

African elephants: surviving by the skin of their teeth

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The African elephant's misfortune has been its teeth, in particular the well-developed pair of upper incisors known as tusks for which it is being killed in large numbers. The visible ivory part of the tusks is made up of dentine with an outer layer of enamel, and when viewed in cross-section it reveals criss-cross lines that form a series of diamond shapes. This is what gives the elephant ivory its distinctive lustre, and makes it so valuable economically. Ivory has been an item of international trade since ancient times, exploited commercially by the Romans, Arab traders and Europeans. Man's avarice and greed for ivory have been responsible for the senseless slaughter of hundreds of thousands of elephants in Africa where both sexes carry tusks. Indiscriminate poaching for ivory coupled with the expansion of human populations and desertification have been identified as the principal causes for the decline in range and number of the African elephant¹.

It was Samuel Johnson who once remarked that round numbers are always false. Despite their large size and high visibility, elephants are difficult to count, especially in forested areas². Thus, there is no ideal method for counting them³. Much of the estimates in the past were based on informed guesses but efforts are being made to obtain more objective estimates of elephant numbers using indirect methods such as dung counts⁴ or DNA fingerprinting⁵. While such refined methods may lead to reliable estimates of elephant numbers in small, defined local areas, estimating elephant numbers on a continental level still poses difficulties. In the 1970s, a questionnaire survey carried out by Douglas-Hamilton⁶ revealed that there could have been about 1.3 million elephants in Africa. This figure has been used as a benchmark for almost all subsequent extrapolations of elephant growth in numbers. However, the information summarized by Bere⁷ indicates the then existence of only an estimated 300,000 elephants in the whole of the African continent⁸. According to the recent estimates³, the world's most authoritative and comprehensive source of data on range and numbers, put the number of

African elephants in the wild as 402,067. This estimate points to a decline of almost 70% if we take the starting population size in the 1970s to be 1.3 million, but on the other hand, if there were only 300,000 animals to start with, it signifies a 25% increase in the elephant population.

Subsequently, based on new questionnaire returns and other reliable information, it was found that between 1981 and 1987, African elephant populations had more than halved in several areas¹ whereas in some countries, they appear to have increased⁹.

Under pressure from conservationists, the CITES (Convention on International Trade in Endangered Species of wild fauna and flora) imposed an international ban on ivory trade in 1989, by placing the African elephant on Appendix I. But a few governments in the African elephant range-states such as South Africa, Namibia, Botswana and Zimbabwe, took exception to the ban arguing that elephant populations in their countries were stable or increasing through good management and so were allowed to trade in their stockpiled ivory. The partial lifting of the ban enabled the southern African countries in the late 1990s to ship nearly 34 tonnes of ivory to Japan.

Prior to 1989, conservationists estimate that about 70,000 elephants may have been killed annually for their tusks by ivory poachers in Africa.

In 2008, CITES approved the sale of 108 tonnes of ivory to Japan from southern African countries. Conservationists fear that such legal trade in ivory, between Africa and the Far East could provide cover for the illegal trade in ivory, leading to the annual slaughter of almost 37,000 elephants in Africa¹⁰. They also seem to believe that in the absence of strict law enforcement, such mortality could lead to the extinction of the African elephant by 2020. The dilemma is that while some southern African countries would like to have a more flexible system that enables them to occasionally trade in their stockpiles, countries like Kenya and NGOs such as the International Fund for Animal Welfare (IFAW) believe that only a total ban on ivory

trade could ensure the long-term survival of the elephants in the wild.

In March 2009, a cargo of 1200 sections of African elephant tusks from Tanzania weighing about 6230 kg with a street value of US\$ 30 million was intercepted in Vietnam which has re-opened the debate on the issue of ivory trade and its impact on the survival of the elephants in the wild. According to O'Neill¹¹, the price of good quality ivory has risen from US\$ 200/kg in 2005 to US\$ 850/kg in 2007. While TRAFFIC estimates the average price of illegal ivory to be about US\$ 1500/kg, a figure disputed by CITES which puts the average price of legal ivory at US\$ 162/kg (ref. 10).

It is difficult to estimate the number of elephants contributing to the haul of 6230 kg of ivory that was seized in Vietnam. Unlike Asian elephants, among African elephants not only do both sexes carry tusks, but the tusks vary in size and weight in males and females, with male tusks weighing much more than those of the females. Besides, the tusks in males grow exponentially so that by the time a bull elephant reaches 50 years of age its tusks are seven times the weight of female tusks¹². Thus the average tusk weight of a 55-year old male African bush elephant (*Loxodonta africana*) is 49 kg/tusk, while that of a female of the same age is only 7 kg/tusk. Hence, depending on the sex of the animal killed, the shipment could have come from the death of anything between 62 (in the case of adult males) and 445 (in the case of adult females) elephants. According to Milmo¹⁰, the 1200 sections of ivory detected in Vietnam may have come from 'up to 900 elephants'.

Alarmed by the slaughter of elephants for ivory in Africa, some conservationists and NGOs have expressed their fears for the long-term survival of the elephant in the wild. Milmo¹⁰ refers to an authoritative American study that warns that poaching deaths are on a par with the late 1980s and the remaining large groups of elephants outside protected reserves could be extinct by 2020 in the absence of improved law enforcement.

Conservation biology theory tells us that census sizes in wild populations

must be between 500 and 5000, if they are to maintain evolutionary potential¹³. The present estimate of 402,067 is well above the Minimum Viable Population level and so, the African elephant population is far from being close to extinction. Besides, as O'Neill¹¹ points out, according to the World Conservation Union, in southern African region, elephants have grown by 4% annually, adding more than 50,000 animals over the past 5 years making the present total to about 300,000 animals.

Has the CITES ban on ivory trade really worked? It is a truism that when something is outlawed, the outlaws usually get it. The use of drugs has been banned in several countries, yet trade in drugs continues unabated. The ivory trade ban has not been really effective in reducing poaching. It has simply pushed the trade underground, where no one but the middlemen profit. The ban has in fact encouraged illegal poaching even within protected areas. In 2008, poachers killed 15 elephants in the Amboseli National Park in Kenya¹⁰. Illegal poaching will reduce elephant numbers significantly outside protected areas where human–elephant conflict has become a serious conservation issue. Yet, some conservation agencies and NGOs continue to press for the total ban on ivory trade across all elephant range states. As O'Neill¹¹ argues, 'the debate about the ivory trade reveals the jagged edge to the animal rights agenda, where the rights of humans are subordinated to the "interests" of herds of elephants'.

Elephants are a natural resource, every bit as much as fish or fowl, and African

people must be allowed to benefit from their own natural resources. There is nothing morally reprehensible about trading in ivory taken from elephants that die naturally or get killed accidentally in conflict. What is wrong would be the wanton killing of elephants for their tusks. Legal ivory should be allowed to be traded internationally. Poaching is an economic activity that is controlled by supply and demand. It has costs and benefits and is regulated by economic considerations¹⁴. The elephant is a natural resource, and its tusks represent a renewable resource. An open ivory trade will enable many African states to profit from their own natural resources. Conservation is defined as the wise use of natural resources in a sustainable manner, while protectionism expects nature to somehow find its own balance in a human-dominated landscape.

In Africa, where most of the people are extremely poor, the policy of preserving elephants at the cost of human welfare will not work. It is only through allowing the people who share their land with elephants to derive economic benefit from the sale of meat, hide and ivory that they can be led to appreciate the value of elephants and become active partners in conserving them. Africans should be allowed to decide how they manage their elephant populations and what to sell in the international market.

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