

# LEGAL TRADE IN AFRICAN ELEPHANT IVORY: BUY IVORY TO SAVE THE ELEPHANT?

By  
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*Trade in endangered species is a complicated issue. The trade in ivory creates tensions between western conservation-driven beliefs and developing countries' reliance on wildlife as a resource. This article examines the recent decision under the Convention on International Trade in Endangered Species (CITES) to conduct a one-time sale of ivory from Zimbabwe, Namibia, and Botswana to Japan. Since trade in endangered species involves many different disciplines, this paper touches on biology, international law, economics, and public policy. In theory, limited trade in African elephant ivory is possible and even advantageous for the various actors. However, in practice, the management controls on the supply side in Africa and the demand side in Japan are insufficient to prevent poaching and the eventual decimation of the species. This one-time sale should act as a warning to prevent further sales without a significant revamping of the control mechanisms.*

## I. INTRODUCTION

There is an old fable about three blind people who encounter an elephant for the first time. The first person grabs hold of the tail and proclaims, "this creature is like a wrinkly snake." The second, feeling the powerful legs, disputes, "no, it is much more like a strong tree." The third grasps a smooth ivory tusk and counters, "no, both of you are wrong, this creature is hard like wood, but very smooth and strangely appealing."

Elephants are different things to different people. To a relatively affluent person from a developed country with no elephant population, elephants might be seen as great, intelligent animals to be preserved at all costs. To a government official in a developing African nation, elephants might represent economic resources. A farmer in an area with a booming elephant population might view elephants as pests capable of consuming a year's worth of hard labor in a single night. For others, ivory from the elephant is the material from which personal

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signature stamps and carvings are created. Some individuals in eastern countries view elephants as gods imbued with human qualities. These differing views on the elephant give rise to differing opinions about its preservation and conservation. The recent approval of a one-time sale of ivory from three African nations to Japan following a nearly ten-year ban on international sales of ivory has caused considerable debate. This article analyzes the current status of trade in African elephant ivory, and focuses on this new trade decision, concluding that management controls on the supply side in Africa and the demand side in Japan are insufficient to prevent poaching and the eventual decimation of the species. Part II focuses on the relevant details of the elephant and its plight. Part III discusses the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES),<sup>1</sup> the primary international treaty governing this issue. Part IV compares two main wildlife management strategies, sustained use and pure preservation. Part V evaluates the ivory market in Japan. Part VI concludes with a criticism of the sustained use strategy in this context and offers suggestions for future agreements.

## II. THE PLIGHT OF THE AFRICAN ELEPHANT

Elephants have roamed Africa for centuries,<sup>2</sup> though at present only two species exist, the Asian (also known as the Indian) (*Elephas maximus*) and the African (*Loxodonta africana*).<sup>3</sup> African elephants are considerably larger than Asian elephants, and are more numerous.<sup>4</sup> Since this recent trade decision involves only the African elephant,<sup>5</sup> this paper will focus exclusively on the African species.

### A. Biology

Elephants are complex creatures, large by any standard, and highly intelligent. Full-grown male African elephants can be up to thirteen feet tall, and can weigh up to eight tons.<sup>6</sup> The world's largest land mammal, elephants can live to be seventy years old with a life cycle similar to that of humans.<sup>7</sup> To sustain their bulk, elephants eat

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<sup>1</sup> *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (Mar. 3, 1973), 27 U.S.T. 1087 [hereinafter CITES].

<sup>2</sup> Trade Environment Database, *TED Case Studies: Legal Elephant Ivory Trade: Case Number 483* <<http://www.american.edu/projects/mandala/TED/IVORY.HTM>> (accessed Mar. 10, 2001) [hereinafter *Legal Elephant Ivory Trade*].

<sup>3</sup> The Elephant Information Repository, *Elephant Stories, Parables, Evolution and CITES History* <[http://elephant.elehost.com/About\\_Elephants/Stories/stories.html](http://elephant.elehost.com/About_Elephants/Stories/stories.html)> (accessed Apr. 7, 2001).

<sup>4</sup> *Legal Elephant Ivory Trade*, *supra* n. 2.

<sup>5</sup> However, some argue that approving the sale of any ivory may lead to additional poaching of the more endangered Asian elephant. See discussion *infra* Part IV.

<sup>6</sup> David Harland, *Killing Game: International Law and the African Elephant* 18 (Praeger 1994).

<sup>7</sup> *Id.*

about 330 pounds of food a day,<sup>8</sup> and forage sixteen to eighteen hours a day.<sup>9</sup> As human populations expand, the elephants' requirement for a substantial amount of food and habitat increasingly bring them into contact with humans. According to Andrea Turkalo of the Wildlife Conservation Society, "[i]t was once said that in Africa human communities were like islands surrounded by elephants. These days it's exactly the opposite."<sup>10</sup> Elephant populations have been decimated due to the hunting of elephants for their tusks and to habitat destruction.<sup>11</sup>

Both male and female elephants develop tusks of ivory, though males tend to have larger, heavier ones.<sup>12</sup> Tusks begin to grow at age two and continue to grow throughout an elephant's life, reaching, on average, 130 pounds for older males.<sup>13</sup> However, should a tusk be broken or taken, it will not grow back.<sup>14</sup> Moreover, "[t]he only practical way of removing ivory from an elephant is by killing it."<sup>15</sup> The larger, older male elephants have been hunted at a higher rate than females because of their larger tusks. As a result, the average size of tusks in the natural elephant population has decreased significantly. In 1979, the average traded tusk weighed 21.6 pounds,<sup>16</sup> but by 1990 the average weight decreased to 6.63 pounds.<sup>17</sup>

There are varying estimates regarding the size of elephant populations, but most experts agree that elephant populations have been reduced dramatically.<sup>18</sup> Hunting and habitat loss have reduced African elephant populations from approximately 1,300,000 in 1979 to 609,000 in 1989.<sup>19</sup> Current estimates state that there are between 400,000 and 600,000 elephants.<sup>20</sup> However, elephant population loss was unevenly distributed across Africa. For example, native elephant populations in Kenya<sup>o</sup> and Uganda fell by 85% between 1973 and

<sup>8</sup> *Legal Elephant Ivory Trade*, *supra* n. 2.

<sup>9</sup> Harland, *supra* n. 6, at 18.

<sup>10</sup> Don Belt, *Forest Elephants*, 195 vol. 2 Natl. Geographic 100, 104 (1999).

<sup>11</sup> Andrew J. Heimert, *How the Elephant Lost His Tusks*, 104 Yale L.J. 1473, 1473 (1995).

<sup>12</sup> Harland, *supra* n. 6, at 21.

<sup>13</sup> Defenders of Wildlife, *African Elephant* <<http://www.defenders.org/aelea.html>> (accessed Mar. 16, 2001) [hereinafter Defenders].

<sup>14</sup> Harland, *supra* n. 6, at 21.

