

TED Case Studies

Elephant Ivory Trade Ban



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I. Identification

1. The Issue

While African elephants have been hunted for several centuries, the exploitation of elephant herds on a massive scale began in the 1970s. Organized gangs of poachers used automatic weapons, profited from government corruption, and laundered tons of elephant tusks through several African countries to destinations in Eastern and Western countries. Threatened with extinction, the elephant is theoretically protected from international trade by their listing on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 1989. The enforcement of this ban, the level of compliance adhered to by CITES Parties, the response of non-CITES members, as well as the policy question as to how trade "interventions" best serve the environmental objective of species preservation, are all key concerns of this dispute.

2. Description

Both Asian (elephant maximus) and African (loxodonta africana) elephants are listed on Appendix I of CITES. Male Asian elephants have small tusks and Asian females are tuskless. Remaining herds are located in small numbers in Nepal, India, Sri Lanka, Thailand and Sumatra and number between 29,000 and 44,000. The Asian species once was found throughout Southern Asia, was severely over-hunted. Although ivory trade has experienced sustained growth since the 1940s, the huge increase that occurred during the 1970s was the result of automatic weapons availability and widespread government corruption in many exporting countries which decimated elephant populations across Africa. In the 1960s, raw ivory prices remained between \$3 and \$10 per pound. In 1975, the price reached \$50 because

ivory was perceived as a valuable hedge against rising inflation. By 1987, the price was \$125 per pound. The relative price inelasticity of ivory also fueled demand. New manufacturing techniques, which enabled the mass production of ivory carvings, along with rising demand in East Asia and led to increased elephant kills.

Hong Kong was the primary consumer of raw ivory from 1979 to 1987 and probably remains important today. Japan was the second largest consumer in this time (whose market share dropped markedly during the period), followed by Taiwan (whose share rose). For both Hong Kong and Taiwan, there are probably significant trans-shipment of product to China. In 1979 the EC began was a major consumer, but by 1987 it share dropped to 4 percent. At the same time, the United States market share rose from 1 to 6 percent (see Table 1).

Table 1

World Raw Ivory Consumption (%)

Country	1979	1981	1983	1985	1987
HONG KONG	37	48	40	22	36
JAPAN	28	32	20	24	22
EC	18	5	6	7	4
TAIWAN	2	2	3	4	20
MACAO	0	0	2	15	2
CHINA	1	1	2	1	10
INDIA	2	2	2	4	1

Source: ITRG

Before the 1989 CITES ban, illegal and legal ivory exports amounted to 770 metric tons (tons), or 75,000 elephants. The listing of elephants on Appendix I has effectively banned all trade in elephant ivory. Without substantial investment in the elephant conservation in several African countries, the species faces extinction. The Ivory Trade Review Group (ITRG) notes: "Under investment is the result of the separation between ownership and control. The rents from the resource are flowing to persons other than the harvesters. The persons who could control the rate of harvest are not realizing sufficient funds from the resource to make adequate controls worthwhile".

In 1985, reports of rising elephant poaching levels led the CITES Conference Parties to agree to the establishment of an ivory monitoring unit. Coordinated by the Secretariat, the ITRG was responsible for setting up and ensuring the enforcement of ivory trade quotas in exporting countries. According to the quota system, each tusk had to be marked and coded by country origin and then entered into an international data base which monitored the trade, alerted authorities when discrepancies arose, and collected information on herd numbers and the animal's status for a report to the 1989 CITES meeting.

The ivory quota system came into effect in January, 1986. Immediately prior to its implementation, there was a general amnesty on illegal ivory stockpiles. This prompted a massive price rise as previously illegal stockpiles were released onto the market. The amnesty idea was not repeated when the ban was imposed in 1989.

The ITRG found that CITES controls were relatively easy to evade -- only 16 of the 35 African Parties complied with the system. Illegal ivory traders simply altered their trade routes in order to get around Appendix II restrictions and traders used regulation loopholes. For example, raw ivory was carved to meet the minimum requirements for reclassification as "worked ivory", before being exported to key manufacturing centers in the east Asia.

Most African countries joined CITES during the 1980s but this did not completely change trends. In 1986 alone, approximately 75 percent of all raw ivory was derived from illegal sources --amounting to around 89,000 elephants. Furthermore, sanctions imposed on smugglers were not severe enough to warrant foregoing the trade. In on example, a truck owner was fined only the equivalent of \$3,000 for transporting 2 tons of illegal ivory.

