



## World Heritage Sites

### Protected Areas and World Heritage



## MOUNT KENYA NATIONAL PARK / NATURAL FOREST KENYA

*Mount Kenya is an ancient extinct volcano and Africa's second highest mountain. With its rugged ice-capped summits and cloud-forested middle slopes, it is one of the most impressive of east African landscapes. There are eleven remnant glaciers on the mountain, all receding rapidly, and four secondary peaks at the head of the glacial valleys. The evolution and ecology of its Afro-alpine flora provide an outstanding example of ecological processes and a wide range of rare and endemic species. Its forests are part of the largest continuous block of indigenous closed canopy forest in the country.*

### COUNTRY

Kenya

### NAME

Mount Kenya National Park / Mount Kenya Natural Forest

### NATURAL WORLD HERITAGE SERIAL SITE

1997: Inscribed on the World Heritage List under Natural Criteria vii and ix.

### STATEMENT OF OUTSTANDING UNIVERSAL VALUE [pending]

The UNESCO World Heritage Committee issued the following statement at the time of inscription::

#### Justification for Inscription

The Committee inscribed this property under **natural criteria (vii) and (ix)** as one of the most impressive landscapes of Eastern Africa with its rugged glacier-clad summits, Afro-alpine moor lands and diverse forests, which illustrate outstanding ecological processes.

### INTERNATIONAL DESIGNATION

1978: Mount Kenya designated a Biosphere Reserve under the UNESCO Man & Biosphere Programme (71,759 ha).

### IUCN MANAGEMENT CATEGORY

Mount Kenya National Park: II National Park  
Mount Kenya Natural Forest: IV Natural Forest

### BIOGEOGRAPHICAL PROVINCE

East African Highlands (3.21.12)

### GEOGRAPHICAL LOCATION

Mount Kenya straddles the equator east of the Rift valley about 140 km north-northeast of Nairobi. The site includes the adjacent natural forest between 1,600m and 3,100m. Located at 0° 10'S by 37° 20'E.

### DATES AND HISTORY OF ESTABLISHMENT

- 1932: Legally gazetted as a Forest Reserve (of 199,500 ha), managed by the Kenya Forest Service;  
1949: The National Park was established over upper Mount Kenya by Legal Notice 69 and boundary plan 204/6 under the management of the Kenya Wildlife Service; extended 1968;  
1978: The Park area designated a UNESCO Biosphere Reserve;

- 2000: The upper half of the Forest Reserve was re-designated as Mount Kenya Natural Forest and put under the management of the Kenya Wildlife Service; 2,520 ha of forest was de-gazetted;
- 2008: Management of the two sections of the property combined under the Kenya Wildlife Service.

## LAND TENURE

State in the districts of Meru, Nyeri, Kirinyaga and Embu in Eastern and Central Provinces. Since 2000 the National Park, and, since 2008, the Natural Forest section of the property, have been managed by the Kenya Wildlife Service (KWS), under the Ministry of the Environment.

## AREA

Total World Heritage site: 142,020 ha. Mt. Kenya National Park, 71,500 ha + Natural Forest, 70,520 ha. The total protected area of Mt. Kenya is now 196,980 ha.

## ALTITUDE

National Park: ~3,100m to 5,199m (Batian Peak).

Natural Forest: 1,600m to ~3,100m (the Park's lowest salients).

## PHYSICAL FEATURES

Mount Kenya is the second highest mountain in Africa: an imposing isolated extinct volcano 60 km wide at the base formed of the eroded volcanic plug of a mountain once over 6,500m high, built up by intermittent eruptions of alkaline sodium-rich magma between 3.5 to 2.6 million years ago. The summit is rock, snow and ice. The peaks and the entire mountain are deeply dissected by radial once-glaciated valleys with ridges three to five kilometres wide except on the drier less rugged northern slopes. The highest peaks are Batian 5,199m and Nelion 5,188m, rising for the last 500m or more in sheer cliffs. Point Lenana (4,985m) is the highest fairly easily accessible peak. Although the northern foothills are on the equator the peak area is an ice-capped wilderness with eleven rapidly shrinking small glaciers, some 20 glacial tarns of varying sizes and numerous glacial morainal features between 3,950m and 4,800m (Bussmann, 1994). Above about 3,300m the mountain slopes and most of the Park are above the tree line; below it the rich volcanic soils are clothed in forest which is a vital water catchment for some seven million people and is the source of the great Tana and Uaso Nyiro rivers.