<sup>15</sup> *Id.*

<sup>16</sup> Trade Environment Database, *TED Case Studies: Elephant Ivory Trade Ban* <<http://www.american.edu/projects/mandala/TED/ELEPHANT.HTM>> (accessed Mar. 10, 2001) [hereinafter *Elephant Ivory Trade Ban*].

<sup>17</sup> Wildlife Conservation Society, *Virunga News: The Elephants of Tarangire Part I* <<http://www.virunga.org/fbin/story/3998>> (accessed Jan. 12, 2001). In Namibia in 1999, the average tusk weighed 13.44 pounds. CITES, *Amendment to Appendix II* <<http://www.cites.org/CITES/eng/cop/11/propose/22.pdf>> (accessed Mar. 20, 2001).

<sup>18</sup> However, it is important to recognize that elephant population estimates are subject to much debate, because elephant mobility makes it difficult to determine precise populations with accuracy.

<sup>19</sup> Heimert, *supra* n. 11 (citing David Concar & Mary Cole, *Conservation and the Ivory Tower*, New Scientist 29, 30 (Feb. 29, 1992)).

<sup>20</sup> Defenders, *supra* n. 13.

1987.<sup>21</sup> By contrast, some areas have experienced significant increases in elephant populations, in part due to the total ban on international ivory trade.<sup>22</sup>

### B. Trade in Elephant Ivory

Humans have long prized elephant ivory.<sup>23</sup> People have used ivory in a variety of ways, including: dagger handles in Yemen,<sup>24</sup> *hanko* (signature stamps) in Japan,<sup>25</sup> piano keys and curios around the world,<sup>26</sup> and aphrodisiac medicines in Asia.<sup>27</sup> However, it was not until the early 1970s, when poachers began to organize and use automatic weapons, that the decline of the elephant population reached dramatic levels.<sup>28</sup>

The demand for ivory steadily increased to the point where an estimated one thousand tons of ivory were exported from Africa every year.<sup>29</sup> The largest consumers of raw ivory were Asian nations, with Japan importing more than any other country; Japanese imports accounted for 32% of the world ivory trade between 1979 and 1988.<sup>30</sup> Japanese imports of raw ivory increased between 1960 and 1985, mirroring the state of Japan's domestic economy; as people prospered, the demand for luxury goods such as ivory increased. However, imports were curbed starting in 1985, when Japan banned ivory imports.<sup>31</sup>

In addition to the legal worldwide trade in ivory, some estimate that illegally obtained ivory represented 90% of the world ivory trade.<sup>32</sup> At the peak of trading, elephants were being killed at a rate of up to 200 a day.<sup>33</sup> The decimation of the elephant population prompted

<sup>21</sup> *Elephant Ivory Trade Ban*, *supra* n. 16.

<sup>22</sup> Scott Hitch, *Losing the Elephant Wars: CITES and the "Ivory Ban,"* 27 Ga. J. Intl. & Comp. L. 167, 173-74 (1998). Among the countries whose elephant populations have increased are Namibia, Botswana, and Zimbabwe. *Id.*

<sup>23</sup> Though there is some debate on the issue, some argue that only elephant ivory is true ivory. See Harland, *supra* n. 6, at 21.

<sup>24</sup> Lucy Vigne & Esmond Martin, *Yemen—The Pressure Is On* <<http://wildnetafrica.co.za/wildlifearticles/refjournal/1996/yemen.html>> (Sept. 1996).

<sup>25</sup> John Grobler, *First Ivory Auction in Ten Years* <<http://www.abcnews.go.com/sections/science/DailyNews/ivory990409.html>> (Apr. 4, 1999).

<sup>26</sup> Learning Network, *Uses of Ivory* <<http://www.infoplease.com/ce6/sci/A0858956.html>> (accessed Feb. 28, 2001).

<sup>27</sup> Think Quest, *Endangered Species Factbook* <<http://library.thinkquest.org/C005770/pages/trade.html>> (accessed Feb. 28, 2001).

<sup>28</sup> Hitch, *supra* n. 22, at 171-72.

<sup>29</sup> *Id.* at 172.

<sup>30</sup> Hisako Kiyono, *The Ivory Trade in Japan in Still in Business: The Ivory Trade in Asia, Seven Years after the CITES Ban* 6, 7 (TRAFFIC Intl. 1997).

<sup>31</sup> *Id.* at 9.

<sup>32</sup> Maureen Sajbel, *The Agony and the Ivory: The Ban Hasn't Been Lifted, but Some Think the Rumors are Enough to Restart Slaughtering. Will Ivory be Salable Again?*, L.A. Times E1 (July 10, 1997) (quoting Ginette Hemley, Director of International Wildlife Policy at World Wildlife Fund).

<sup>33</sup> Hitch, *supra* n. 22, at 172 (citing Michael D. Lemonick, *The Ivory War: After a Seven-Year Ban, Three African Nations Want to Sell Tusks. Will the Rest of the World Allow It?* 149 no. 4 Time 64 (June 16, 1997)).

international lawmakers to protect the African elephant under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).<sup>34</sup>

### III. THE CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES AND THE AFRICAN ELEPHANT

#### A. *The Structure of the Convention*

CITES has been called "one of the most successful international responses to the worldwide threat of wildlife extinction."<sup>35</sup> The treaty was signed on March 3, 1973, and was originally ratified by ten countries.<sup>36</sup> Since CITES was first ratified, the number of parties to the convention has grown dramatically. Today, 152 nations are signatories to the convention.<sup>37</sup> Not only are many countries bound by the convention,<sup>38</sup> but CITES is widespread in its application, and regulates over 34,000 species of flora and fauna.<sup>39</sup>

CITES was drafted to recognize "that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the nature systems of the earth which must be protected for this and the generations to come."<sup>40</sup> The convention seeks to regulate international trade in species of flora and fauna that are in danger of extinction.<sup>41</sup>

The Convention recognized that different species warrant different levels of protection, and therefore divided regulated species into three categories, or appendices.<sup>42</sup> Appendix I offers the highest level of protection to "species threatened with extinction which are or may be affected by trade."<sup>43</sup> Appendix II covers "all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival."<sup>44</sup> Appendix III includes species that "any Party identifies as being subject to regulation within its jurisdiction for the purposes of preventing or restricting exploitation, and as needing the cooperation of other parties in the

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<sup>34</sup> CITES, 27 U.S.T. 1087.

<sup>35</sup> Hitch, *supra* n. 22, at 175 (citing Simon Lyster, *International Wildlife Law* 240 (Grotius 1985)).

<sup>36</sup> CITES, *List of Parties* <<http://www.cites.org/CITES/eng/index/shtml>> (accessed Mar. 20, 2001).

<sup>37</sup> *Id.*

<sup>38</sup> The definition of "bound" varies depending on the reservations each country took upon signing.

<sup>39</sup> Hitch, *supra* n. 22, at 175.

<sup>40</sup> CITES, 27 U.S.T. 1087, Preamble.

