

The Environmental Impacts of Elephant Poaching for Ivory

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Ivory is categorized as an organic gemstone and is derived from the teeth or tusks of animals including hippopotamuses, walruses, warthogs, sperm whales, hornbills, and elephants. (All About Gemstones, 2006, Uniclectica Antiques and Collectibles Online Series, 1997-2000). Since the earliest of times, humans have used ivory to create a variety of objects including carved statues, jewelry, billiard balls, and piano keys (Eleaid, Elephant Poaching, 2009). For ivory to be considered “true ivory” it must come from the tusks of elephants for it’s fine and even grain that makes it a most suitable carving material of lapidary artisans (Uniclectica Antiques and Collectibles Online Series, 1997-2000). However, the acquisition of ivory has dire consequences to the environment adversely affecting both elephant populations and their habitats alike.

Ivory is obtained through the cruel practice of poaching. Poaching is defined as “the illegal hunting, killing or capturing of animals” (Encyclopedia of Earth, 2009). Examples of poaching include, “taking without a license or permit, use of a prohibited weapon or trap, taking outside of the designated time of day or year, and taking of a prohibited sex or life stage” (Encyclopedia of Earth, 2009). Methods of poaching include the use of snare wires, spears, arrows and bows, trap nets, pitfalls, iron snare traps, and automated weapons (Encyclopedia of Earth, 2009). Snare wire traps are constructed of lengths of cable wire tied to trees designed to strangle an animal as they struggle to free

themselves. (Encyclopedia of Earth, 2009). The practices of spearing and using arrows and bows are considered to be a more traditional method of poaching. Often times this practice includes the use of poison applied to the tips of spears and arrows in efforts to subdue the animals (Encyclopedia of Earth, 2009). Trap nets are set in place to capture an animal, and once caught, are speared. The practice of pitfalls is commonly used to capture larger animals, such as elephants, through digging trenches that are covered with grass and tree branches as a means of disguising the pit. The animals are then chased into the pit, fall inside, and find themselves unable to escape (Encyclopedia of Earth, 2009). Iron snare traps are strategically placed on the ground where animals may step into the trap (Encyclopedia of Earth, 2009). This method is also known to unintentionally trap humans and other animals as well (Encyclopedia of Earth, 2009). Automated weapons are used by more organized poachers who chase and kill thousands of elephants through the use of automobiles and airplanes (Bagheera, 2009). Although many countries have instated laws against the practice of poaching, especially in regards to threatened or endangered species, poaching continues to be practiced by those who wish to profit from the sale of ivory, animal hides, and meat (Encyclopedia of Earth, 2009).

As a result of poaching, both African and Asian elephants were added to the endangered species list in 1989 (Bagheera, 2009). At one time, the African elephant was known to roam the entire continent (Bagheera, 2009). Today, the African elephant is only seen in parts of the Sahara Desert (Bagheera, 2009). In 1977, 1.3 million elephants lived in Africa; by 1997, only 600,000 remained” (PBS, 2009). The Asian elephant is native to northern China and the Indonesian Islands (Bagheera, 2009). Today, this

elephant species may be seen in isolated parts of India, Sri Lanka, and Southeast Asia, with only an estimated 35,000 to 40,000 remaining in existence (Bagheera, 2009).

The practice of poaching has serious implications for elephant populations struggling to survive and at risk of extinction. Poachers typically seek out those elephants with the largest tusks. At one time, only female Asian elephants did not have tusks (Bagheera, 2009). However as a result of long-term elephant poaching, male Asian elephants are losing their “big tusk” gene which creates “serious imbalances in the ratio between the sexes” (Eleaid, Elephant Poaching, 2009). The diminishing “big tusk” gene plays a role in elephant mating since females are attracted to those males with the largest tusks (Eleaid, Elephant Tusks, 2009). As a result of Asian elephant ivory being considered the highest quality of ivory, male Asian elephant populations have severely declined. A study performed by Raman Sukumar in India found that ivory poaching was linked to approximately 68% of all male elephant deaths in three Indian provinces (Eleaid, Elephant Poaching, 2009). This not only adversely affects reproduction rates, but also a lack of genetic diversity that ensures healthy elephant populations (Eleaid, Elephant Poaching, 2009). Further, elephants rely upon their tusks for a various means of survival such as protection against predators, battles with fellow elephants, and tools for digging and moving things (Eleaid, Elephant Tusks, 2009).

