

Elephants threatened by force of habitat

The elephant still occupies a range of over 7,000,000 sq. km., within which are some 90 existing or proposed national parks set aside for the protection of this and other species. Of its range about one-third is forest and the rest is wooded savannah. Our study spans the years 1976-79 and in that our minimum estimate of elephant numbers is 13,000,000. This however is not a precise figure and should not be used for extrapolating potential yields of ivory.

The greatest long-term threat to existing elephant populations in Africa is loss of their habitat, as agriculture, ranching or forestry take over. The most important short-term threat for perhaps a majority of these elephants is human predation for ivory.

East Africa

In East Africa the trends in elephant numbers are clearest because a great deal of census work has been done. The IUCN Survey estimated that between 1970 and 1977 Kenya lost more than half her elephants. The decline appears to have continued. The latest results of the Kenya Rangeland Ecological Monitoring Unit suggest a further decrease of 25% between 1977 and 1978. (In passing one should note that the decline of rhinos was even more severe with the 1978 estimate down to 31% of the 1977 figure.) Since March 1978

the law in Kenya has become stricter. All private trading in game trophies has been banned and the anti-poaching units have begun to tackle the formidable Somali poachers.

Poaching

Our counts made in earlier years indicated an abnormally heavy mortality in Uganda and northern Tanzania. This we attribute mainly to poaching. Only southern Tanzania has escaped heavy poaching, and as the poachers search for new supplies of ivory it is not unlikely that these elephant populations may also soon come under threat.

In Uganda a catastrophic decline of elephants took place when Amin's soldiers entered the parks and poached for ivory. In 1967 the Kabalega Falls National Parks contained at least 8500 elephants south of the Nile but in 1976 an aerial count revealed only 1232. With the transfer of an active warden to the Kabalega Park the slaughter seemed for a while to have been arrested.

However in 1979 Amin's troops retreated across the park, sacked the lodges and are alleged to have machine-gunned a number of elephants and other animals taking the ivory with them into Zaire. It also appears that Tanzania troops were shooting in the Ruwenzori National Park.

In Sudan census data suggest that elephants are widespread and not threatened — though probably declining. A low human population density, poor communications and the elephants' tendency to walk at fast pace for days if disturbed are the animals' best safeguards at present. For the future a series of national parks are being created. Sudan probably contains some 10% of the continent's elephants.

Southern Africa

About 7800 elephants remain in South Africa — practically all of them inside protected areas. The population is stable, closely monitored and regularly cropped. In Botswana the elephant population (20,000

The following article on the status of African elephants and the situation with regard to the ivory trade in West and Central Africa consists of extracts taken from Iain Douglas-Hamilton's final report on the Elephant Ivory Trade Study (which includes certain of the findings of the IUCN Elephant Survey) and from his companion report, a draft African Elephant Action Plan.

The findings of the Trade Study and the recommendation of the Action Plan are now being studied by IUCN and its Survival Service Commission. The SSC's African Elephant Group and then the SSC itself met in Kenya towards the end of April. A final and agreed Action Plan, involving all aspects of the conservation of the African elephant, has been issued since.

odd) is regarded as a valuable resource. Utilisation of wildlife is highly developed in the country. Some 28% of the elephants live within national parks, with the remainder ranging over a series of Controlled Hunting Blocks or Wildlife Management Areas where elephants may be hunted for sport or by certain tribes.

Malawi has one of the most efficient Wildlife Departments in Africa. The country has around 4500 elephants which almost entirely reside within protected areas. Although some illegal poaching occurs the anti-poaching units keep the situation under control. Human population density is very high and competition for land is intense. Farms are often very close to park boundaries and elephants frequently wander outside the parks damage crops and are shot. The government is under pressure to make conserved land available for human use. So far such pressures have been resisted.

Zimbabwe's 30,000 elephants do not appear to have been severely affected by the war — although some 200 have died in the minefields. Poaching is reported to be minimal. Where it occurs elephant meat is more often the target than ivory, and carcasses have been found with the meat stripped and the tusks intact.

In Zambia a count of the Luangwa Valley took place in October 1979. The area had become controversial due to reports of elephant overcrowding and suggestions that some elephants should be culled. The count revealed, however, a 40% reduction in elephant numbers since the last count in 1972 — and the main cause appeared to be poaching.