## CLIMATE

Mount Kenya has two wet seasons, the long rains from March to June and the short rains from October to December. January to February is dry. The rainfall ranges from 2,500mm on the well forested southeastern slopes to 800mm on the treeless northern slopes (KWS, 1996). A stratiform cloud layer and belt of maximum rainfall persists between 2,750m and 3,750m, leaving the air above quite dry. The snow line is between 4,500m and 4,700m, with depths on the glaciers of a metre and more. The annual temperature range is about 2°C, lowest in March to April and highest between July and August, but the large diurnal temperature range of 20°C in January to February and 12°C in July to August in effect creates summer conditions by day and winter by night. The weather is very changeable on the mountain.

The diurnal wind circulation is vigorous: downslope winds blow from evening through the night to mid-morning, drawing in the persistent cloud, and up-slope winds blow from then on into the afternoon. Very strong winds blow round the peak in the early morning, the speeds gradually decreasing with sunrise (Allan, 1991). The weather station is the only equatorial and high altitude station in Africa.

## VEGETATION

The vegetation of the mountain shows a marked vegetational gradient depending on altitude and the amount of rainfall spreading from the southeast. Its forests are part of the largest continuous block of indigenous closed canopy forest in Kenya. There are some 882 plant species, subspecies and variants, 81 high altitude plants being endemic (Gathara, 1999). Above the forests are five distinct vegetation zones, mainly in the National Park: scrub, *Hagenia* woodland, giant heath, Afro-alpine moorland and nival. Below this there are six main forest types: rainforest, mid-level moist evergreen forests, mid-level leguminous forest, mid to high-level drier forest and Juniper-Olive dry forest. Between the highland and forest zones is a belt of dense bamboo.

The National Park includes all the land above 3,200m and is almost entirely above the tree line except for two lower salients along the Sirimon and Naro Moru tracks. It starts just above the bamboo *Arundinaria alpina* zone, a dense crescent of which with scattered trees, dominates slopes between

2,000m and 2,600m on the south and east sides of the mountain with rainfall of over 2,000mm per year. The bamboo can grow to 12 meters and suppresses other species so little else grows with it. A mosaic of bamboo and the conifer yellowwood *Podocarpus milanjanus* with east African rosewood *Hagenia abyssinica* is dominant between 2,600m and 2,800m. Above that it begins to merge with the *Hagenia* woodland and towards the west and north of the mountain, it becomes progressively smaller. It is completely absent on the northern slopes which are dry unforested scrub at this altitude (KWS, 1993).

In areas between 2,000m to 3,200m with rainfall up to 2,400mm a year, is a cloud woodland and parkland predominantly *Hagenia abyssinica* and *H. revolutum* with an understorey dominated by giant St John's wort *Hypericum keniensis*. Many of the trees are festooned with mosses and the lichen old man's beard *Usnea longissima*. Wild flowers include red-hot poker *Kniphofia thomsoni*, *Alchemilla* spp., *Impatiens* spp. and violets *Viola* spp. (KWS, 1993). At higher elevations, the trees become smaller, with yellowwood and rosewood scattered amongst glades which are especially common on ridges. The zone of high altitude heath where 'everlasting' species are conspicuous starts between 3,000m and 3,500m where cold becomes an important factor and the air is dryer. The dominant plants are aromatic small-leaved shrubs: tree heathers *Erica arborea* and *Phyllippia* species, African sage *Artemisia afra*, *Hypericum keniense*, *Protea kilimandscharica*, *Helichrysum chionides* and *Euryops brownei*. There are several gentians *Swertia* spp. and sedges *Carex* spp.

