

## Success Story at Ngorongoro

*By H. A. Fosbrooke*

The ancient volcanic crater of Ngorongoro in Tanzania, 10 miles across and 2,000 feet deep, is one of the show places of East African wildlife. Formerly a part of the great Serengeti National Park, it was separated in 1959 on the recommendation of a Government Committee of Enquiry, and, together with the Eastern Serengeti, established as a Conservation Area with a total area of 3,200 square miles. This followed Professor Pearsall's ecological survey of the Serengeti in 1956, financed by the FPS, the report of which was published in *ORYX*, August 1957. In this article the retiring Conservator of the Ngorongoro Conservation Area describes how, helped by money from the British Government, Ngorongoro has developed in five years from "a doubtful starter" to one of the successes of East African conservation. Members of the FPS East African tour will visit the Crater in February.

**F**IVE years ago the National Parks system in Tanganyika consisted of one park, the Serengeti, and this was in the throes of re-organisation. Some 2,500 square miles had been excised from its original 5,000—the Ngorongoro Conservation Area—and another 3,000 miles added to it in the form of the Northern Extension. Today there are four new parks in Tanzania: Manyara, 123 square miles, with 10,000 visitors per year; Ngurdoto-Momella, 25 square miles; Mikumi, 700 square miles, and the Ruaha, 5,000 square miles. This great expansion has been effected by an independent African government, carrying its people along with its policy. In the same period Ngorongoro has changed from a doubtful starter in the conservation stakes to a stayer—a long distance runner of great promise.

There had been consternation among conservationists in 1957 when a Committee of Enquiry recommended that Ngorongoro and the Eastern Serengeti should be excised from the Serengeti National Park, and established as a separate Conservation Area (1, 2, 3). There was equal consternation in the Tanganyika Ministries responsible for implementing the scheme, and particularly in the Treasury. However, the British Government stepped in with a grant of £182,000 under the Colonial Development and Welfare scheme, with an additional £82,000 to finance those aspects of the scheme which came under the Three Year Development Plan (1961-1964), and when Tanganyika achieved independence on the 9th December, 1961, the existing balances were handed over as Technical Aid and continued to finance the work until both the Technical Aid and the Three Year Plan came to an end on the 30th June, 1964; in fact, certain balances were carried forward into the new quinquennium.

World opinion was very doubtful as to how far the set-up which the Tanganyika Government was proposing and the British Government financing would match up to the necessities of the situation—the

### THE NGORONGORO EMBLEM

Designed by a French artist, Maurice Fievet, the emblem emphasises the association of the Masai people with the conservation of the wildlife in the Crafer and the importance of the habitat.



conservation of wildlife and natural resources, soil, water, and forest, and the development of Masai pastoralism in the same 3,200 square-mile Conservation Area. The critics proved right; the "Authority" as originally envisaged did not in fact work. The four Masai members formed a right-wing conservative group; the four Technicians a left-wing progressive group, with the chairman, a District Officer, unable to reconcile them. Following discussions at the time of the Arusha conference, in September, 1961, in which many of the distinguished visitors participated, the Government decided to place the Area under a Conservator, directly responsible to the Principal Secretary and the Minister, and so to Parliament. This policy was epitomized in the phrase "national control of a national asset". In June, 1962, Dr. W. J. Egging of the British Nature Conservancy came out to advise at the Government's request. His recommendations emphasised that management of the Ngorongoro Conservation Area must be directed at co-ordinating the diverse requirements of the Masai people and their stock with the conservation and development of the natural resources, and the creation of a stable environment. Increase of both domestic stock and wildlife must be controlled.

The fact that these changes received the full support of Parliament illustrates the public backing which conservation now receives. Ngorongoro is regarded as a must for any visiting VIP to see. But the interest is not only confined to the nation's leaders and VIP's; the National Parks educational programme and Ngorongoro's publicity measures have obviously had considerable impact on the local public, the district councillors and the teaching profession, judged by the number of visiting groups and schools.

What is there to show for the expenditure of nearly a quarter of a million pounds? Obviously, there are the tangible assets—houses for staff and office accommodation, roads, water supplies, vehicles, etc. For the whole period British funds have borne the cost of all recurrent expenditure, including the salaries of all the staff, administrative, veterinary, forest, game, guides and gate staff, together with all recurrent maintenance charges. Secondly an increase in the numbers of wildlife and a considerable increase in tourists. But the most important assets of all are the enlightened attitudes which have emerged during the last five years, especially the sympathetic attitude of the Tanzania Government to wildlife in general and to Ngorongoro in particular. Probably the greatest single factor in developing this attitude was the Arusha Conference of 1961 in which the classic

Arusha Manifesto, signed by the President of Tanganyika, Dr. Nyerere, and two of his Ministers pledged the Government to do all in its power to conserve wildlife.

Wildlife numbers in the Crater are most certainly up; the latest census (5) yielded the following results:—

Wildebeest	14,222	Rhino	27
Zebra	5,038	Hartebeest	44
Gazelle	2,310	Waterbuck	35
Eland	340	Ostrich	37
Hippo	23	Lion	10
Elephant	28	Buffalo	11

The fact that these figures are in general higher than any previous counts or estimates is due to a number of causes including the good rains of the last three seasons, and the lack of disturbance. Few people realise that at the time of the first recorded visit in 1892 the Crater contained encampments of Dorobo (aboriginal hunters) living off the game (6); that the Germans then parcelled it out into farms for Europeans, and that as late as 1954 there were 67 African farmers and their families who took their toll of wildlife to protect their crops. Another factor is the decreasing competition between game and cattle. A single boma (cattle encampment), which the writer visited and photographed in the mid-thirties, contained more stock than are now herded by all the 100 plus Masai living in the Crater today. The latest figures show that domestic stock now comprises only eight per cent. of the biomass on the Crater floor.