The ITRG singled out Burundi and South Africa as those countries most involved in the illegal ivory trade. In Burundi, between 1976 and 1986, tusks from an estimated 200,000 elephants were exported. However, as of 1988, only one live elephant survived in this country, yet Burundian traffickers exported approximately one-third of the world's annual total of raw ivory. Following a coup d'etat in late 1987, the new government promised to extinguish illicit ivory trading in Burundi and has seemingly been effective.

Some believe that a major ivory and rhino horn smuggling network was being coordinated through South Africa. The ivory was "laundered" through legitimate CITES channels -- which, before the implementation of the 1989 ban, only accounted for 22 percent of traded ivory. The ITRG's final report noted that between 1986 and 1989, more than 300,000 elephants were killed in Africa, leaving only 625,000 live elephants on the continent. They concurred with the African Elephant and Rhino Specialist Group's (AERSG) 1987 report that the demand for ivory superseded competition over land resources as the key factor contributing to the demise of the African elephant.

3. Related Cases

[USCHINA](#) case

[TIGER](#) case

[BEAR](#) case

[KENYA](#) case

[MEDICINE](#) case

[RHINOBLK](#) case

[RHINO](#) case

[IVORY](#) case

[MAMMOTH](#) case

[SAFRFOOD](#) case

Keyword Clusters

(1): Domain = AFRICA

(2): Bio-geography = Temperate [TEMP]

(3): Environmental Problem = Species Loss Land [SPLL]

4. Draft Author:

Karen Sack, 1993



II. Legal Clusters

5. Discourse and Status: Agree and Complete

The 1989 ban was given temporary status, and re-evaluated at the 1992 CITES meeting in Kyoto, Japan. Again, several Southern African countries proposed downgrading of the African elephant to Appendix II status. They supported the formation of a cartel, with a monopoly over the export and sale of ivory, with only one buyer: Japan. These countries maintain that new scientific methods can trace the origins of ivory to determine if the origin was from a country that permits trading or a from one that does not. Other African countries, particularly those in East Africa, argued that "tourism, rather than trade" would bring in the necessary funds for conservation.

6. Forum and Scope:

CITES and MULTilateral

Differences of opinion exist over the nature of the ivory trade. "Is the ultimate goal of CITES to close down international trade in wildlife or to establish effective management of all globally threatened species?" However, "restrictions on trade form the very basis of CITES, which protects covered species by eliminating their trade in international markets." Therefore, GATT rulings on the environment will need to pertain to CITES.

The GATT ruling on the dolphin-tuna case, for instance, has important implications for CITES (see TUNA case). Central to CITES is the belief that "wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and generations to come". According to Article 30(3) of the Vienna Convention "those states that are either Parties to the GATT but not to CITES, or which have ratified the GATT after ratifying CITES, the trade measure central to the enforcement of CITES may no longer be enforceable by a State that is party to both." Finally, other CITES cases concerning disputes over the listing of a species on an Appendix, such as the Southern White Rhino, areal so related to this case (see USCHINA, RHINO, and TIGER cases).

7. Decision Breadth: 115 (cites signatories)

There are 115 signatories to CITES. Key exceptions include South Korea, Macao and Taiwan and these

countries are major wildlife product importers whose absence severely undermines the effectiveness of the ban. Several key African countries joined the Convention in the late 1980s.

8. Legal Standing:

TREATY

International trade in wildlife and wildlife products was valued at over \$4 billion in 1989. Unsustainable trade in wildlife has resulted in the extinction or near extinction of many species. To countermand this trend, CITES came into force on July 1, 1975, under the umbrella of the United Nations Environment Programme (UNEP). Fifty-six countries initially signed the Convention, and by 1992, over 115 States had formally signed onto the CITES, making it is the largest wildlife conservation agreement in existence. The aim of CITES, "the rational and sustainable utilization of the Earth's living resources for human benefit". Biennial meetings assess the listings of flora and fauna on the three Appendices.

Appendix I bans commercial trade in listed species under threat of extinction, totaling 507 taxa in 1990. Appendix II controls trade in those species, through the use of assigned export quotas. The quotas not only regulate trade, but assist in monitoring the numbers of remaining living species. Appendix III contains a list of those species for which trade is regulated in specific countries.

Each Party must create a National Management Authority and a National Scientific Authority to implement CITES regulations. The former issues and authenticates permits and licenses, and cooperates with the CITES secretariat to ensure compliance with Convention requirements. The latter provides advice for the Management Authority, and assesses whether species should be recommended for listing or for removal from the various Appendices.

