,500
Toilets, shower	20	2,400
Dressingrooms	20	1,500
Sport store	15	960
Sports officer's office	12	770
Total	127	K£ 54,100

(Rifle range included in "external works"; a site is available against an escarpment)

EXTERNAL WORKS

Tarmac access roads about 800 m long and 6 m wide		24,600
Tarmac parking for 30 visitors cars	750	4,400
Fencing all around the compound 3 km long		13,200
Main gate and gatehouse		1,800
Footpaths		3,300
Service yards for kitchen plant rooms and stores	800	4,400
Animal enclosure (about 2 acres)		2,200
Infrastructural Services:		
a. Water supply		26,800
b. Electrical supply		5,500
c. Telephone supply		2,800
d. Sewerage and disposal ponds		45,000
e. Stormwater drain		4,400
f. Security lighting		5,500
Landscaping, planting and gardening		11,000
Signboards/notices, etc.		1,100
Total		K£ 156,000

LOOSE FURNITURE AND FURNISHINGS

(including cutlery, bed linen, curtains, etc.)

Total	K£ 66,000
-------	-----------

FUNCTION	K£
<u>EQUIPMENT</u>	
Teaching equipment, maps, diagrams, calculators, cash registers, visual aids, projectors, etc.	8,400
Library books - 1,000 volumes	7,200
Office equipment: 4 typewriters, printing machines, filing cabinets etc.	6,000
Photography: Cameras and lenses, darkroom enlarger, etc.	4,200
Radios	7,200
Camping equipment: - tents for 75 people, sleeping bags, etc.	10,800
16 m/m cine projector	1,200
Fishing gear	2,400
Miscellaneous, spares, etc.	<u>6,100</u>
Total	<u>K£ 53,500</u>
<u>TRANSPORT</u>	
4 Landrovers	19,600
10 lorries 4 x 4	125,000
2 buses for 40 people	15,200
1 airplane	16,000
2 10 passenger boats with outboard motors, 2 service dinghies	8,000
Spares	<u>17,200</u>
Total	<u>K£ 201,000</u>

SUMMARY OF ESTIMATED COSTS + PHYSICAL AND PRICE CONTINGENCIES

I t e m	m ²	K£ Cost
Tuition	582	45,000
Administration	481	37,000
Communal facilities	1,200	105,000
Museum/herbarium	290	24,000
Library	150	15,300
Students hostel	1,350	102,200
Staff housing	4,040	236,100
Medical unit	106	8,600
Fisheries field station	839	93,500
Service facilities	886	67,000
Sports/Physical Training	127	54,100
External Works/Infrastructure		156,000
Loose furniture		66,000
Equipment		53,500
Vehicles, etc.		201,000
		K£ 1,264,300
Total of items: Base line cost		
Physical Increase		159,500
Price Increase		553,700
Sub-total, Contingencies		K£ 713,200
Professional services:		
Design		129,400
Supervision		80,900
GRAND TOTAL		K£ 2,187,800

WILDLIFE PLANNING UNIT

A. Objectives

1. The Wildlife Planning Unit (WPU) will draw up detailed management and development plans, and assist in implementing Government policy in parks, reserves and the wildlife areas more generally. Functions of the WPU will be to:

- (a) draw up financial, ecological, economic and tourism objectives and priorities for each of Kenya's parks and reserves and for the system as a whole;
- (b) prepare a management plan for each park or reserve. These plans would be approved by the Ministry of Tourism and Wildlife and the authority directly responsible, as for example, the County Council;
- (c) monitor the implementation of the management plan for each park or reserve, though final responsibility will lie with the warden. Once accepted, each plan will be strictly adhered to but there will be specific procedures for review and amendment to meet changing needs or circumstances;
- (d) collect and collate data on livestock and wildlife in the dispersal areas, survey attitudes of ranchers, and assist in negotiating agreements with landowners on the continued access of wildlife to their land. WPU personnel will discuss the fundamental problems with responsible authorities, interpret current Government proposals, and act as a bridge between local inhabitants and the Government;
- (e) make the financial analyses necessary for Government management of reserves and assist with negotiations of agreements with County Councils;
- (f) collect and collate statistics relevant to park and reserve planning, including management-related surveys on behavior and preferences of tourists in the wildlife areas;
- (g) make recommendations on pricing policy of parks and reserves, including concession fees; and also upon economic aspects of consumptive wildlife utilization (hunting, cropping, game ranching, animal capture, etc.).
- (h) prepare, with the wardens, estimates of capital expenditures consistent with the long-term plans for each park, reserve and dispersal area;
- (i) prepare proposals for financial support of wildlife projects by donors;

(j) formulate terms of reference and supervise consultants' studies on tourism development in wildlife areas; and

(k) in the initial phase, train Kenyan Government personnel.

2. The initial priorities of the WPU will be the parks, reserves and dispersal areas for which financing is being provided under the project.

3. Thereafter, the Unit will extend its attention to other Parks and Reserves in Kenya, and to planning wildlife programs more generally.

B. Organization

4. The WPU will be located administratively within the Planning Department of the MTW. The WPU will, of course, cooperate closely with the Conservation and Management Service (WCMS). It is possible that the WPU will be administratively located within the WCMS after initial experience with the above organization.

5. It is expected that the biologists, ecologists and systems analyst of the Kenya Rangeland Ecological Monitoring Unit (KREMU) will provide data and other inputs for the WPU. The Cartographic Section of the WPU will also serve the KREMU. The engineer in the Project Management Unit will advise on standards of roads and other physical structures within parks and reserves. The WPU will make surveys of visitors using parks and reserves and may undertake more thorough analysis of some statistics collected by the Central Bureau of Statistics.

C. Staffing

6. It is proposed that there be about 16 man years of senior experts on contract during the first four years of operations. Professional Kenyan staff are 4 initially, rising to 8 within 5 years, at which point the unit should be handling all wildlife planning questions. Sub-professional staff come to 20 persons.

7. The project would finance an expatriate economist for four years in the MTW Planning Department. Their Planning Officer would deal with a range of non-wildlife tables which come under the responsibility of the Ministry.

8. It is proposed that the first head of the WPU be an economist familiar with financial analysis and experienced in land-use planning, preferably in range areas. He should be supported by a graduate in economics/business administration. The unit should contain a senior ecologist and one graduate in ecology as well as a senior physical planner. An experienced cartographer will be needed to establish the Cartographic Section to serve the WPU, the KREMU and the research division of the Wildlife Service. To

incorporate the attitudes and practices of local people in wildlife management and ensure that plans are understood at the local level, the WPU will include a senior extension agent for its first 2 years and one graduate assistant. In addition, the WPU would have a budget amounting to 6 man-months per year for hiring short-term consultants in specialized fields. The Bank would wish to be consulted on selection of the head of the WPU and the deputy to the Senior Planning Officer.

9. Below the professional level, there will be a need for 4 statistical clerks, two draftsmen, and one personal secretary. Three copy-typists will be required initially, with one more when the personal secretary leaves the project at the termination of the contract of the initial project head. Three drivers, two messengers and a clerical officer complete the staffing.

10. In estimating costs, it is assumed that all senior experts are expatriates. Should suitably qualified Kenyans be available for some of these posts, the costs would be correspondingly lower. It would appear, at least for the extension agent posts, that suitable Kenyans may be available. In order to ensure that the WPU is fully operational before the departure of the contract personnel, it is proposed that the project head and deputy to the Senior Planning Officer remain in place for four years, and the other experts for two or three years.

11. The Government of Kenya intends to seek grant finance for specialized professional training of Kenyans in the WPU, once detailed needs for such training are identified.

D. Studies

12. The WPU will be unable to carry out all planning activities connected with the development of wildlife-based tourism in Kenya. It will also be necessary, from time to time, to employ consulting firms for master-planning and feasibility studies. ^{1/}The project includes provision for K Sh 3.1 million (\$436,000) for major studies ^{1/} related to future tourism projects in the wildlife areas. It is proposed that the WPU assign priorities to the studies under consideration and formulate terms of reference, but it is expected that first priorities will be planning studies for the development of the Nguruman and Lamu/Tana River areas. During the life of the project the Bank would approve terms of reference and consultants selected to carry out any studies costing more than K Sh 150,000.

^{1/} In addition to the study of large herbivores (Annex 8).

E. Costs

13. The costs of the first 5 years of operation of the WPU are detailed in Annex 1, Table 2.12. Initial capital costs are low largely because the Unit will function more effectively if it shares quarters with the WCMS. The Cartographic Unit may be conveniently located elsewhere, and room may be found with the UNDP/FAO Wildlife Management Project in the short run and perhaps with KREMU in the longer run. Total capital and recurrent costs, including allowance for price increases, are estimated at K. Sh 15.3 million (US\$ 2.1 million), of which US\$ 1.2 million would be in foreign exchange.

F. Implementation

14. The early operation of the WPU has great importance for the implementation of the wildlife and Tourism Project. Several project components cannot proceed until agreements have been worked out with County Councils or local landowners and detailed plans drawn up for siting of particular facilities. It is essential to create posts in the WPU for the Kenyan personnel in time for the commencement of the project and to find suitable personnel for the contract positions in advance of loan effectiveness. It is therefore recommended that appointment of the head of the WPU be made a condition of effectiveness, and that retroactive finance be available for these positions should they be filled before effectiveness.

G. Functions and Qualifications of Staff

Head of Planning Unit: Economist

15. His function will be to direct overall operation of the unit, carry out economic and financial aspects of park plans.

16. He should be experienced in land-use planning and capable of understanding and securing the collaboration of personnel with different disciplinary backgrounds. He should understand financial analysis and have some experience in a developing country, preferably in Africa. Ideally, he will have had experience in a university, as a consultant, and in Government service.

Ecologist

17. His function will be to insure that all ecological information is taken into account in making park plans and negotiating with landowners in dispersal areas.

18. He should preferably be familiar with range ecology, the nature of pastoralism, ranching and the biology of African wildlife. He should have knowledge of

statistics in order fully to exploit the information from the Kenya Range and Ecological Monitoring Unit and define necessary minor surveys to complete park plans. He should be capable of dealing with biological and ecological researchers to ensure that research programs reflect management needs and that research results are applied as quickly as possible. He must be prepared to apply his knowledge and skills to economic and social objectives as well as purely ecological or conservationist ones.

Physical Planner

19. His function will be to assist with formulating the physical aspects of plans, taking account of tourist preferences (including the demand for amenity) and ecological constraints. He will work out detailed alignments of roads and ensure that the technical aspects of all physical developments (roads, lookout points, lodges, etc.) are consistent with the objectives of the Park.

20. The physical planner will preferably have had experience with many different types of facilities and areas and be able to find solutions to what, in the case of African parks, are in many ways new problems.

Cartographer

21. He must be an experienced cartographer, well-qualified in the field of air photogrammetry. He should be able to set up and organize a new unit from scratch, and train his successor and required draftsmen.

Extension Agent

22. The main functions of the extension agent will be to carry out such surveys as are necessary for a thorough understanding of the role of wildlife in the values and economy of the dispersal areas of each park and reserve and then to ensure that this knowledge is taken fully into account in the formulation of plans and in the terms of agreement sought between local landowners and authorities regarding wildlife. He will also play a direct role in discussing proposed plans with inhabitants of the areas around the parks and reserves, an extremely time-consuming function which will require the agent to spend most of his time in the field.

23. He should be experienced in carrying out social surveys in difficult conditions, familiar with pastoral societies and motivated toward development rather than academic explanations of past social patterns. Ideally he should be experienced in negotiating development projects with pastoral peoples and extremely patient in his approach. He should also be prepared to spend considerable amounts of time ensuring that the views of the local people are understood by other members of the Planning Unit and Government administrators and taken fully into account as the plans evolve. The extension agent should have some knowledge of the economy of pastoralism as well as of modern ranching, and be prepared energetically to remedy any gaps in his background at the earliest opportunity.

Deputy to Senior Planning Officer

24. He should be an economist with the ability to analyze projects and policy problems from both an economic and financial point of view. Ideally he should have varied experience in academic institutions and research, government, and consulting on business. He should also be interested in the possibility of training other members of the Planning Division in their tasks.

25. For all these posts, age should not be equated with experience. The problems involved in resource planning in the wildlife areas are extremely complicated and demand solutions unique to each case. A strong command of methods and ability to engage in quantitative analysis of problems are preferable to extensive experience with wildlife management problems in other parts of the world. Personnel should be chosen who are still in the early or middle part of their careers, rather than those who would regard the assignment as an interesting final post before retirement.

KENYA: WILDLIFE AND TOURISM PROJECT

GAME-PROOF BARRIERS

1. The project includes a component of K Sh 19.3 million (US\$2.4 million, including contingencies) for construction or reconstruction of about 500 km. of game-proof barriers to keep wildlife from conflicting with adjacent land uses when the value of both wildlife and the other uses justifies the expense. When the expense is not justified, other measures of game control, such as thunder flashes or occasional shooting are used.

2. Table 2 indicates the locations of the barriers, the agencies responsible for their construction and maintenance, the length of existing barriers and identified major stretches that are proposed to be reconstructed, or constructed under the project, the land uses on both sides of the barriers, and notes on location. Provision is also made for a number of other short stretches in scattered locations, principally in Narok, estimated to come to around 150 km. in total.

Justification of Barriers in the Project

3. Data is lacking on the amount of damage caused by game in different areas and the cost effectiveness of different methods of curtailing this damage. The collection of reliable information would be more expensive than the investments would justify, although the study on policy on large herbivores under the project will include estimates of elephant damage in some areas. Decisions on where game-proof barriers are justified should rely largely on the judgment of the departments concerned, which is based on years of experience in dealing with the problem.

4. The columns in the table showing wildlife and non-wildlife uses indicate the crops being protected from game damage on the one hand and the types of wildlife revenues being protected from incursion by agriculture on the other. It should be noted that most of the exotic forest shown is currently indigenous. The afforestation process includes first the clearing of areas and the cultivation of maize and potatoes mainly by migrant smallholders, then the plantation of exotics. The construction of moats is therefore desirable from the earliest stages of the exotic afforestation process.

Institutional Responsibilities for Barriers

5. Game barriers abutting gazetted forests and national parks have been normally constructed and maintained by the Forest Department of the Ministry of Natural Resources and the Kenya National Parks respectively. Barriers elsewhere have been the responsibility of the Game Department. The two latter responsibilities are now to be merged in the WCMS.

Technical Description and Costs

a) Game Moats

6. Moats are constructed where elephant and rhino are important, although they also serve to contain other species. They consist of a trench 6 feet deep with a bottom width of 2 feet and a top width of 8 feet. A sloping bank on the game side permits animals to escape should they fall into the moat, and the material dug from the trench is piled in a mound on the cultivation side. The moat is covered with brushwood so that animals are unable to see the bottom and are thus deterred from entering it. Where animals are especially dense and in river gullies, moats are reinforced by a fence either on top of the mound on the cultivation side or in the middle of the trench; sometimes cedar pilings reinforce the sides of the trench.

7. Game moats are constructed by contractors who employ local labor. Payment is per kilometer of moat completed. The current price is around K Sh 20,000/km, although this varies with the difficulty of the terrain. Fencing or pilings required are supplied by the department contracting the work.

8. The re-digging of some moats is included in the project to repair the effects of erosion or repeated breaching by animals. It consists mainly of implanting cedar posts and filling the area behind them to create stronger walls.

b) Game Fences

9. Fences are constructed to prevent access by the game species of the plains. A fence consists of 11 strands of wire (galvanized, high-tensile steel, 10 gauge, 7 tons per square inch) on posts set at 40-yard intervals in concrete bases, with droppers every 8 feet, and straining posts $\frac{1}{2}$ mile apart. The cost of material was estimated (July 1975) at K Sh 30,000/km. Construction by casual labor under the supervision of game wardens adds K Sh 2,000/km to the cost.

10. The costs of the barriers identified for inclusion in the project are set out in Table 1. The foreign exchange cost of moats includes transport of workers and tools. In the case of the fences, it covers the cost of the wire and transport.

Maintenance of Barriers

11. Barriers are, in principle, patrolled by rangers of the Department responsible, and repairs are carried out by casual labor under the supervision of the warden responsible for the area. Adequate maintenance requires approximately one casual laborer per kilometer of moat per year. This comes to

K Sh 1,800 in payroll with an additional K Sh 200/km for tools, cedar posts, etc., for a total of K Sh 2,000/km per year. In the 1975/76 estimates of recurrent expenditures, only K Sh 44,000 is provided explicitly for maintenance of game-proof defenses, all for the Game Department (including defenses outside the project). Maintenance costs for much of the Department's defenses and all the Parks and Forest Department's are covered by various allocations for boundaries, dams, casual labor, etc. Maintenance therefore is often inadequate because other work is given priority. This results in a reduction of the protection afforded by the barriers and also much higher eventual costs for repair than continuous maintenance, particularly of moats.

12. Barriers must be adequately maintained in future. Consideration was given to setting up specialized units with a senior ranger in charge of transport and casual labor exclusively for moat maintenance in particular areas. Given the extreme difficulty of the terrain, however, plus the fact that most of the moats successively pass through areas under different forest or game stations, it would seem that the existing allocation of responsibilities is likely to achieve the best results if sufficient funds are available. Assurances were obtained during negotiations that (a) the recurrent estimates for each station responsible for moats within the project area should include an item for their maintenance, (this has been the case only for the Game Department) and (b) the amounts should equal at least K Sh 2,000 per kilometer (in 1976 prices) of moat for which that station is responsible.

13. Implementation of this condition would imply the budgetary allocations given below for the current year (1975/76) and the year of completion of the project for moats included in the project. It is to be noted that several other moats surrounding particular forest plantations are not taken into account here.

Table 1: RECURRENT COST OF IDENTIFIED GAME BARRIERS IN THE PROJECT (At K Sh 2,000/km)

	<u>1975/76</u> K Sh '000	<u>Completion of Project</u> K Sh '000
<u>Aberdares</u>		
Forest Department	26	102
Game Department)	188	294
Kenya National Parks)		
<u>Mount Kenya</u>		
Forest Department	216	410
<u>Meru</u>		
Kenya National Parks	8	134
<u>Shimba Hills National Reserve</u>		
Kenya National Parks	-	50
<u>Narok</u>		
Game Department	-	80
	<hr/>	<hr/>
	438	1,071

Table 2: LAND USES PROTECTED BY IDENTIFIED BARRIERS

Location	GAME PROOF BARRIERS	BARRIERS				WILDLIFE USES	NON-WILDLIFE USES	POPULATION DENSITY (POP/KM2)	TYPE OF BARRIER
		Existing km	Redigging km	Proposed km	Total km				
Aberdares	- KNP - GD - FD	53/94 9/13	30	25/53 25/38	98/147 34/51	1. Sport hunting 2. Aberdares National Park. 1974 Visitors - 39,973	1. Smallholder agriculture (coffee, wheat, maize, market gardening (potatoes, beans, cabbages). 2. Exotic Forest plantations (up to 3,500/4 in East)	20 (North) 150 (East) 400 (East)	MOAT
Mt. Kenya	- FD	72/108	8	65/97	137/205	1. Sport hunting 2. Mt. Kenya National Park. 1974 Visitors - 8,151	1. Exotic Forest Plantations (up to 6,000 in South and up to 2,000 in North) 2. Smallholder agriculture (as Aberdares)	20+ (West) 150 (South) 400 (East)	MOAT
Meru	- KNP	3/4	-	50/63	53/67	Meru National Park 1974 Visitors - 21,418	Smallholder agriculture (maize, wimbi, millet, bananas, sugar cane) to west of park (rapid population increases) and mission agricultural schemes to North and East of Park (Kinna), concentrating on bananas and maize	20 (North) 50+ (West and growing rapidly).	MOAT
Shimba Hill:	- KNP	-	-	20/25	20/25	Shimba Hills National Reserve 1974 Visitors - 11,119	Settlement schemes: cashews, maize	50+	MOAT
Narok	- GD	-	-	30/40	30/40	1. Sport hunting 2. Dispersal area of Masai/Mara 1974 visitors: n.a.	Masai wheat schemes.	7+	FENCE
TOTAL:		147/ 219	38	225/ 316	372/ 535				

- a) Figure above the stroke refers to length of barrier on 1:50,000 scale maps. Figure below stroke makes allowance for 50% addition in case of defenses on Mt. Kenya and in the Aberdares, and 25% elsewhere due to hilly terrain and serpentine alignments.
- b) These are figures which will eventually be planted. Much of the area is now indigenous forest.