<sup>41</sup> *Id.*

<sup>42</sup> For an interesting discussion of the problems of listing species in the appendices, see Shawn M. Dansky, *The CITES "Objective" Listing Criteria: Are They "Objective" Enough to Protect the African Elephant?*, 73 Tul. L. Rev. 961 (1999).

<sup>43</sup> CITES, 27 U.S.T. 1087, Art. II (1).

<sup>44</sup> *Id.* at Art. II (2).

control of trade.<sup>45</sup> Thus, the more endangered a species is, the higher its level of protection.

Trade practices for species listed in Appendix I are highly regulated. This regulation is so strict that it has been equated with a trade ban.<sup>46</sup> For example, to obtain an export permit for an Appendix I listed species, a party must show that:

- a) Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of the species;
- b) Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora;
- c) Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and
- d) Management Authority of the State of export is satisfied that an import permit has been granted for the specimen.<sup>47</sup>

The trader must also obtain an import permit from the target jurisdiction. Trade in Appendix II species is also regulated, though only export permits are required.<sup>48</sup> Trade in Appendix III species has the fewest requirements—parties need only obtain a permit from the exporting country certifying that the “specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora.”<sup>49</sup> The effectiveness of the entire program is therefore contingent on the efficacy of the permit system. However, as is a common problem in international law, sovereignty plays an important role in the permit process. Since permits are granted unilaterally by CITES parties, granting permits is considered an act of sovereignty and is not reviewable by other parties.<sup>50</sup>

Many experts agree that the convention is flawed because the treaty language contains no hard and fast rules for the listing of species in the three appendices.<sup>51</sup> The criteria for listing species have been a source of debate at many of the conferences of the parties.<sup>52</sup> The parties adopted the Berne Criteria for the listing of species at the first conference.<sup>53</sup> These criteria were vague but provided a rough framework of factors to be considered in listing species.<sup>54</sup> However, the Berne Criteria have proved imprecise and the lack of clear rules for

<sup>45</sup> *Id.* at Art. II (3).

<sup>46</sup> Harland, *supra* n. 6, at 73.

<sup>47</sup> CITES, 27 U.S.T. 1087, Art. III (2).

<sup>48</sup> *Id.* at Art. IV.

<sup>49</sup> *Id.* at Art. V (2)(a).

<sup>50</sup> Shennie Patel, Student Author, *The Convention on International Trade in Endangered Species: Enforcement and the Last Unicorn*, 18 Hous. J. Intl. L. 157, 164 (1995).

<sup>51</sup> *E.g.* Dansky, *supra* n. 42.

<sup>52</sup> Essentially, the parties to the convention meet every two years and vote on which species will be listed, and under which appendix.

<sup>53</sup> Hitch, *supra* n. 22, at 177.

<sup>54</sup> *Id.* at 177-78.

listing species has allowed lawmakers to bend to political, economic, and other factors rather than relying solely on objective scientific facts when deciding the appropriate level of protection for a certain species.<sup>55</sup>

The controversy over listing led to a reexamination of the criteria in 1992 at the Eighth Conference of the Parties in Kyoto, Japan and again in 1994 at the Ninth Conference of the Parties in Fort Lauderdale, Florida.<sup>56</sup> The parties to the convention debated new criteria and eventually adopted them. The new criteria, called the "Fort Lauderdale Criteria," "established a new set of population tests to be used to measure species in placement on the Appendices."<sup>57</sup> These new criteria were intended to objectify the listing process. However, some argue that political and economic currents will continue to affect the listing process.<sup>58</sup>

Another significant problem with the treaty is that countries are allowed to take reservations under the treaty.<sup>59</sup> Such reservations permit signatories to refuse to apply the terms of the treaty to certain species.<sup>60</sup> While reservations are a problem endemic to international treaties in general, such reservations are especially damaging in the CITES context because uniformity in species preservation is essential to reliable enforcement. For example, if a country takes a reservation regarding its population of elephants, it is free to decimate its population while relying on other countries to preserve their elephant populations.

### B. CITES and the African Elephant

The plight of the elephant is closely linked to its CITES listing. From 1977 to 1990, all African elephant populations were classified under Appendix II, which permitted commercial ivory trade, with some restrictions.<sup>61</sup> During this period, all ivory was subject to a complex registration process.<sup>62</sup>

This registration system was largely a failure. Roughly half of the African parties to CITES complied with the requirements between 1979 and 1989, and poachers killed more than half of the elephants in Africa.<sup>63</sup> In addition, unscrupulous ivory exporters circumvented the restrictions by altering trade routes and exploiting loopholes in the regulations.<sup>64</sup> For example, trade in "worked ivory" was permitted for

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<sup>55</sup> *Id.* at 178.

<sup>56</sup> Dansky, *supra* n. 42, at 965.

<sup>57</sup> Hitch, *supra* n. 22, at 179.

<sup>58</sup> See generally Dansky, *supra* n. 42.

<sup>59</sup> CITES, 27 U.S.T. 1087, XV (3), XVI (2), XXIII.

<sup>60</sup> *Id.*

<sup>61</sup> Dansky, *supra* n. 42, at 967.

<sup>62</sup> *Id.* at 967-68.

<sup>63</sup> *Id.* at 969 (citations omitted).

<sup>64</sup> *Elephant Ivory Trade Ban*, *supra* n. 16.

Appendix II listed species,<sup>65</sup> and traders did the bare minimum to the raw ivory to allow it to qualify as "worked ivory" in order to avoid the export restrictions.<sup>66</sup>

In the face of massive elephant slaughter, some countries took unilateral action. For example, in 1988 the United States passed the U.S. African Elephant Conservation Act,<sup>67</sup> effectively banning all imports of ivory into the United States.<sup>68</sup> At that time, Manuel Lujan, Jr., United States Secretary of the Interior, noted that "the current international system for controlling ivory trade has failed to protect the elephant, and we have no choice but to halt commercial ivory shipments into the United States."<sup>69</sup> Following the passage of the U.S. law, members of the European Union passed similar legislation.<sup>70</sup> The unilateral actions of these countries helped to drastically reduce the worldwide demand for ivory. However, many individuals recognized that for a true global ban to be effective, the elephant would have to be listed in Appendix I of CITES.

Several countries expressed hesitation about moving the African elephant from Appendix II to Appendix I. Kenya and Tanzania, for example, favored the trade ban.<sup>71</sup> However, several southern African countries opposed the movement to ban the ivory trade, as did Japan, Hong Kong, and several of the Gulf states.<sup>72</sup> Despite vocal opposition, at the Seventh Conference of the Parties in 1990, the parties to the convention voted to place the African elephant on Appendix I.<sup>73</sup>

There is little debate that illegal ivory trade has decreased dramatically since the African elephant was listed on Appendix I. Elephant populations have staged recoveries across Africa, in what some consider to be the most significant success to date since the implementation of CITES.<sup>74</sup> For example, since the ban, the average number of elephants poached per year in Kenya has declined from 3500 in the early 1980s to 50 in 1993.<sup>75</sup>

While the ban resulted in many benefits, it also produced some harmful effects from environmental damage to high costs of preservation. As the number of elephants increased, so did dangerous interactions with humans.<sup>76</sup> The now larger elephant populations began to compete with humans for habitat, food, water, and shelter. In Zimbabwe, elephants are considered pests, with a reputation for de-

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<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> 16 U.S.C. § 4201 (2000).