The wildebeest figure of 14,000 is well up on previous counts and estimates, but rinderpest has not been apparent in the herds for several years, and the now largely susceptible stock may suffer considerable casualties from this disease in the future. The gazelle count is considered low, owing to technical difficulties in counting, whilst the restless eland, here today and gone tomorrow, are always varying.

Elephant likewise are always on the move, with as many as 90 reported on one occasion; (the damage done by the small semi-resident elephant herd to the Leraï Forest is a cause for anxiety). The rhino census figure of 27 represents a good average figure of a population which may vary from 37 to less than 10, according to the time of year. Since he started work in mid-1964, John Goddard, the Canadian biologist, has identified by photographs 80 different rhino visiting the Crater. The lion numbers, which possibly reached a peak of 60 in the past, were severely reduced by a plague of biting flies, *Stomoxys* sp. in 1962 (7) but have since recovered reasonably well; as many as 21 were seen in one day late in 1965.

Observation and census figures reveal considerable fluctuations in the wildlife numbers of the Crater, both as a whole and species by species. Fortunately, Ngorongoro is never devoid of reasonable numbers of all the species which inhabit it and hence its value as an all-the-year round game-viewing area. These fluctuations do emphasise, however, that the Crater is not in itself a viable ecological unit at

least at its present rate of wildlife stocking. It is dependent on the surrounding areas, to which numbers of each species retire at various times of the year, each according to its own pattern, and it is the task of the scientists engaged on research in the Area to ascertain just what the pattern is. Members of the Serengeti Research Project are frequent visitors, particularly M. Watson (studying wildebeest), H. Klingel (zebra) and H. Kruuk (hyaena). R. D. Estes of Cornell University spent two years (1963-65) in the Crater observing antelope behaviour under American National Geographic auspices, whilst J. Goddard, of the Ontario Lands & Forests Department, has spent nearly two years on general studies, paying considerable attention to rhino.

### **Rhino Spearing by the Masai**

Poaching for meat has never been a serious problem in the Crater, as the 10,000 Masai who inhabit the Area get sufficient protein from their own herds. This not only leaves the Crater animals unmolested, but equally the Serengeti migrants are as safe in the Conservation Area as they are when in the National Park. Rhino spearing is, however, another matter. The Masai *moran* (warriors) have complete confidence in their ability to stand up to a rhino, and hence, if they meet one, they do not, as others do, take avoiding action, but maintain course and if the rhino charges they spear it; then with some justification they can plead "self defence". Five such incidents have occurred over the last four years, but successful prosecution for "failing to report the wounding of a dangerous animal" or "illicit possession of Government trophies" have kept these incidents to a minimum. There were times in the past when poaching for the horn reached dangerous proportions—this was particularly noticeable when the Masai were famine-struck and required money to buy food. We have also had cases of "juvenile delinquency" as when some youths crept up on a sleeping zebra foal and speared it, or when two young lads, aged about 14 and 12 found an elephant in the gully where they wanted to water their goats; they promptly climbed up the bank and speared the elephant through the kidneys; it died on the spot!

What of the future? Here prospects are bright thanks to the strong support which the nation's leaders are giving to wildlife conservation. A practical example of this occurred in December, 1964, when the Regional Commissioner sanctioned the removal by police of recalcitrant agriculturists who had consistently ignored legal orders to leave the Embagai Crater. Moreover, tourist development should continue to expand. When the Conservation Authority took over from National Parks in 1959, visitors numbered about 3,500; the 1965 figure is likely to be between 17,000 and 18,000.

To summarise: the British grant enabled Tanzania to inaugurate a co-ordinated experiment in multiple land usage and to establish an administrative machine capable of continuing on the lines that these five years have shown to be both possible and profitable. To ensure continued and expanding services, continuing finance is re-

quired, since the C D & W scheme and the Three Year Plan came to an end on the 30th June, 1964. Future recurrent expenditure is now ensured by the Government. The cost is approximately £30,000 per annum, of which it is hoped some £14,000 will be recovered in fees. Capital is another matter; Ngorongoro succeeded in staking a claim in the Five Year Plan (starting 1st July, 1964) for the sum of £187,000. To get approval from the Directorate of Development and Planning for the inclusion of such a sum was an important step forward; the next one was to ensure that the necessary funds were forthcoming. On December 24th, 1964—a most heartening Christmas gift—Britain announced her intention of lending £6½m. to Tanzania on very easy terms to help to implement the Five Year Plan; the Ngorongoro Project was accepted as technically sound, and permitted to spend £98,000 over the first two years of the Plan. So the prospects for several important developments are good.

So far all finance for Ngorongoro has been governmental, with the exception of the Nuffield Foundation grant of £20,000 for a pasture research unit. This is because the Conservation Unit is an integral part of government, a section of the Ministry of Agriculture, Forests and Wildlife, like the United States National Parks Service, which is within the Department of the Interior, and unlike the Tanzania and other East African Parks which are managed by Boards of Trustees. Such Boards can appeal to the public for funds, as the East African National Parks have successfully done. But no department of Government is likely to receive voluntary support. In the United States the National Parks Service has instituted the device of Co-operating Associations, which solicit public contributions to supply those services not normally covered by a Government budget. It is proposed in the near future to adopt a similar measure in respect of Ngorongoro, so if readers of Oryx shortly notice an appeal to establish a "Ngorongoro Museum and Publication Association" it is hoped that they will give it generous financial support.

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