The Afro-alpine flora lies above 3,500m in two zones. The lower zone between 3,500m and 3,800m is high tussock-grass moorland characterized by high rainfall, a thick humus layer, low topographic diversity and low species richness. The tussock grasses *Festuca pilgeri*, growing waist-high, and sedges *Carex monostachya* predominate. Between the tussocks there are *Alchemilla cyclophylla*, *A. johnstonii*, and *Geranium vagans* (KWS, 1993). The upper alpine zone between 3,800m and 4,500m is the more topographically diverse, with a flora adapted to the extreme conditions which is both scenically and floristically outstanding. This includes the rosettes of giant lobelias and groudrels *Lobelia telekii*, *L. aberdarica*, *L. deckenii keniensis* and *L. bambuseti*, *Carduus keniensis*, *Senecio keniodendron* and *S. Senecio brassica*, which is found in both the lower and upper alpine zones. Flowers include alpine buttercup *Ranunculus orephytus* and *Gladiolus thomsoni*. There is a variety of grasses on well-drained ground and along the streams and river banks with megaphytes such as *Senecio batescombei* and *Helichrysum kilimanjari*. The limit of continuous plant cover is about 4,500m. The nival vegetation is mostly mosses and lichens with everlasting *Helichrysum* spp. and *Alchemilla chrysophylla* and *A. cyclophylla* amongst the rocks although isolated vascular plants can be found over 5,000m.

In the Forest Reserve 31% is closed canopy forest between 2,000m and 2,900m, 32% bamboo and bamboo-forest mosaic, 17% scrub, grassland and cultivation, 10% forest with scrub, and 10% plantations (Fishpool & Evans, 2001). The rainforest is luxuriant montane forest of cedar *Juniperus procera* and giant camphorwood *Ocotea usambarensis* on wet (2,500mm) south-eastern slopes up to 2,400 m, growing in the wettest areas, as high as 3,200m. In the north-east, a moist forest of many species that includes the valuable heavily logged termite-resistant camphorwood, Meru oak *Vitex keniensis* and pillarwood *Cassipourea malosana* has been devastated. The lower level evergreen forest of *Croton megalocarpus-Brachylaena huillensis-Calodendron capense* lies on northwest and wetter southwestern slopes to 1,900m. There is *Podocarpus falcatus* forest on drier northwest and southwestern slopes to 1,850m and on northeastern slopes between 1,500m and 1,800m, *Croton sylvaticus - Premna* forest (KWS, 1993). On the dry lower eastern slopes up to 1,800m is leguminous *Newtonia buchananii* forest. The mid to high-level forests are predominantly pencil cedar *Juniperus procera-Nuxia congesta-Podocarpus falcatus* on the drier eastern slopes and more open (much-logged) cedar with east African olive *Juniperus procera-Olea capensis* forest on the drier west to northeast slopes to about 2,300m. Mixed *Podocarpus latifolius* forest grows on north-western slopes to 2,600 m. The northern slopes of the mountain are dry scrub, which receive less than 800mm of rainfall. The lower limit of the indigenous forest is now between 2,000-2,500m. Most of the land at lower altitudes is outside the Reserve, has been cleared and is now used for growing wheat right up to the 2,000m level.

## FAUNA

In the Afro-alpine moorland large mammals are rare except in the north where plains zebra *Equus quagga* (some being white) and eland *Tragelaphus oryx*, are common, and even occasionally reach 4,300m; rarely, lions *Panthera leo* (VU) are also seen. The Mt. Kenya rock hyrax *Procapra capensis mackinderi* is common as are the African mole-rat *Tachyoryctes splendens* throughout the northern slopes and in the Hinde Valley up to 4,000m; also the highlands shrew *Crocidura allea* (VU), the groove-tooth rat *Otomys otomys* and the East African mole rat *Tachyoryctes splendens*. The giant thicket rat *Grammomys gigas* (EN) and Mt. Kenya mole shrew *Surdisorax polulus* (VU) are the only other