<sup>68</sup> Harland, *supra* n. 6, at 91.

<sup>69</sup> Dansky, *supra* n. 42, at 968 (citations omitted).

<sup>70</sup> Harland, *supra* n. 6, at 91-92; Commission Regulation EEC/2496/89 (Aug 2, 1989).

<sup>71</sup> Harland, *supra* n. 6, at 92.

<sup>72</sup> *Id.*

<sup>73</sup> Dansky, *supra* n. 42, at 969.

<sup>74</sup> *Id.* (citing *Endangered Species: Imminent Extinction of Tigers, Rhinos Predicted in Environmental Group Report*, Intl. Env. Daily (BNA) (Nov. 3, 1994)).

<sup>75</sup> *Elephant Ivory Trade Ban*, *supra* n. 16.

<sup>76</sup> Dansky, *supra* n. 42, at 970.



stroying crops and structures and killing people and livestock.<sup>77</sup> Regionally, high elephant populations also have adverse environmental impacts.

In addition to the impact of the elephants themselves, there are real costs associated with preserving elephant populations.<sup>78</sup> Wildlife protection in Africa is said to cost \$305 million each year.<sup>79</sup> Additionally, with the full ban in effect, legal ivory stockpiles<sup>80</sup> owned by African governments changed from financial assets to liabilities overnight. At one time, ivory legally obtained through culling brought in \$100,000 to \$200,000 per ton for these developing nations.<sup>81</sup> However, after the ban in 1989, the stores increased in size but provided no revenue for the governments. In fact, the countries incur significant costs to keep the stocks. The stocks require highly secure storage facilities to guard against theft. In addition, since ivory gradually dries out over time it must be kept in a specially humidified environment, which is quite expensive to maintain.<sup>82</sup>

The elephant populations in Zimbabwe, Namibia and Botswana have made dramatic comebacks, and those governments lobbied hard to delist the elephant from Appendix I to Appendix II.<sup>83</sup> The governments were not alone in their request: "[t]he CITES Panel of Experts . . . announced that the elephant populations of these three countries no longer met the biological criteria for Appendix I . . . and should therefore be delisted."<sup>84</sup>

Despite heated arguments, the proposal was passed and the convention classified the elephants of these three countries to Appendix II, thereby allowing limited trade to begin again.<sup>85</sup> The parties also approved a special one-time sale of ivory from these three nations to Japan.<sup>86</sup>

The African elephant's population has fluctuated depending on its listing under CITES. Given the recent reclassification of the elephant populations of these countries, it remains to be seen whether the elephant will once again be threatened by illegal hunting. To address this issue, it is necessary to examine both the supply and demand sides of the equation, and to explore competing wildlife management strategies.

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<sup>77</sup> Heimert, *supra* n. 11, at 1480 (citations omitted).

<sup>78</sup> One estimate states that habitat preservation costs more than \$200 per square kilometer. *Id.* at 1481.

<sup>79</sup> *Id.* (citation omitted).

<sup>80</sup> Legal sources of ivory include natural death, culling, and hunting.

<sup>81</sup> Dansky, *supra* n. 42, at 971 (citation omitted).

<sup>82</sup> *Id.*

<sup>83</sup> Dansky, *supra* n. 42, at 971-72.

<sup>84</sup> *Id.* at 972.

<sup>85</sup> *Id.*

<sup>86</sup> *Id.* Botswana was allowed to sell 25.3 tons; Namibia, 13.8 tons; and Zimbabwe, 20 tons. *Id.*

#### IV. TWO COMPETING WILDLIFE MANAGEMENT STRATEGIES

There are two primary theories of wildlife management: pure protectionism and sustainable use. Advocates of each strategy have different opinions about the recent delisting of the African elephant. Pure protectionists generally oppose any trade in the species, while advocates of sustainable use applaud the decision. A review of the theoretical bases for wildlife management is necessary to fully evaluate the two methods.

Wildlife represents a common, shared resource. In 1968, biology professor Garrett Hardin systematically analyzed this idea of a commons from which all citizens are allowed to benefit.<sup>87</sup> Hardin's thesis is that a common pasture open to all will result in the ultimate destruction of the shared resource, the public pasture.<sup>88</sup> Each citizen will seek to maximize his or her individual utility by grazing more and more cattle in the common pasture, even though the collective result is overgrazing and destruction of the pasture.<sup>89</sup> Hardin succinctly summarizes the problem: "[f]reedom in a commons brings ruin to all."<sup>90</sup>

There are two primary solutions to the problem of the commons: 1) fence the commons while controlling access; and 2) privatize the commons and give each citizen his own share of the commons to manage. Under the fencing scheme, the government controls access and manages the commons for the benefit of all. The privatization scheme, by contrast, divides the commons and allocates a section to each citizen under the assumption that each individual will maximize his own utility, thereby effectively managing his section of the commons. In the context of wildlife management, these two solutions are manifest in strategies of pure protectionism and sustained use.

##### 1. *Pure Protectionism*

African nations have taken varying approaches to preserving their elephant populations. On one side are the "fencing in" countries like Kenya, which has opted for a command-and-control system. Such command-and-control systems involve a complete ban on all hunting and cultivation of wildlife resources, and instead focuses on nonconsumptive activities such as tourism.<sup>91</sup> In Kenya, where the country enjoys a robust tourism industry heavily reliant on safaris in public parks, a command-and-control system is appropriate. If the commons were divided, such safaris would not be possible because safari guides would have to obtain permission from multiple landowners over a large area.

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<sup>87</sup> Garrett Hardin, *The Tragedy of the Commons*, 162 *Science* 1243-48 (Dec. 13, 1968).

<sup>88</sup> *Id.* at 1244.

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

<sup>91</sup> Heimert, *supra* n. 11, at 300.

Under the Kenyan program, the government has destroyed large numbers of stockpiled tusks to send the message that no use of ivory is permissible. Rather than focus on the sale of ivory for income, Kenya has developed a very robust tourism industry. Kenya's tourism industry is closely linked with the survival of species, such as the elephant, since most tourism revenue comes from safaris. Wildlife tourism in Africa provides more than \$4 billion annually to urban and rural communities, reflecting tourists' desire to see elephants and other African wildlife in their natural habitats.<sup>92</sup> However, the fencing solution is costly and difficult to enforce.<sup>93</sup> One of Kenya's primary arguments against delisting the elephant in southern Africa is that it will lead to additional poaching in Kenya. To combat such enforcement problems, officials have had to rely on armed patrols and other coercive measures to protect wildlife.<sup>94</sup>

## 2. Sustainable Use

In contrast to the pure protection approach of Kenya, some countries have followed a completely different path and employed a version of the privatization scheme, often referred to as "sustainable use" or "sustained use." This scheme is similar to the privatization solution, in that each country or region is permitted to manage its own elephant stocks.