Another serious consequence of poaching adult elephants includes leaving young baby elephants orphaned and fending for themselves, often times resulting in their deaths as well (Bagheera, 2009). Additionally, the loss of adult elephants leaves the young orphans without elders to teach them how to navigate migration routes, unable to locate dry-season water sources, and unable to learn other learned socialized behaviors

traditionally taught to them by their elders in the herd (Bagheera, 2009). Therefore, elephant herds are forced to rely upon naïve sub-adults and juveniles to act as pack leaders. Those young elephants that witness the violence of seeing their family members being poached are left with psychologically traumatic conditions (Godeanu, R. & de Seve, K., 2001). For these reasons, rescue groups have been formed to find, rescue, and care for these orphan elephants in efforts to help them heal and eventually reintroduce back into the wild upon their completed rehabilitation (Godeanu, R. & de Seve, K., 2001).

The environmental impacts of elephant poaching are serious for animal and plant life residing within the shared eco-system that rely upon elephants for their survival as well. According to the World Wildlife Fund, “Elephants directly influence forest composition and density, and can alter the broader landscape. In tropical forests, elephants create clearing and gaps in the canopy that encourage tree regeneration. In the savannas, they can reduce bush cover to create an environment favorable to a mix of browsing and grazing animals” (World Wildlife Fund, African Elephants, 2009). Further, “Many plant species also have evolved seeds that are dependent on passing through an elephant’s digestive tract before they can germinate; it is calculated that at least a third of tree species in west African forests rely on elephants in this way for distribution of their future generations” (World Wildlife Fund, African Elephants, 2009). Other animals such as baboons and birds also rely upon elephant dung to locate undigested seeds and nuts (Bagheera, 2009). Dung beetles rely upon elephant dung as a location for reproduction. (Bagheera, 2009). Elephant dung also aides in adding nutrients to the soil in need of replenishment. (Bagheera, 2009). Poaching is also responsible for

spreading disease in animals and humans alike. Animals infected from wounds inflicted by traps can pass diseases on to others (Encyclopedia of Earth, 2009). Further, by outlawing the poaching of elephants, other animal species that have tusks are put at greater risk for extinction as well. “Asian ivory craftspeople are turning to other sources of raw material for their carvings. Some are turning to walrus tusks instead of elephant ivory, shifting hunting pressure to walruses (Bagheera, 2009).

Human overpopulation and interaction also plays a role in adversely affecting dwindling elephant populations and habitats. “As herbivores (plant eaters), elephants consume grass, foliage, fruit, branches, twigs, and tree bark. Elephants spend three-quarters of its day eating, and they eat as much as 400 lbs (880 kg) of vegetation each day” (Bagheera, 2009). “Habitat loss and fragmentation is the biggest threat to the continuing survival of Asian Elephants. The main cause of the loss of the natural forest that elephants require to survive is pressure form human population growth...if the number of people continue to grow at its current rate by 2054 the world population will have doubled to a mind boggling 12 billion humans! Add to this the fact that it is estimated that 20% of the world’s total population live in or near the range of Asia’s elephants and you have some ideal of the colossal pressure that human population growth has placed and is placing on elephant habitat” (Eleaid, Elephant Habitat Loss, 2009). As humans continue to encroach on elephant’s native habitats for their own residential needs, many perceive the creatures as a nuisance. “Human-elephant conflict (HEC) is dramatically on the rise and has become one of the major issues in the fight to save Asia’s endangered elephants” (Eleaid, Human Elephant Conflict, 2009). During mating season, male elephants are known to raid villages. As a result, farmers and villagers have

been known to shoot elephants in efforts to protect their means of earning a living and protecting their property (Bagheera, 2009). In efforts to minimize human-elephant conflicts, some countries have developed culling programs where park rangers and hunters kill a predetermined number of elephants. However, such actions further contribute to the decline of elephant populations already at risk of extinction.

In response to the threat of the elephant's extinction, some safeguards and policies have been created in efforts to ensure the creature's survival. For example, many national parks protect the elephant's habit and work to develop refuges along migration trails (Bagheera, 2009). Eco-tourism also plays a role in safeguarding the elephant's existence. "Kenya alone receives \$50 million a year from tourist coming to see elephants" (Bagheera, 2009). Once people realize the economic benefits of tourism, it discourages the threat of endangering wildlife. According to Dr. David Western, director of the Kenya Wildlife Service, "the best way to alleviate human-wildlife conflicts is to give people a reason to keep the local wildlife alive and healthy. For instance, eco-tourism in Amboseli National Park and its neighbor Nairobi National Park puts money directly back into the local Masai communities. Rather than a burden, the elephants become an important part of the local economy" (PBS, 2009). Animal welfare organizations have emerged to rescue and rehabilitate elephants in need, and educate others on the importance of saving the species (Godeanu, R. & de Seve, K., 2001). Conservation organizations such as the World Wildlife Fund and others work to bring global awareness to the elephant's plight and raise funding to aid in their survival. Through their Elephant programs, they work to conserve elephants through, "slowing the loss of natural habitat, strengthening activities against poachers and the illegal ivory

trade, reducing conflict between human and elephant populations, determining the status of elephant populations through improved surveys, and enhancing the capacity of local wildlife authorities to conserve and manage elephant populations” (World Wildlife Fund, African Elephant, 2009). Additionally this organization also works to “minimize threats to elephants, and to empower communities to participate in long-term conservation and management of these animals” (World Wildlife Fund, Asian Elephant, 2009).