mammals endemic to the mountain There are several other small rodents present. The grey duiker *Sylvicapra grimmia altivallis* is common. Visitors to the upper gallery forest include leopards *Panthera pardus*, elephants *Loxodonta africana* (VU), central African savanna buffaloes *Syncerus caffer aequinoctialis*, black-fronted duiker *Cephalophus nigrifrons hooki* and suni antelope *Neotragus moschatus* visit the upper gallery forest, blue monkey *Cercopithecus mitis kolbi*, zorilla *Ictonyx striatus* and African golden cat *Caracal aurata* are seen. The heathland has species found in both moorland and forest. Reptiles include mountain the endemic Mt. Kenya bush viper *Atheris desaixi*, the near endemic alpine meadow lizard *Adolphus alleni*, the Kenyan side-striped chameleon *Chamaeleo schubotzi*, Jackson's chameleon *Chamaeleo jacksonii*, and various skinks (Fishpool & Evans, 2001).

In the bamboo and forest zones there is also a wide variety of animals. The most visible mammals are eastern black-and-white colobus *Colobus guereza kikuyuensis*, green monkey *Chlorocebus aethiops*, buffalo, and bushbuck *Tragelaphus scriptus* along with some 3,000 - 5,000 elephants. In the lower forest there are also olive baboon *Papio anubis*, spotted hyaena *Crocuta crocuta*, large spotted genet *Genetta tigrina*, leopard, eastern tree hyrax *Dendrohyrax arboreus*, forest hog *Hylochoerus meinertzhageni*, bush pig *Potomocoerus porcus*, a very few eastern black rhinoceros *Diceros bicornis michaeli* (CR), buffalo, Harvey's red duiker *Cephalophus harveyi*, Chanler's mountain reedbuck *Redunca fulvorufula chanleri* (VU), waterbuck *Kobus ellipsiprymnus*, and the extremely rare eastern bongo *Tragelaphus eurycerus isaaci* (CR) which is being re-introduced from stock in Florida. The butterfly *Capys meruensis* is restricted to the mountain area.

Key bird species on the mountain are little kestrel *Falco naumanni* (VU), Jackson's francolin *Francolinus jacksoni*, Sharpe's longclaw *Macronyx sharpei* (EN), Hunter's cisticola *Cisticola hunteri*, Jackson's widowbird *Euplectes jacksoni*, Abbott's starling *Cinnyricinclus femoralis* (VU). Hinde's pied babbler *Turdoides hindei* (VU) and Kenrick's starling *Poeoptera kenricki*. Regionally threatened species include African olive ibis *Bostrychia olivacea*, lammergeier *Gypaetus barbatus*, Ayre's hawk eagle *Hieraaetus ayresii*, crowned hawk-eagle *Stephanoaetus coronatus*, Abyssinian owl *Asio abyssinicus graueri*, African grass-owl *Tyto capensis*, Cape eagle-owl *Bubo capensis*, African marsh-owl *Asio capensis capensis*, purple-throated cuckoo-shrike *Campephaga quiscalina* and long-tailed widowbird *Euplectes prognis* (Fishpool & Evans, 2001).

Among the many large raptors are white-backed vulture *Gyps africanus*, Verreaux's eagle *Aquila verreauxii*, long-crested eagle *Lophaetus occipitalis* and secretary bird, *Sagittarius serpentarius*. Highland birds include African green ibis *Bostrychia olivacea*, (Mount Kenya race), jackal buzzard *Buteo rufofuscus*, long-eared owl, Mackinder's eagle-owl *Bubo capensis mackenderi*, African snipe *Gallinago nigripennis*, moorland francolin *Francolinus psilolaemus*, slender-billed starling *Onychognathus tenuirostris*, the locally threatened scarce swift *Schoutedenapus myoptilus* and alpine swift *Apus melba africanus* and the red-tufted, malachite and tacazze sunbirds *Nectarinia johnstoni*, *N. famosa* and *N. tacazze*. Forest birds include mountain buzzard *Buteo oreophilus*, scaly and Jackson's francolins *Francolinus squamatus* and *F. jacksoni*, Hartlaub's turaco *Tauraco hartlaubi*, montane nightjar *Caprimulgus poliocephalus*, silvery-cheeked hornbill *Bycanistes brevis*, African black-headed oriole *Oriolus larvatus*, Ruppell's robin-chat *Cossypha semirufa*, and greater double collared, olive, Tacazze and golden-winged sunbirds, *Nectarinia afra*, *N. olivacea*, *N. tacazze* and *N. reichenowi*. Around forest streams African black duck *Anas sparsa*, mountain wagtail *Motocilla clara* and the giant kingfisher *Megaceryle maxima* are seen.