KENYA: WILDLIFE AND TOURISM PROJECT

THE WILDLIFE CLUBS OF KENYA (WCK)

1. The WCK is a non-governmental association of member clubs, established in secondary schools throughout Kenya. It is supported by grants from the MTW, and foundations such as the African Wildlife Leadership Foundation (AWLF) and the Elsa Fund.
2. The WCK were founded in 1968 for conservation education, a program at that time unique in Africa. There are now 275 clubs in secondary schools and colleges throughout Kenya, including some in very remote areas, with a membership of over 12,000. The WCK's objective is to educate the young generation of Kenyans, and through them their parents, about the value of wildlife and the need for its conservation. Membership has now been extended to those no longer in school on an individual "associate" basis, and it is hoped ultimately to extend the program to the primary schools, of which there are some 7,000.
3. The WCK publish newsletters, bulletins, booklets, run a radio program, organize seminars and a series of field courses, and operate a mobile film unit that visits some 60 schools each term. A mobile library unit was purchased in 1971 with funds provided by the World Wildlife Fund.
4. The great success of the WCK is due to the support and interest of thousands of Kenyans and tends to refute the widely held view that Africa's wildlife is mainly of interest to non-Africans. Moreover, the enthusiasm stimulated by the WCK for wildlife conservation may bring a wider understanding of the broader issues of conservation of natural resources. Hence, the WCK have a part to play in efforts towards reversing the trend toward large-scale ecological degradation. The WCK's emphasis on the possibilities for worthwhile careers in wildlife conservation is expected to encourage good candidates for the Naivasha Institute and a lower dropout rate.
5. The project provides for some limited assistance to the Wildlife Clubs of Kenya by financing the purchase of three 40-seater buses to take members to game-viewing areas. Their cost is estimated at K Sh 27,400 (US\$68,100) including contingencies, of which some 80% (US\$54,400) is estimated as being in foreign exchange. The Chairman of the WCK has indicated that the World Wildlife Fund and the AWLF would each donate \$10,000 per annum for operation and maintenance of these buses. During negotiations, assurances were received that the Government would ensure that the WCK receive adequate resources for this purpose.

KENYA: WILDLIFE AND TOURISM PROJECT

DRAFT OUTLINE OF A STUDY ON THE MANAGEMENT OF VERY LARGE HERBIVORES
IN KENYA

A. Background

1. The very large herbivores -- the rhino, the elephant, and the buffalo -- are economically important to Kenya in terms of the returns they yield and the damage they cause. They conflict more with the rising human population and other land uses than do most other species and account for most of the human injury and loss of life due to game. Elephant and buffalo are particularly destructive of field crops, and the buffalo is also a carrier of bovine diseases.
2. The high economic benefits that the very large herbivores (vlh) now yield would be even greater with more rational and intensive management. Gross revenues to Kenya from wildlife viewing alone are probably at least £ 15 million annually. Sport hunting is also highly profitable in spite of the present ban on elephant and rhino. ^{1/} Non-sport hunting of these species also yields high returns. In 1973 Kenya's share of the \$50 million international ivory trade probably amounted to around \$8 million. The meat and hides of vlh could also be utilized to yield economic returns and help relieve the protein deficiency in local communities. Because both the rhino and elephant are valued as trophies, they are killed even when this is inconsistent with optimal utilization and land use, and the rhino is currently a threatened species.
3. Very large herbivores exhibit some biological and ecological peculiarities that require special management attention. The elephant, for example, tolerates a wide range of environmental conditions and is more broadly distributed than other species. It places more pressure on its habitat than any other species except man, and because its population processes work over extended periods, errors in stocking rates take a long time to correct. Present evidence indicates that the distribution of elephants varies considerably with long term (100 and more years) cycles in rainfall and primary production. Management plans must therefore take explicit account of the dynamic interactions of populations, their habitats, climatic conditions, and rates of utilization.
4. Although there has been considerable research on very large herbivores in recent decades, this has not been coherently analyzed for management purposes and moreover some of it is subject to considerable controversy. The formulation of specific management proposals will also require additional information on the existing status and distribution of the resource, the extent of conflicts between very large herbivores and other land uses in different parts of Kenya, and on the size and organization of markets for different products. The Government of Kenya has therefore decided to commission a study by independent consultants to collate existing information on the very large herbivores and their utilization and to carry out such further ecological, economic, marketing, and social studies as may be necessary to make detailed practical proposals for the future management of this resource in Kenya.

^{1/} The recent ban on elephant hunting in Kenya has resulted in a substantial rise in bookings for safaris in other African countries, especially the Sudan and Botswana.

5. The Consultants will identify possibilities for integrating management of other species with that of the large herbivores, particularly in areas where long-term management of the vlh would appear to be a suboptimal use of land, but where returns from other species might justify their continued survival. The proposals by the consultants are to be prepared in the form of feasibility studies sufficiently detailed so that immediate implementation will be possible if they are accepted by the Government. Within 12 months of receipt of the report, and after discussing the report with the IBRD and the consultants, the Government intends to formulate and implement definite policies for the management of the large herbivore resource.

B. Objectives of the Study

6. To review all existing information on the elephant, rhino and buffalo, their ecology, biology, distribution and economic costs and benefits in Kenya.

7. To carry out additional inquiries necessary to define the existing situation of these animals and their utilization.

8. To make proposals for the management of each population of vlh in Kenya, including the monitoring, the organization and development of production, the marketing of their products, and the measures to be taken in areas where the vlh are in conflict with other land uses. The proposals should include recommendations on the allocation of costs and returns of exploiting the resource.

9. To identify priorities for further management-related research on vlh.

C. Scope of Consultants' Services

10. The consultants shall investigate the markets for "consumption" of very large herbivores (sport hunting, cropping for meat and other trophies, live animal capture). In the course of this work, they shall:

- (a) attempt to quantify the volumes and the prices of each main product, and describe the uses of products, and the channels of production and distribution in Kenya and abroad;
- (b) forecast possible future markets;
- (c) evaluate past consumptive utilization, including the extent of the "harvest", the efficiency of utilization, the quality of the products, and the amount and distribution of returns;
- (d) make proposals for more efficient use of vlh in the future, including the processing and marketing of products, pricing formulae to be employed, fees to be levied by the state and returns to be paid to landowners, regulatory arrangements, staff training, etc.

11. The consultants shall assess the importance of particular populations for non-consumptive utilization (wildlife viewing) but rely mainly upon Government estimates of future market potentials for tourism.

12. The consultants shall specify the conservation or scientific objectives which would be served by maintenance of each population identified or maintenance of certain of its characteristics.

13. The consultants shall identify the existing vlh populations in Kenya which may suitably be managed as units. For each, the consultants shall:

- (a) describe the seasonal migration patterns, size, age and sex structure of each population and recent changes in these characteristics;
- (b) describe its present utilization and;
- (c) indicate conflicts with existing or proposed land uses, and estimate damage caused;
- (d) provide some explanation of past changes in population characteristics;
- (e) provide forecasts of the future size and structure of each vlh population under alternative assumptions about land use and utilization patterns. The consultant shall formulate a basic model of population growth and structure which can be used to simulate population changes on different hypotheses about climate, levels of predation, population density, and identify the minimum population which represents the threshold for continued viability or extinction;
- (f) make recommendations for its future management, including technical modifications possible in the development of other land uses to accommodate the vlh, use of game-proof barriers, etc.

14. The consultants shall evaluate the importance of the large herbivores for sport hunting, evaluate the potential overseas and local market for hunting in Kenya, indicate measures which would result in higher returns, and make recommendations on hunting quotas, pricing of trophy animals, hunting regulations, training of hunting guides, and such other measures as are necessary to ensure that hunting makes its optimal contribution to the Kenya economy and to the economy of the areas where hunting takes place.

15. The consultants shall indicate in detail the measures necessary to ensure landowners return from vlh's that is at least as much as they would receive if the vlh's were eradicated.

16. The consultants shall make a detailed assessment of the attitudes and behavior of local inhabitants toward wildlife, especially the vlh, with a view specifically to finding means for local inhabitants to participate directly in their management.

17. The consultants shall provide estimates of receipts and expenditures of all agencies concerned with consumptive exploitation of large herbivores under their proposals, including Government bodies, local authorities, landowners and private firms.

18. The consultants shall provide detailed recommendations on the legal and administrative aspects of implementing their proposals, including drafts of special legislation or regulations, criteria for monitoring performance, setting quotas, etc., and pro-forma contracts among agencies engaged in large herbivore management. In formulating these recommendations, the consultants shall seek to ensure minimum scope for discretionary power consistent with efficient resource management and where discretion must be used, to consider means by which administrative decisions may become matters of public record through Gazettement or other means.

19. If the consultants should recommend that Government or a parastatal body should take charge of marketing of trophies of large herbivores, they shall make sufficiently detailed recommendations upon the legislation setting up this body, its financing, its administrative structure, its staffing and its operational procedures, so that if the proposal is accepted by Government, that body may be set up immediately.

20. In carrying out this work, the consultants shall:

- (a) have access to all pertinent information at the disposal of the Government;
- (b) consult all available results of relevant research;
- (c) carry out additional aerial or ground surveys of wildlife populations, land uses in areas harboring large herbivores and local attitudes or opinions as necessary;
- (d) communicate with persons engaged in different enterprises concerned with large herbivore utilization, in Kenya and abroad, as necessary;
- (e) employ other experts on specific aspects of the study at the consultants' discretion.

D. Reporting and Timetable

21. Within 6 months of signing the contract, the consultant shall have assembled the study team.

22. Within 12 months of the signing of the contract, the consultants shall prepare an interim report, which:

- (a) indicates the biological and ecological aspects of large herbivore management which can be ascertained from existing sources and the steps being taken to compile other information on the wildlife populations;
- (b) sets out the initial findings on people's attitudes toward wildlife;

(c) describes preliminary information on the value of large herbivores and on the extent of their damage.

23. Within 18 months of signing the contract, the consultants shall present their final report to the Government

24. The consultants shall be prepared to carry out further work connected with implementation of their proposals or proposals decided by Government for fees negotiable at the time of such further work, but which shall in no case be higher than the fee schedules charged for the initial study (adjusted for changes in the Nairobi Cost of Living Index between the date of the second study and the signing of the first study).

E. Preliminary Estimate of Staffing and Costs of the Study

25. Detailed cost estimates are shown in Annex 1, Table 2.12. Total cost is estimated at K. Sh 3.9 million (US\$ 482,000) of which about US\$ 295,000 would be in foreign exchange. Personnel costs would amount to about 56% of the total. There should be at least five senior researchers, supplemented by part-time consultancies in other disciplines (law, meat technology, finance, etc.):

(a) The study director:

Appointed by the firm contracting the work, the director may be an ecologist, economist, business administrator, or wild-life expert. His exact background is less important than his capacity to secure the collaboration of experts in many different fields and pursue complex tasks to a conclusion on schedule. The director will spend much of his time as liaison with the steering committee supervising the study.

26. The exact qualifications and backgrounds of the other staff members will depend in part upon the qualifications of the director and other individuals secured. Nevertheless, the following list indicates the types of personnel required.

(b) One economist for resource management and social surveys:

This economist will be concerned with land-use, including costs and returns to landowners from vvh's and estimates of damage from these animals. He will also be responsible for the survey of attitudes and behaviors of local inhabitants, and will supervise the two graduate social-survey assistants/informants.

(c) One economist for marketing and administration:

This economist will be responsible for the studies of the different markets, including the analysis of the hunting industry. He will prepare the feasibility studies for the firms or agencies to implement the policies proposed.

(d) Two Ecologists/Biologists:

Both should be capable of carrying out aerial and ground surveys relevant to the study and have some familiarity with large herbivores and range ecology.

(e) Three Senior Assistant Researchers:

Their initial tasks will be to review existing literature and information in association with the director, economist and ecologists. One assistant should be a graduate in biological/ecological sciences, one in economics and the other either in business administration or law.

(f) Two Social Survey Assistants/Informants:

They will carry out field studies and analyze results of the social surveys under the supervision of the social-survey economist and should be graduates (preferably in the social sciences).

(g) Six Junior Assistants:

They will probably but not necessarily have a secondary education and will assist the ecologists with field studies and various analytical tasks in Nairobi, e.g., analysis of aerial photos, preparation of statistics, etc.

KENYA: WILDLIFE AND TOURISM PROJECT

ANTI-POACHING MEASURES

1. An issue which has received extensive publicity recently concerns excessive off-takes of wildlife species with valuable trophies (ivory, skins, etc.). According to press reports and official and unofficial informants these off-takes have been partly illegal (due to 'poaching') and partly legal, although not in conformity with maximization of long-run returns from the wildlife resource. In order to assist with reducing the illegal excessive off-takes, it has been proposed that additional resources should be devoted to establishing anti-poaching units organized on para-military lines to apprehend poaching gangs. Such units might have a useful role to play, particularly in northern Kenya area. On the other hand, their usefulness would also depend upon firmer control of the legal off-take levels, and upon improvements in the enforcement of the law against persons who are found in illegal possession of game products. Government intends to review all aspects of the question of off-take rates and the regulation of trade in the case of very large herbivores, including elephant, on the basis of a study to be carried out by consultants. During negotiations, it was agreed that Government would submit a detailed program of anti-poaching activities not later than September 30th, 1976.

2. The estimated project costs contain an item of K Sh 42.5 million (US\$5.3 million), of which US\$2.8 million equivalent would be foreign exchange. These estimates are based on the capital requirements of three new anti-poaching units (housing, tentage, vehicles, and radio equipment), and vehicle operating and maintenance costs for four years. It is provisionally expected that the units would be based in Narok, Samburu, and Tana River Districts, but these locations, and the personnel and equipment to be allocated to each, have yet to be given a detailed justification. In view of the importance of the improvement of anti-poaching efforts to the objectives of the project, it was agreed during negotiations that the head of the anti-poaching section in the WCMS would be appointed after consultation with the Bank. Subsequently, the Bank would review the findings of the consultants' study of the management of very large herbivores with a view to developing with the Government longer term measures for elimination of poaching. The project itself is expected to make a material contribution to such long-term objectives through:

- requiring the negotiation of agreements whereby local landowners have a vested interest in the wildlife on their land, so that they will cooperate with the authorities against poachers;
- providing systematic training for game scouts, some of whom will be engaged in anti-poaching;
- improving facilities for wildlife based tourism, resulting in a wider appreciation of the value of

legitimate exploitation of wildlife; and

- encouraging understanding of wildlife conservation issues among the rising generation of Kenyans, through support of the Wildlife Clubs.

KENYA: WILDLIFE AND TOURISM PROJECTECONOMIC JUSTIFICATIONIntroduction

1. For purposes of economic evaluation, the total proposed program of investments has been divided into two parts: (a) the investments directly associated with the three main game-viewing areas which are to be improved and expanded under the project; and (b) the investments associated with more general improvements to the tourism and wildlife sector as a whole.

2. The direct investment program for each of the three game-viewing areas comprises: (i) the construction of minor improvements and vehicles, park headquarters and community centers, track construction and maintenance, all included in the proposed project, and (ii) private sector investments in accommodation, shopping and tour operations. The economic evaluation of each project area has been carried out separately, on the basis of projected costs and benefits generated in the area, and economic rates of return have been calculated. The assumptions and the resulting conclusions are described in detail below.

3. In addition to investments in specific game park areas, the project would provide finance for: (i) the development of a national training institute for wildlife and fisheries personnel; (ii) a Project Management Unit and a national Wildlife Planning Unit within the proposed new Wildlife Conservation and Management Service under the Ministry of Tourism and Wildlife; (iii) game-proof defenses outside the three main game-viewing areas; (iv) some improvements for development of the tourism and wildlife sector; and (v) further development of the Wildlife Clubs of Kenya. The rationale for the training institute, and a description of its proposed operation, is contained in Annex 4. The game-proof defenses and their justification are discussed in Annex 6, while the Lake Turkana improvements are described in Annex 5. The proposed studies and the assistance to the Wildlife Clubs of Kenya are discussed in para. 3.15 of the main report. The proposals for the Project Management and Wildlife Planning Units are described in paras. 3.22 and 3.16 of the main text. The operating costs of the Project Management Unit, and an appropriate share of the operating costs of the Planning Unit have, however, been included in a combined rate of return calculation on investments in the wildlife areas (see para. 3.17).

Project Benefits in Game Viewing Areas

4. Benefits have been quantified as adjusted incremental on-site tourist expenditures in the Amboseli, Mara, and Inner Northern Circuit ecosystems. The ecosystem is defined for purposes of this analysis as including the game reserve or park, and the area to which the wildlife herds from that reserve or park disperse during the rains.

5. The adjustments to incremental on-site expenditure should, in principle, consist of:

- (a) increments/decrements in economic profit of other activities within Kenya for which demand increases/decreases as a result of the additional wildlife viewing opportunities opened up in the project areas;
- (b) adjustments due to price changes due to the project /deduction of the difference between prices and marginal revenues for non-citizen tourists, and the addition of increased consumers surpluses earned by citizen tourists/; and
- (c) shadow pricing of foreign exchange receipts.

Taking these in turn, no estimate has been made of 'off-site' benefits and costs associated with the project areas. This lends a conservative bias to the benefit estimate for non-residents since (a) for them, wildlife tourism is complementary with tourism to Nairobi and the beach; (b) there are capacity constraints on the expansion of wildlife-based tourism; and (c) the structure of taxes in Kenya is such that benefits are likely to exceed costs of goods and services purchased outside the wildlife areas. On the other hand, it is likely that some fraction of expenditures in the project ecosystem by residents would represent substitution for other expenditures in Kenya. In principle, the benefit to the project areas would consist of the opportunity cost of those items from which resident expenditures are switched. In practice, this might be estimated as the proportion of expenditures switched from purchase of other domestic items less indirect taxes on those items plus the proportion switched from foreign trips weighted by the shadow rate of foreign exchange. Given the insignificance of residents' expenditures in all project areas (less than 2% of discounted receipts), these two adjustments, which would tend to counterbalance each other, are ignored. On elasticities, consumers surpluses of citizen visitors to the wildlife areas are ignored (in any event, they come to only around 10% of resident visitors, if entries of school children and organized citizen groups are excluded). As for non-residents, no reliable estimates exist of the appropriate price elasticities which should be applied to items purchased in Kenya (which comprise only part of total tour cost, which includes international transport, marketing costs and markups of overseas tour operators, and, in the case of multi-destination tours, prices of services consumed in other destination countries), let alone to that component of Kenya tour cost which consists of ecosystem receipts. We have, however, estimated the minimum price elasticity which would be consistent with economic benefits being equal to costs, and this is done in para. 39 below. Expenditures by non-residents are weighted by the shadow price of foreign exchange.

6. Perhaps the most important exclusion from the quantified economic analysis of the project are the benefits likely to be secured from consumptive wildlife utilization (hunting, cropping) and the costs imposed on the domestic stock enterprise of continued access by wild stock to the dispersal areas. These benefits and costs should, in principle, be included but their amount is too uncertain to justify inclusion in the calculations. Nevertheless, it is possible to indicate orders of magnitude for some areas. The costs imposed on the livestock enterprise by migrating wildlife herds depend upon the rate of substitution between domestic and wild stock, and the value of domestic stock. Substitution rates in turn depend upon the nature of interactions between wild and domestic stock in competition for forage and water, in transmission of disease, and in limitations imposed on feasible ranching practices (such as grazing rotation schemes) if wildlife is to be present. The rate of substitution on account of forage competition is probably lower than one kilogram of domestic for one kilogram of wild stock standing biomass, since the wildlife tend to use dispersal areas when water and grass are most plentiful, and because not all wildlife species compete with domestic stock. It has been estimated that one stock unit of zebu cattle yields around K. sh. 134 of subsistence income per year, that the cost per stock unit (dipping fees, veterinary fees, deaths from disease, etc.) comes to K. shs. 52 per year, so that the gross profit equals shs. 82 per year. If the average stock unit is 180 kg. the annual income comes to K shs. 0.46/kg. year.^{1/} The kilogram-years of wildlife biomass in the dispersal area depend upon the biomass of the migrating wildlife herds, and the length of time they are outside the Park. In the case of Amboseli, it is estimated that migrating herbivores spend 48,000 kilogram-years in the dispersal area annually. Hence, on the conservative assumption of a one-to-one tradeoff, the cost imposed by wildlife on the livestock enterprise comes to shs. 218,667 per year or approximately shs. 2 per ha. This sum is derisory compared with the returns from tourism in the area: the Kajiado County Council in 1973 reported a clear financial surplus of K. shs. 1,087,280 from the then Game Reserve, and the level of surpluses being secured by Government and Council must now be much higher since the opening of the new lodge and implementation of stricter controls on cash receipts to the reserve. Landowners may also expect to make a substantial return from hunting fees and cropping fees. For example, the 1057 group ranchers^{2/} on the 86856 ha. Kuku and Rombo group ranches received K. shs. 150,000 in the first year of the hunting concession in that area. A recent bid for hunting concessions in the Narok District would have

^{1/} These figures are taken from D.J. Western and P. Thresher, Amboseli Development Plan, September, 1973. It is to be noted that this income exceeds the cash income which the Masai can be expected to earn from 'improved' ranching under which livestock would be sold and subsistence food purchased on the market.

^{2/} Group ranches are lands held on freehold by groups in which families hold equal undivided shares. The number of members (families) varies from 30 to 544, and the area from 6,000 ha. to 94,000 ha. Of the ranches so far registered in Kajiado, there is an average of 175 ha. per member although the range is from 74 ha. per member to over 300 ha. per member.

yielded between K Shs. 1.2 and K. Shs. 5 per acre per year, depending on the area or between 9% and 34% of potential livestock revenues. In fact, the hunting returns would be a much larger proportion of actual cash income. In addition to these returns from consumptive wildlife utilization, ranchers may also expect to earn substantial returns from tourism employment opportunities in their areas, and from concession fees for lodges and other facilities placed in their areas. Concession fee estimates are quantified below.