At the October, 1989 CITES meeting in Lausanne, Switzerland the question of whether to place the African elephant onto Appendix I was hotly debated. Many argued that if elephant product trade were not banned altogether, the animals would face extinction. In proposing the trade ban, Kenya, Gambia and Somalia argued that upwards of 100,000 elephants were killed in Africa each year. Kenya and Uganda had "lost 85 percent of their native elephant population between 1973 and 1987". The Sudan, with a 30 percent annual decline, and Tanzania (16 per cent decline per year), also experienced major deficits in their elephant populations. The Southern African countries of Zimbabwe, Botswana and South Africa, wanted to maintain the legal trade in elephant products in countries with flourishing elephant populations and who manage them sustainably. They would use the funds from ivory sales for management. This approach was supported by several Hong Kong business syndicates involved in the ivory and rhino horn trade.

The Appendix I listing was accepted by the majority of the Parties, and the total ban on the ivory trade came into effect on January 18, 1990. Zimbabwe, South Africa, Botswana, Zambia and Malawi voted against the resolution on the ban, and with Hong Kong(the major ivory importer) expressed formal "reservations" to it.



III. Geographic Clusters

9. Geographic Locations

Most elephants in Africa reside in Zaire (112,000), followed by Gabon (78,000), Botswana (68,000), Tanzania (61,000), and Zimbabwe (52,000). Kenya's elephants have been greatly reduced and now number 16,000 (see Table 2).

- a. Geographic Domain: Africa
- b. Geographic Site: South Africa [SAFR]
- c. Geographic Impact: East Asia, especially [CHINA] Table 2

Elephants in Africa, by Country (1989) (thousands)

Country	Elephants	Country	Elephants	Country	Elephants
Cameroon	22	South Africa	7	Zambia	32
South Africa	7	Benin	2.1	CAR	23
Zimbabwe	45	Congo	42	I. Coast	36
Namibia	5.7	Mozam.	17	S. Leone	380
Botswana	68	Nigeria	1.3	Angola	18
Togo	380	Senegal	0.14	Liberia	1.3
Somalia	2	Sudan	22	Maur.	0.1
Tanz.	61	Niger	0.44	Uganda	1.6

Source: ITRG

Source: ITRG

10. Sub-National Factors:

NO

11. Type of Habitat:

TROPICAL



IV. Trade Clusters

12. Type of Measure:

IMPORT BAN

While worldwide trade in ivory has been effectively banned since January 1990, the illicit trade continues. Both export and import bans exist but trade interdiction has more focused on use of import controls. Attending the Kyoto meeting of CITES in March 1992, Peter Hadfield wrote: "As the ivory

debate raged in Kyoto, 27 smuggled elephant tusks were discovered in a container of furniture at Kobe, less than 80 kilometers away. The container, from South Africa, provided ample evidence that the illicit trade in ivory continues in order to fuel the demands of ivory carvers in Japan and elsewhere".

During the time that the elephant was listed on Appendix II (which allows limited trade), their population declined by half. Of this total, almost 80 percent of all legally traded ivory came from poached animals and the ivory trade "in effect collapsed," following the listing on Appendix I (total ban). Since the imposition of the ban, the average annual number of elephants killed by poaching has declined from 3,500 elephants per year in Kenya in the early 1980s, to about 50 in 1993.

13. Direct v. Indirect Impacts:

DIRECT

The United States was the first country to ratify CITES in 1975. The Endangered Species Act implements CITES in the United States government, with the Department of the Interior's Fish and Wildlife Service as the key agency ensuring its implementation, and also contains the Offices of Management Authority and Scientific Authority, as well as the Division of Law Enforcement. The former oversees the issuance of permits, the enforcement of CITES regulations, and the compilation of the U.S. annual reports for the CITES Secretariat, the latter reviews permit applications, and advises on listing amendments. The third party involved is the investigative branch which checks on wildlife shipments to enforce CITES regulations.

The basis for CITES regulations in U.S. law is the Lacey Act, which upholds the wildlife laws of the country of origin, and thereby enables the prosecution of violators. On June 5, 1989, President Bush authorized a moratorium on all ivory imports into the United States. The African Elephant Conservation Act was passed by Congress on June 9, 1989 and restricted the importation of ivory from CITES Parties, or from those countries not engaged in illegal ivory trading. This was followed by the international CITES ban later that year. In March 1992, the Bush Administration reversed its earlier support of the ivory trade ban, in anticipation of the CITES meeting of the Parties in Lausanne. When the conference voted in favor of retaining the ban, the United States supported it, and it remains in effect today, as does the African Elephant Conservation Act.