According to the World Wildlife Fund, the programs combine “cutting-edge conservation biology with trade monitoring, community development, socio-economic analysis, public awareness campaigns, dialogue with traditional medicine practitioners, capacity building, and policy advocacy” going so far as to working with organizations such as TRAFFIC, an international wildlife trade monitoring network that works with the WWF and IUCN (The World Conservation Union) to reduce the threat of illegal ivory markets and trade (World Wildlife Fund, Asian Elephant, 2009).

International trade policies have also played a role in both contributing to the elephant’s endangered status and efforts to reduce their impending extinction. “Between 1979 and 1989, the worldwide demand for ivory caused elephant populations to decline to dangerously low levels. During this time period, poachings fueled by ivory sales cut Africa’s elephant population in half. Since they were big targets and sported the largest tusks, savannah elephants took the worst hit (PBS, 2009). “Worldwide concern over the decline of the elephant led to a complete ban on the ivory trade in 1990. Elephants have been placed on Appendix I of CITES, the Convention on International Trade in Endangered Species, which means all trade in elephant parts is prohibited. In 1989, the African Elephant Conservation Act was passed by Congress and placed restrictions on

ivory trade (TED Case Studies, 2009). Additionally, elephants are listed as a threatened species under the U.S. Endangered Species Act (U.S. Fish & Wildlife Service, 1999). However, not everyone supports the ivory ban (U.S. Fish & Wildlife Service, 1999 and Bagheera, 2009). In 1997, CITES lifted trade sanctions to allow Zimbabwe, Botswana, and Namibia to sell ivory to Japan, concerning conservation groups who believe this may only encourage poachers to continue their killing (PBS, 2009). Further, Zimbabwe, South Africa, and Botswana still allow the practice of trophy hunting on privately owned ranches (Bagheera, 2009).

Today there is still a demand for objects made of ivory: "...other research has indicated that the illegal trade in elephant ivory is thriving. A series of studies, reports, and investigations have shown an uptick in elephant poaching in countries and regions where law enforcement is lax. Some worry that the current auctions will cloud the market, legitimizing the trade of ivory, whether it is legally or illegally sourced" (Mongabay.com, 2008). A recent report found that the U.S. is the second largest elephant ivory consumer of ivory, with China being the largest ivory consumer (Humane Society of the United States, 2008). Lax trade policies also play a role in the continuing supply and demand for ivory. For example, a 2009 report found that over 600 U.S. retailers were found to be selling illegally obtained ivory, with many items sold labeled as antiques, mammoth ivory, or bone (Care for the Wild International, 2008). Although ivory may not be imported into the United States according to the African Elephant Conservation Act, there are exceptions to the rule (U.S. Fish & Wildlife Service, 1999). For example, the age, condition, manner in which the ivory was acquired and whether or not the ivory is documented plays a role in determining the legality of ivory trade (U.S.

Fish & Wildlife Service, 1999). However, conservation groups feel that the only solution is a total ivory trade ban since there is no way of differentiating between the ivory of legally and illegally killed elephants (Bagheera, 2009).

So what may people do to not play a role in further contributing to the endangerment of elephants? First, people may stop selling and purchasing ivory. If there is no demand, supplies will diminish. In 2008, the online store eBay was applauded by the Humane Society of the United States for banning the sale of ivory on their website (Humane Society of the United States, 2008). Second, people may purchase cruelty-free look-alike ivory options such as ivory made from vegetable sources such as the South American ivory palm, and synthetic ivories such as those made of celluloid (Uniclectica Antiques and Collectibles Online Series, 1997-2000). Third, people may support those animal welfare, conservation, and rehabilitation programs working to save the elephant from extinction. This may be done through making financial contributions, signing legislative and policy related petitions, and patronizing those national parks and wildlife refuges that support ethical eco-tourism. And last, people may further educate themselves on the plight of the elephant, and all animals struggling to coexist on the planet with humans, so they may not play a role in contributing to the extinction of yet another species.

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