7. Another unquantified series of important benefits relates to the gains accruing to park and lodge staff, their families, and to inhabitants of the project areas, from the establishment of park HQ complexes and community facilities, outside the parks and reserves. These gains arise from a higher standard of facilities than would otherwise be available to all these groups; in addition, the location of Park HQ's outside the parks will stimulate larger local economic impacts than has been the case hitherto.

Costs and Benefits Without the Project

8. It is impossible precisely to predict the future of wildlife or of wildlife-based tourism if the project were not implemented. The trend of developments in the recent past is both clear and alarming, however; the near elimination of certain species of animals from dispersal areas of more important game-viewing areas, environmental deterioration with substantial negative ecological impacts, and marked declines in the level of visitor satisfaction in particular game-viewing areas as a result of congestion and declining wildlife herds and shifts in local attitudes against wildlife in some cases.^{1/} Indeed, the primary question regarding the "without" case is not what would happen, but simply how soon. Hence, although the calculation of costs and benefits with the project is relatively straightforward, the same cannot be said of the without case. In fact, some of the costs associated with the without case (such as the loss of an important national heritage) cannot be meaningfully quantified. Other costs, such as those imposed on other activities from environmental deterioration, are very difficult to identify and to measure. To give but one example, the ecological relationships within the game-viewing areas are dynamic rather than static, evidencing significant leads and lags in the process of adjusting to the impact of stochastic variables such as rainfall.

9. In order to take a distinctly conservative view of the net benefits of the project, we have assumed that the current level of net benefits would continue indefinitely without the project--even though there are strong arguments for assuming a decline in tourist receipts if the project did not go forward. In effect, then, we have used the "before and after" cases as a very conservative estimate of the "with and without" cases.

^{1/} As evidenced by the recent decline in visitors to Nairobi National Park.

Devaluation and Price Assumptions

10. The devaluation of October 1975 had the immediate effect of raising the Kenya shilling value of foreign currency by 12.7%. This change will undoubtedly have the short-run effect of making Kenya tourism more competitive, since prices of tourist services adjust to changing costs and demand conditions with lags of a year or more. Of greater importance for the economic analysis, however, is the ultimate impact of the devaluation upon relative prices of items included in tourism receipts and costs. (The level of absolute prices would have an interest only so far as streams denominated in currency values, such as loan receipts and debt servicing, entered into the economic analysis as well as the financial analysis.) Two extreme hypotheses may be identified on the ultimate impact of the devaluation:

- (a) the devaluation will be completely ineffective. In this case, the relative prices of 1975 would reestablish themselves, albeit at a general price level of 12.7% higher than it would have been in the absence of devaluation;
- (b) the devaluation will be completely effective. In this case, costs of goods, and hence their prices, would rise, compared with the non-devaluation situation, only by the amount of the increase in landed costs (cif value plus import duties and sales taxes on imports) of their inputs due to the devaluation.

In fact, of course, some intermediate outcome is more probable than either extreme. Rather than making an assumption upon the most 'reasonable' intermediate position, the economic benefits and costs of the project have been calculated on both extreme hypotheses, on the understanding that the 'true' economic return will lie somewhere between the two. Furthermore, in order to simplify the text, price and cost assumptions are presented and discussed at their pre-devaluation 1975 levels (which yield the economic results of the 'ineffective' devaluation case).

Revenue Estimates

11. The starting point for estimating benefits is a forecast of visitor numbers to the game areas. The base-line (1974/5) entry figures have been derived from a review of both official statistics and the bednight statistics collected from lodges and other accommodation facilities in each area,^{1/} and are given below.

Estimated Entry Numbers 1974/5

	<u>Non-Residents</u>	<u>Residents</u> ^{2/}	<u>Total</u>	<u>% Non-Residents</u>
Amboseli	52,000	14,600	66,000	78
Masai Mara	34,150	10,450	44,600	77
Inner Northern Circuit	20,400	9,300	29,700	69

^{1/} Where bednight figures indicated significantly different entry numbers than the official statistics, a compromise figure roughly half-way between the two estimates was used.

^{2/} Resident visitors are those who currently reside in Kenya. Well over 90% of the "residents" who visit game-viewing areas are, in fact, non-Kenya citizens, primarily foreign businessmen, and bilateral or international civil servants, who are currently stationed in Kenya.

12. Expansion of visitor numbers, without causing substantial and generally irreparable damage to the game-viewing attractions--which would lead rather quickly to a corresponding decline in visitor numbers--requires that the visitor capacity of each area be increased. The critical determinants of visitor capacity are the size, variety and distribution of wildlife herds, the nature of the vegetation and topography, the design of the network of tracks and roads, the quality of park management, and the availability of well-trained guides who can enable visitors to secure the maximum enjoyment and interest from their visits. Future visitor entries are projected on the basis of forecast growth rates, and on the capacity of each area after implementation of the investment program to be financed under the project. The following table shows the forecast growth rates, including the best estimate case, and an optimistic and pessimistic variant. Growth is assumed to finish once capacity is reached. Defined in terms of daily vehicle entries at busy times, this is estimated at 200 for Amboseli, 140 for Mara, and 100 for the Inner Northern Circuit. Additional increases in the capacity of the latter two could probably be achieved by further investments at a later date. The table indicates the years in which capacity will be reached in each case. (See Table I for the "Best Estimate" Visitor Forecast.)

Growth Rates of Visitor Entries (%)

Best Estimate Forecast

<u>Years</u>	<u>Amboseli</u>		<u>Masai Mara</u>		<u>Inner Northern Circuit</u>	
	<u>Non-Resident</u>	<u>Resident</u>	<u>Non-Resident</u>	<u>Resident</u>	<u>Non-Resident</u>	<u>Resident</u>
1(1976)	5	0	5	0	10	0
2-4(77-79)	17	0	17	0	22	0
5-9(80-84)	12	5	12	5	15	5
10-capacity (85-)	8	5	8	5	8	5
Year in which capacity is reached	15(1990)		16(1991)		14(1989)	

Optimistic Forecast

1(1976)	10	0	10	0	12	0
2-4(77-79)	20	2	20	2	26	3
5-9(80-84)	15	5	15	5	17	5
10-capacity (85-)	8	5	8	5	8	5
Year in which capacity is reached	13(1988)		14(1989)		11(1986)	

Pessimistic Forecast

1(1976)	0	0	0	0	5	0
2-4(77-79)	15	0	15	0	17	0
5-9(80-84)	10	5	10	5	12	5
10-capacity (85-)	8	5	8	5	8	5
Year in which capacity is reached	19(1994)		19(1994)		19(1994)	

13. Slower growth is forecast for resident visitors than for non-resident visitors. The "resident" population is likely to grow more or less in line with general economic growth in Kenya. The absence of any projected increase in resident visitors over the next four years in the best estimate case reflects an assumed market reaction to increased entry fees for resident visitors to the same level as for non-residents (see para. 17). While the resident growth rates for both the best estimate and the pessimistic cases are the same for the first four years, the pessimistic case projection also provides for a reduction in the 1974/5 figures --i.e., a reduced base line estimate--reflecting a more immediate reaction to increased entry fees.

14. The best estimate growth of non-resident visitors has been related to likely future visitor growth to Kenya as a whole, and its pattern of distribution between beach-oriented and wildlife tourism bednights. Slow growth is assumed in year 1 (1976) to reflect a slow recovery from recession in generating markets and also the rise in price of Kenya tourist services which is likely to occur over the next few years. During the following three years, however, we assume a significant recovery in market growth, including an element of "making up" for holidays postponed over recent years as a result of economic uncertainties. Following the three year "recovery period", lower growth rates are assumed for a period of five years, leveling off at the projected long-term growth rate of demand for wildlife tourism to Kenya. In fact, the devaluation of the Kenya shilling which occurred in October 1975 will undoubtedly lead to higher visitor increases in the short run, with later "recovery" growth moderated as domestic prices rise. The bias in our figures is to understate benefits from tourism.

15. Growth rates are assumed to be the same for Amboseli and for Masai Mara. Both of these areas are already relatively well established. The developments in the Inner Northern Circuit, however, represent, in effect, an opening up of a new circuit for visitors to the north (as well as the improvement of existing attractions) which is expected to result in a more rapid increase in visitors to this area; hence a higher growth rate has been projected there than for the other two more established areas.

16. Although the pricing study to be carried out by the Wildlife Planning Unit may recommend locational differentials in price as well as seasonal differentials, we have assumed the same structure of entry fees for visitors and for vehicles for each area. The current and projected structure of fees is given in the following table:

Park Entry Fees, K. Sh.

	<u>Current</u>	<u>Projected</u>
Non-Resident Adults	20, 15 ^{a/}	30
Resident Adults	5, 15 ^{a/}	22
All Children	1	1
Motor Vehicles	10, 20 ^{a/})20
Aircraft Landing Fee	10)
<u>Professional drivers</u>	5	5

a/ Depending on the area.

The current K. Sh. 20 entry fee for non-resident adults was established in 1968. Consumer price indices of Kenya's major tourist suppliers have risen since then at 9.8% p.a. in Kenya currency, implying that the 1976 entry fee should be K.Sh. 38.40 in order to simply maintain its real 1968 level. Although the Kenya National Parks have proposed that this fee be raised to K.Sh. 40 by July 1, 1976, we have assumed K.Sh. 30 as a reasonable and conservative figure for the best estimate rate of return.

17. The current entry fee to Game Reserves for residents varies from K.Sh. 5 to K.Sh. 15. The Kenya National Parks management has recently (Sept. 1975) raised the resident entry fee to the same level as for non-residents, largely because of the loss of revenue which has resulted from non-residents who claim to be residents when entering the parks. Since well over 90% of resident visitors are, in fact, foreigners resident in Kenya, we believe that charging the same entry fees for both residents and non-residents would not be unreasonable.^{1/} We have, therefore, assumed that the official entry fee per resident adult would be K.Sh. 30. At the same time, however, residents are eligible to purchase annual vehicle passes which allow an unlimited number of park entries for one vehicle and either two adults or five adults, and the number of residents who avail themselves of the annual passes is likely to increase. We have, therefore, adjusted the average entry fee downward (from K.Sh. 30 to K.Sh. 22) to account for a revenue loss of about 25% resulting from the use of annual passes.

18. The current entry fees of K.Sh. 1 for both resident and non-resident children are assumed to remain unchanged. Of the total non-resident entries, only about 2% are children; for resident entries, about 18%.

^{1/} This is unlikely to deter wealthier Kenyans from visiting the parks as individuals while those Kenyans deterred on income grounds were deterred by past entry fees as well as the costs of transport to and within parks. They can, however, enter in groups at nominal fees under the special programs of the National Parks and Wildlife Clubs of Kenya. This should continue (except on weekends in those areas where congestion is a problem).

19. Entry fees for vehicles are currently Shs. 10 (Shs. 15 for non-residents including the fee for the professional driver). It is assumed that this fee will rise to K.Sh. 20 (Shs. 25 for non-residents) which would be in line with increases in price levels. There is an average of 5 non-residents per vehicle and 3.5 residents per vehicle, so that vehicle entry fees per visitor entry come to Shs. 5 and Shs. 5.71 respectively. In addition to entry fees, the park or reserve would receive an income from guide services, estimated at K. Shs. 30 per guide-day used. Estimating receipts from this item is complicated, since a guide taken for the day earns the same fee from that client as a guide earns from each party when he takes one out in the morning and another in the afternoon. Parks and reserves receive further revenues from sale of found trophies, professional photography fees for films being made in parks, etc. These receipts are not incremental for this project, however, and so are ignored.

20. The various sources of revenue described above would accrue to the entity which owns/operates the park or reserve.^{1/} There would be additional revenue to landowners within the ecosystem from concession fees on the operation of lodges, bandas (self-service cottages), campsites, shops, and petrol stations. Concession fees are expressed variously as a shilling per bednight fee, a percentage of full board tariff or turnover, or a fixed lump-sum per year. A number of these facilities are currently located within parks and reserves. Additional facilities will, however, generally be constructed outside the park or reserve itself in the interests of sound park management and distributing tourism benefits more widely among local inhabitants of the wildlife areas. For purposes of the analysis, concession income has been assumed at Shs. 17 (or approximately 12.5% of the full board tariff) per bednight spent in catered lodges or luxury tented camps, Shs. 10 per bednight in bandas, and Shs. 10 per camper night. It is assumed further that 0.5% of non-residents', and 1.5% of residents' expenditures on transport are concession fees (largely on petrol purchased within the reserve) and that 10% of shopping expenditures goes to landowners (through shop rentals). There are examples of existing concession fees which are higher and lower than these assumptions. It is expected that the study on pricing policy, and also the Wildlife Planning Unit, will devote careful attention to these fees to avoid unnecessary revenue loss.

21. Ecosystem receipts per visitor entry at 1975 pre-devaluation prices are given in the first table on the next page.^{2/} There is some variation among the parks due mainly to slight differences in lengths of stay of visitors within the parks and also to the number of day visitors. The main assumptions on these matters are set out in the second table. The most important difference is that there are many more day visits (without overnight stay) to Amboseli than to the other parks.

^{1/} Currently this may be the Kenya National Parks or the local County Council. In future it is expected to be the Wildlife Conservation and Management Service for all three areas.

^{2/} The fractions of shillings in the table should not be construed to indicate the degree of accuracy of the estimates. The expenditure per visitor figures are intermediate results in a long chain of calculations, and it would be inefficient to round all figures at every step of the chain. The same remark applies to the first column of figures in the table on page 13.

Ecosystem Receipts per Visitor Entry

	Shs/Visitor Entry					
	<u>Amboseli</u>		<u>Mara</u>		<u>Inner Northern Circuit</u>	
	<u>Residents</u>	<u>Non-Residents</u>	<u>Residents</u>	<u>Non-Residents</u>	<u>Residents</u>	<u>Non-Residents</u>
Entry fees: Persons	18.22	29.42	18.22	29.42	18.22	29.42
Vehicles	5.71	5.00	5.71	5.00	5.71	5.00
Guide fees	9.00	5.40	10.29	6.30	9.00	5.70
Sub-total, Reserve/park	32.93	39.82	34.22	40.72	32.93	40.12
Accommodations	46.35	156.10	63.73	189.02	57.94	173.17
Transportation	9.44	62.40	10.69	72.00	9.44	64.80
Shopping	5.00	10.00	5.00	10.00	5.00	10.00
Sub-total "commercial" of which:	60.79	228.50	79.42	271.02	72.38	247.97
Concession fees	9.74	17.17	13.18	20.56	12.01	18.89
Ecosystem Total	93.72	268.32	113.64	311.74	105.30	288.09

Other Visitor Behavior Ratios

Bednights per visitor entry	.8	.95	1.1	1.15	1.0	1.05
Guide days per vehicle entry	1.05	.9	1.2	1.05	1.05	.95
Days in Park per visitor entry	1.5	1.3	1.7	1.5	1.5	1.35

22. Ecosystem revenue from accommodation services is based on the assumptions that 95% of non-residents' bednights are spent in catered lodges or luxury tented camps, and 5% in bandas, whilst resident bednights consist of 20% in lodges, and 40% in each of bandas and camping. Existing patterns are somewhat different than this so far as residents are concerned, and they also vary between the areas. Residents form such an insignificant part of total incremental visitors, however, that further sophistication of this assumption is unwarranted. Receipts are based on actual average receipts realized by a sample of each type of facility in 1974 and 1975 for which accounts could be secured. Although different firms achieve different receipt and cost

figures, and the Samburu lodge and bandas specifically seem to have received higher amounts than their counterparts elsewhere, it is believed that this is due to temporary circumstances (a very rapid expansion of capacity in the other areas which coincided with the slowdown in visitor growth due to the recession whereas Samburu capacity remained constant), and it is more reasonable to assume the same lodge and banda receipts in all areas in the future than the persistence of the differential. Finally, it should be noted that ecosystem receipts for accommodations exclude commissions paid by hoteliers to tour operators, and include sales of lodge shops to tourists (approximately Shs. 9 per bednight).

23. Transportation receipts from non-residents are estimated at Shs. 3 per vehicle kilometer (including tip to driver) within the ecosystem. On the assumption that each vehicle day within the park accounts for 80 km (corresponding to two game drives of 40 km each), this comes to Shs. 240 per vehicle day. For residents, who usually drive their own cars, only expenditure on petrol from mileage within the ecosystem has been estimated. On the assumption that resident vehicles cover 60 km per day in the park, and get 30 km per gallon, which costs Shs. 11 per gallon, expenditure comes to Shs. 22 per vehicle day.

24. Shopping expenditures may be conservative, since they reflect the current undeveloped shopping opportunities in the wildlife areas. The majority of non-resident shopping occurs in Nairobi or Mombasa. The shopping figures given refer to expenditures outside lodges, and include expenditures on handicrafts, fees to local inhabitants for taking their photos, and purchase of minor items from shops by campers or persons staying in bandas.

Investment Cost Assumptions

25. For purposes of calculating economic rates of return on the development of each game-viewing area, investment costs have been derived from financial estimates of construction costs (or purchase prices) for project components within each park or reserve (in 1975 prices), plus the estimated costs of new accommodation and shopping facilities and the capital costs relating to tour operations within the relevant ecosystems. The analysis has been carried out in 1975 prices (rather than the 1976 prices shown in Annex I) since use of the later prices would have required revising estimates of visitor expenditures and other cost elements in the light of likely future inflation. Since relative prices rather than absolute price levels are important for this analysis, nothing is lost by this. (The estimates of changes due to the devaluation are described later, in para. 34).

26. For project-financed components, the following adjustments have been made to the financial cost estimates: (i) price contingencies have been excluded;^{1/} (ii) taxes and duties have been excluded on relevant items (vehicles and road construction equipment have been estimated at border prices plus local transportation and handling, road unit operating and maintenance costs have been reduced by 15% to account for taxes and duties on fuel and replacement parts, and base year construction costs of structures have been reduced by 9% to account for taxes and duties on materials and fuel); (iii) additional investments in staff housing required after the five year disbursement period of the loan have been included, through the year in which visitor entries reach the specified capacity. The investment costs of utilities designed to serve other

^{1/} Physical contingencies have been left in for the economic cost estimate.

than park users, and also investments in social facilities such as schools, dispensaries, and community centres have been included in the cost streams, although the benefits arising from these expenditures are not quantified. This imparts a conservative bias to the estimates of project net benefits.

27. The investment cost stream for accommodation facilities has been built up from the demand for incremental bednights implied by the visitor growth forecasts and length of stay assumptions given earlier, plus assumed occupancy build-up in individual lodges and luxury camps from 40% in the first year of operations, to 47.5% in the second, 55% in the third, and 60% in the fourth and all following years. Banda occupancies are assumed to rise in equal increments from 35% in the first year to 50% in the fourth and all following years. It is to be emphasized that average occupancy rates remain below the 60% and 50% respectively until all capacity has been installed due to the presence of capacity in its "start up" phase. Investment costs of lodges/luxury camps are based on the assumption that 70% of the beds will be in lodges (at an investment cost of Shs. 62,000 per bed)^{1/} and 30% in tented camps (at an investment cost of Shs. 30,000 per bed) yielding a weighted average of Shs. 52,400, while bandas are assumed to cost Shs. 24,000 per bed. Construction is assumed to take two years. Foreign exchange cost of these two types of beds is estimated at 37% and 20% respectively, and economic cost (after deduction of indirect taxes and duties and, in the case of lodges/camps, of interest during construction) to Shs. 45,768 and to Shs. 23,040 respectively.

28. The capital costs relating to the transportation services provided by tour operators have been accounted for on the basis of annual depreciation cost figures currently experienced by existing firms. Since a mini-bus typically lasts for only about 2-3 years, there is little distortion of discounted present values as a result of using the depreciation stream as a surrogate for the capital cost stream. Since most shopping will be in the open air, no allowance has been made for investment in shops.

Operating Cost Assumptions

29. The following table summarizes the main assumptions on the cost implications of tourist expenditures on different activities. This table has been based upon an initial analysis of costs of each activity according to normal accounting categories (salaries, wages, purchases, etc.) and then an estimation of the c.i.f. cost, duties and taxes on imports, other indirect taxes, and other domestic cost for each accounting category. The estimates are, due to partial data availability, rough. At all points, an effort has been made, in cases of doubt, to over-state rather than to understate costs, so giving a conservative bias to the estimates of net benefits. Unskilled labor, for purposes of this analysis, was taken to mean recipients of wages as contrasted with salaries. Where accounting information gave no basis for this division, it was assumed that one-half of labor remuneration went to wage earners. The following paragraphs comment further on some cost items.

^{1/} The investment cost per lodge bed also takes into account the possibilities for extensions to existing and future lodges, with correspondingly lower additional investment per bed.