## CONSERVATION VALUE

Snow-capped Mount Kenya is the second highest mountain in Africa after Kilimanjaro and one of the most impressive landscapes in East Africa. It is a vital water catchment for seven million people. The vast forest has large populations of several threatened animal species and the evolution and ecology of the Afro-alpine flora are outstanding for a wide range of rare and endemic species. The Park is both a major eco-tourist destination and a sacred site to the local people (KWS, 1996). The Park lies within a WWF Global 200 Eco-region, a WWF/IUCN Centre of Plant Diversity and is in one of the world's Endemic Bird Areas. It also contains a UNESCO Biosphere Reserve.

## CULTURAL HERITAGE

The mountain's name is from Kiinyaa, the Kamba pronunciation of the Kikuyu name Kirinyaga. It is known as a holy mountain by the nearby Kikuyu, Kamba and Meru communities whose God Ngai lives on its peaks. He created Gikuyu who with his wife Mumbi reared nine daughters, the ancestors of the nine clans of the Gikuyu tribe. The peaks were never visited except for traditional tribal rituals and prayer in time of need. Western exploration started around the turn of the 20<sup>th</sup> century (KWS, 1996).

## LOCAL HUMAN POPULATION

A very dense population of Kikuyu Meru communities live around the periphery of the Forest Reserve, especially in the north-east using it both with permission and illegally as a source of fruits, honey, medicines, arrow-poisons and glue and, quite heavily along the margins, for livestock grazing, temporarily cultivated tree plantations (*shambas*) and farm settlements. But more destructive until the 2000 transfer of management from the Forest Service, was the large-scale illegal and uncontrollable logging for valuable hardwoods and for charcoal (a major export) and firewood. Several hundred local people act as guides and porters on the mountain, but there is a perception that tourism in the Park could be developed to benefit local people more, and there is much unrest over conflicts between farmers and marauding wild animals (KWS, 1996).

## VISITORS AND VISITOR FACILITIES

The mountain above the tree line is a pristine wilderness, and has excellent site-seeing, good game viewing and challenging high altitude mountaineering. Mountain safaris are organized by the Naro Moru Lodge, by private safari companies and by the Mountain Club of Kenya. Visitor plus porter numbers were about 20,000-25,000 by 2000, more than half of them foreign. Tourism is still relatively undeveloped but there was 80% increase in visitor numbers, until terrorism became a threat (IUCN, 2002). Thereafter warnings by western governments strongly reduced visitation during 2003-2004. Normally about two-thirds of visitors come in the drier season via the Naro Moru entrance in the west to climb Point Lenana; and 15 to 20 school groups visit each year. Access is by the steep but direct Naro Moru track, the hilly Sirimon track in the northwest, or the long Chogoria track from the southeast. There is also an entrance leading to a wildlife viewing lodge. The Forest Reserve is poorly provided with vehicle tracks, and the animals can be dangerous to humans, necessitating armed guides (Woodley, 2003). There is an airstrip at Naro Moru. There is one lodge within the Park, with 66 beds, seven climbers' huts with a total of 82 beds and three self-help *banda* sites with a total of 456 beds. There are three lodges and another self-help *banda* site with 34 beds just outside the Park (KS, 1993).

## SCIENTIFIC RESEARCH FACILITIES

Pioneer studies include Moreau (1944) on the description of Mount Kenya's alpine fauna, followed by Hedberg (1957) on the botany and Hedberg (1964), Coe (1967) and Coe and Foster (1972) on the fauna. Studies of meteorology and palynology have been undertaken. Most work has been done above 3,800m and more comparative work is needed. Uniquely among tropical glacial areas, the state of the glaciers has been constantly recorded since 1899 and has been scientifically studied. They have been rapidly receding since 1963 (KWS, 1996). A Research Station was to be established in 2003 (Woodley, 2003).