Towards the end of Portuguese rule in Angola and Mozambique heavy killing of elephants for ivory was reported, and large amounts of ivory were taken out of the country by Portuguese refugees. In Angola ivory is now being traded for weapons (by both FNLA and UNITA). There is no quantitative information on ivory exports but it would be surprising if the combined effects of war and the large price in ivory were not causing heavy inroads on the elephant populations.

West and Central Africa

West Africa's elephants amounted to only about 1% of the continental total. They have in some cases been reduced to such

small and isolated populations that poaching expeditions are uneconomic. The greatest threat to their survival is elimination of their habitat; even areas supposedly protected, such as Bia in Ghana, Tai in Ivory Coast and the Gourma in Mali are under threat.

Central Africa, including Zaire, Central African Republic (CAR), Congo, Gabon, Cameroon and Chad, harbours about 37% of Africa's elephants. Much of the ivory from these countries is derived from the forest-dwelling elephants, the sub-species *Loxodonta africana cyclotis* thin, pointed tusks can be easily distinguished from the blunter, more curved savannah ivory.

Trading in ivory — the situation in West and Central Africa

West Africa

Senegal: The surviving 450 or so elephants of Senegal live mainly in the Nikola-Koba National Park. The park has received strong support from the highest leadership in the country — support which has been written into the Constitution. Like all the best run national parks it has a measure of independence. Adequately funded and efficiently managed, it is one of West Africa's few successes in wildlife conservation. Yet poaching remains intense all the year round despite combined operations by the national park rangers, police and army.

Although elephants are scarce in Senegal an ivory trade still exists. Raw ivory is imported from Central Africa, and an artisanal industry of carvers occupies itself in the capital, Dakar. A great deal of ivory is on sale in the hotels and along the main streets in small shops, or hawked by roving vendors. However the trade would not appear at present to be a threat to Senegal's own elephant population.

Mauritania. Elephants only exist in Mauritania in extremely low numbers. Through second-hand reports we were able to confirm their presence in the Affole mountains and in the Assaba massif. This is the most northern range of the African elephant today, and is threatened by the advance of the Sahara, which is accelerated by the chopping down of trees as forage for livestock.

It was after 1972 that the price of ivory provided a greatly increased incentive to poach. Especially because in some countries the poacher's reward increased even more rapidly than the world price-rising from about one-fifth to one-third of the real value.

The only hope for Mauritania's elephants is the creation of a national park in part of their range, preferably in the Assaba massif where thick woodland and permanent water provide a suitable habitat, as yet little penetrated by human settlement.

Ivory Coast. In spite of its appellation the Ivory Coast has never been a large producer of ivory. There is, however, a lively ivory-carving industry and the country is therefore a medium-sized importer of raw ivory.

The law requires that all imports must be accompanied by a certificate. Every tusk arriving at the airport is weighed and measured by an agent of the Director. I was permitted to examine all the available import declarations for 1977 and 1978. The documents accompanying each shipment contained the date of transport, name of consignor and consignee, country of origin



ARMED camel patrols, aided by airborne and motorised patrols, maintain lengthy vigil in Kenya's semi-arid North Eastern Province.

number, weights, lengths, and circumferences of tusks, declared value, charges and duty. The system is efficiently documented and could be adapted to CITES.

In 1974 all hunting was suspended by verbal decree of President Houphouët-Boigny. Elephants were to be given 10 years to recover — but a certain amount of poaching still goes on. The most serious problem for the elephants, however, is not the ivory trade, but reduction of their habitat, especially in and around the areas set aside for their preservation, such as the Tai and Marahoué National Parks. These relatively small remaining portions of Ivory Coast's virgin forest are threatened by timber companies, who build roads and extract selected trees. They are followed by slash-and-burn cultivators who destroy all the remaining trees in the area. Timber companies have a long-standing record of encroachment on the national parks, and the uncontrolled cutting of the country's forest is an economic problem of great magnitude which goes far beyond the problems of elephants.

Mali. In Mali elephants survive in relatively small numbers. They are still hunted in the south, mainly for meat, with ivory as an additional bonus. There are strict laws governing hunting in Mali, which are almost universally ignored. At present there is one national park called Bacule, situated not far to the west of Bamako, the capital, in the Guinean savannah zone. Elephants live here in small numbers, and provided the park remains a park they should survive.