14. Relation of Trade Measure to Environmental Impact

- a. Directly Related to Product: YES Elephant
- b. Indirectly Related to Product: Yes Pharmaceuticals
- c. Not Related to Product: NO
- d. Related to Process: YES Species Loss Land

15. Trade Product Identification:

Pharmaceuticals

16. Economic Data

The majority of revenue earned from the trade is not received by the countries or the communities from which the ivory originates, but by professional poaching organizations and For example, ivory sold in Zaire, Congo, Gabon, and Cameroon earned only 10 to 20 per cent of the value obtained upon resale in Hong Kong.

17. Impact of Trade Restriction:

BAN

Over the past 40 years, the magnitude of the ivory trade has increased by 400 per cent: 204 tons in 1950; 412 tons in 1960; 564 tons in 1970; and 966 tons in 1980. Trade has increased due to demand from Asian countries with rising income structures. In the 10 years preceding the ivory trade ban, the estimated market value of Asian trade in raw ivory, was pinned at approximately \$55 million, per year. The price of ivory rose in the 1979-82 period, despite a worldwide recession, and total traded ivory also increased (see Table 3).

Table 26-3

Total World Trade in Raw Ivory and World Price

Year	Volume	Value
1979	1980	1981
66	60	59
66	60	59

Source: ITRG

18. Industry Sector:

Pharmaceuticals

19. Exporters and Importers:

South Africa [SAFR] and East Asia [E ASIA]

Before President Bush's 1989 ban, the United States was one of the largest importers of worked ivory in the world (valued at \$11.8 million annually), behind Japan (38 percent) and the European Community (18 percent). The United States accounted for 12 percent of all ivory being traded (16 percent of worked ivory) internationally. While the Lacey Act and the Endangered Species Act prohibited illegal ivory imports into the United States, the line between legal and illegal wildlife trade blurred: "in 1984, the United States imported approximately 7.5 tons of raw ivory, three-quarters of which reportedly came from Zaire, at a time when all commercial ivory exports from that country were banned".

Since the implementation of the ban, the ivory market has collapsed, although some trading continues from stocks. In March 1993, the black market price for ivory stood at only \$5 per pound (see Table 26-4). Ivory and tiger products continue to pour into China and Taiwan. The United States has threatened and imposed some sanctions on these countries in retaliation (see USCHINA, RHINO and TIGER cases).

Table 26-4

Value of Ivory Exports from Africa, 1979-1987 (Customs Import Statistics: US\$ millions)

Country	1979	1980	1981	1982	1983	1984	1985	1986	1987
Burundi	2.76	2.93	.23	.07	.61	2.38	.09	.02	2.86
C.A.R.	5.03	6.11	4.2	5.16	10.8	7.71	5.53	3.8	.27
Congo	3.72	7.1	13.5	5.74	2.91	4.83	5.68	.66	9.2
Kenya	3.62	4.1	1.95	2.19	2.38	.39	.33	.18	.46
SAfrica	2.27	1.97	1.92	3.38	1.96	2.68	2.21	2.53	2.92
Sudan	2.25	3.06	6.09	8.36	10.2	5.4	3.37	3.44	1.29
Tanzan.	2.34	2.62	.59	.6	.34	1.66	6.7	18.5	1.97
Uganda	1.7	1.17	.57	.9	.79	7.06	1.39	1.12	.21
Zaire	13.2	6.06	1.92	3.5	6.62	3.52	.82	.89	NA

Source: ITRG



V. Environment Clusters

20. Environmental Problem Type:

Species Loss Land, SPLL

The

range of the elephant has been reduced by 20 per cent over the last decade due to human expansion. In Rwanda, for example, a country equivalent in size to the U.S. state of Maryland, the elephant population of 100 animals is expected to decline over the next 20 years, the human population of 7.5 million is estimated to more than double. It is uncertain whether the recent civil war will lead to more poaching as authority in the country breaks down.

The loss of forest

in Central and West Africa affects not only the elephant but entire ecosystems. Elephants play a key role in the establishment and development of several African ecosystems, acting as seed dispersers and clearing vegetation and thereby allowing smaller flora access to sunlight in the dense rain forests of Central and West Africa. Compressing elephant populations on small areas of land (such as nature reserves), can be as damaging as removing them from traditional habitats: "the extermination of the African elephant will reduce biological diversity and increase extinction rates over much of Africa. This has enormous implications economically, aesthetically, and symbolically, as well as ecologically..."

21. Name, Type, and Diversity of Species

Name: African

Elephant (*loxodonta africana*)

Type: Animal/Vertebrate/Mammal

Diversity: 69 mammals per 10,000 km/sq (Zaire)

Between 1979 and

1989, the African elephant population decreased by 50 per cent. In 1979,

approximately 1.3 million live elephants were counted in Africa. In 1988, an estimated 750,000 African elephants remained alive. In 1992, this figure stood at 600,000, and it is estimated that by 2025, the African elephant could be extinct. The Central African rain forests contain 45 percent of remaining elephants, with 31 per cent in Southern Africa, 21 per cent in Eastern Africa, and only 3 per cent in West Africa..