## MANAGEMENT

In 2009 the flora and fauna of the Afro-alpine zone was not under much stress although the warming climate may come to affect the glaciers. And a 2008 UNESCO/IUCN monitoring mission stated that the effectiveness of the management appeared to be higher than at any time in the past (UNESCO, 2009). Human interference has been low and its management is mostly concerned with controlling the use and littering by visitors without over-regulation. A high accident rate among mountain-climbing visitors has necessitated three KWS mountain rescue teams. The problem of poaching for bushmeat is countered by three anti-poaching teams. Crop destruction by elephants and buffalos from the Park and their danger to people has required problem-animal control and fencing. The first detailed five-year Management Plan for 1993-1998 set out to preserve the Afro-alpine ecosystem; to preserve the traditions and values of the high mountain wilderness for enjoyment by visitors; and to preserve the mountain's environmental quality. At that time the infrastructure and buildings which were nearly all privately operated, were not in good condition and there were no interpretive facilities or adequate game-viewing trails. A general improvement was to be made in relations with the private companies servicing the Park, to their worn facilities, to the poor condition of tracks and in the sometimes unsatisfactory guiding and porter services.

A new draft Management Plan for 2002-2007 was still unfinalised in 2009 and local communities had not been fully consulted about it (UNESCO, 2003; 2009). Several small projects were set up by the GEF-funded Community Management of Protected Areas Conservation Project (COMPACT) between 2001 and 2004. These were to provide a solar electric fence to separate wildlife from humans, to involve local communities in the conservation and management of the mountain, to improve beekeeping methods, to set up an Eco-resource Centre and for the planting of trees by women and schoolchildren on degraded slopes. A major benefit of such small scale projects is to increase public interest and

involvement in the Park, and they achieve relatively quick results. Surveillance, law enforcement and community relations have improved (UNESCO, 2004).

A landmark KWS aerial survey in 1999 of the destruction of the mountain's forests, along with the nearly adjoining Imenti and Ngare Ndare Forest Reserves, pointed up the effectiveness of aerial monitoring and rapid reaction as a management tool over a large forest area. This alerted national and international interest and began to gather support for the rehabilitation of the forest. In 2000 it was followed by the transfer of management of the upper half of the forest from the under-supported Forest Service to the Wildlife Service. In 2002 a KWS mission with UNEP and other organisations surveyed the changes since made (UNEP *et al.*, 2002; IUCN, 2003). Camphorwood and cedar logging had declined by 94% and 73%, clearcutting had stopped and the *shamba* system was being properly used; charcoal kilns had diminished by 62% and marijuana fields by 81%, although charcoal-making still continued intensively along the Forest's borders and some high marijuana fields remained.

The *shamba* system in which tree plantations are underplanted by crops allows the benefits of agroforestry but is often used without tree planting to encroach on the forest high up the slopes. It is opposed by those (such as tree-planting Nobel prizewinner Prof. Wangari Maathai) who oppose any clearing of forests. Completion of the new Management Plan with increased interaction with local communities is necessary in order to settle jurisdictional conflicts between the Forest and Wildlife Services and conflicts with the public over compensation for crop damage by animals. The use of simple electric fences leaving routes for elephant migration was supported, and funded by a UNDP/GEF/SGP project (Woodley, 2003). In 2002 a KWS report noted monitoring and prosecution of some 1,000 cases of illegal forest resource extraction, removal of snares and of waste dumping; a reduction in forest encroachment from 20,265 ha in 2000 to 7,941 in 2002 and increased forest plantation in the Reserve from 539 ha between 1950-2000 to 2,352 in 2000-2 (IUCN, 2003).