At the opening of the Tenth Meeting of the Parties in 1997, Zimbabwe's President Robert Mugabe said that "[w]e believe a species must pay [its] own way to survive."<sup>95</sup> Mugabe's opinion clearly expresses the idea of sustained use: treating species as resources to be used, rather than merely preserved. Under this "active management" approach, local residents manage wildlife within their region and keep some of the resulting profits.<sup>96</sup> Sustained use is based on the concept of sustainable development.

The idea of sustainable development is not new. It emerged as early as 1972 at the United Nations Conference on the Human Environment.<sup>97</sup> Former Director of the United Nations Environment Program, Mostafa Tolba, provided a good definition of the concept:

At its core is the requirement that current practices not undermine future living standards: present economic systems must maintain or improve the resource and environmental base, so that future generations will be able to

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<sup>92</sup> Wayne Pacelle, *Endangered Elephants, Harried Humans*, Wash. Post A20 (July 4, 1997).

<sup>93</sup> Hardin, *supra* n. 87, at 1246.

<sup>94</sup> *E.g.* Humane Society of the United States, *Two Tons of Ivory Seized in Bubai was from Kenya* <<http://www.hsus.org/news/pr/030200.html>> (Mar. 2, 2000).

<sup>95</sup> Dansky, *supra* n. 42, at 971.

<sup>96</sup> Donald T. Hornstein, *Environmental Sustainability and Environmental Justice at the International Level: Traces of Tension and Traces of Synergy*, 9 Duke Env'tl. L. & Policy Forum 291, 299 (1999).

<sup>97</sup> Mostafa K. Tolba & Iwona Rummel-Bulska, *Global Environmental Diplomacy: Negotiating Environmental Agreements for the World, 1973-1992* 3 (MIT Press 1998).

live as well as or better than the present one. *Sustainable development does not require the preservation of the current stock of natural resources or any particular mix of human, physical, or natural assets, nor does it place artificial limits on economic growth, provided that such growth is both economically and environmentally sustainable.*<sup>98</sup>

The idea is that current generations may use natural resources so long as they leave future generations as well off as or better than the current generation. While this concept of sustainable development appears straightforward, it is actually very difficult to define which actions are truly sustainable. Moreover, scientific uncertainty in assessing the environmental impacts of human activities contributes to the difficulty in defining sustainable development.

“Sustainable wildlife resource management” or “sustained use” is sustainable development as it applies to wildlife management. Sustained use encompasses three primary concepts:

- 1) ensuring the sustainable utilization of species and ecosystems;
- 2) promoting genetic diversity; and
- 3) maintaining the essential ecological processes and the life-support systems on which human survival and development depend.<sup>99</sup>

For example, culling is considered an essential part of many wildlife management schemes. The sale of pelts, tusks, and other parts of the culled animals is allowed. Sustained use permits countries to cull enough animals to maintain healthy populations, thereby ensuring the existence of the resource for future generations. Moreover, through the sale of the culled animal products, countries are able to take economic advantage of their wildlife resources.

The concept of sustained use was first discussed at the 1992 CITES Conference.<sup>100</sup> By the 1994 Meeting of the Parties, the shift away from pure protectionism to sustainable use was evident.<sup>101</sup> The primary supporters of the sustained use strategy are several southern African nations, China, and Japan.<sup>102</sup> The split of nations favoring and opposing sustained use roughly mirrors the north-south split of developed and developing nations. Developing nations of the south<sup>103</sup> have often complained that they have borne an unequal burden in preserving and protecting the species listed in CITES.<sup>104</sup> These nations seek to use their natural resources, including wildlife, to earn much needed

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<sup>98</sup> *Id.* at 7 (emphasis added).

<sup>99</sup> Catharine L. Krieps, Student Author, *Sustainable Use of Endangered Species Under CITES: Is It a Sustainable Alternative?*, 17 U. Pa. J. Intl. Econ. L. 461, 474 (1996) (citing Intl. Union for Conservation of Nature and Natural Resources, *World Conservation Strategy 1980*).

<sup>100</sup> *Id.* at 465.

<sup>101</sup> *Id.* at 465-66.

<sup>102</sup> *Id.* at 475.

<sup>103</sup> *Id.* at 477.

<sup>104</sup> *Id.*

revenue.<sup>105</sup> Thus, the idea of a species having to “pay its own way” exemplifies this idea of sustained use.

A much-heralded example of this sustained use strategy is the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) program in Zimbabwe.<sup>106</sup> Under the CAMPFIRE program, local people manage 1% of their area’s elephant population as they see fit.<sup>107</sup> This generally results in the community allowing the culling or trophy hunting of some elephants in exchange for hard currency.<sup>108</sup> The program has proven successful, and in 1989 one community was able to support above-average conservation efforts and purchase otherwise unaffordable social services from the sale of wild-life products, including ivory and elephant hides.<sup>109</sup>

Under this type of program, citizens have a vested interest in preserving elephant populations, since such preservation yields economic benefits to their communities. In some instances, citizens have turned farming areas back into elephant habitat since the revenue from the elephants far exceeds the value of the crops.<sup>110</sup> If the local people have a financial incentive, they will seek to protect the elephant populations so they can continue to reap benefits from the legal taking of individual animals.

Critics of this approach highlight moral and practical problems inherent in any sustainable use program. Some critics argue that humans cannot morally kill other species. Practical problems include the difficulty in counting the numbers of elephants, calculating what constitutes “sustainable use,” and monitoring the taking of elephants and sales of elephant parts. Additionally, if countries allow the use of some elephants, albeit sustainably, they also open the door to illegal hunting. Since it is difficult to determine the origin of ivory, it follows that it is quite difficult to distinguish legally culled ivory from poached ivory.

Which strategy offers the best use of the elephant as a resource without jeopardizing the future of the elephant? The “correct” management scheme depends on many changing factors such as the state of the elephant’s habitat, the health of the populations, the effectiveness of worldwide controls on illegal sales, as well as policy preferences of the decision makers. Given these variables, it is doubtful that a single “correct” management strategy exists. However, under the recent decision to permit the limited sale from Botswana, Zimbabwe, and Namibia, at least three countries will be able to implement an active management scheme.

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<sup>105</sup> *Id.*

<sup>106</sup> Hornstein, *supra* n. 96, at 299-300.

<sup>107</sup> *Id.* at 300.

<sup>108</sup> *Id.*

<sup>109</sup> Heimert, *supra* n. 11, at 1483.

<sup>110</sup> Hornstein, *supra* n. 96, at 300.

