The 1988 Tsavo elephant count

In response to an upsurge of poaching in the Tsavo ecosystem in the last few months of 1987, Kenya’s Wildlife Conservation and Management Department mounted a full-scale count in February this year to determine the current status of the area’s elephants and rhino. We publish below extracts from the final report, which was compiled by P.M. Olindo, Director WCMD, I. Douglas-Hamilton, Consultant EEC/WWF and P. Hamilton, Senior Biologist WCMD.

In the first week of February 1988, a total count of elephants, buffalo, and livestock was made in the Tsavo National Park and surrounding areas. Eleven aeroplanes covered some 40,000 sq km, including the whole national park, large areas of Taita-Taveta, the Galana Ranch, and the Mkomazi Game Reserve in Tanzania.

The objectives were to count all elephants, live and dead, rhinoceros, buffalo, and cattle within the ecosystem. The count was executed by a highly qualified team of Kenyan and other scientists, under the auspices of the Wildlife Conservation and Management Department, and was the first of its kind to be held in ten years. The EEC African Elephant Population Study helped co-ordinate the operation, and the public responded with generous donations made through the East African Wild Life Society (see box). Co-operating international institutions included WWF, African Wildlife Foundation, United Nations Environment Programme, International Union for the Conservation of Nature, and R.K. Mellon Foundation.

Although rhinos are known to exist in the park, their numbers are now so low that they were not detected at all from the air during this census. Ten years ago they had already suffered a 96 per cent decline from an estimated 5,000 in the early 1970s.

Within the park 4,327 elephants were counted. They have declined by 75 per cent since the last major total count in 1972. Another 1,036 were counted in surrounding areas where they have declined by 87 per cent over the same period. This result confirms the downward trend indicated by sample counts of the Kenya Department of Resource Surveys and Remote Sensing (KDRSRS), which suggest that of the 42,000 elephants living in the Tsavo ecosystem in 1969, only some 5,700 remained by 1987.

This major change is confirmed by trends in sub-areas of the same ecosystem. The worst affected were the Mkomazi Game Reserve where elephant numbers have fallen by 96 per cent, and the Galana Ranch where they have fallen by 98 per cent. Near the park in the Taita-Taveta District they have decreased by 31 per cent. Only around the Taita Hills and Salt Lick Lodges have they actually increased, which suggests that tourism may offer some degree of protection to wildlife from poaching.

The distribution of elephant carcasses shows that heavy poaching was still continuing through 1987, but mainly on the fringes of the park in the north east and outside in the Galana Ranch, Taita-Taveta and Mkomazi areas. This has been attributed to Somalis bandits and others. A few recent carcasses were also seen in Tsavo West National Park. Otherwise, the distribution of older carcasses indicates that prior to 1987 poaching was severe within both parks. In some places, their proximity to roads suggests motorised poaching.

Buffalo numbered 3,891 within the park and 5,860 in the whole ecosystem. Since 1970 they have also declined by 49 per cent within the park south of the Galana river, and 76 per cent in the Galana Ranch, but have increased in the Taita-Taveta area. The reasons for the decline are unknown, but are possibly due to disease or poaching over the years for meat. Over the long time span there may have been fluctuations which have not been monitored to provide clear trends for this species.

Cattle, which were never found in the park on any previous surveys, are now deep in the heart of Tsavo East, north of the Galana river, and have encroached upon the western portion of Tsavo West. The total number of livestock estimated within Tsavo East and West was a minimum of 11,000 cattle and 2,400 sheep and goats. The government is making every effort to eliminate this encroachment from the Tsavo National Park once and for all.

After the loss of virtually the entire rhino population, the central question raised by this count is whether or not elephants can continue to survive in Tsavo in meaningful numbers, and if so, for how much longer. The other question that arises relates to what policy changes are necessary if Tsavo National Park is to be saved from total destruction by both the poachers and the herdsmen.

To summarise, we are no longer talking of an ecosystem population of 12,000 elephants, as in 1980. Even after allowing generously for undercounting, it is now unlikely that the Tsavo ecosystem contains more than 6,000 elephants, over 80 per cent of which are in the national park.

It seems true, therefore, to say that the Tsavo ecosystem’s elephants have roughly halved in numbers in the last eight years. This represents an average loss of about
two elephants per day. If this rate of off-take continues, the remaining elephant population will be halved again within the next five years and reduced to mere remnants, close to extinction, within eight years. In reality it is likely that as numbers dwindle to the low hundreds, the rate of off-take will decrease, as it becomes harder for the poachers to find the remaining elephants at a profit. However, if the price of ivory rises, which is likely as elephants become scarcer, it is a real danger that poachers will not give up until they have taken the last ivory-bearing elephant, just as they persist now in hunting down the few remaining rhinos. The examples of Galana and Mkomazi show that populations of several thousand elephants can be reduced to less than a hundred within a decade. Furthermore, those elephants are still being hunted, judging by the recent carcasses seen during this count.