## MANAGEMENT CONSTRAINTS

In the lower Forest Reserve human interference has been extremely serious in the past. Pressures on the borders from a poor but burgeoning population are constantly increasing. Poaching, illegal firewood collection, destructive honey collecting, trapping and dumping of wastes are threats, but the major damage has been to large areas of forest destructively cut for timber, burnt for cultivation and invaded by settlements. In 1991 there were 40 illegal privately owned sawmills in the Forest Reserve while the Forest Service was markedly under-equipped and underpaid (Bussmann, 1996). Most of the valuable timber such as camphorwood and yellowwood has been extracted. In his influential report based on the 1999 survey of the three forests, Gathara stated that 14,662 indigenous trees had been felled, 46% of these being valuable camphorwood, and 8,279 hectares had been extensively damaged; 76% of clear-cut *shambas* had been cultivated but not replanted; 622 charcoal kilns, 2,187 head of livestock and 200 ha of marijuana fields were seen on Mt Kenya, 21 forest sites had been burnt, often to clear land for farming, and there were 120 landslides in logged areas, 76 in the more heavily logged camphorwood forests. The effects of this exploitation was the disruption of wildlife habitats and diminishment of biodiversity, impaired water catchment and retarded forest redevelopment which slows the development of tourism, aggravates animal conflicts with humans and entrenches local poverty (Gathara, 1999). As a result of his report, sustainable development of the mountain was initiated. However, by 2002 the government de-gazetted and excised 2,520 ha of the Forest Reserve forest to allow for settlement near Sirimon, and re-plantation was not of local native species.

A clear statement concerning the jurisdiction over forest plantations was still needed in 2003 and the KWS had inadequate funding to allow it to assert control. More effective surveillance of illegal activities, and enforcement of the law was still and means to control crop damage by elephants and buffaloes which is not compensated by the government (IUCN, 2003). In the National Park, little of which is forested, the main damage is by tourists from erosion, litter and pollution of streams: the degradation around trails, lodges and hut areas has been bad, and trail proliferation along the Naro Moru track has eroding muddy swaths 100 meters wide, destroying some 10% of the valley-bottom habitat in the upper 3 kilometres of the Teleki Valley (UNESCO, 2003). In 2007 it was noted that an unofficial fence was being built without preliminary environmental assessment between the forest and the site on its boundaries to reduce the growing number of conflicts between humans and wildlife. It was encroaching on the property and might lead to agricultural encroachment. It also blocked migrating elephants and IUCN therefore requested a halt to the work (IUCN, 2008). By 2008 the mission remained concerned about managing this conflict and the fencing; also about the delayed management plan, reports of land excision from the property, fire risks, the need to maintain wildlife migration corridors and the retreat of glaciers (UNESCO, 2009).

## STAFF

The total staff in 1993 was 43, planned to increase to 75 by 1998. Under the Warden there were a Deputy Warden, and three Assistant Wardens, for Administration, Scientific Services and Mountain Operations. There were 20 administrative and technical staff, three 6-man anti-poaching patrols, 12 gate security staff at 3 gates and the airstrip, 3 scientific field assistants, a Community Wildlife Officer with three community wildlife stations and three 4-man mountain rescue teams (KWS, 1993). 35 rangers were added in 2002.

## BUDGET

Revenues (predicted at US\$467,000 for 1997-8). come from entrance fees, and part of the charges for the use of lodges, huts, campsites, and safaris. By 2003 tourist revenues had greatly increased. Funding was promised or provided by the Mount Kenya donor/partner forum chaired by the UNDP: the GEF (US\$750,000), IFAD (US\$24 million), EU, UNF, the Ford Foundation, GTZ, the Italian and Swiss governments and local NGOs. A 2003 UNF program may attract over US\$300,000 for the reintroduction of the mountain bongo. Grants between 2001 and 2004 totalling US\$204,585 from the GEF Small Grants Program and UNF have funded community based conservation initiatives, via the Critical Ecosystem Partnership Fund. In 2005 the David Sheldrick Wildlife Trust and the Bill Woodley Mount Kenya Trust gave funding for additional rangers. In 2008 it was noted that US\$25,000 had been provided from international sources for technical cooperation (IUCN, 2008).

## LOCAL ADDRESS

The Warden, Mt. Kenya National Park & Reserve, POB 69, Naro Moru, Kenya.

Website: [www.kws.org/mtkenya.htm](http://www.kws.org/mtkenya.htm).

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April 1997. Updated 5-1997, 12-1998, 7-2005, 7-2009, May 2011.