A larger population of some 500 animals remains in the Sahel, to the South of Timbuktoo, in an area known as the Gourma or *Reserve des Elephants* (though no reserve has even been gazetted). These elephants are of scientific interest because they would be the only remaining viable population in the far north of the continent, should the neighbouring Mauritanian elephants become extinct, which seems likely. The Gourma elephants have adapted to an extreme desert way of life, and have developed a pattern of movements between water-holes and an animal migration which takes them in a huge circle from the Upper Volta border to the Lake of Korarou. This

migration may well be the largest of any elephant population in Africa.

The main threat lies in the plans, fostered by Western aid and FAO, to introduce new water-points into the Gourma area, without first making any environmental impact study of its effects on elephants and other wildlife. At present, a delicate balance exists between the elephants and the nomadic Pheul and Touareg pastoralists. The elephants which use the same water-holes tend to come at night and to move off before dawn. The danger of making new water-points is that the authorities will be unable to control the numbers of animals using them and the overgrazing will simply be spread into new areas which at present can only be used during the wet-season dispersal of livestock and wildlife.

Central Africa

Gabon. Anti-poaching measures are enforced only in the Presidential Park, Wonga-Wonga, and in a few hunting con-

cessions controlled by professional hunters (*Guides de Chasse*), men of outstanding professional ability. Elephant hunting is still permitted. To shoot an elephant a big-game licence is required (*Permis de Grande Chasse*). Yet of the 262 big-game licences issued in 1977, and of the 176 issued in 1978, only 45 and 13 elephants were declared as shot in the two years respectively. Without declaring the shot elephants and paying the *taxe d'abatage* it is not legally possible to obtain a certificate of origin, which is needed for export clearance.

What ivory is exported from Gabon is mostly illegal, or accompanied by certificates of origin which have been fraudulently obtained. Some ivory is known to be smuggled north across the border into Cameroon, hidden under bananas or other goods. The real quantity of ivory leaving Gabon is very much higher than could be supplied by the elephants which have been legally shot.



ONE of the surviving white rhinos in Meru National Park. Not their traditional habitat the rhinos were translocated from another region of Kenya.



TWO tons of primeval aroused anger tries to climb a 12ft. wooden fence.

Cameroon. The Cameroon laws governing the hunting of elephants and exporting of ivory are very clear, and are set out in a booklet entitled *Reglementation Forestiere* published by the Ministry of Agriculture, the authority charged with enforcing them.

However the Director of Wildlife informed me that although 400 hunting licences were issued in 19978, not a single hunter had returned to pay his *taxe d'abbutage* and collect a certificate of origin. It appears that most such certificates are fraudulently awarded by the Chamber of Mines and Commerce. The Vice-Minister for Agriculture stressed that any certificate of origin which did not bear his signature was fraudulent. Yet of the 47 certificates which I saw, there was not one which carried his signature.

There is no doubt that elephant hunting has greatly increased in Cameroon since the price of ivory climbed steeply. Hunters, officials and ivory traders were unanimous on this point. It would seem likely that the current wave of ivory hunting has destroyed or will destroy all easily accessible elephants and eliminate a high proportion of large tuskers. This may knock the national population right down until the law of diminishing returns makes hunting expeditions no longer worth while.

If a hunting ban were to be introduced in isolation the trade would merely make liberal use of "collectors' permits" as a cover for continued extensive trafficking. So long as Cameroon's trophy trade continues the country's elephants will continue to be killed.

Central African Republic. During Bokassa's regime the country became the largest ivory exporter in Africa. One extremely powerful company *La Couronne* had an effective monopoly over ivory trading, and under their control the number of tusks traded between 1977 rose dramatically.

The company (now disbanded) said that 79 per cent of the ivory came from Zaire, 20.4 per cent from Sudan and less than 1 per cent from CAR itself. This was used as evidence that the trade was not adversely affecting CAR's elephants — though in that case it was clearly having a heavy impact on the elephants of Zaire and Sudan. *La Couronne* were aware that all the Sudanese and Zairois ivory entering the country was illegal in origin, but said that since it was

always accompanied by full certification it was therefore legal according to CAR law.

The extent of poaching is hard to determine. Some informants say that elephants of both sexes and all ages are now being killed, and concern was expressed that the off-take may be greater than some elephant populations can stand. In the east, reports have been received of Sudanese poachers mounted on camels making ivory raids across the border and randomly machine-gunning elephants. In the north-west, Chadian tribesmen are said to hunt elephants on horseback, driving spear into them as they ride alongside. Since the overthrow of Bokassa the situation has been unclear.