## V. THE DEMAND SIDE: THE IVORY TRADE IN JAPAN

While individuals have seriously scrutinized the supply side of the equation in Africa, little has been written about the demand side of the equation—ivory sales to and within Japan. Even if adequate checks exist on the supply side in Africa, if the checks are not equally effective on the demand side, no management scheme will be effective. Under the sustainable use approach to wildlife management, it is imperative that the elephants be harvested at a sustainable rate not exceeding the rate at which the population is naturally replenished. If illegal trade occurs, this delicate balance will be tipped towards the extinction of the elephant. Therefore, the control of trade in illegal ivory is essential.

On July 16, 1999, the first legally traded ivory in over ten years cleared customs in Tokyo, Japan.<sup>111</sup> Although there are numerous checks on the supply side of the ivory trade, concerns regarding enforcement issues in importing countries still exist. It is not clear if there are sufficient measures to screen illegally hunted ivory or to control domestic sales. In order to evaluate these demand side questions it is necessary to focus on Japan's domestic ivory market.

### A. *Japan's History of Ivory Importation*<sup>112</sup>

As early as the sixth century, Japan imported ivory from China. Ivory was a luxury for the upper class, often symbolizing authority. The ivory trade continued until the 1640s, when Japan closed its ports to foreign vessels. In the eighteenth century, Japan reopened its ports and the use of ivory increased. By the 1880s, Japan imported an average of eight tons of ivory each year. In the following twenty years, imports increased to eighteen tons a year. Until this time, most of Japan's ivory was imported from Asia, predominantly India. By 1919, imports had reached fifty-one tons per year.

The ivory trade between Japan and Africa began in the 1920s. Within fifteen years, most of the raw ivory imported into Japan came from Africa. Imports were reduced during World War II and during the recovery period. However, by the 1950s imports had topped seventy tons per year. Consumption of ivory reached its peak in the 1970s to mid-1980s, before Japan imposed stiff restrictions on imports. During these peak years, Japan was the largest importer of ivory in the world. Although no ivory was legally imported into Japan after the ban, it is estimated that at the time of the 1989 ban, ivory stockpiles in Japan measured around 100 tons.<sup>113</sup> After the ban, sales of ivory to Japan dropped significantly.<sup>114</sup> Still, demand for ivory remained strong, with

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<sup>111</sup> *First Ivory Load Since '89 Arrives*, Japan Times (July 17, 1999).

<sup>112</sup> Section V.A. has been adopted from Kiyono, *supra* n. 30, at 6.

<sup>113</sup> World Wildlife Fund, *Press Release: Asian Countries Ill-Equipped to Halt Ivory Smuggling* (Aug. 20, 1999) (on file with author).

<sup>114</sup> Kiyono, *supra* n. 30, at 6.

reported sales of approximately 181 tons in 1989, 82.5 tons in 1990, and 70 tons in 1991.<sup>115</sup>

In Japan the primary use of ivory is to create *hanko* (personal seals), accounting for 53.5% of ivory use.<sup>116</sup> Other uses include jewelry, parts for traditional musical instruments, and sculptures.<sup>117</sup> Recent surveys indicate that consumers prefer ivory *hanko* (52.5%) over those made with alternative materials.<sup>118</sup> Despite the ban, Japanese consumers' thirst for ivory *hanko* remained unabated; a single retailer group reported sales of six billion yen (\$52 million) in a single year.<sup>119</sup> This high demand, coupled with very limited imports, could lead to increased imports of illegal ivory if Japan's management system is inadequate to prevent illegal sales.

An informal survey of college and graduate students in the area of Nagoya, Japan showed that most young people do not have ivory *hanko*. Further, most do not anticipate purchasing ivory *hanko* in the future.<sup>120</sup> The people surveyed listed the following reasons for not selecting ivory: ivory is too costly; preservation of the elephant is important; and the fact that ivory is viewed as old-fashioned.<sup>121</sup>

Surveys of retailers also confirmed that young people are not the most likely consumers to purchase ivory *hanko*.<sup>122</sup> The more expensive ivory *hanko* are often given as gifts upon marriage when a bride changes her name.<sup>123</sup> A set of matching ivory *hanko* is traditionally given to new couples by their parents.<sup>124</sup> Thus, even if younger Japanese consumers are less inclined to select ivory *hanko*, their parents' tastes usually dictate the selection.

The second major purchaser of ivory *hanko* are new businesses.<sup>125</sup> A *hanko* to a business is like a corporate seal and carries with it a certain amount of prestige. As such, new corporations usually select ivory *hanko* over "imitation" ones. Again, even if young consumers are less inclined to purchase ivory, tradition dictates that corporations purchase ivory *hanko*.

In sum, Japan has a long history of ivory importation and sale. Ivory is the traditional material for *hanko* and the tradition remains strong even today. While younger consumers might be less inclined to purchase ivory *hanko*, their attitudes have little or no impact on the

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<sup>115</sup> *Id.* at 7.

<sup>116</sup> *Id.* at 13.

<sup>117</sup> *Id.*

<sup>118</sup> *Id.* at 11.

<sup>119</sup> Japan Wildlife Conservation Socy., *Analysis on the Amended Management System of Domestic Ivory Trade in Japan* 10 (1999), Exec. Summary 1.

<sup>120</sup> Informal study conducted by author at Nagoya U. and Nagoya Joshi Bunka Tanki Daigaku (Nagoya Women's Culture Junior College) from Jan. to Dec. 2000.

<sup>121</sup> *Id.*

<sup>122</sup> Interview with a manager of a major department store in Nagoya, Japan (Jan. 28, 2000).

<sup>123</sup> *Id.*

<sup>124</sup> *Id.*

<sup>125</sup> *Id.*

volume of ivory sales. Thus, with the demand for ivory unabated, a strong management system is critical to prevent the sale of illegal ivory.

### B. Japan's Ivory Management System

Since more than half of the ivory imported into Japan is used primarily to make *hanko*, on first inspection it would seem simple to devise an adequate monitoring system. However, adequately policing the importation, processing, and sale of ivory has proven quite difficult. Japan has strengthened its ivory management system in response to comments from other countries and has perhaps the most strict ivory management system in the world. However, the system is nevertheless inadequate to prevent illegal sales.

The primary law regulating ivory in Japan is the Law for the Conservation of Endangered Species of Wild Fauna and Flora (LCES).<sup>126</sup> This law was adopted in 1992 and amended in 1994.<sup>127</sup> Cabinet Order No. 240,<sup>128</sup> issued in 1995, clarified that the LCES applies to elephant tusks and products created from such tusks.<sup>129</sup> Further, in 1998, Japan modified the LCES to improve defects in the ivory monitoring system identified by the CITES Panel of Experts at the Tenth Conference of the Parties.<sup>130</sup>

Ivory exists in several forms in Japan. Whole tusks are imported and then worked into pieces destined for distribution.<sup>131</sup> These larger pieces are then worked further until they are turned into *hanko* or other similarly sized objects like *netsuke*.<sup>132</sup> Japan's management system attempts to control all three levels of the ivory distribution system.