Summary of Main Assumptions on Analysis of Costs & Receipts in Predevaluation: 1975 Prices

	Receipts or Costs		Analysis into Primary Components (%)								
	Shillings	Per	Total	C.I.F. Value	Duties & Sales Tax	Other In-Direct Taxes (b)	Other Domestic Cost	Or which: Unskilled Labor	Concession Fees	Economic Cost	Financial GOP
BANDAS											
Receipts (a) & variable cost	49.5	Bednight	100.0	1.2	0.6	10.1 (b)	31.5	2.0	20.0	12.7	56.6
"Fixed" operating cost	2050	Bed avail. per year	100.0	10.0	5.0	2.6	82.4	17.1	-	92.4	n.a.
Investment cost	24000	Bed	100.0	20.0	4.0	-	76.0	25.3	-	96.0	n.a.
LODGES/LUXURY CAMPS (c)											
Receipts (a) & variable cost	170.69	Bednight	100.0	6.6	3.5	8.6 (b)	48.8	5.0 (e)	10.0	45.4	32.5
"Fixed" operating cost	5917.5	Bed avail. per year	100.0	15.4	7.7	2.3	74.6	11.6	-	90.0	n.a.
Investment cost	52400	Bed	100.0	36.6	7.7	-	55.7	18.6	-	87.3 (d)	n.a.
TRANSPORT RECEIPTS & COSTS											
- Non-residents	3.00	Vehicle Km.	100.0	21.6	12.5	-	62.6	33.4 (f)	0.5	83.7	3.3
- Residents	0.367	Vehicle Km.	100.0	50.0	31.3	-	18.7	-	1.5	67.2	-
Shopping: Receipts & Costs (g)	5	Resident									
	10	Non-resident	100.0	21.0	11.0	-	58.0	6.0	10.0	69.0	10.0
PARKS & RESERVES											
- Variable operating cost	50.0	Vehicle entry	100.0	13.7	6.9	2.6	76.8	30.0	-	90.5	n.a.
- Road maintenance (from year 6)	2000	Km. of road	100.0	41.2	13.5	-	45.3	30.1	-	86.5	n.a.
- Investment (excl. road units)											
AMBOSELI	23,562,000		100.0	35.4	7.0	2.3	55.3	18.1	-	90.7	n.a.
MARA	24,455,200		100.0	35.1	7.0	2.3	55.6	18.3	-	90.7	n.a.
Inner Northern Circuit	19,130,800		100.0	34.5	6.9	2.4	56.2	18.8	-	90.7	n.a.
- Investment in Road Unit	4,980,000	Unit	100.0	78.6	10.0	-	11.4	-	-	90.0	n.a.
- Operating cost of road unit	940,800	Year	100.0	50.0	15.0	-	35.0	-	-	85.0	n.a.

(a) Ecosystem receipts, excluding commissions.

(b) Includes accommodation tax at 7½% of full board tariff or 10% of room tariff, which in fact increases proportionally with receipts. The 2% training levy has been counted as "other domestic cost" rather than an indirect tax.

(c) Weighted average of 70% lodges and 30% luxury tented camps.

(d) Excludes 5% for interest during construction.

(e) Includes ¾ of 5% service charge on the full board tariff.

(f) Includes tips paid to driver by tourists, estimated at 1/6 of total.

(g) Excluding purchases in hotels, which are covered in hotel receipts and costs.

n.a. = not applicable

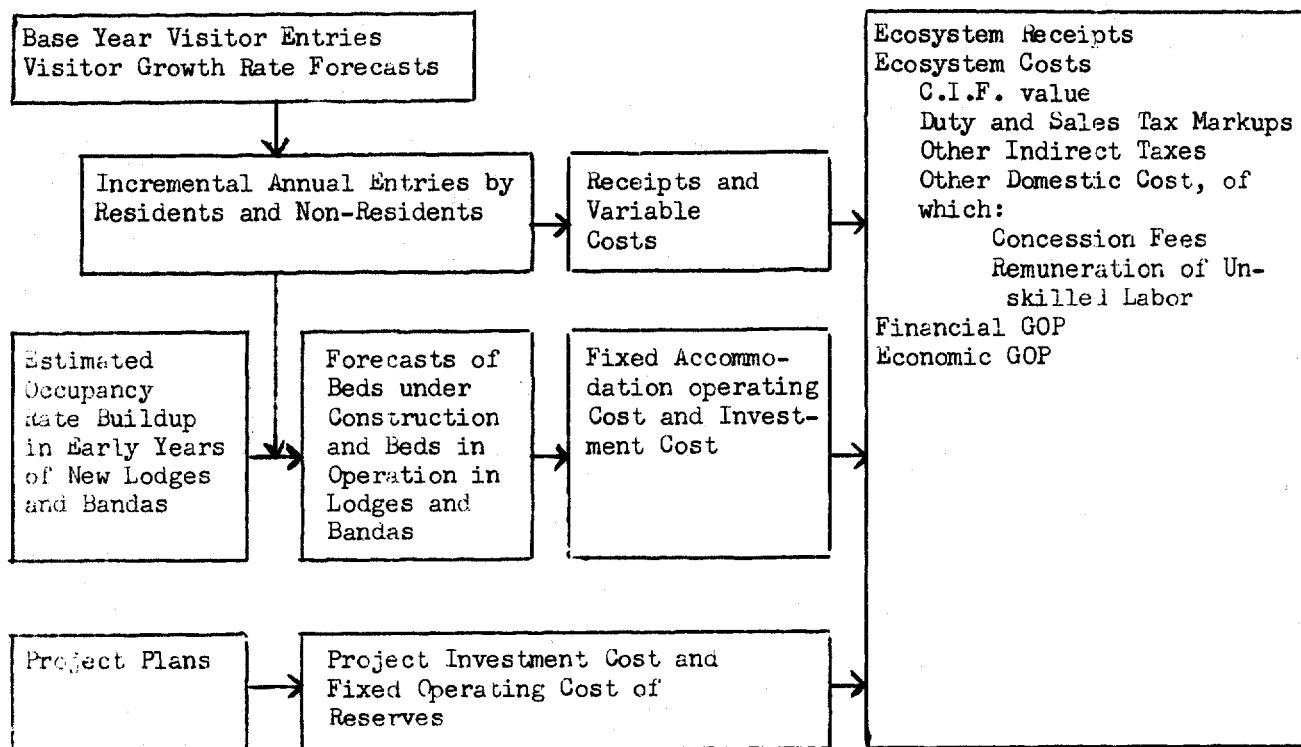
30. The operating costs of parks and reserves were initially estimated on the basis of a computer model of operating requirements for staff, equipment, and administrative facilities in each park.^{1/} On subsequent analysis, however, it was found that despite many indivisibilities in detail (e.g. the costs of adding an assistant warden, or an additional bookkeeper would occur only once or sporadically) the total varied more or less in proportion with vehicle entries and came to Shs. 50 per vehicle entry. This assumption was retained for the analysis. The breakdown of operating cost into primary components was based upon the initial estimates, which were found to give a very similar cost breakdown to that found for the Kenya National Parks (excluding road construction). The cost of road maintenance from year 6 (when the track construction under the project will terminate) was assumed to be fixed, and to amount to Shs. 2,000 per km. of track constructed or improved under the project. This figure includes the labor required to maintain tracks, and costs of running, maintaining, and replacing road equipment.

31. Operating costs of accommodations were divided into two components: costs which vary with bednights taken, such as consumption of food and drink, some utilities, etc.; and costs which depend upon the capacity installed, such as most labor expense, repairs, renewals and replacements, insurances, etc. The division was made on the basis of an analysis of hotel operating costs. The fairly substantial element of 'unskilled labor remuneration' in the variable costs of lodges is largely due to the 5% service charge of which three quarters is estimated to be paid to wage labor.

32. Operating costs of transport and shopping are all treated as variable with visitor entries. The indirect tax component of non-resident transport is high, due to the importance of heavily taxed fuel, parts, and vehicle depreciation (which is treated as a real cost in lieu of separately estimating investment in vehicles). These items come to 44% of tour operators' transport receipts. The importance of unskilled labor remuneration derives from drivers' salaries, and also the fact that tips to drivers are estimated at one-sixth of the total. Little good information is available upon shops, but the estimates shown are believed to overstate rather than understate costs for handicrafts, photography fees, etc.

^{1/} This model was prepared by Mr. Philip Thresher, resource economist with the UNDP/FAO Wildlife Management Unit.

33. The chart below recapitulates the stages involved in estimating the incremental benefits and costs associated with the project.



Tables 2, 3, and 4 show the streams of receipts and costs derived on the basic demand forecasts in 1975 prices.

Receipts and Cost Streams with "Effective" Devaluation

34. Receipts and costs were also calculated on the assumption that the October 1975 devaluation would be completely effective. For each activity on which tourists spend money, financial costs were raised by the increase in the c.i.f. component plus the increase in import duty and sales tax markups, and prices by the same amount (leaving financial GOP's the same). In the case of game reserves, reserve entry and guide fees were raised by the same percentage as the increase in financial operating cost in year 6 (the year in which the road maintenance units enter the recurrent cost stream) in order to enable receipts to cover the increase in investment cost. In the case of lodges and bandas, financial GOP's were raised by the same percentage as investment costs to leave roughly the same level of private profitability after as before devaluation. (For purposes of this calculation, the breakdown of accommodations receipts in year 4 of a typical hotel was used.) These assumptions yielded the following increases in prices over predevaluation levels:

Reserve Entry Fees: Amboseli + 4.6%, Mara + 5.0%, and Inner Northern Circuit + 5.1%
 Accommodation Prices: Bandas + 2.6%; Lodge/Luxury Camps + 3.4%
 Transport: Non-resident + 4.5%, Resident + 10.5%
 Shopping + 5%.

All investment costs were increased by the increase in c.i.f. value for the economic analysis, and by c.i.f. and domestic markups for the financial analyses. Concession fees were estimated to rise in proportion to the revenues from the different activities generating them.

Internal Economic Rates of Return

35. Economic rates of return have been calculated on each project component using a 25-year horizon from the first year of investment. For the 'ineffective' devaluation case (in which it is assumed that the relative prices of 1975 will eventually reestablish themselves) foreign exchange has been shadow priced at 1.3, while in the 'completely effective' devaluation case, the shadow price on foreign exchange falls to 1.1535 (1.3/1.127). The shadow price for unskilled labor is estimated at 75% of the market wage rate (incorporated in the analysis by adding a benefit stream equal to 25% of unskilled labor cost). The following table presents the basic rate of return (with the above shadow prices) and their sensitivity to visitor growth assumptions, shadow prices, investment costs, price levels, slippage of project benefits, and assumption about devaluation.

ECONOMIC RATES OF RETURN: SENSITIVITY ANALYSES

Devaluation Assumption	Amboseli		Mara		Inner Northern Circuit	
	Ineffect-ive	Effect-ive	Ineffect-ive	Effect-ive	Ineffect-ive	Effect-ive
<u>Basic Estimate</u>	28.0	24.3	24.8	22.6	24.6	21.5
Sensitivity to:						
<u>Growth Assumptions</u>						
Optimistic	32.4	28.3	29.0	25.2	27.1	23.5
Pessimistic	24.5	22.0	21.5	18.9	20.5	17.5
<u>Shadow Prices</u>						
No shadow prices	18.9	18.5	16.4	17.2	16.1	16.2
Unskilled labor	21.1	n.c.	18.4	n.c.	18.2	n.c.
Foreign exchange	26.1	n.c.	23.0	n.c.	22.8	n.c.
<u>Investment Cost and Fixed Operating Cost of Reserves</u>						
+20%	25.4	n.c.	22.3	n.c.	22.0	n.c.
+10%	26.6	n.c.	23.5	n.c.	23.3	n.c.
-10%	29.5	n.c.	26.3	n.c.	26.2	n.c.
-20%	31.3	n.c.	27.9	n.c.	27.9	n.c.
<u>Prices</u>						
+10%	32.1	n.c.	28.6	n.c.	28.6	n.c.
-10%	23.6	n.c.	20.7	n.c.	20.5	n.c.
<u>Slippage of Tourist Flows by one year</u>						
	20.1	n.c.	18.1	n.c.	17.9	n.c.
<u>Extension of Horizon by one year</u>						
	28.0	n.c.	24.9	n.c.	24.7	n.c.

n.c. = not calculated

36. The main conclusion to be drawn from this table is that benefits appear to exceed costs in each area under all reasonable assumptions about receipts, costs, and social discount rate. The higher rate of return for Amboseli is due to the facts that the investments in each area contain substantial indivisible elements and Amboseli is expected to have a larger increment in visitors and also to receive a higher proportion of day visitors than the other areas. The rate of return in the effective devaluation case is, predictably, less than in the ineffective devaluation case, since effective devaluation implies that Kenya would sell her tourist services at lower (foreign exchange) prices than in the case of ineffective devaluation. That the unshadow-priced rates of return are the same in the two cases is fortuitous.

37. When the costs of the project management unit and one half of the costs of the Wildlife Planning Unit are deducted from the combined net benefit stream of three wildlife areas, the rate of return (without shadow prices) comes to 15.7% (15.6% on the effective devaluation assumption).

38. The estimates exclude the rate of return effects from foreign financing of part of the program. Substantial foreign equity financing is not expected, both because of Kenyanization policies (which currently limit non-citizen, to say nothing of non-resident, participation to under 50% of the equity in tourist enterprises), and also because the financial profitability of lodges is modest (see para. 42 below). Foreign loan finance would, however, be important. This would include, explicitly, the proposed Bank loan (see Table 6). In addition, since Kenya's domestic savings are not sufficient to cover total investments, the loan component of accommodation investment would be at least implicitly financed from abroad at Kenya's marginal borrowing rate. Since the rates of return on these foreign flows would be less than the above economic rate of return, the inclusion of foreign financing flows in the cost-benefit stream would serve to raise the economic rate of return estimates.

Price Elasticity and Revenue Dilution Effects

39. No estimate exists of the appropriate price elasticity which should be used to adjust tourists expenditures in the wildlife areas to arrive at the marginal receipts of the project. We have, however, calculated the minimum elasticity which is consistent with marginal project benefits being at least equal to marginal project costs. The results are shown in the following table for two alternative assumptions about the social discount rate.^{1/} These elasticities are not excessive at least for the "ineffective devaluation" case, given

^{1/} The procedure followed was to divide discounted non-resident receipts (including the foreign exchange premium) by discounted net benefits, i.e. to take the inverse of the profit margin on sales to non-residents. The rationale for this measure is that marginal receipts equal total receipts $\times (1 - 1/\text{price elasticity})$. Hence, the profit margin on sales (the difference between receipts and marginal receipts) is $1/\text{price elasticity}$. It is also implicitly assumed that all net benefits are attributable to non-resident demand. Given the fact that receipts from residents comprise only around 2% of total incremental ecosystem receipts, the bias due to this assumption is minimal.

the fact that Kenya must compete with other 'winter' and 'special interest' tourist destinations. On the other hand, they are not so low as to suggest that Kenya should introduce policies designed to lower prices to secure larger volumes of tourists. The elasticity is higher in the "effective" devaluation case since the profit margin on sales is lower in that case. The pricing study which would be carried out under the project should aim at throwing further light on this question, including a more refined analysis of Kenya's total receipts and costs from wildlife viewing tourists rather than just the eco-system receipts and costs which are analyzed here.

Estimates of the Minimum Price Elasticity of Demand Consistent
with Economic Optimality of the Project

Devaluation Assumption	Amboseli		Mara		Inner Northern Circuit	
	Ineffect-ive	Effect-ive	Ineffect-ive	Effect-ive	Ineffect-ive	Effect-ive

Social Discount Rate

8%	2.6	3.1	2.9	3.2	2.8	3.4
10%	2.8	3.4	3.2	3.6	3.1	3.8

Financial Analysis

40. A full financial analysis of the receipts and costs of parks and reserves, taking explicit account of expected inflation, has not been carried out. On the other hand, incremental financial receipts and costs have been estimated on the assumption that relative prices remain constant at their 1975 levels (under the two devaluation hypotheses). The streams for the ineffective devaluation case are summarized in Columns 3 to 8 of Tables 2 to 4. The table below sets out the resulting 'financial' rates of return to the wildlife Conservation and Management Service from entry fees, and to the Service and landowners combined from concession and entry fees, under a variety of assumptions. It may be concluded that Government would recover all incremental financial costs of reserve investment and operations from reserve entry fees alone, albeit at rates of interest somewhat lower than the presumed social discount rate for Kenya (10% +). The inclusion of concession fees in the returns stream approximately doubles the "financial" rate of return on the project.

41. The rates of return on all commercial activities combined (see column 11 of Tables 2, 3, and 4) are not very high, if it be remembered that Government levies company income tax at a 45% rate. In examining the component activities it would appear that provision of transport to tourists is a highly competitive field. Although investor returns are mediocre, except to a handful of extremely well-organized and efficient firms, there is no reason not to expect adequate transport services to be available to handle future visitor flows. The development of shopping activities, handicrafts, etc. has already begun in the Amboseli and Samburu areas, and should expand even more than assumed in this analysis, provided that some attention is devoted to this activity by the authorities and appropriate advice tendered to persons in the wildlife areas.

Financial Rates of Return to Government and Landowners from
Development and Operation of Parks and Reserves

Devaluation Assumption	Amboseli		Mara		Inner Northern Circuit	
	Ineffect- ive	Effect- ive	Ineffect- ive	Effect- ive	Ineffect- ive	Effect- ive

A. Entry and Guide Fees on Financial Costs

<u>Basic Estimate</u>	7.7	7.6	4.5	4.5	3.7	3.5
<u>Sensitivity to:</u>						
Investment & Fixed	+10% 6.7	n.c.	3.6	n.c.	2.7	n.c.
Operating Cost	-10% 8.9	n.c.	5.6	n.c.	4.8	n.c.
Entry Fees	+10% 9.1	n.c.	5.8	n.c.	5.1	n.c.
	-10% 6.1	n.c.	3.1	n.c.	2.2	n.c.
Slippage of one year in variable GOP	7.0	n.c.	4.1	n.c.	3.3	n.c.

B. Entry, Guide and Concession Fees on Financial Costs

<u>Basic Estimate</u>	13.1	12.8	10.0	9.8	9.2	8.9
<u>Sensitivity to:</u>						
Investment & Fixed	+10% 11.9	n.c.	8.9	n.c.	8.1	n.c.
Operating cost	-10% 14.5	n.c.	11.2	n.c.	10.5	n.c.
Receipts +10%	14.6	n.c.	11.3	n.c.	10.6	n.c.
-10%	11.5	n.c.	8.6	n.c.	7.7	n.c.
Slippage of one year in variable GOP	11.4	n.c.	9.0	n.c.	8.2	n.c.

42. In the case of accommodations, bandas are very profitable on a straight financial basis. The main problem associated with this type of enterprise is to ensure adequate management. Successful examples exist both within National Parks and County Council Game Reserves, and there is no reason to expect that it will not be possible for these successes to be replicated in the future. Luxury tented camps are also financially attractive, due to their relatively low investment cost. Lodges, on the other hand, are estimated to yield real financial rates of return on total investment of under 7%. Although returns to equity may be somewhat higher with loan finance at interest rates which do not fully reflect the rate of inflation, it would appear that lodge prices must rise somewhat over current levels to establish a level of profitability which would induce large-scale interest by private investors. A 10% rise in prices would eliminate concern on this issue.^{1/} The current 'softness'

^{1/} It is worth repeating that these remarks apply to the actual receipts per bednight after deduction of all discounts, commissions, taxes, service charges, and concession fees. These receipts are very much lower than the full board tariff paid by an individual client. In mid-1975, for example, the individual (single occupancy) Full Board Tariff was Shs. 240 in one lodge within one of the project areas (\$33.61 at the pre-devaluation rate of exchange). Net receipts to the hotelier, per bednight, from the full board tariff in the present analysis are estimated at only Shs. 96.5 (\$13.52), or 40% of the individual rate.

of lodge prices is easily explained: following several years of very rapid growth of demand, rising prices, and substantial excess demand, demand growth moderated due to the international recession and rising air fares. This slowdown coincided with the opening of much new capacity commenced during the previous boom period, leading to a shift from a seller's to a buyer's market. Renewed pressure for prices to rise as demand increases relative to capacity may be expected in the near future. At that point, however, it will be important that hotels be allowed to raise prices and that the exercise of Government controls over prices not unnecessarily reduce the financial and economic profitability of the sector. There is evidence that the existing controls on beverage prices already reduce revenues from this source.

Implications of Possible Foreign Exchange Control Evasion

43. The above conclusions on the private profitability of tourist enterprises need one further qualification which relates also to the estimates of economic returns. It is frequently alleged that tourist firms engage in evasion of the foreign exchange control. The most common allegation is that transport and hotel operators which sell to foreign tour firms request that the foreign firms remit to Kenya only part of the payment for Kenyan services, depositing the remainder in illegal foreign bank accounts of Kenyan residents. If the Kenyan firm enters into its accounts only the remitted payments, it would evidently be evading income tax as well as the foreign exchange control. Since the present analysis is based upon accounts of hotels and tour firms, and to the extent that the above type of evasion is significant, both the economic and financial returns from tourism would be understated.^{1/} Alternatively, firms may provide a conduit for the illegal export of capital by substituting Kenya currency payments from the capital exporter for the untransferred foreign payments. In this event, our estimates of foreign exchange receipts to Kenya (but not Kenya residents) would be overstated, while our estimates of financial profitability would be correct. Since, however, this second type of evasion is more easily detected than the former, it seems less likely that it is important. Finally, there is some traffic in foreign currency exchanged illegally by tourists within the country. To the extent that tourists purchase Kenyan currency below the official exchange rates assumed, foreign exchange receipts would be overstated. It would be one of the tasks of the proposed study on pricing to examine in more detail this question as well as those mentioned in para. 42, to provide a firm basis for policy decisions.

Distribution of Project Net Benefits

44. The four main beneficiaries of incremental ecosystem receipts generated by the project would be the Central Government, County Councils, landowners in the dispersal areas, and workers who would secure more lucrative employment opportunities due to the project than they would secure without it. As noted earlier, prices and costs of accommodation and travel services are such that private investors are unlikely to earn returns which exceed the returns available in other sectors.