Congo. Today Congo's elephant range is restricted to the tropical forest region of the north. There communications are poor and human numbers low, so the elephants are relatively safe.

Congo remains, however, a major ivory-trading country. Since 1974 annual ivory

exports have rarely dropped below 50 tonnes and in 1977 exceeded 83 tonnes. Most of this ivory was illegal in origin, and smuggled in canoes across the river from Zaire. More ivory is carried on the river down from Upper Congo or CAR, and even from as far as Sudan.

Legislation occurs when a registered "ivory buyer" acquires the tusks and is then able to receive a certificate of origin from the Ministry of Water and Forests (*Eaux et Forets*). According to the Ministry elephants have decreased greatly — even inside the one national park within their range. Some poachers use automatic weapons and it is alleged that the army is involved.

Zaire. Zaire is and has been for a long time the most important single source of ivory in Africa. It is also one of the earliest ratifiers of CITES and must occupy a central role in any attempt to control the international trade.

Most of Zaire's ivory is smuggled out of the country, and in the past much ivory attributed to Kenya probably came from this source. Since Kenya's trophy-trading ban of 1975 Zaire's ivory has continued to flow through Burundi, Uganda, CAR and Congo.

In 1976 Zaire introduced total hunting bans and ratified CITES. These measures, although giving the impression of doing something, had little if any effect on poaching or illegal ivory exports. The Ivory Office, created in 1974 to control trade, was finally closed down in 1977 after a series of scandals.

The responsibility for issuing permits then passed to the Department of the Environment, and this was broadcast as a government decision over the radio. Unfortunately proper legislation to this effect has never been passed. The two examples of legal permits which I saw allowed the collection and export of 1,000 tonnes of ivory, which suggests that the Department was not very serious about trying to limit the quantity exported. However the companies involved belong to a well known member of the Political Bureau. No doubt there has been a good deal of political pressure brought to bear on the Department to issue certificates to powerful people.

The rationale given for issuing these permits was to clear accumulated stocks of ivory. In effect it led to the greatest massacre yet of Zaire's elephants, with tens of thousands killed in the first seven months of 1978, until the President came to hear



UNLEASHED. . . . Dr. Chau dry administers the drug which will revive the rhino — and everybody starts to move out.

about the killings and ordered a moratorium on all further exports in August 1978.

In spite of this moratorium Zaire remains a very substantial ivory trader. Large-scale smuggling continues and one company at least is still involved in flying regular consignments of ivory from Kinshasa to Johannesburg.

The individuals behind this traffic are alleged to include four members of the Political Bureau, who have immunity from prosecution, and a member of the President's own family. Monthly shipments to South Africa are made by private C-130 cargo planes.

Until Zaire can ensure proper regulation of trade a total moratorium on ivory exports is undoubtedly the best policy. One positive factor is that the *Institut Zairois pour la Conservation de la Nature* still keeps the parks running, despite lack of equipment, manpower and communications. Poaching is still relatively light within most of the parks.

Zaire's delegation to the IUCN General Assembly in Ashkhabad appealed to the nations of the world to stop importing Zairois ivory. The fact that South Africa, a CITES party, is apparently continuing to do so is a regrettable departure from her treaty obligations.

SCALE OF BENEFITS

TODAY the Kenya poacher can obtain c. 25 per cent-33 per cent of current market value for ivory (\$74 per kg).

A pair of 10 kg tusks will raise \$370-\$444. The minimum urban wage (in Nairobi and Mombasa) is \$45 a month and rural wages are \$26 a month (Anon, 1977). Thus in a week's work to get (kill or find) a pair of 10 kg elephant tusks a man stands to make the equivalent of 8-17 months' wages.

The scale of benefits is similar across Africa. It defies the common misconception that poachers sell their ivory for pittance. The tusks from one elephant killed or found dead give the poacher far greater *relative* benefit than is obtained at all subsequent stages in trading them

in their raw state. Understandably then, any injunction depriving those who benefit from this resource has caused resentment.

The leniency of sentences for poaching in Africa is a frequent source of conservationist complaint. In 1978 a Zambian poacher killed five elephants which produced ivory worth several thousand dollars, and was fined \$154. In 1978 the Kenya newspaper *Daily Nation* recorded at least three cases concerning a total of 208 tusks where those convicted were fined substantially less than the value of their ivory. What is not taken into account in the complaints is that the fines are low through a general sympathy with the poacher.

Ian Parker — *The Ivory Trade Report*