Whole tusks are controlled through a mandatory registration system. Each tusk is assigned a registration card unique to that tusk.<sup>133</sup> Individual traders keep the registration cards, though the government can inspect them on demand.<sup>134</sup> Each tusk is also registered with the Japan Wildlife Research Center,<sup>135</sup> which keeps a database on all

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<sup>126</sup> Kiyono, *supra* n. 30, at 10. *Houritsu 75 gou* (Law No. 75), heisai 4 nen, 6 gatsu, itsuka (June 5, 1992).

<sup>127</sup> *Id.*

<sup>128</sup> *Id.* *Seirei 240 gou* (Cabinet Order for the Implementation of the Law for the Conservation of Endangered Species of Wild Fauna and Flora, No. 240). *Hourei zensho*, heisai 7 nen, 6 gatsu, 14 nichi, houritsu (June 14, 1995).

<sup>129</sup> Kiyono, *supra* n. 30, at 10.

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> *Netsuke* is defined as "a small sculptural object, or toggle, usually worn to suspend objects hung from the sash of the kimono." International Netsuke Society, *Glossary of Netsuke Terms* <<http://www.netsuke.org/glossary.htm>> (accessed Mar. 10, 2001).

<sup>133</sup> Kiyono, *supra* n. 30, at 10.

<sup>134</sup> *Id.*

<sup>135</sup> *Id.* The Center was recently renamed the "Shizen Kankyou Kenkyu Center." *Id.*



tusks. Any sale or transfer of whole tusks must also be appropriately reported.<sup>136</sup>

Once the whole tusks are cut into smaller sizes, a new registration system comes into effect. For pieces over 500 grams in weight, management cards may be created.<sup>137</sup> However, this management system is not compulsory. Moreover, pieces of ivory cut prior to July 1994 are not subject to the management system.<sup>138</sup> Smaller pieces are worked further, and at this level there is a voluntary management system for certifying the source of the ivory. A "certification" seal from the government can be affixed to any *hanko* that has gone through the three levels of registration outlined above.<sup>139</sup>

The LCES employs penalties to enforce this system.<sup>140</sup> Falsifying management cards could lead to the dealer being suspended from making management cards for a period up to three months.<sup>141</sup> Individuals who trade ivory without a license may be fined up to ¥500,000 (\$4500), while fraudulently obtaining certification marks carries a fine of up to ¥200,000 (\$1800).<sup>142</sup>

While Japan has done much to strengthen its ivory management system with the revisions to the LCES in 1995 and 1998, the system is far from perfect. These flaws are substantial enough to render the sustained use of ivory ineffective as a wildlife management strategy.

### C. Criticism of Japan's Ivory Management System

Japan's attempt to manage the ivory trade is problematic in two ways: there are numerous structural problems within the system; and there are difficulties concerning public education and public attitudes.

#### 1. Structural Problems With Japan's Ivory Management System

There are several primary problems with the structure of the ivory management system in Japan. First, the ivory management system is voluntary for everything but whole tusks. While such voluntary programs can be successful, their success hinges on public demand and monitoring for compliance. Such public awareness is not present in Japan.

Second, the sheer number of outlets where ivory is sold makes enforcement virtually impossible. There are an estimated 50,000 retail outlets that sell cut ivory pieces, a large portion of which are small-scale businesses.<sup>143</sup> With so many possible outlets for ivory sales, it is difficult for government authorities to monitor them adequately. More-

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<sup>136</sup> *Id.* at 11.

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

<sup>139</sup> *Id.*

<sup>140</sup> *Id.*

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

over, there is an insufficient number of trained inspectors to monitor these 50,000 outlets. In 1999, government authorities inspected only six ivory businesses per week, and 200 in the entire year.<sup>144</sup> Comments from a debate over the United Kingdom's position regarding the Eleventh Conference of the Parties illustrate this concern:

Furthermore, despite some cosmetic changes, Japan had not enacted any meaningful enforcement measures to monitor trade in illegal ivory by the 50,000 or so shops that sell ivory hanko or name seals. In fact, there is virtually no domestic enforcement of ivory or other endangered species in Japan.<sup>145</sup>

Moreover, the lack of enforcement and education of merchants has led to intermittent compliance at best. Field research for this paper included visits to several retail outlets, including major department stores and smaller, family-run stores.<sup>146</sup> None of the outlets were able to produce the voluntary government certifications for the ivory *hanko* on sale. Moreover, the sellers were apparently unaware of the registration system. One manager of a major department store indicated that he was completely unaware of the certification system; he stated that no consumer had ever asked about such a certification.<sup>147</sup> These findings are similar to those of a more detailed study by TRAFFIC (Japan), the implementing arm of CITES. TRAFFIC's field research also showed a general lack of certification at the retail level.<sup>148</sup>

Third, once the ivory tusks have been cut down to sizes less than 500 grams there is a control system only for *hanko*.<sup>149</sup> Thus, all non-*hanko* ivory products under 500 grams are not subject to any control system, voluntary or otherwise. Since *hanko* sales account for slightly more than half of all ivory sales in Japan,<sup>150</sup> outlets for illegal sales are still possible.

Fourth, with ivory generally, it is quite difficult (if not impossible) to determine whether it was obtained legally. Inspection of dealers' stocks of ivory does not reveal how the ivory was obtained.<sup>151</sup> When trade in ivory was completely banned, monitoring costs were low; any

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<sup>144</sup> Env'tl. Investigation Agency (EIA), *Elephant Campaign: Lethal Experiment: How the CITES-Approved Ivory Sale Led to Increased Elephant Poaching* <<http://www.eiainternational.org/Campaigns/Elephants/Reports/lethExp/Demand11.html>> (accessed Mar. 10, 2001).

<sup>145</sup> House of Commons, *House of Commons Hansard Debates* <<http://www.parliament.the-stationery-office.co.uk/pa/cm199900/cmhansrd/vo000321/halltext/00321h01.htm>> (Mar. 21, 2000) (comments of Tom Brake).

<sup>146</sup> Field research was conducted by the author in the Nagoya area between Jan. 15 and Jan. 30, 2000. Research involved visiting retail *hanko* dealers, posing as a potential buyer. Questions asked included the source of the material, the existence of any certification, and the tastes of consumers.

<sup>147</sup> Interview, *supra* n. 122.

<sup>148</sup> Kiyono, *supra* n. 30, at 14-15.

<sup>149</sup> *Id.* at 32.

<sup>150</sup> *Id.* at 13.

<sup>151</sup> *Id.* at 29.

ivory was illegal. When some trade is permitted, monitoring costs rise dramatically.

The final problem with the structure of the monitoring program is that penalties are very low compared to the potential value of illegal ivory. However, some argue that while Japan has relatively low penalties, people tend to follow the law. Whether the impetus to follow the law comes from societal pressure or from some other source, the fact remains that western-style penalties are often not used in Japan.<sup>152</sup>

These structural problems have not escaped criticism from organizations within Japan. Non-governmental entities in Japan have voiced similar concerns about Japan's ivory management system.<sup>153</sup> A report by the Japan Wildlife Conservation Society concluded that the current system is ineffective in preventing sales of illegal ivory.<sup>154</sup> These structural problems could be abated somewhat if public awareness was sufficiently strong. However, this is not the case.