^{1/} The economic returns would be understated since no account would be taken of foreign exchange earnings to Kenyans which are illegally retained abroad.

45. The Government would be the principal immediate beneficiary of the project, and the ultimate beneficiaries would therefore depend upon the incidence of the Government budget. In addition to its returns from entry fees (which would be shared with the Narok, Samburu and Isiolo County Councils in the case of the Mara and Inner Northern Circuit developments), the Government would receive the indirect taxes generated by the project. If these are added to financial returns on reserve entry fees, the Government's rate of return on the investment and operation of reserves would amount to 19.7% for Amboseli, 15.9% for Mara, and 15.0% for the Inner Northern Circuit (in the ineffective devaluation case). If all costs of the project management unit, and one-half of the costs of the Wildlife Planning Unit are added to costs, Government return on the wildlife area developments would come to 14.7%. Government would also benefit from any difference between the rate of return on the Bank loan and the social discount rate. 66% of the Bank loan would be to finance developments in the project areas, the Project Management Unit, and (one-half of) the Wildlife Planning Unit. The net present value of this to Government at 10% discount rate would amount to Shs. 32 million, compared with entry fees and indirect taxes (less project costs) of Shs. 37 million. ^{1/} Finally, since Government rations foreign exchange, it would determine the beneficiaries of the shadow-price premium on foreign exchange (although it is unlikely that the rationing procedure would be such that the benefits actually derived would be the same as the premium). Government would, of course, also receive income taxes on profits of commercial activities, and receive some of the profits itself from its investments through the Kenya Tourist Development Corporation. If, however, the private rates of return on tourist activities are not exceptionally high, these returns would not constitute a net benefit.

46. An additional, temporary, liability of Government due to the project would be the payment of Guaranteed Minimum Wildlife Returns to group ranchers in the dispersal areas of the Parks and Reserves within the project should direct returns from wildlife utilization in those areas plus concession fees not equal some minimum amount. Since these agreements are not yet negotiated, it is impossible to provide any estimate of this sum. Given the buildup of concession fees which may be expected from the project, however, to say nothing of the attractive prospects for hunting concessions (see para. 6 above), it seems unlikely that Government will be called on to pay GMWR for more than a few years, if that.

47. County Councils would receive some income from entry fees (the amount would depend upon the terms of the agreements to be negotiated between the Government and County Councils) and, to the extent that they invest in bandas or lodges, returns from these activities. Such income would presumably be used partly to reduce existing subsidies from Government, and partly for the expansion of local government services to the populations of the Districts within which the reserves are located.

^{1/} See Tables 5, 6, and 7. The gains to Government from foreign financing are underestimated to the extent that inflation of Kenya's receipts and costs from tourism would exceed the rate of devaluation of the Kenya shilling vis a vis the currencies in which the loan would be denominated.

48. Dispersal area landowners would receive very substantial concession fees (see Tables 2, 3, and 4) from lodges, bandas, campsites, petrol stations and shops located on their lands. These receipts would involve virtually no cost to landowners (apart from the excision of small areas of land to accommodate these activities, plus access to water sources). Concession fees would be used by Group Ranchers either for the development of communal facilities, such as cattle dips, or would be distributed in cash to the members of the group. The latter system would reduce income inequalities in the pastoral areas where income is now related almost entirely to (very unequal) cattle holdings. Some group ranches might decide to construct and operate bandas, or to take a participation in lodges on their land, securing additional returns on any such investments. Members of groups would also stand to gain from the availability of increased employment opportunities in the reserves, lodges, and associated activities. Some of them would earn income from production and sale of handicrafts to tourists, as well as of foodstuffs to park staff, lodge staff, and lodges themselves.

49. In addition to employment opportunities for local inhabitants of the project areas, the project would provide employment for workers recruited from other parts of Kenya. The premium on unskilled labor (Tables 2, 3, 4) probably represents a minimum estimate of the gains to local and outside workers.

Employment Effects

50. Employment creation in the Wildlife Service within the parks and reserves has been estimated on the basis of the computer model referred to above. Most of the new staff would be employed as guides/rangers. Employment in accommodation facilities is based on an estimated employee/bed ratio of 0.8 for lodges and luxury tented camps, and 0.4 for bandas. Jobs in tourist transport and shops are estimated at 0.4 per accommodation employee. In addition to these 'direct' employees, the project would stimulate indirect employment in other sectors (agriculture, food processing, handicraft production, transportation and distribution, furniture making, etc.) which supply direct tourist activities. On the basis of admittedly rough estimates, it would be reasonable to assume a ratio of indirect to direct employment of one. The resulting estimate of incremental employment generated by developments in the three project areas, and excluding employment in construction, is shown below.

Incremental Employment Generated (over 1975 Level)

Year	Direct Employment			Indirect Employment (= Direct Employment)	Total
	Parks and Reserves	Commercial Activities			
		Accommodation	Other		
1980	225	442	177	844	1688
1985	360	1045	418	1823	3646
1990	535	1618	647	2800	5600

Balance of Payments Effect

51. The balance of payments effect of the project is summarized in Table 6. Excluding foreign financing flows, the investments in the project areas would commence to make a positive impact on the balance of payments from year 3 (1978), at which point the net foreign cumulative foreign exchange deficits would be \$3.1 million. The net contribution (inflows less outflows) would come to around \$ 2.1 million in 1980 , and to \$ 14.5m at maturity of the project.^{1/} When the inflows and outflows associated with the proposed Bank loan are included^{2/} the cumulative negative impact on the balance of payments would come to around \$0.8 million in 1977, and the net flows to \$2.4 million in 1980 and to \$13.8 million in 1991 and following years. In fact, the net impacts on the balance of payments are likely to be more favorable than this, since these estimates do not take account of inflation, nor of the fact that the foreign exchange content of accommodation investments is likely to be financed by foreign borrowing.

^{1/} The exact foreign exchange impacts depend, of course, upon the response of prices to devaluation. In the "effective" devaluation case, foreign exchange receipts due to the project fall, since prices do not rise by the full amount of the devaluation. In the ineffective devaluation case, domestic prices rise by the amount of the devaluation. In order to convert these shilling figures, an exchange rate of Shs. 7.14 is appropriate for the ineffective devaluation case, and Shs. 8.05 for the effective devaluation case. The figures given in the text are the mean of these two.

^{2/} Excluding price contingencies.

Forecasts of Incremental Visitors and Incremental Beds Available, Basic Demand Forecast

Year	<u>Amboseli</u>				<u>Mara</u>				<u>Inner Northern Circuit</u>			
	Incremental Visitor Entries		Incremental Beds Available		Incremental Visitor Entries		Incremental Beds Available		Incremental Visitor Entries		Incremental Beds Available	
	<u>Non-Residents</u>	<u>Residents</u>	<u>Bandas</u>	<u>Lodges</u>	<u>Non-Residents</u>	<u>Residents</u>	<u>Bandas</u>	<u>Lodges</u>	<u>Non-Residents</u>	<u>Residents</u>	<u>Bandas</u>	<u>Lodges</u>
1	2,600	-	1	16	1,708		1	13	2,040		1	14
2	11,882	-	4	70	7,803		4	56	6,977		3	45
3	22,741	-	8	124	14,935		7	99	13,000		5	78
4	35,448	-	12	180	23,280		10	144	20,348		7	115
5	45,942	730	16	218	30,171	523	14	174	26,460	465	10	141
6	57,695	1,497	21	267	37,890	1,071	18	213	33,489	953	13	174
7	70,858	2,301	26	326	46,535	1,647	22	260	41,572	1,466	17	214
8	85,601	3,146	32	393	56,217	2,252	27	313	50,868	2,004	21	262
9	102,113	4,034	39	466	67,061	2,887	32	371	61,558	2,569	25	315
10	114,442	4,965	44	509	75,158	3,554	36	406	68,115	3,163	28	337
11	127,758	5,944	49	562	83,903	4,254	41	448	75,196	3,786	31	366
12	142,138	6,971	55	625	93,347	4,989	46	498	82,844	4,440	34	403
13	157,670	8,049	61	695	103,546	5,761	51	554	91,103	5,127	38	445
14	174,443	9,182	68	768	114,562	6,572	57	612	100,023	5,849	40	462
15	192,559	10,371	71	799	126,459	7,423	63	675	"	"	"	"
16-25	"	"	"	"	139,308	8,317	66	702	"	"	"	"

AMBOSELI

Benefit and Cost Streams

(Ineffective Devaluation Case, Constant 1975 Prices, Basic Visitor Growth Forecast)

(K. Shs '000)

Year	Ecosystem Receipts		Receipts & Costs of Park and Landowners						Commercial Activities			Indirect Taxes	Net Benefit without Shadow Prices (8)+(11)+(12)	Shadow Price Premium on		Net Benefit Including Shadow Prices (13)+(14)+(15)
	from		Entry & Guide Fees	Costs ^{1/}		Financial Surplus to Operator ^{2/} (3)-(4)-(5)	Concession Fees	Total Surplus to Landowner (6)+(7)	Accommodation Investment	Gross Operating Profit	Cash Flow excl. Debt and Income Taxes			Net Foreign Exchange Earnings ^{3/}	Unskilled Labor Remuneration ^{4/}	
	Non-Residents	Residents		Investment & Fixed Operating	Variable Operating											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	698	-	104	8987	26	(8909)	45	(8864)	3776	45	(3731)	1425	(11170)	(1829)	382	(12617)
2	3188	-	473	5274	119	(4920)	204	(4716)	2978	224	(2754)	1297	(6173)	(86)	442	(5817)
3	6102	-	906	7297	227	(6618)	390	(6228)	2559	487	(2072)	1776	(6524)	517	610	(5397)
4	9511	-	1412	5472	354	(4414)	609	(3805)	2387	838	(1549)	1980	(3374)	1635	630	(1109)
5	12327	68	1853	5274	469	(3890)	796	(3094)	2950	1189	(1761)	2365	(2490)	2341	738	589
6	15481	140	2346	950	598	798	1006	1804	3433	1542	(1891)	2370	2283	3605	728	6616
7	19013	216	2898	950	742	1206	1239	2445	3812	1914	(1898)	2839	3386	4498	862	8746
8	22968	295	3513	950	901	1662	1501	3163	3171	2322	(849)	3229	5543	5613	962	12118
9	27399	378	4199	950	1079	2170	1792	3962	2635	2790	155	3691	7808	6845	1082	15735
10	30707	465	4721	950	1215	2556	2013	4569	3171	3213	42	4146	8757	7663	1213	17633
11	34280	557	5283	950	1363	2970	2252	5222	3641	3632	(9)	4628	9841	8559	1352	19752
12	38138	653	5890	950	1521	3419	2509	5928	3915	4048	133	5071	11132	9549	1491	22222
13	42306	754	6543	950	1692	3901	2785	6686	2845	4486	1641	5490	13817	10767	1577	26161
14	46806	861	7248	950	1875	4423	3084	7507	639	4972	4333	5754	17594	12197	1621	31412
15-25	51667	972	8010	600	2074	5336	3407	8743	-	5790	5790	6192	20725	13610	1725	36060
pv ^{5/} / %																
5%	430647	7022	65962	37892	17012	11058	28108	39166	31485	46678	15193	57794	112153	104894	16957	234004
8%	293346	4596	45167	34283	11637	(753)	19256	18503	27120	31633	4513	41230	64246	70195	12164	146605
10%	232967	3542	35821	32571	9222	(5972)	15276	9304	24759	24907	148	33872	43324	54664	9978	107966
12%	187852	2766	28853	30794	7422	(9363)	12309	2946	22745	19914	(2831)	28012	28127	43129	8927	79583
Internal Rate of Return						7.75		13.15				10.05		18.95		28.05

NOTES: ^{1/} Including indirect taxes.

^{2/} The Wildlife Conservation and Management Service in the first instance, although some fraction of this may be paid in the early years to landowners in the dispersal area in the form of Guaranteed Minimum Wildlife returns.

^{3/} Note that net foreign exchange earnings equal the premium divided by 0.3.

^{4/} 25% of unskilled labor remuneration.

^{5/} Present value.

MARA

Benefit and Cost Streams

(Ineffective Devaluation Case, Constant 1975 Prices, Basic Visitor Growth Forecast)

(K. Shs '000)

Year	Ecosystem Receipts from		Receipts and Costs of Reserve and Landowners						Commercial Activities			Indirect Taxes	Net Benefit without Shadow Prices (8)+(11)+(12)	Shadow Price Premium on		Net Benefit including Shadow Prices (13)+(14)+(15)
	Non-Residents	Residents	Entry & Guide Fees	Costs ^{1/}		Financial Surplus to Operator ^{2/} (3)-(4)-(5)	Concession Fees	Total Surplus to Landowner (6)+(7)	Accommodation Investment	Gross Operating Profit	Cash Flow excl. Debt and Income Taxes (10)-(9)			Net Foreign Exchange Earnings ^{3/}	Unskilled Labor Remuneration ^{4/}	
				Investment & Fixed Operating	Variable Operating											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	532	-	70	1917	17	(1830)	35	(1795)	3030	33	(2997)	585	(4207)	(389)	249	(4347)
2	2432	-	318	13136	78	(12896)	160	(12736)	2378	172	(2206)	1862	(13080)	(1657)	558	(14179)
3	4656	-	608	6835	149	(6376)	307	(6069)	2049	379	(1670)	1508	(6231)	247	522	(5462)
4	7257	-	948	5279	233	(4564)	479	(4085)	1904	653	(1251)	1652	(3684)	1117	529	(2038)
5	9406	59	1247	5279	310	(4342)	627	(3715)	2349	932	(1417)	1967	(3165)	1638	620	(907)
6	11812	122	1580	770	394	416	794	1210	2728	1212	(1516)	1853	1547	2742	568	4857
7	14507	187	1951	770	489	692	979	1671	3028	1507	(1521)	2219	2369	3421	672	6462
8	17525	256	2366	770	594	1002	1186	2188	2545	1833	(712)	2525	4001	4272	749	9022
9	20906	328	2830	770	712	1348	1417	2765	2125	2206	81	2881	5727	5212	842	11781
10	23430	404	3182	770	803	1609	1592	3201	2530	2538	8	3236	6445	5837	943	13225
11	26156	483	3563	770	900	1893	1781	3674	2897	2870	(27)	3612	7259	6519	1050	14828
12	29100	567	3972	770	1004	2198	1985	4183	3119	3201	82	3997	8262	7273	1158	16693
13	32279	655	4413	770	1117	2526	2205	4731	3314	3547	233	4410	9374	8092	1273	18739
14	35714	747	4890	770	1240	2880	2442	5322	2466	3933	1467	4726	11515	9091	1346	21952
15	39422	844	5403	770	1371	3262	2698	5960	743	4349	3606	4964	14530	10258	1388	26176
16-25	43428	945	5958	480	1512	3966	2974	6940	-	5048	5048	5305	17293	11438	1464	30195
pv ^{5/} _{ra}																
5%	342132	6449	46636	36294	11786	(1444)	23314	21870	27136	37955	10820	48457	81147	82968	14032	178147
8%	233052	4221	31716	32905	8007	(9196)	15861	6665	23045	25596	2551	34387	43603	54948	10063	108614
10%	184237	3239	25043	31038	6318	(12313)	12528	215	20870	20090	(779)	27967	27403	42482	8258	78143
12%	147963	2518	20087	29527	5063	(14503)	10052	(4451)	19036	16014	(3021)	23234	15762	33270	6898	55930
Internal Rate of Return						4.55		10.05			9.45		16.45			24.85

NOTES: ^{1/} Including indirect taxes.

^{2/} The Wildlife Conservation and Management Service in the first instance, although some fraction of this may be paid to the Narok County Council and, in the early years, to landowners in the dispersal area in the form of Guaranteed Minimum Wildlife Returns.

^{3/} Net Foreign Exchange Earnings equal the premium divided by 0.3.

^{4/} 25% of unskilled labor remuneration.

^{5/} Present value.

INNER NORTHERN CIRCUIT

Benefit and Cost Streams

(Ineffective Devaluation Case, Constant 1975 Prices, Basic Visitor Growth Forecast)

(K. Shs '000)

Year	Ecosystem Receipts from		Receipts and Costs of Reserve and Landowners						Commercial Activities			Indirect Taxes	Net Benefit without Shadow Prices (8)+(11)+(12)	Shadow Price Premium on		Net Benefit Including Shadow Prices (13)+(14)+(15)
	Non-Residents	Residents	Entry & Guide Fees	Costs 1/		Financial Surplus to Operator 2/ (3)-(4)-(5)	Concession Fees	Total Surplus to Landowner (6)+(7)	Accommodation Investment	Gross Operating Profit	Cash Flow excl. Debt and Income Taxes (10)-(9)			Net Foreign Exchange Earnings 3/	Unskilled Labor Remuneration 4/	
				Investment & Fixed Operating	Variable Operating											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	588		82	1934	20	(1872)	38	(1834)	2482	38	(2444)	560	(3718)	(314)	228	(3804)
2	2010		280	9293	70	(9083)	132	(8951)	1882	146	(1736)	1389	(9298)	(1303)	349	(10252)
3	3745		522	5995	130	(5603)	246	(5357)	1711	308	(1403)	1274	(5486)	142	442	(4902)
4	5862		1062	5288	203	(4429)	384	(4045)	1618	526	(1092)	1200	(3937)	787	473	(2677)
5	7623	49	1077	4612	272	(3807)	506	(3301)	1997	744	(1253)	1641	(2913)	1283	516	(1114)
6	9648	100	1375	730	349	296	644	940	2402	975	(1427)	1541	1054	2210	477	3741
7	11976	154	1716	730	437	549	803	1352	1694	1227	(467)	1731	2616	2905	520	6041
8	14655	211	2107	730	538	839	985	1824	2049	1505	(544)	2102	3382	3574	624	7580
9	17734	271	2555	730	653	1172	1194	2366	1408	1837	429	2392	5187	4458	695	10340
10	19523	333	2637	730	726	1381	1325	2706	1818	2108	290	2670	5666	4917	774	11357
11	21663	399	3142	730	806	1606	1465	3071	2166	2370	204	2954	6229	5420	851	12506
12	23866	468	3470	730	891	1849	1618	3467	1618	2618	1000	3153	7620	6061	904	14585
13	26246	540	3824	730	984	2110	1783	3893	469	2873	2404	3300	9597	6814	928	17339
14-25	28816	616	4206	480	1084	2642	1959	4601	-	3320	3320	3452	11373	7577	973	19923
pv ^{5/a}																
5%	252864	4641	36884	30835	9409	(3360)	17108	13748	18131	27845	9714	35289	58751	60996	10343	130090
8%	174908	3081	25519	27787	6490	(8758)	11818	3060	15895	19061	3166	25453	31679	40949	7529	80157
10%	139628	2386	20378	26163	5171	(10956)	9426	(1530)	14664	15105	439	20950	19859	31933	6236	58028
12%	113183	1872	16524	24773	4184	(12433)	7634	(4799)	13602	12150	(1452)	17538	11287	25211	5254	41752
Internal Rate of Return						3.75		9.25				10.45		16.15		21.55

NOTES: 1/ Including indirect taxes.

2/ The Wildlife Conservation and Management Service in the first instance, although some fraction of this may be paid to the Samburu and Isiolo County Councils and, in the early years, to landowners in the dispersal areas in the form of Guaranteed Minimum Wildlife Returns.

3/ Net foreign exchange earnings equal the premium divided by 0.3.

4/ 25% of unskilled labor remuneration.

5/ Present value.

