Scientists Oppose One-off Ivory Sales and Urge International Trade Decisions to Put Science above Politics

March 11, 2010 -

Illegal killing of elephants is on the rise, driven by growing markets for ivory in the Far East, particularly China. In a Policy Forum published in this week's issue of the journal *Science*, 27 scientists argue that previous 'one-time only' ivory sales - purportedly derived from natural mortality and legal animal control - have driven the resurgence in poaching by re-establishing a demand for ivory that is now spiraling out of control.

At this year's meeting of the Convention on International Trade in Endangered Species (CITES) in Qatar, representatives of the member states will debate whether Tanzania and Zambia should be permitted to down-list their populations and make additional 'one-off' sales of ivory. These countries and their neighbors have seen a marked resurgence in elephant poaching that has led to significant declines in some populations. Furthermore, 42% of tusks in Tanzania's stockpile have no source documentation according to the CITES Panel of Expert's (PoE) report and 'inconsistent record keeping' is noted. In essence, the authors of the *Science* piece argue, CITES risks approving sale of up to 38 tonnes of ivory from illegally poached animals.

The *Science* report strongly argues that CITES should reject Tanzania's and Zambia's requests, on the conviction that such 'one-off' sales create a demand for ivory on the black-market, where the substance fetches prices ten times those obtained in legal auctions. The scientists argue that this new market for ivory threatens to reverse the recovery of African elephants observed since the ban on the international ivory trade was put in place twenty years ago.

"A ban isn't a ban with one-off sales. It's important to remember that the ban was effective until the first petition for a one-off sale was made. The one-off sale was a signal to the market and to poachers that the trade was open again, and in the last decade we have seen just what this has meant for elephant populations," says co-author Joyce Poole of ElephantVoices and the Amboseli Elephant Research Project.

"If you look at the trends, the first sale was approved in 1997 and occurred in 1999. The first sale gave hope of another. The second sale was approved in 2002 but did not occur until 2008. The price of ivory skyrocketed in this interim and continues to rise steeply. Illegal trade also rose dramatically with spikes in 2004, 2006 (when Tanzania first petitioned to downlist), and another huge rise is 2009, the year following the last sale. In my mind, the pattern is clear," says lead author Sam Wasser of University of Washington.

DNA forensics work led by Wasser shows that much of the seized ivory is originating in Tanzania and Zambia – the two countries petitioning CITES. Meanwhile, China and Japan – the two countries approved by CITES to import the ivory – are among the most heavily implicated in the illegal ivory trade.

"CITES must consider the precedent that will be set if these petitions are approved. Such sales could have far-reaching implications on elephant populations and their habitats in not only Tanzania and Zambia but in those neighboring countries with shared elephant populations, as well as in the Central African states whose illegal ivory passes through Tanzania and Zambia on its way to Asian markets," says author Katarzyna Nowak of Princeton University and Wildlife Conservation Research Unit in Oxford.

"CITES has a tendency to be swayed by proposals suggesting that large species such as elephants can be exploited sustainably and the profits set aside to provide funds for future conservation," says author Andy Dobson of Princeton University, "when there is no evidence that these have ever worked other than superficially in the short-term. In contrast, there is evidence that shows how rapidly these schemes lead to loss of the resource species and only short-term profitability to the few individuals who ran the scheme."

The report in *Science* suggests three chief ways for CITES to revise its decision-making process about when species are listed and how they are monitored. First, CITES must acknowledge that species' roles in ecosystems are not equal across species and should consider the influence that megaherbivores, like elephants, have in shaping and maintaining landscapes across Africa. Second, controls on exploitation must be verified by independent programs with no political or economic agenda. Finally, CITES must consider a country's record in controlling illegal trade more seriously when evaluating petitions.

"The current petitioning countries are not succeeding in responsibly controlling their illegal trade, nor are the countries likely to act as buyers of the ivory," says Wasser.

The article's authors also contend that CITES should adopt a peer-review system that incorporates a wider reaction from the scientific community and do so long before votes are cast at the Conference of the Parties (CoP). CITES currently relies on a 'Panel of Experts' report written by four CITES-selected representatives; the report evaluating Tanzania's and Zambia's petitions was released only one week before CoP15. Among the more than 50 interviewees in Tanzania, the Panel failed to consult two chief Tanzanian elephant researchers: Professor Benezeth Mutayoba and Dr. Alfred Kikoti, both authors on the *Science* piece.

Despite its faults, the PoE assessment of Tanzania provides a balanced and diplomatic report, which presents convincing evidence to reject the petitions. "It is inconceivable that anyone could approve legal ivory sales from a country whose involvement in the illegal trade is second only to China and in which 30,000 elephants are likely to have been poached in the last 3 years," states Poole, "If Tanzania is approved then surely any range state can down list and trade."

Poole also noted that the PoE report exemplifies the importance of involving elephant biologists and broader peer review in the assessments, pointing out that the Panel of Experts has made crucial errors in demographic assumptions. "The natural level of so-called 'trophy' males - those with tusks over 15 kg, typically males 28 years and above - should make up 6% of

a population, not 1% as the report contends, suggesting that older breeding males have already been overexploited in Tanzania," Poole explains.

In addition, Poole argues that the PoE report gives Tanzania's populations a clean bill of health by mistakenly assuming that the high proportion of elephants under 5 years of age is an indicator of good health and growth of the population. "High proportions of young often indicate elevated levels of poaching, as was exemplified in Tanzania and Kenya in the late 1980s where older individuals had been selectively killed," says Poole.

The Panel of Experts calls the \$15m that would be generated from Tanzania's sale a "large injection of funds" but they also note that the tourism industry generates \$1.3 billion per annum, much of which depends on healthy elephant populations drawing crowds for photo tourism. In comparison the sum of \$15m could easily be translated into much bigger net losses if elephant poaching increases, a point already put forward by tour operators in Zanzibar, Tanzania. "It is hard to imagine that CITES could deem this risk worthwhile," says Nowak.

Basic demographic and economic theory suggests that it is difficult to sustainably harvest any species whose rate of population increase is slower than the mean rate of increase of the financial markets. Ultimately these market forces have driven overexploitation of whales, spotted cats, elephants, fisheries and hardwoods.

"With a curious, recurring naiveté, CITES tends to ignore the fundamental facts of bioeconomics," says Dobson. Much of this arises because of horse-trading between member states to vote for petitions in countries that will reciprocate by their support for proposals of no national interest. For example, 23 African countries against Tanzania's and Zambia's one-off ivory sales are currently threatening to vote against the EU petition to uplist bluefin tuna if the EU supports the one-off sales. "This creates an unbridled global parody of the tragedy of the commons, which in this case could mean a future without elephants and bluefin tuna," says Dobson.

"If the trade in endangered species is to be anything other than a corrupt path to extinction, and if CITES is to retain any credibility as an International Organization, new guidelines need to be fully discussed in an open forum at Cop15 so that scientific evidence supersedes politics," says Dobson.

Original Piece:

Elephants, Ivory and Trade. Wasser et al. Science Vol. 328, 12 March 2010.

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