## 2. *Problems With Public Education and Awareness*

Society plays a very important role in the creation and operation of law, especially in Japan. Moreover, legislators are representatives and, in theory at least, reflect the attitudes of society as a whole. Thus, while government programs are important in curbing illegal trade, consumers wield significant power. If consumers are unwilling to buy illegal or suspect ivory, illegal imports will dwindle.

However, as discussed above, sales of ivory have not decreased despite the worldwide ban. Moreover, even though young peoples' attitudes towards ivory may differ from that of prior generations, ivory sales have not decreased. Interviews with retail merchants confirmed that ivory *hanko* are far more popular than the substitutes (including sandalwood, water buffalo horn, and plastic). Moreover, the manager interviewed confirmed that no consumer had ever inquired about government certification of ivory *hanko*.<sup>155</sup>

Without the demand from the public for proof of legal ivory, no management system, especially a voluntary one, can be effective. Unless consumers are educated about requirements and are adamant about purchasing ivory only if it is certified legal, this system will fail to prevent sales of illegal ivory and will encourage further poaching.

### D. *Empirical Evidence of the System's Failure*

Evidence shows that illegal trade in ivory occurred in Japan during the ban and continues to occur during this period of limited trade. Illegal trade can be measured at both points: at the supply end, by

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<sup>152</sup> See generally John Owen Haley, *Authority Without Power: Law and the Japanese Paradox* (Oxford U. Press 1991).

<sup>153</sup> See generally Japan Wildlife Conservation Socy., *supra* n. 119, at ch. III.

<sup>154</sup> *Id.*

<sup>155</sup> Interview, *supra* n. 122.

examining elephant poaching; and at the demand end, by examining the supply of ivory.

While poaching reduced drastically during the ban, evidence shows that poaching has increased following the limited trade with Japan. Since the sale was authorized, Kenya and Zimbabwe have reported increased poaching.<sup>156</sup> Indeed, illegal imports into Japan continued throughout the ban period. Ninety thousand dollars of illegal ivory was smuggled into Japan from Zimbabwe in 1997.<sup>157</sup> In the Zambezi Valley of Zimbabwe, elephant mortality was recently measured at 11.25%, 3 to 8% percent higher than the natural mortality rate.<sup>158</sup> Despite these criticisms, Japan's modifications to its ivory management system were enough to convince the CITES Panel of Experts to approve the importation of ivory from Botswana, Zimbabwe, and Namibia.

Moreover, further examination of the supply side of the ivory equation shows that the source of Japan's ivory is suspect at best.

Japan is still consuming large quantities of ivory but their stockpiles don't seem to be going down. In Japan, there is a very buoyant market still for the little signature blocks carved out of ivory, and when you take a look at the huge quantities of ivory being consumed in Japan for that hanko market, there is a disconnect somewhere. There is obviously more ivory in Japan than their stockpiles would suggest, and the only conclusion you can reach is either the stockpiles are inaccurate or illegal ivory is being blended into Japan.<sup>159</sup>

Thus, the supply of ivory in Japan has not decreased in proportion to the apparent demand. This suggests that illegal ivory is entering the system despite the management system Japan has implemented.

## VI. CONCLUSION

The approval of recent sales of ivory from Botswana, Zimbabwe, and Namibia to Japan has proven to be a difficult decision. While it seems reasonable that countries should be able to take advantage of their wildlife resources to increase their economies, if such use jeopardizes the long-term viability of the elephant, then it is ultimately detrimental to both the countries and the elephants. The key to successful use of elephants, or any renewable resource, is sustainability.

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<sup>156</sup> Andrew Dobson & Renee Kuriyan, *U.S. Must Help Save Elephants* <<http://www.csmonitor.com/durable/2000/04/12/p8s1.htm>> (Apr. 12, 2000).

<sup>157</sup> Sonni Efron, *Japan Seeks To Open Trade in Rare Wildlife*, L.A. Times A1 (June 8, 1997) (the \$90,000 figure reflected only six months worth of smuggling during that year).

<sup>158</sup> Dobson, *supra* n. 156.

<sup>159</sup> H.R. Subcomm. on Fisheries Conservation, Wildlife and Oceans, Comm. on Resources, *The Upcoming CITES Meeting; The Results of Convention on International Trade in Endangered Species of Wild Fauna and Flora [CITES]*, 105th Cong. 16 (June 3, 1997 & July 17, 1997) (comments of Donald J. Barry, Acting Asst. Sec., Fish and Wildlife and Parks, Dept. of the Int.).

Several countries in Africa, not limited to the three discussed here, are once again attempting to implement a system of limited trade in ivory. The one-time sale to Japan was merely a test case; the intent of these countries is to reopen trade in ivory. These countries argue that sustainable use is possible. However, for such a system to be effective in managing the commons, adequate controls must be implemented to prevent illegal sales and the ultimate overuse of common resources.

The countries supplying ivory are attempting to control use of the elephant populations by privatizing elephant populations and giving a stake to local communities. The idea is that through privatization each area will manage its elephant population in a sustainable manner.

On the demand side, Japan has attempted to restrict sales in ivory so that only legal ivory will reach the markets. However, Japan's management scheme is not sufficiently strict to prevent illegal ivory sales. As such, ivory sales above the sustained use level will occur. For limited trade to work, the control system must be strict enough to prevent such illegal sales. If not, the incentive to hunt elephants illegally will be too great.

The primary problem with a commons such as an elephant population is that the true external costs of taking an elephant are not borne by the individual actors, but rather by society as a whole. Human nature is such that individuals tend to overuse resources unless costs are internalized and borne by the responsible actors.

One solution is to preserve the commons completely and allow no one to use it. Such an approach is embodied in the pure protectionist argument. When no one is permitted to trade in ivory, the monitoring costs are lowered because all ivory is illegal. Sustained use attempts to regulate use of the commons but suffers from increased monitoring costs and from the fact that people, if not sufficiently regulated, will overuse the common resource. It is for this reason that the system in its current state will fail to protect the elephant. Since the monitoring system is inadequate and the incentive to overuse is so great, the elephant will suffer the consequences. While it may be possible in theory to employ sustained use of renewable wildlife resources, evidence suggests that such a system will not work in practice.

Like the three blind people encountering an elephant for the first time, we too are trying to understand a problem that has many different aspects. It remains very difficult to understand the positions of the various actors since each is faced with a different set of circumstances. Developing countries should be able to use their wildlife resources. However, the current system is too flawed to permit sustained use. If the current system is expanded, we run the risk of causing the extinction of the elephant. Thus, applying the precautionary principle, we should continue with the ban until a management system is in place that will prevent illegal sales of ivory.