Receipts and Costs to Government from Development of Wildlife Areas (Predevaluation 1975 Prices)

(K. Sh.'000)

Year	Entry Fees & Indirect Taxes				Investment and Operating Costs ^{1/}					Government Surplus (deficit)
	Amboseli	Mara	Inner Northern Circuit	Total	Amboseli	Mara	Inner Northern Circuit	PMU and ^{2/} 1/2 WPU	Total	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	1529	655	642	2826	9013	1934	1954	3960	16861	(14035)
2	1770	2180	1669	5619	5393	13214	9363	3080	31050	(25431)
3	2682	2116	1796	6594	7524	6984	6125	3040	23673	(17079)
4	3392	2600	2262	8254	5826	5512	5491	2700	19529	(11275)
5	4218	3214	2718	10150	5743	5589	4884	2380	18596	(8446)
6	4716	3433	2916	11065	1548	1164	1079	-	3791	7274
7	5737	4170	3447	13354	1692	1259	1167	-	4118	9236
8	6742	4891	4209	15842	1851	1364	1268	-	4483	11359
9	7896	5711	4947	18548	2029	1482	1383	-	4894	13654
10	8867	6418	5507	20792	2165	1573	1456	-	5194	15598
11	9911	7175	6096	23182	2313	1670	1536	-	5519	17663
12	10961	7969	6623	25553	2471	1774	1621	-	5866	19687
13	12033	8823	7124	27980	2642	1887	1714	-	6243	21737
14	13002	9616	7658	30276	2825	2010	1564	-	6399	23877
15	14202	10367	7658	32227	2674	2141	1564	-	6379	25848
16-25	14202	11263	7658	33123	2674	1992	1564	-	6230	26893
Internal Rate of Return					19.75 ^{3/}	15.95 ^{3/}	15.05 ^{3/}			14.75 ^{4/}

^{1/} Including indirect taxes

^{2/} PU = Project Management Unit; WPU = Wildlife Planning Unit

^{3/} Rate of return on this park alone

^{4/} Combined rate of return without PMU and WPU is 17.15

KENYA: FOREIGN EXCHANGE IMPACT OF DEVELOPMENT OF WILDLIFE AREAS (1975 Prices)
(US\$ '000)

Year	Gross Foreign Exchange Earnings			Net Foreign Exchange Earnings 1/				Bank Loan			TOTAL	
	Ineffective Devaluation (1)	Effective Devaluation (2)	Mean (3)	Ineffective Devaluation (4)	Effective Devaluation (5)	Mean (6)	Cumulative (7)	Disbursements (8)	Service (9)	Net (10)	Net FE (11)	Cumulative (12)
1	255	234	245	(1,454)	(1,472)	(1,463)	(1,463)	852 2/	82 3/	770 4/	(693)	(693)
2	1,067	984	1,026	(1,632)	(1,716)	(1,674)	(3,137)	1,878	264	1614	(60)	(753)
3	2,031	1,871	1,951	216	57	136	(3,001)	1,752	400	1352	1488	735
4	3,169	2,920	3,045	1,473	1,225	1,336	(1,665)	1,528	518	1010	2346	3,081
5	4,111	3,787	3,949	2,300	1,976	2,138	473	870	586	284	2422	5,503
6	5,174	4,766	4,970	3,995	3,587	3,791	4,264	120	595	(475)	3316	8,819
7	6,372	5,870	6,121	5,053	4,551	4,802	9,066	-	595	(595)	4207	13,026
8	7,724	7,115	7,420	6,283	5,675	5,979	15,045	-	773	(773)	5206	18,232
9	9,249	8,520	8,885	7,710	6,982	7,346	22,391	-	773	(773)	6573	24,805
10	10,331	9,516	9,924	8,598	7,785	8,192	30,583	-	773	(773)	7419	32,224
11	11,498	10,592	11,045	9,570	8,664	9,117	39,700	-	773	(773)	8344	40,568
12	12,760	11,754	12,257	10,683	9,679	10,181	49,881	-	773	(773)	9408	49,976
13	14,122	13,009	13,566	11,986	10,873	11,430	61,311	-	773	(773)	10657	60,633
14	15,593	14,364	14,979	13,475	12,248	12,862	74,173	-	773	(773)	12089	72,722
15	16,793	15,470	16,132	14,680	13,357	14,018	88,191	-	773	(773)	13245	85,967
16-25	17,354	15,986	16,670	15,231	13,864	14,548	102,739	-	773	(773)	13775	97,742

1/ Excluding financial flows.

2/ The wildlife areas the Project Management Unit, and 1/2 of the Wildlife Planning Unit, comprise 66.5% of the foreign exchange costs of the project. Price contingencies come to 22.6% of project costs. Thus, the wildlife area elements in end-1975 prices come to .665 x (1-.226) or 51.5% of the loan amount. The disbursements shown above are 1/2 of the disbursements in Annex 1, to allow a minor adjustment for the difference in mid- and end-1975 prices.

3/ The terms assumed are: commitment fee of 3/4%, interest rate of 8.5%; repayments of principal commence in Year 8.

4/ Net present value at 10% discount rate = \$423,368.

January 1976

FM:mk

KENYA: FOREIGN EXCHANGE IMPACT OF DEVELOPMENT OF WILDLIFE AREAS (1975 Prices)
(US\$ '000) (Third Window Terms)

Year	Gross Foreign Exchange Earnings			Net Foreign Exchange Earnings 1/				Bank Loan			TOTAL	
	Ineffective	Effective	Mean	Ineffective	Effective	Mean	Cumulative	Disbursements	Service	Net	Net FE	Cumulative
	Devaluation	Devaluation		Devaluation	Devaluation							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1	255	234	245	(1,454)	(1,472)	(1,463)	(1,463)	852 2/	65 3/	787 4/	(676)	(676)
2	1,067	984	1,026	(1,632)	(1,716)	(1,674)	(3,137)	1,878	155	1,723	49	(627)
3	2,031	1,871	1,951	216	57	136	(3,001)	1,752	221	1,531	1,667	1,040
4	3,169	2,920	3,045	1,473	1,225	1,336	(1,665)	1,528	277	1,251	2,587	3,627
5	4,111	3,787	3,949	2,300	1,976	2,138	473	870	311	559	2,422	6,049
6	5,174	4,766	4,970	3,995	3,587	3,791	4,264	120	315	(195)	3,596	9,645
7	6,372	5,870	6,121	5,053	4,551	4,802	9,066	-	315	(315)	4,487	14,132
8	7,724	7,115	7,420	6,283	5,675	5,979	15,045	-	577	(577)	5,206	19,338
9	9,249	8,520	8,885	7,710	6,982	7,346	22,391	-	577	(577)	6,573	25,911
10	10,331	9,516	9,924	8,598	7,785	8,192	30,583	-	577	(577)	7,419	33,330
11	11,498	10,592	11,045	9,570	8,664	9,117	39,700	-	577	(577)	8,344	41,674
12	12,760	11,754	12,257	10,683	9,679	10,181	49,881	-	577	(577)	9,408	51,082
13	14,122	13,009	13,566	11,986	10,873	11,430	61,311	-	577	(577)	10,657	61,739
14	15,593	14,364	14,979	13,475	12,248	12,862	74,173	-	577	(577)	12,089	73,828
15	16,793	15,470	16,132	14,680	13,357	14,018	88,191	-	577	(577)	13,245	87,073
16-25	17,354	15,986	16,670	15,231	13,864	14,548	102,739	-	577	(577)	13,775	100,848

1/ Excluding financial flows.

2/ The wildlife areas, the Project Management Unit, and 1/2 of the Wildlife Planning Unit, comprise 66.5% of the foreign exchange costs of the project. Price contingencies come to 22.6% of project costs. Thus, the wildlife area elements in end-1975 prices come to .665 x (1-.226) or 51.5% of the loan amount. The disbursements shown above are 1/2 of the disbursements in Annex I, to allow a minor adjustment for the difference in mid- and end-1975 prices.

3/ The terms assumed are: commitment fee of 3/4%, interest rate of 4.5% repayments of principal commence in Year 8.

4/ Net present value at 10% discount rate = \$1,970,251.

January 1976

FM:mk

KENYA: WILDLIFE AND TOURISM PROJECT

PROJECT IMPLEMENTATION AND SUPERVISION

1. The difficulties inherent in implementing the project will initially require a major supervision effort. These difficulties are due to:

- the number of separate project items, and their scattered, and in some cases, remote location;
- the reorganization of government agencies responsible for wildlife;
- the limited resources and experience currently available within the Ministry of Tourism and Wildlife for project implementation;
- the need for coordination between many different government agencies;
- problems of negotiating complex agreements with rural landowners, and with County Councils of Samburu, Isiolo, and Narok Districts;
- the need to establish a new Planning Unit, and to secure first phase development plans from it, prior to commencement of construction works in any Park or Reserve.

2. The establishment of strong Project Management and Planning Units is expected to overcome such difficulties, but it is realistic to expect that major disbursements on construction will not commence before the middle of the second year after effectiveness. Table 1 sets out the main activities to be undertaken during the first two years of the project as a whole. This will be greatly expanded by the Project Management Unit to form the basis of a network diagram for overall supervision.

Key Indicators

3. The Project Management Unit will be responsible for the immediate establishment of management control systems to cover all aspects of the project. In addition to such special reporting requirements as may be advisable to meet particular problems, routine quarterly reports to the Bank may be expected to include the following, given where applicable on a calendar month basis: Submission of regular reports would be the responsibility of the Project Management Unit during implementation. The

Project Management Unit will also be responsible for establishing systems for subsequent monitoring, after completion.

A. General (national)

- tourist arrivals, departures, bednights
- hotel/lodge capacity and occupancies
- length of stay, estimated expenditures

B. General (project areas)

- game park/reserve entries, by type
- game park/reserve revenues
- revenues to landowners from direct wildlife returns and payments of GMWR
- existing lodge/banda campsite capacity and occupancy
- lodge/banda campsite capacity under construction, by location and expected completion date
- status of negotiation of agreements with County Councils relevant to project
- status of negotiation of agreements with landowners in dispersal areas for payment of Guaranteed Minimum Returns from Wildlife
- current tariff of entry fees, bednight royalties and other charges
- proposed tariff of fees and royalties, and date of effectiveness.
- employment, by type of employment, location

C. Parks improvements

- status of the acquisition of vehicles
- length and costs of game viewing tracks constructed
- status of implementation of structures.

D. Parks Headquarters

- status of preparation of design, tender documents, schedule for bidding, estimated/actual date for contract award and construction schedule
- agreements reached with local authorities
- progress of physical construction
- status of arrangements for operation and maintenance.

E. Road Construction/Maintenance Units

- status of acquisition of equipment and vehicles
- employment of operators and mechanics and/or arrangements for maintenance

- number of hours equipment operated
- expenditures on running and maintenance
- hours equipment mechanically inoperative.

F. Game-Proof Barriers

- length and type of barriers constructed and maintained in each area
- cost per km of barriers constructed

G. Wildlife and Fisheries Training Institute

- status of preparation of design, tender documents, schedule of bidding, estimated/actual date for contract award, and construction schedule
- progress of physical construction
- employment of training staff.

H. Wildlife Clubs of Kenya

- status of acquisition of buses

I. Technical Assistance

- establishment of posts, and appointment of key officers
- status of consultants' contracts for studies.

KENYA: WILDLIFE AND TOURISM PROJECT

INITIAL IMPLEMENTATION SCHEDULE

Main Activities	Responsible Authority 1/	April 1976	May 1976	June 1976	July 1976	1	2	3	4	5	6	Jan. 1977	7	8	9	10	11	12	13	14	15	16	17	18	Jan. 1978	19	20	21	22	23	24	
Authorize project management posts	DP/MFP	→	→																													
Authorize planning unit posts	DP/MFP	→	→																													
Selection of consultants for priority planning studies	MTW																															
Recruit and appoint key project management staff	MTW																															
Recruit and appoint planning unit staff	MTW																															
Negotiate assistance for staffing Training Institute	MTW/MFP																															
Establish details of agreements to be negotiated with landowners	MTW																															
Establish details of agreements to be made with County Councils	MTW/MLG																															
Tender documents, road equipment, vehicles	MTW																															
Study of pricing policies	MTW/Consultants																															
Design and tender documents, Park Headquarters	MTW/MOW																															
Final design and tender documents, Training Institute	MTW/MOW																															
Negotiate agreements with landowners in project areas	MTW/MFP																															
Study of large herbivores	MTW																															
Declare loan effective	IBRD																															
Conclude agreements with Councils	MTW/MLG																															
Award of contract, equipment & vehicles	MOW																															
First phase Park/Reserve plans for project areas (to include Marmar)	MTW																															
Design and construct game-proof barriers	MTW/FD																															
Construct Training Institute	MTW/MOW																															
Construct Park Headquarters	MTW/MOW																															
Construct tracks and other Park/Reserve improvements	MTW																															
Detailed anti-poaching program to IBRD	MTW																															

1/ Responsible for initiating action, supervising and/or executing the work involved.

MTW = Ministry of Tourism and Wildlife
MOW = Ministry of Works
MFP = Ministry of Finance & Planning

FD = Forestry Department
DP = Directorate of Personnel
MLG = Ministry of Local Government

KENYA: WILDLIFE AND TOURISM PROJECT

PROJECT MANAGEMENT UNIT - INITIAL IMPLEMENTATION SCHEDULE

	Responsible Authority	Apr. 76			July '76	2	3	4	5	6	7	8
		-3	-2	-1	1							
Authorize posts	DP/MFP	x	x									
Advertise, professional staff	MTW		x	x								
Designate Project Manager/Asst.	MTW			x								
Appoint Project Manager/Asst.	MTW											
Secure office space	MTW		x	x								
Tender documents, vehicles & equipment	MTW/MOW		x	x								
Acquisition, vehicles and equipment	MTW/MOW				x	x						
Select and appoint other professional staff	MTW				x	x	x					
Prepare initial work program	PMU						x	x				

DP = Directorate of Personnel
MTW = Ministry of Tourism & Wildlife

MFP = Ministry of Finance and Planning
PMU = Project Management Unit

<u>I T E M</u>	<u>Design and Tender Documents</u>	<u>Contract Award</u>	<u>Construction Supervision</u>	<u>Operation and Maintenance</u>
<u>Parks Headquarters</u>				
Water supply	MOW/MOWD	MOW	MOW/MOWD	MOWD
Sewerage	MOW/MOWD	MCW	MOW/MOWD	MOWD
Electricity	MOW	MOW	MOW	MOW
Roads	MOW	MOW	MOW	MOW
Housing	MOW	MOW	MOW	MOW
Offices and Workshop	MOW	MOW	MOW	MOW
Dispensary	MOW	MOW	MOW	MOH
Primary School	MOW	MOW	MOW	MOE
<u>Training Institute</u>				
Water supply				MOE
Water distribution	MOW/MOWD	MOW	MOW/MOWD	MOW
Sewerage	MOW/MOWD	MOW	MOW/MOWD	MOW
Electricity	MOL	MOW	MOW	MOW
Structures	MOW	MOW	MOW	MOW
External works	MOW	MOW	MOW	MOW
<u>Road Construction and Maintenance Units</u>				
Vehicles and Equipment	MOW	MOW/Central Tender Board	Central Tender Board	MTW
Tentage	MOW	MOW		MTW
<u>Parks Improvements</u>				
Game-viewing tracks	Planning Unit		Project Mgt. Unit	MTW $\frac{1}{1}$
Structures	MOW	MOW	MOW	MOW $\frac{1}{1}$
Infrastructures	MOW	MOW	MOW	MOW $\frac{1}{1}$
Vehicles	MOW	MOW/Central Tender Board	Central Tender Board	MTW $\frac{1}{1}$
<u>Game-Proof Barriers</u>	MTW/MNR	MTW/MNR	MTW/MNR	MTW/MNR
<u>Wildlife Clubs of Kenya</u>	MOW	MOW	MOW	WCK/MTW

Kenya's Tourism Statistics

1. Kenya's tourism statistics compare favorably with those of most other destinations. They have been subject to changes over the years, however, and it is worth listing the main series, the sources where they may be found, and the main sources of non-comparability.

2. Data on arrivals, departures, and total visitor days come from the analysis of Immigration Department entry and departure declarations. Until mid-1967, residents of Kenya, Tanzania and Uganda filled out no forms when travelling within East Africa, and residents from other countries filled out arrival and departure declaration only when arriving in or leaving East Africa. Information on visits and visitor nights in the three countries came from a question on the departure form which requested departing visitors to state how many days they had spent in each country. From 1968 through 1970, arrivals and departures at Kenya's borders were recorded. Coverage tended to exclude citizens of African origin from Uganda and Tanzania at surface borders, but practices varied from one border post to another and one year to another. All arrivals and departures by air were recorded. Since 1971, visitors have been asked their country of residence as well as nationality, and this has shown more clearly the importance of other African countries in generating tourist flows to Kenya. In addition, arriving visitors were asked whether they have entered Kenya within the last 30 days, in order to arrive at some estimate of visitors as contrasted with visits. As will be seen from Table 3, the difference is important, and the decline in multi-country tours within East Africa is apparent since 1971. The "first visit" figures are roughly comparable to the series on arrivals up to 1967 for Kenya. Since 1974, arrival statistics have been based on analysis of a random sample of declarations rather than a total count (to save costs involved in card punching). Arrival and departure statistics are summarized in the Annual Economic Survey, the Statistical Abstract and in the Quarterly Digest of Statistics. The Central Bureau of Statistics also circulates more detailed information on monthly, quarterly, and annual flows.

3. Information on hotel occupancies is requested from all hotels and lodges on a monthly basis. Hotels are requested to enter the daily numbers of rooms and beds occupied and available. The detail requested on beds occupied has changed over the years. From 1965 to 1967, the only distinctions were between residents of East Africa, non-residents of East Africa, and "permanent occupants" (persons staying on monthly terms, who probably include some aircrews, East Africa residents residing in hotels, and perhaps some longer-staying businessmen from abroad). From 1968 to 1973, hotels were requested to record bednights by Kenya residents separately from those of residents of Uganda and Tanzania. Since 1973, hotels have been requested to break down non-resident bednights between "permanent occupants" and residents of Uganda, Tanzania, Other Africa, U.K., West Germany, Scandinavia, Other Europe, USA, Canada, Asia, and All Other Countries. The main bias in the reported statistics is that many hotel reception staff still do not understand the distinction between residence and nationality, leading to overestimates

of non-resident bednights and under-estimates of bednights occupied by expatriate residents of Kenya. The statistics are published in the same sources as the immigration statistics. Preliminary monthly returns are published in mimeographed form, but unlike the immigration data, these are subject to later revision as lagging hotel returns come in.

4. Aviation statistics are collected and analyzed by the East African Statistical Department of the East African Community. Summary tables are presented in the Economic and Statistical Review (quarterly) covering all international air movements, operating statistics of East African airways, and summary statistics on local (domestic) air charter firms. Information on scheduled and non-scheduled international traffic is not published but is available on analysis sheets at the E.A. Statistical Department.

5. Information on tourist receipts is based upon three sources: a sample survey carried out by the Kenya Central Bureau of Statistics of departing tourists at Nairobi and Mombasa airports, plus a sample of tourists crossing at land borders; an estimate of spending by passengers of ships and ships crews in transit from the East African Statistical Department (these passengers do not fill out immigration declarations, and so are excluded from the tourist statistics, and an estimate of "prepayments" from overseas tour firms which sell package tours to Kenya. Expenditures within the country are 'grossed up' on the basis of average expenditures per day by different types of tourists (by purpose and residence groups, and sometimes also by length of stay) multiplied by the days spent by each type departing the country. The main bias in the expenditure estimates in recent years is a serious underestimate of prepayments (these are assumed at £2 per visitor from outside East Africa).

6. Information on entries to Kenya National Parks is tabulated from a monthly return (showing daily entries of different classes of visitors) by Park Wardens to the Central Bureau of Statistics via Kenya National Parks Headquarters. Prior to 1971, information on entries to Parks was derived from entry gate accounting records. County Council Game Reserves have been circulated with the CBS forms since 1971, but no reserve has sufficiently well-trained staff to have complete annual returns for any year. Completed forms for some months for some gates may be found at Reserve HQ's. Rough estimates of visitor entries to reserves may be gained from examining the annual accounts of the County Councils, although it would appear that these official receipts understate visitors as inferred from examining occupancies of hotels in the reserves and sampling daily entry books at gate houses, where these are maintained.

7. Although the Central Bureau of Statistics collects annual data on employment (in June), this is not analyzed by sufficiently detailed sectors to secure estimates of employment in tourist enterprises. There have been various partial surveys over the years which have been used to secure such estimates. Some information on costs and receipts of hotels and restaurants is available from the Surveys of Distribution (1960, and 1967) carried out by the Statistics Department (precursor of the Central Bureau of Statistics), although one must rely on securing information from samples of firms, plus information available to the Kenya Tourist Development Corporation.