Fortunately elephant numbers in Tsavo have not yet fallen so low that the species is in immediate danger of extinction. However, the remaining population is severely threatened by the current activities of armed poachers using firearms, and will continue to decline if this threat is not removed immediately. Further unchecked elephant declines will have an adverse effect on tourism, which is now one of Kenya’s main sources of foreign exchange.

Tsavo’s principal attraction is its elephants, and the park will not have the same interest for tourists or Kenyans if they disappear. Visitors are already complaining about the apparent lack of elephants and their nervousness, particularly in Tsavo East.

The elimination of elephants would have ecological consequences, too, for the removal of these large browsers would inevitably result in an increase in the woody vegetation. Such a change would not necessarily be desirable in some parts of the park. However, it would not be in the interests of the Taita-Taveta and other ranches which, in the absence of elephants and without fire, could face a severe bush encroachment problem and a resulting reduction of their grazing capacity for cattle within ten years. There are already signs of this starting to happen on Galani and there is an added risk that tsetse fly will increase again as bush encroachment restores their habitat.

From this it is obvious that the greatest single management requirement in Tsavo now is the reinstatement of effective anti-poaching measures of the type developed in Tsavo East during the 1960s and which proved so successful that they led, ironically, to the creation of an elephant over-population problem. The Wildlife Conservation and Management Department still has the basic human and material resources to restore the integrity of the park and regain control over poaching, provided that carefully selected personnel can be given training, equipment, leadership, guidance, and incentives for this difficult and dangerous task. In addition, there is need for financial assistance to provide for new vehicles and the repair of old ones, the improvement of communications, and further development of the successful Ngulia Rhino Sanctuary in Tsavo West. However, only the government can spearhead effective anti-poaching, specifically as it is only the government that can take action against the illegal ivory dealers in Kenya whose activities are harming the elephants and encouraging the armed bands to use illegal military weapons also represent a threat to law and order and national security.

Kenya, however, cannot reasonably be expected to eradicate elephant poaching without international action to prevent or apprehend traders dealing in ivory of illegal origin. The ban on private trade in ivory in Kenya needs to be reinforced by other countries preventing illegal Kenyan ivory from being imported and entering their markets. If the CITES ivory export quota system, endorsed by the African parties of CITES at Ottawa in 1987, were working properly, it could greatly help in the identification of illegal dealers. The establishment of a TRAFFIC office to monitor trade in wildlife species in East Africa would also help significantly in this respect.

Finally, much closer monitoring of the remaining elephant populations needs to be linked with the anti-poaching effort so that the government can be kept better informed than has been the case over the past ten years. A goldmine of information on elephants and other species lies within the archives of KDRSRS (formerly KREMU). The analysis performed a year ago on five years of KREMU elephant data provided the first confirmation that Tsavo’s elephants had declined to their present levels. The WCMD Research Section should develop close links with KDRSRS and set up the capability of analysing the KDRSRS raw data in relation to the special needs of conservation and management.

Tsavo is the country’s largest national park and, together with the surrounding area, still contains nearly one third of Kenya’s total remaining elephant population, currently estimated at about 20,000. Because of its size, Tsavo offers the space that elephants, being large nomadic animals, require in dry country with erratic rainfall, and on the whole its vegetation is now in better condition than at any time since 1970. Because of its geographical location, there are relatively few points of serious conflict with adjoining human populations and agricultural settlement, with the notable exception of the Taita Hills where much could be done to reduce the problem. But with its Northern Area, particularly, Tsavo offers a huge expanse of excellent habitat where elephants could survive in large numbers, if sufficiently protected, without coming into conflict with man. This cannot be said of any other national park in Kenya.

If human encroachment can be removed from Tsavo and the elephant protected, all other wildlife, including the remaining rhino, will benefit, and Tsavo could regain its place amongst the greatest national parks of the world. It is not yet too late and there is hope. The recent security operations carried out in Coast Province have shown the government’s concern. Further evidence of the government’s resolve is shown by the appointment of a new Director and Deputy Director of Wildlife by H.E. The President in 1987. The dismissal of 27 senior Wildlife Department officers for corruption and incompetence in 1988, the declared intention to introduce a Code of Discipline for the Department, and the recent bilateral agreement on poaching with the Somali Republic to cooperate closely in combating the poaching menace.

In taking these measures, the Kenyan government has shown its will to act, and deserves the fullest support of the nation and the international community in its determination to halt poaching and restore the national parks to their former high standard. With these developments there is indeed hope for Tsavo and its elephants.