KENYA: WILDLIFE AND TOURISM PROJECT

RECORDED OR ESTIMATED ARRIVALS OF FOREIGN VISITORS IN AFRICAN COUNTRIES

	R = recorded	E = estimated	H = estimated on basis of arrivals at hotels		
Country	1972	1973	%	1974	%
<u>Eastern Africa</u>	1,185,154	1,158,058	- 2.7	1,175,027	+ 1.5
Kenya ^{1/}	R 444,300	R 397,700	- 12.6	R 387,510	-
Botswana	E 100,000	R 117,700	+ 18	E 140,000	+ 23
Burundi	H 14,828	R 17,514	+ 18	R 31,535	+ 80
Ethiopia	R 63,940	R 73,662	+ 15	R 50,220	- 32
Lesotho	R 105,000	E 112,500	+ 7	E 120,000	
Madagascar	E 24,000	E 20,000	- 16.6	E 20,000	-
Malawi	R 48,794	R 51,070	+ 5	E 40,423	-
Mauritius	R 48,797	R 67,994	+ 39	E 68,000	
Rwanda	E 23,000	R 23,886	-	E 24,000	-
Somalia	R 9,086	E 10,000	-	E 10,000	-
Swaziland	H 98,950	H 103,523	+ 5	E 108,000	
Tanzania	E 100,000	R 124,000	+ 24	E 120,000	
Uganda	E 40,000	E 7,000		R 9,839	
Zambia	R 64,459	R 41,109	- 36	R 46,000	+ 12
<u>West Africa</u>	306,560	373,205	+ 22	386,893	+ 3.7
Dahomey	E 10,000	R 14,905		R 20,282	+ 35
Gambia year ending 30 June	R 8,031	R 15,623	+ 94	R 21,653	- 39
Ghana	R 62,381	E 60,000		R 30,419	
Ivory Coast	H 59,484	H 70,938	+ 19	H 72,800	+ 3
Liberia	E 1,715	E 1,750		E 1,700	
Mali	R 9,348	E 11,000		H 12,000	
Mauritania	H 10,298	H 11,500	+ 12	H 15,612	+ 36
Niger	E 5,500	R 5,628		E 5,500	
Nigeria	R 49,408	E 52,000		E 55,000	
Senegal	R 62,500	H 99,000	+ 58	H 112,257	+ 13.4
Sierra Leone	E 8,000	E 10,000		E 10,000	
Togo	H 12,000	H 18,942	+ 58	E 20,000	
Upper Volta	H 7,900	H 8,820	+ 12.4	9,670	+ 9
<u>Central Africa</u>	160,853	167,571	+ 4	176,912	+ 5.5
Cameroon	E 50,000	E 50,600		E 58,000	
C.A.R.	E 4,200	R 4,107		R 4,067	
Chad	E 19,000	E 18,970		E 18,495	
Gabon	R 12,000	E 12,000		E 12,000	
Zaire	R 75,653	R 81,894	+ 8	R 84,350	+ 3
<u>North Africa</u>	2,807,045	3,152,795	+ 12.3	3,223,705	+ 2.2
Algeria	R 237,242	E 220,000	- 7.3		
Egypt	R 540,880	R 595,300	+ 10	R 645,605	+ 11
Libya	R 165,679	E 251,670	+ 52	E 426,200	
Morocco	R 1,061,894	1,340,524	+ 26	1,204,700	
Sudan	E 21,000	R 23,304	+ 10	R 27,200	+ 17
Tunisia	R 780,850	R 721,897	- 7.5	R 722,000	-

^{1/} Including re-visits

Source: Economic Commission for Africa

KENYA: WILDLIFE AND TOURISM PROJECT

KENYA: VISITOR DEPARTURES BY COUNTRY OF RESIDENCE, 1972-1974

Thousands

	HOLIDAY				BUSINESS				TRANSIT				T O T A L			
	1971	1972	1973	1974	1971	1972	1973	1974	1971	1972	1973	1974	1971	1972	1973	1974
United Kingdom	34.0	40.2	38.3	36.8	7.4	6.9	6.8	6.4	5.3	5.0	3.9	2.6	48.7	52.1	49.0	45.8
West Germany	30.3	34.6	32.2	31.6	2.7	1.9	1.9	2.0	2.5	2.6	2.2	1.3	35.6	39.1	36.3	34.9
Italy	8.7	11.8	13.5	16.2	1.4	1.0	1.0	1.1	1.1	1.0	1.3	1.0	11.3	13.7	15.8	18.4
France	5.5	8.4	9.0	9.2	1.0	0.8	0.9	0.9	0.8	0.6	0.7	0.4	7.2	10.0	10.5	10.5
Switzerland	11.6	15.6	17.7	19.7	1.0	0.8	0.9	0.8	0.8	0.7	0.7	0.5	13.4	27.0	19.2	21.0
Other Europe	17.4	20.2	22.8	27.9	3.1	2.3	2.5	2.4	3.0	2.5	2.5	1.7	23.5	25.0	27.8	31.9
TOTAL EUROPE	107.5	130.8	133.4	141.4	18.6	13.7	13.9	13.5	13.4	12.3	11.3	7.5	139.6	156.7	158.6	162.4
United States	46.6	57.9	45.4	41.5	3.9	3.3	3.7	3.1	4.2	3.4	2.9	1.8	54.7	64.7	52.0	46.4
Canada	3.8	5.6	5.1	5.5	0.5	0.5	0.5	0.5	0.6	0.5	0.4	0.4	4.9	6.6	6.1	6.4
TOTAL N. AMERICA	50.4	63.5	50.4	47.0	4.4	3.8	4.2	3.6	4.8	4.0	3.4	2.2	59.6	71.3	58.1	52.8
India	7.2	6.0	4.5	5.0	1.3	0.8	0.6	0.6	2.7	2.1	1.5	1.3	11.2	8.9	6.6	7.0
Japan	1.6	3.2	3.9	4.2	1.1	0.9	1.1	0.9	2.7	0.8	0.8	0.4	3.3	4.8	5.8	5.6
Israel	1.9	2.1	1.5	0.9	0.6	0.3	0.2	0.1	1.1	0.6	0.4	0.1	3.6	3.0	2.1	1.2
Other Asia	4.0	4.9	5.1	6.2	1.0	0.7	0.9	0.8	1.3	1.2	1.1	1.2	6.3	6.7	7.1	8.1
TOTAL ASIA	14.7	16.1	15.0	16.3	4.0	2.7	2.8	2.5	5.8	4.7	3.7	3.1	24.5	23.5	21.5	21.9
Uganda	39.4	30.4	14.1	18.5	8.5	6.0	7.3	7.6	4.0	3.5	1.8	1.5	51.8	39.9	23.3	27.6
Tanzania	59.4	74.5	63.1	51.4	14.2	10.6	9.4	10.1	8.3	6.6	5.2	3.8	81.9	91.7	77.8	65.3
Zambia	4.6	6.4	7.8	8.6	1.2	1.2	1.1	1.5	3.7	3.6	3.5	2.8	9.5	11.1	12.3	12.8
Other Africa	14.2	17.6	19.5	20.8	4.6	3.7	4.3	4.0	7.1	5.7	5.8	4.5	25.9	27.0	29.7	29.3
TOTAL AFRICA	117.6	129.0	104.6	99.3	28.4	21.3	22.1	23.2	28.0	19.4	16.3	12.5	162.1	169.7	143.0	135.0
Australia and New Zealand	3.2	3.9	3.6	4.2	0.5	0.4	0.3	0.3	0.7	0.7	0.5	0.4	4.3	4.9	4.5	4.9
All Other Countries	2.0	1.8	1.9	2.1	0.4	0.2	0.4	0.2	0.2	0.2	0.2	0.1	2.6	2.2	2.4	2.5
TOTAL OTHER	5.2	5.6	5.5	6.3	0.9	0.6	0.7	0.5	0.9	0.9	0.7	0.5	6.9	7.1	6.9	7.4
T O T A L	295.5	345.0	309.0	310.3	56.3	42.1	43.7	43.4	47.9	41.3	35.4	25.9	399.7	428.4	388.1	379.6

Source: Kenya, Economic Surveys, 1973, 1975.

KENYA: WILDLIFE AND TOURISM PROJECT
1/
VISITORS AND VISITS TO KENYA, BY RESIDENCE AND PURPOSE OF VISIT, 1951-1974

number from 1950-1967, '000 1968-1974

Year	VISITORS who were residents of				Uganda & Tanzania	Total Visitors	VISITS by		Total Visits
	Non-East African countries			Total			Non-East African Residents	East African Residents	
	Transit	Holiday	Business and Other						
1950	16,584		7,471	24,055					
1951	23,310	5,447	4,682	33,439					
1952	24,072	6,305	5,631	36,008					
1953	22,146	4,800	5,207	32,153					
1954	21,990	5,282	5,956	33,228					
1955	25,991	7,210	6,337	39,538					
1956	25,830	8,549	6,080	40,459					
1957	25,982	9,933	7,203	43,118					
1958	26,354	9,821	5,028	41,203					
1959	27,863	11,219	5,847	44,929					
1960	16,563	12,636	6,601	35,800					
1961	18,138	14,577	9,320	42,035					
1962	24,561	15,615	9,744	49,920					
1963	27,419	21,806	12,127	61,352					
1964	31,215	22,363	11,854	65,432					
1965	35,119	32,351	13,978	81,448					
1966	39,156	49,076	18,288	106,520					
1967	50,800	51,100	15,200	117,100					
1968	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	262.0
1969	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	293.3
1970	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	343.5
1971	39.9	160.4	23.5	223.8	94.2	318.0	274.2	137.0	411.2
1972	42.2	190.9	24.6	257.7	106.2	363.9	310.9	133.4	444.3
1973	39.3	194.4	22.6	256.3	80.6	336.9	297.0	100.7	397.7
1974	38.8	193.7	24.4	256.9	75.5	332.4	292.8	94.7	387.5
Rates of Growth									
1951-1974	2.2%	16.8%	7.4%	9.3%					

1/ Up to and including 1967, arrivals in Kenya from outside East Africa of non-East African residents. From 1968 to 1970, only total arrivals in Kenya were recorded (analyzed by nationality and purpose but not residence of visitor). Since 1971, information has been collected and analyzed on residence of visitor. The distinction between visitors and visits is that a single visitor may visit Kenya several times after excursions to neighboring East African countries. Since 1971, arriving visitors have been asked whether they have entered Kenya within the last 30 days; if not, they are tabulated as 'first visits', and this figure is taken here to represent 'visitors'. The figure is not exactly comparable with the visitor figures up to 1967, since those figures do not include visitors to Kenya who first entered East Africa via Uganda or Tanzania. The numbers involved were few, but the result of comparing the pre 1967 and post 1971 figures is to bias upwards the long term growth rates tabulated above.

Sources: East Africa High Commission, Quarterly Economic and Statistical Bulletin (1949f) (later E.A.C.S.O. Economic and Statistical Review); Kenya, Statistical Abstracts, 1956 to 1967; Kenya Statistical Digest (Quarterly), 1964-1968; Kenya, Economic Survey, (annual) 1971-1975; Kenya Immigration Statistics (monthly mimeo publication of Central Bureau of Statistics, 1974 and 1975).

KENYA: WILDLIFE AND TOURISM PROJECT

TOTAL STAY OF DEPARTING VISITORS AND AVERAGE LENGTH OF VISIT, 1968-1971

Year/Quarter	Total stay (Thousands of days)															
	By Length of Stay			By Type of Visitor			By Nationality/Residence of Visitor ^{a/}									Total ^{b/}
	0-14 days	15-28 days	Over 28 days	Holiday	Business	Transit	East Africa	Other African	British	West Germany	Other European	North American	Asian	All Others		
1968	953	511	976	1,860	389	145	304	65	882	592		381	196	20	2,440	
1969	1,019	572	761	1,895	236	142	315	53	822	567		386	185	25	2,352	
1970	1,250	479	974	2,476	236	170	413	64	983	736		492	257	28	2,973	
1971 ^{a/}	1,757	873	1,124	3,200	454	90	642	101	1,078	999		569	284	62	3,734	
1971 ^{a/}	1,737	873	1,124	3,200	454	80	1,109	271	644	373	543	494	241	59	3,734	
1972	1,940	1,001	1,826	4,287	407	77	1,350	341	793	493	738	715	262	75	4,768	
1973	1,763	1,053	1,639	3,951	423	61	991	411	762	442	803	690	262	74	4,435	
1974	1,966	1,057	1,383	3,918	440	48	961	411	679	444	975	594	256	86	4,406	
1968	4.4	19.5	67.5	12.1	11.5	2.1	7.3	6.7	10.2	11.0		9.5	8.9	6.6	9.5	
1969	4.4	19.1	54.0	11.0	8.1	2.2	6.8	6.6	9.4	9.5		8.2	8.1	7.2	8.5	
1970	5.4	19.5	53.1	10.9	7.9	2.4	6.8	6.0	9.8	9.7		8.6	8.5	5.6	8.8	
1971 ^{a/}	5.2	19.7	55.7	10.8	8.1	1.7	3.8	7.8	11.7	9.5		8.1	9.1	8.7	9.3	
1971 ^{a/}	5.2	19.7	55.7	10.8	8.1	1.7	8.3	7.7	13.2	10.5	9.8	8.3	9.8	8.7	9.3	
1972	5.5	19.8	71.1	12.4	9.7	1.7	10.3	9.0	15.2	12.6	11.3	10.0	11.1	10.5	11.1	
1973	5.6	19.9	64.2	12.8	9.7	1.7	9.6	9.8	15.6	12.2	10.9	11.9	12.2	10.7	11.4	
1974	6.5	19.9	61.7	12.6	10.1	1.9	10.3	9.8	14.8	12.7	11.9	11.2	11.7	11.6	11.6	

^{a/} Nationality from 1968 to 1971, Residence from 1971-1974.

^{b/} Includes visitors with purpose of 'other' of 46 in 1968, 79 in 1969, and 91 in 1970.

Source: Kenya, Economic Survey, 1972, 1974, 1975.

KENYA: WILDLIFE AND TOURISM PROJECT

HOTEL ROOM AND BED AVAILABILITY AND OCCUPANCY RATES, BY AREA, 1965, 1969-1974

	N A I R O B I		C O A S T A L				O T H E R				All Hotels
	High Class	Other	Beach	Mombasa Island	Coast Hinter- land	Southern Game Area	Nyanza Basin	Western	Central	Northern	
1965 -											
Rooms available ('000 nights)	139	451	184	129	35	37	49	33	151	5	1,268
Occupancy rate (per cent)	74	64	53	60	48	38	53	48	39	22	58
Beds available ('000 nights)	303	671	368	224	77	71	77	64	257	9	2,126
Occupancy rate (per cent)	57	55	47	45	37	33	42	36	31	17	47
1966 -											
Rooms available ('000)											1,278
Occupancy rate (%)											67
Beds available ('000)											2,160
Occupancy rate (%)											55
1967 -											
Rooms available ('000)											1,443
Occupancy rate (%)											64
Beds available ('000)											2,494
Occupancy rate (%)											52
1968 -											
Rooms available ('000)											1,611
Occupancy rate (%)											64
Beds available ('000)											2,850
Occupancy rate (%)											52
1969 -											
Rooms available ('000 nights)	260	544	404	176	75	63	52	32	204	6	1,816
Occupancy rate (per cent)	73	69	58	61	44	56	47	45	42	24	51
Beds available ('000 nights)	441	872	795	321	171	134	89	50	368	12	3,251
Occupancy rate (per cent)	59	59	52	47	34	46	34	33	34	19	50
1970 -											
Rooms available ('000 nights)	384	553	498	182	81	84	61	32	238	7	2,120
Occupancy rate (per cent)	72	67	59	52	47	49	47	40	40	23	61
Beds available ('000 nights)	700	909	985	336	183	173	109	50	423	13	3,882
Occupancy rate (per cent)	53	60	52	53	37	41	30	30	33	17	49
1971 -											
Rooms available ('000 nights)	383	609	537	189	84	93	64	34	263	13	2,275
Occupancy rate (per cent)	82	66	65	69	54	52	52	35	42	17	64
Beds available ('000 nights)	716	1,028	1,057	349	195	192	118	55	472	25	4,215
Occupancy rate (per cent)	60	54	59	54	42	45	32	27	35	15	52
1972 -											
Rooms available ('000 nights)	441	713	748	204	87	94	63	36	272	17	2,675
Occupancy rate (per cent)	79	64	56	59	60	60	47	40	42	23	60
Beds available ('000 nights)	802	1,213	1,493	379	202	199	118	59	483	32	4,980
Occupancy rate (per cent)	60	52	51	45	48	50	29	30	37	19	50
1973 -											
Rooms available ('000 nights)	569	794	849	236	127	123	62	36	302	24	3,123
Occupancy rate (per cent)	72	66	53	61	43	54	51	38	40	19	58
Beds available ('000 nights)	1,053	1,381	1,677	443	280	252	115	58	544	41	5,855
Occupancy rate (per cent)	51	53	48	44	36	46	34	29	35	18	48
1974 -											
Rooms available ('000 nights)	581	861	1,008	270	129	137	68	43	317	16	3,433
Occupancy rate (per cent)	71	61	53	61	43	51	51	33	43	21	57
Beds available ('000 nights)	1,093	1,488	1,995	498	279	280	119	61	570	31	6,414
Occupancy rate (per cent)	51	50	48	45	37	44	36	27	37	13	46

Source: Kenya, Economic Survey, 1971, 1973, 1974.

KENYA: WILDLIFE AND TOURISM PROJECT

HOTEL GUEST-NIGHTS BY COUNTRY OF RESIDENCE, 1974

Country of Residence	NAIROBI HOTELS		COAST HOTELS		OTHER HOTELS		TOTAL HOTELS	
	'000 Bed-nights	per cent	'000 Bed-nights	percent	'000 Bed-nights	per cent	'000 Bed-nights	per cent
Kenya	154.8	11.9	268.4	22.9	129.7	25.9	552.9	18.6
Uganda	66.9	5.1	13.0	1.1	2.6	0.5	82.4	2.8
Tanzania	40.9	3.2	15.5	1.3	2.5	0.5	58.9	2.0
Other Africa	65.8	5.0	25.1	2.1	3.2	0.6	94.0	3.1
United Kingdom	150.6	11.6	124.7	10.6	34.3	6.9	309.6	10.4
West Germany	71.6	5.5	311.6	26.6	56.3	11.2	439.4	14.7
Scandinavia	60.5	4.6	27.8	2.4	14.9	3.0	103.2	3.5
Other Europe	147.1	11.3	270.5	23.0	124.9	24.9	542.5	18.2
USA/Canada	195.1	14.9	39.5	3.4	101.7	20.3	335.4	11.3
Asia	52.6	4.0	11.3	1.0	8.6	1.7	72.5	2.4
All other Countries	43.8	3.4	7.4	0.6	2.9	0.6	54.2	1.8
Permanent occupants <u>1/</u>	254.4	19.5	58.8	5.0	19.8	3.9	333.0	11.2
TOTAL	1,304.1	100.0	1,173.6	100.0	501.3	100.0	2,979.0	100.0

1/ Staying on monthly terms.

Source: Kenya, Economic Survey, 1975.

KENYA: WILDLIFE AND TOURISM PROJECT

OCCUPANCY OF GAME LODGES IN NATIONAL PARKS AND
GAME RESERVES 1965-1974

	<u>Lodge Bednights Occupied by Residents of East Africa ('000)</u>									
	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Game Reserves	4.8	5.0	3.9	5.0	6.2	9.9	13.6	11.4	14.0	16.0
National Parks <u>1/</u>	10.0	11.5	14.9	23.1	23.7	26.9	16.7	22.7	23.4	28.4
Total	14.7	16.5	18.8	28.1	29.9	36.8	30.3	34.1	37.4	44.4
Type:										
Fully Catered	12.9	n.a.	n.a.	n.a.	n.a.	n.a.	17.6	18.2	22.7	29.2
Self-Service <u>2/</u>	1.8	n.a.	n.a.	n.a.	n.a.	n.a.	12.7	15.9	14.8	15.2
	<u>Lodge Bednights Occupied by Non-Residents of East Africa ('000)</u>									
Game Reserves	14.3	22.9	28.3	40.2	47.6	59.6	78.6	93.3	108.3	118.2
National Parks <u>1/</u>	17.8	30.2	33.4	34.5	53.7	74.1	82.5	92.1	94.0	89.6
Total	32.1	53.1	61.7	74.7	101.3	133.7	161.1	185.5	202.4	207.8
Type:										
Fully-Catered	30.5	n.a.	n.a.	n.a.	n.a.	n.a.	159.8	183.8	200.5	205.4
Self-Service	1.7	n.a.	n.a.	n.a.	n.a.	n.a.	1.3	1.6	1.9	2.4
	<u>Bed Occupancy Rates of Lodges (%)</u>									
Game Reserves	39.0	n.a.	n.a.	n.a.	n.a.	n.a.	56.0	62.9	52.2	50.0
National Parks	50.6	n.a.	n.a.	n.a.	n.a.	n.a.	48.6	52.2	45.4	45.1
Total	45.1	n.a.	n.a.	n.a.	n.a.	n.a.	51.9	56.8	48.6	47.6
Type:										
Fully-Catered	49.0	n.a.	n.a.	n.a.	n.a.	n.a.	53.5	58.7	49.1	50.0
Self-Service <u>2/</u>	22.6	n.a.	n.a.	n.a.	n.a.	n.a.	37.4	41.4	43.6	42.7

1/ Calculated as residual of Total and Bednights in Reserves for 1966-1970.

2/ Occupancy records from self-service bandas are normally incomplete.

Sources: 1965-1970 Kenya, Economic Survey 1971, 1965, 1971 & 1972 - Kenya Economic Survey 1973, 1973-1974 Kenya Economic Survey 1975.

KENYA: Wildlife and Tourism Project

Hotel Beds Occupied by Area, 1965-1974

'000 Bed-Nights

Year/Quarter/ Month	NAIROBI				COASTAL				OTHER											Total Beds Occupied	Total Beds Avail- able	
	High class†		Other		Beach		Other		Coast Interland		Southern Game Area		Nyanza Basin		Western		Central		Northern			
	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents	E.A. Resi- dents	For- eign Resi- dents			E.A. Resi- dents
1965..	135.4	39.5	119.6	247.9	54.2	117.3	27.3	73.0	12.1	16.0	15.8	7.4	2.3	30.3	1.1	21.8	25.7	54.3	0.3	1.3	1,002.4	2,126.0
1966..	162.1	36.0	137.7	259.6	128.1	121.2	35.6	77.1	24.7	13.5	24.0	8.5	2.5	31.2	1.0	20.4	38.5	53.1	—	0.5	1,174.6	2,136.5
1967..	162.7	43.3	173.9	267.2	164.2	109.7	37.9	92.7	26.3	13.1	31.3	9.2	3.4	31.6	0.6	21.6	40.0	65.7	—	0.4	1,293.8	2,473.6
1968..	176.4	44.7	197.0	360.4	209.5	149.1	31.5	118.1	29.5	17.8	42.6	8.6	4.5	30.6	0.8	18.5	38.9	72.0	1.2	0.5	1,486.9	2,847.5
1969..	219.2	41.0	200.3	369.6	261.0	156.1	45.0	106.3	78.1	19.7	50.4	11.0	5.1	24.9	1.0	15.2	53.5	72.0	2.0	0.4	1,662.7	3,231.4
1970..	328.3	43.2	296.9	301.5	264.3	152.8	59.1	129.5	10.4	16.9	60.3	11.5	8.9	24.2	0.6	14.3	67.6	71.0	1.9	0.4	1,904.3	3,881.9
1971..	397.6	32.9	253.1	304.6	274.0	153.6	66.5	121.3	65.6	15.8	74.0	12.1	8.4	29.2	1.2	13.5	89.5	75.8	2.0	1.7	2,192.5	4,215.3
1972..	484.0	27.6	308.8	316.8	613.1	150.1	52.7	117.0	77.8	13.9	87.2	12.9	8.2	26.1	1.8	16.0	110.6	69.3	3.5	2.6	2,474.7	4,979.6
1973..	484.3	28.9	291.2	368.5	656.5	156.0	52.5	143.4	82.6	18.0	101.1	15.8	5.8	34.0	2.5	14.2	114.4	76.7	4.6	2.9	2,783.8	5,853.6
1974..	566.1	51.3	384.5	462.2	765.6	185.3	68.3	154.4	82.9	19.7	106.9	16.7	4.1	38.2	2.4	13.8	128.2	82.6	3.0	2.9	2,979.0	6,414.2
1972—																						
1st Qr. ..	131.1	7.9	100.9	81.3	289.0	32.3	18.5	29.4	24.8	4.3	28.1	3.6	3.2	5.9	0.6	4.4	35.7	17.2	1.4	0.7	770.2	1,228.9
2nd Qr. ..	83.9	4.4	58.5	72.5	72.0	32.0	7.7	28.3	9.1	3.9	9.8	2.9	2.3	6.0	0.2	3.0	14.6	15.7	0.3	0.6	428.7	1,182.9
3rd Qr. ..	119.4	4.2	84.1	81.7	139.0	45.1	13.7	29.7	12.3	5.1	25.6	3.6	1.7	6.5	0.3	4.3	32.7	18.9	1.0	0.8	641.9	1,242.3
4th Qr. ..	119.5	11.3	63.4	81.1	157.5	41.3	12.8	29.8	27.5	4.9	23.7	2.8	1.0	7.8	0.5	3.3	27.5	17.7	1.0	0.7	636.5	1,313.9
1973—																						
1st Qr. ..	133.9	13.0	75.0	117.7	257.3	26.7	17.0	33.8	28.2	3.9	29.8	3.6	1.8	8.2	1.0	4.0	35.9	19.0	1.9	0.6	813.9	1,441.7
2nd Qr. ..	91.3	16.5	57.0	118.0	79.1	37.5	8.8	29.7	10.7	3.8	12.4	3.9	0.9	8.8	0.3	3.8	14.7	19.7	0.3	0.6	522.9	1,292.7
3rd Qr. ..	133.1	15.1	85.4	116.4	134.7	46.7	11.8	28.7	22.6	5.0	31.0	4.3	1.8	8.7	0.8	3.7	34.5	18.1	1.0	0.6	709.5	1,477.5
4th Qr. ..	126.1	14.2	75.6	116.6	185.3	44.5	14.0	40.2	20.9	5.3	27.8	4.1	1.3	8.6	0.6	3.0	29.3	19.8	0.9	0.9	739.4	1,540.5
1974—																						
1st Qr. ..	150.0	13.4	90.9	110.9	266.6	30.0	18.9	38.9	26.6	4.8	35.4	3.3	1.5	8.6	0.9	3.3	44.2	17.9	1.6	0.5	856.0	1,550.9
2nd Qr. ..	94.6	13.1	56.6	116.6	111.3	44.5	13.1	37.2	12.4	4.4	12.7	4.2	0.7	8.8	0.3	3.2	18.1	21.0	0.3	0.7	574.0	1,571.1
3rd Qr. ..	131.8	12.1	75.6	116.5	171.3	58.8	18.0	39.8	22.8	5.5	32.3	5.2	1.1	10.0	0.6	3.8	34.8	23.2	0.7	0.6	764.5	1,633.7
4th Qr. ..	129.6	12.7	61.4	118.2	216.4	52.1	18.3	38.5	21.1	5.0	28.6	4.1	0.8	10.7	0.6	3.5	31.1	20.5	0.4	1.0	774.5	1,628.5
1975—																						
January ..	42.9	4.8	26.3	36.5	99.1	10.3	6.6	12.2	10.0	1.5	10.0	1.2	0.6	2.7	0.2	1.3	11.7	6.5	0.7	0.2	285.2	491.1
February ..	46.5	3.8	24.5	38.4	88.4	8.7	5.6	11.4	9.9	1.3	10.0	1.2	0.7	2.6	0.4	1.2	13.9	5.5	0.8	0.2	275.0	448.9
March ..	43.4	4.4	24.2	42.8	69.9	7.6	4.7	10.1	8.2	1.2	9.8	1.2	0.6	2.8	0.3	1.6	10.3	7.0	0.3	0.2	253.7	501.7
April ..	31.9	6.8	22.5	28.7	43.1	22.8	3.6	11.7	5.1	1.5	4.6	1.6	0.3	3.4	—	1.3	4.6	7.6	—	0.2	212.5	477.7
May ..	27.1	5.3	15.7	40.0	15.5	5.6	2.6	9.1	1.8	1.0	2.3	0.8	0.2	2.8	—	1.2	3.7	5.5	—	0.2	143.2	456.9
June ..	32.2	5.4	18.8	39.3	20.6	8.1	2.7	8.9	3.8	1.2	5.6	1.5	0.4	2.7	0.2	1.2	6.4	6.5	0.3	0.2	167.3	458.1
July ..	49.5	5.4	28.8	40.8	59.9	11.3	3.6	9.3	8.3	1.7	12.1	1.3	0.6	2.9	0.3	1.2	12.3	5.9	0.3	0.1	237.1	488.3
August ..	43.6	5.4	29.6	40.0	51.7	23.3	5.3	11.6	3.5	2.1	10.9	1.7	0.8	2.9	0.3	1.3	12.7	6.3	0.4	0.3	259.8	492.9
September ..	40.0	4.3	26.9	35.5	43.1	12.1	2.9	8.4	5.7	1.3	8.0	1.4	0.4	2.8	0.2	1.3	9.5	6.0	0.3	0.1	212.6	496.4
October ..	45.0	4.6	29.3	39.3	53.2	11.4	2.2	11.7	7.7	1.4	11.2	1.2	0.5	2.8	0.3	1.1	12.0	6.3	0.4	0.3	233.9	501.8
November ..	37.1	4.1	24.1	37.9	54.6	8.9	3.7	12.3	5.8	1.1	6.9	1.2	0.5	2.9	0.2	1.1	6.5	5.8	0.2	0.1	211.8	508.9
December ..	44.0	5.5	31.3	39.4	77.6	24.2	7.1	16.3	7.4	2.7	9.7	1.8	0.3	2.8	0.2	0.6	10.8	7.7	0.4	0.5	299.7	529.8
1976—																						
January ..	49.4	4.6	32.0	38.2	103.2	12.4	7.4	13.4	9.2	1.8	12.1	1.1	0.6	2.9	0.3	1.0	14.6	6.3	0.6	0.2	311.2	542.4
February ..	50.2	3.9	28.2	33.9	92.0	10.0	5.8	12.3	10.5	1.5	12.5	1.2	0.6	2.9	0.3	1.1	17.2	5.3	0.6	0.2	290.1	492.3
March ..	50.3	4.8	30.7	38.8	71.4	7.5	5.7	13.2	6.9	1.5	8.8	1.1	0.3	2.8	0.3	1.2	12.4	6.3	0.4	0.2	264.7	546.2
April ..	37.5	4.5	23.7	36.8	48.6	24.8	5.3	14.0	6.1	2.1	5.1	1.4	0.2	3.3	0.1	1.1	7.7	6.9	—	0.2	229.2	531.0
May ..	26.0	4.3	14.8	40.6	29.7	8.5	3.3	12.0	2.4	1.0	2.8	1.2	0.2	2.7	0.1	1.2	3.9	5.9	0.1	0.2	160.8	525.1
June ..	31.1	4.4	18.1	39.2	33.0	11.2	4.5	11.3	3.9	1.3	4.8	1.6	0.3	2.8	0.1	1.0	6.6	8.1	0.2	0.3	184.0	514.9
July ..	56.8	4.5	31.2	39.9	52.5	14.9	5.8	12.3	8.2	1.8	12.5	2.2	0.5	3.4	0.2	1.4	13.0	7.6	0.3	0.2	263.2	545.1
August ..	42.1	3.9	25.0	39.2	66.2	28.6	6.6	15.5	8.7	2.3	11.5	1.9	0.3	3.6	0.2	1.2	12.7	8.7	0.3	0.3	278.7	555.1
September ..	35.9	3.7	19.4	37.3	52.7	15.3	6.0	11.9	6.6	1.5	8.3	1.1	0.2	3.0	0.1	1.2	9.1	6.8	0.1	0.2	222.6	532.5
October ..	44.1	4.4	18.9	39.6	65.7	15.8	5.6	12.3	7.2	1.7	11.1	1.5	0.2	3.4	0.2	1.3	12.5	7.6	0.1	0.4	254.9	550.8
November ..	40.4	4.2	29.3	39.5	66.7	10.5	5.8	11.9	5.9	1.2	7.8	0.9	0.3	3.9	0.1	1.0	7.5	5.3	—	0.2	233.5	520.4
December ..	45.0	4.1	22.2	39.1	84.6	25.7	6.9	14.3	8.1	2.2	9.7	1.6	0.2	3.4	0.2	1.0	11.1	7.6	0.2	0.4	287.0	557.3

NOTE.—Annual totals include revision and may differ slightly from the sums of quarterly and monthly figures.
†Includes A*, A and B* hotels.

Source: Central Bureau of Statistics

KENYA: WILDLIFE AND TOURISM PROJECT
VISITORS TO NATIONAL PARKS, 1971 - 1974

	Adult Residents				Adult Non-Residents				Total Visitors ^{1/}			
	1971	1972	1973	1974	1971	1972	1973	1974	1971	1972	1973	1974
Aberdare	9,265	8,491	9,844	9,742	28,183	29,868	29,035	27,075	39,681	40,926	42,222	39,973
Lake Nakuru	22,934	28,779	36,128	34,809	15,927	22,801	32,155	31,874	59,059	79,563	98,447	95,067
Marine	9,055	11,044	10,188	11,969	12,560	15,517	14,096	16,113	26,677	33,369	30,160	35,777
Meru	1,381	2,198	5,210	7,722	294	561	2,135	3,927	5,514	7,957	15,671	21,418
Mt. Elgon	983	2,339	2,808	2,488	101	418	271	234	1,398	3,792	4,216	3,989
Mt. Kenya	2,255	2,643	3,117	3,495	861	1,294	1,581	2,049	5,152	6,064	6,924	8,151
Nairobi	52,785	61,982	104,809	60,879	53,814	70,994	70,250	49,758	177,869	197,013	277,359	159,263
Shimba Hills	1,977	2,965	3,575	3,643	1,573	2,442	2,692	3,777	8,249	10,237	10,018	11,119
Tsavo (East)	16,441	18,354	19,156	19,688	24,690	33,255	35,492	36,062	47,042	57,598	64,280	64,758
Tsavo (West)	26,387	31,394	31,895	32,356	32,004	43,844	48,168	48,363	71,181	85,691	92,018	91,627
TOTAL	143,463	170,189	226,730	186,791	170,007	220,993	235,875	219,232	441,822	522,210	641,315	531,142

^{1/} Including children, season ticket holders & others.

Source: Trustees of the Kenya National Parks

KENYA: WILDLIFE AND TOURISM PROJECT

AVERAGE EXPENDITURES IN KENYA PER PERSON/NIGHT 1974 + 1st & 2nd QTR. 1975

BY NATIONALITY GROUP & PURPOSE

(K Sh/night)

<u>Residence and Purpose</u>		<u>1974</u>	<u>1st Qtr. 1975</u> ^{1/}	<u>2nd Qtr. 1975</u>
E. Africa	H	32.4	82.4	44.0
	B	99.0	114.6	127.7
	T	205.2	131.3	97.3
	Total	67.1	92.4	75.0
O. Africa	H	108.2	71.2	132.3
	B	122.8	215.1	206.8
	T	171.3	167.9	199.3
	Total	117.6	109.0	156.6
U.S./Can.	H	120.7	108.7	148.4
	B	135.5	370.2	187.4
	T	286.9	294.4	351.0
	Total	124.5	124.1	163.4
U.K.	H ^{2/}	58.5	66.0	56.2
	B	187.2	125.0	150.7
	T	174.5	192.4	133.1
	Total	71.8	74.0	71.6
W. Germany	H	103.8	120.2	137.4
	B	191.9	239.8	344.1
	T	131.3	403.6	279.4
	Total	105.7	122.4	143.8
C. Europe	H	101.3	137.0	120.8
	B	135.5	124.2	163.2
	T	289.3	277.9	169.9
	Total	105.3	136.9	131.4
Asia	H	99.1	99.6	108.7
	B	108.7	443.6	58.8
	T	179.9	146.6	272.5
	Total	106.5	149.1	90.7
All Other	H	144.0	135.0	127.3
	B	253.3	-	321.9
	T	211.4	463.0	136.5
	Total	150.8	135.7	99.9
All countries	H	91.1	106.2	103.0
	B	127.2	165.3	145.0
	T	202.6	178.5	182.5
	Total	98.5	112.6	115.2

H = Holiday B = Business T = Transit

^{1/} Preliminary, and subject to correction

^{2/} Includes a substantial number (exact number unknown) of children visiting their parents during school holidays.

Note: Expenditures are based on interviews with tourists departing from Kenya from Mombasa and Nairobi airports, and the post of Namanga on the Tanzanian border. Excludes receipts from prepaid accommodations and safaris.

Source: Central Survey of Statistics (analysis sheets of tourist expenditure survey).

KENYA: WILDLIFE AND TOURISM PROJECT

ESTIMATED BREAKDOWN OF KENYA'S TOURIST RECEIPTS, BY TYPE/SECTOR, 1972

<u>Item</u>	<u>%</u>
<u>Hotels and Restaurants:</u>	
Accommodation and meals	31.2
Service charge and tips	1.7
hotel tax	1.7
Bar purchases	<u>4.2</u>
Sub-total	38.8
Local air charter	1.7
Tour operators	8.9
Safari outfitters	5.1
Souvenirs, gifts	11.4
Other purchases - persons in hotels	5.5
" " " not in hotels	23.7
Expenditures by ship passengers in transit and cruise	2.5
Sub-total, non-hotels, restaurants	<u>58.6</u>
TOTAL enterprises	<u>97.5</u>
Hunting licences and fees	0.8
Park & Reserve entry and guide fees	1.3
Airport tax	<u>0.4</u>
Sub-total, direct government	<u>2.5</u>
TOTAL	<u>100.0</u>

Source: Development Plan 1974-78

KENYA: WILDLIFE AND TOURISM PROJECT

REVENUE PASSENGERS CARRIED BY DOMESTIC AIR CHARTER
OPERATORS 1/ FROM KENYA

Year	Within Kenya	To Tanzania	To Uganda	Outside E. Africa	Total
1968	32,191	3,493	736	147	36,567
1969	26,268	4,981	963	133	32,345
1970	31,398	7,266	1,338	232	40,254
1971	44,446	5,526	904	252	62,409
1972	44,955	8,074	2,323	230	68,777
1973	58,292	10,201	54	n.a.	n.a.

1/ Excluding East African Airways.

Source: East African Community, East African Statistical Department,
Economic and Statistical Review No. 52, September 1974.
Table E.4(b), page 96.

SUDAN

KENYA

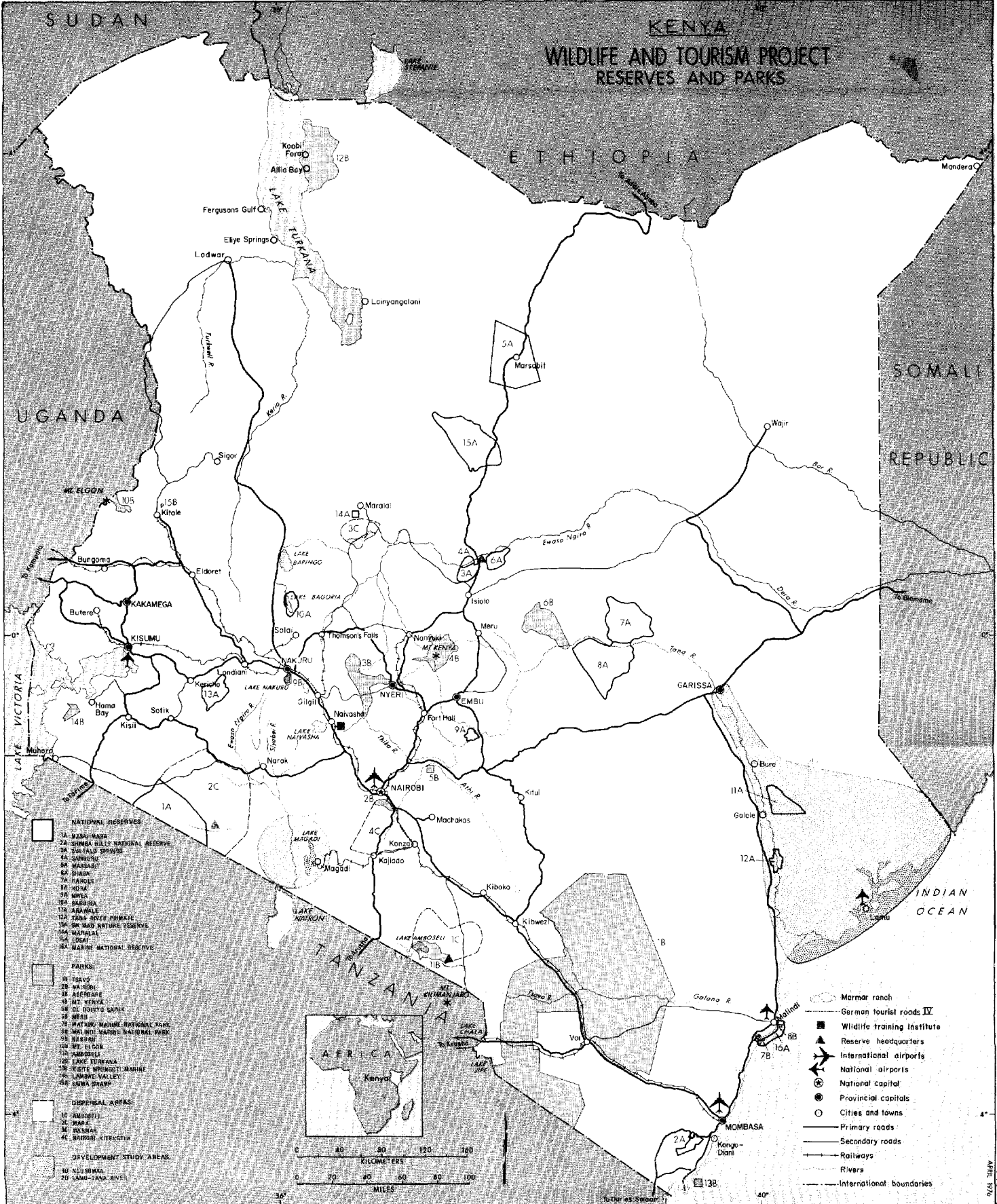
WILDLIFE AND TOURISM PROJECT RESERVES AND PARKS

ETHIOPIA

SOMALI
REPUBLIC

UGANDA

INDIAN
OCEAN



NATIONAL RESERVES

- 1A. MASA MARA
- 2A. SIMBA BILI'S NATIONAL RESERVE
- 3A. SUGUHALI SPRINGS
- 4A. SONORU
- 5A. MARSABIT
- 6A. SIYAGA
- 7A. KENIA
- 8A. KENIA
- 9A. SIYAGA
- 10A. SIYAGA
- 11A. SIYAGA
- 12A. SIYAGA
- 13A. SIYAGA
- 14A. SIYAGA
- 15A. SIYAGA

PARKS

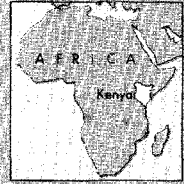
- 16. SIYAGA
- 17. SIYAGA
- 18. SIYAGA
- 19. SIYAGA
- 20. SIYAGA
- 21. SIYAGA
- 22. SIYAGA
- 23. SIYAGA
- 24. SIYAGA
- 25. SIYAGA
- 26. SIYAGA
- 27. SIYAGA
- 28. SIYAGA
- 29. SIYAGA
- 30. SIYAGA

DISPENSAL AREAS

- 31. SIYAGA
- 32. SIYAGA
- 33. SIYAGA
- 34. SIYAGA

DEVELOPMENT STUDY AREAS

- 35. SIYAGA
- 36. SIYAGA



- Marmar ranch
- German tourist roads IV
- ▲ Wildlife training institute
- ▲ Reserve headquarters
- ✈ International airports
- ✈ National airports
- ★ National capital
- Provincial capitals
- Cities and towns
- Primary roads
- Secondary roads
- Railways
- Rivers
- International boundaries

BRD-1845R
April 1976