Elephants reproduce fairly slowly.

Although their potential life span is approximately 60 years, today fewer than 20 per cent of the species live to the age of 30. With a gestation period of 22 months, and a high sensitivity to habitat and climate changes, populations grow by a maximum of 7 percent per year. The degree of poaching can reduce this to a minimum 2 per cent annual increase. Poaching has not only affected population densities, but has impacted herd social structure in their demographic and genetic make-up. Elephant herds are matriarchal, with the males forming small groups or wandering as loners until females come into estrus. This only occurs at very specific times of the year. With the decline in the male population breeding opportunities are often missed, further slowing reproductive rates. Female elephant fertility occurs between the ages of 25 and 45. Male elephants over 30 years of age are sought by females to perpetuate the species. The demise of both these groups has severely impacted on the continued existence of the species.

Finally, although the tonnage of ivory on the international market remained relatively stable between 1979 and 1989, the size of the tusks decreased significantly. In 1979, the mean weight of traded tusks was 9.8 kilograms, but by 1987 the average tusk weighed only 4.7 kilograms. Those elephants with larger tusks -- the elders of the herds -- have become very rare and that poachers are killing younger animals as well as females, with smaller tusks. Decreasing tusk size also means that more elephants need to be killed to obtain the same volume of ivory as before. Two other problems arise. First, the species' genetic resources are being reduced and weakened. Second, elephant behavior could be compromised as herd composition is fundamentally altered.

22. Resource Impact and Effect:

High and Product

Zimbabwe's CAMPFIRE project provides financial incentives to the local community to protect the elephant by illustrating its ability to bring in much needed hard cash through tourist or trophy-hunter dollars. In South Africa's Kruger National Park, profits from elephant products fund conservation. Many argue that the conservation methods of the past were imposed on African communities by their colonial rulers, and took no notice of the negative impact of these measures on local communities. Ironically, local communities were given greater incentives to poach the animals than to protect them.

23.

Urgency and Lifetime:

HIGH and 60 years

24. Substitutes:

SYNTHETICS

Scientists for ivory contain similar chemical properties. Like product substitutes are also being pursued, such as the horn of water buffalo.



VI. Other Factors

25. Culture:

YES

The demand for ivory is largely for use in Chinese medicine(that may have very little actual medical value) and for crafts made of ivory. In some instances the ground ivory is used as an aphrodisiac. In these cases, it is clear that culture has a strong role in trade, and the ivory itself possesses a certain commodified, transaction value. The ITRG notes the example of Korea and Taiwan, where demand for ivory carvings increased by 1,000 percent between 1979 and 1989.

26. Trans-Boundary Issues:

YES

The migratory patterns of the elephants take them through several country borders.

27. Rights:

NO

28. Relevant Literature

Alder, Joseph. "Should Heads Keep Rolling in Africa?." *Science* 255/6 (March, 1206-1207) and 255 (January 4, 1992): 407.

Barbier, Edward, B., "Managing Trade and Environment: The Demand for Raw Ivory in Japan and Hong Kong." N.p., n.d.

Barbier, E. and Timothy Swanson. "Ivory: the Case Against the Ban." *New Scientist* (November 17, 1990): 52-54.

Beacham, K. Gwen. "International Trade and the Environment: Implications of the General Agreement on Tariffs and Trade for the Future of Environmental Protection Efforts." *Colorado Journal of International Environmental Law and Policy* 3/2 (Summer 1992): 655-682.

Begley, Sharon. "Killed by Kindness." *Newsweek* (April 12, 1993): 50-56.

Bonner, R. "Crying Wolf over Elephants." *The New York Times Magazine* (February 7, 1993): 17-53.

Caughley, Graeme; Dublin, H.; and Parker, Ian. "Projected Decline of the African Elephant." *Biological Conservation* 54 (1990): 57-164.

Cherfas,

Jeremy. "Decision Time on African Ivory Trade." *Science*, 246 (October 6, 1989): 26-27.

Fitzgerald, Sarah. *International Wildlife Trade: Whose Business is it?* (Washington, DC: World Wildlife Fund,1989).

Forse, Bill. "Elephant Decline Blamed on Ivory Poachers." *New Scientist* 18 (June 18, 1987).

Hadfield, Peter. "African Nations Defeated over Elephant Trade." *New Scientist* (March 14, 1992): 11.

Harland, David. "The Ivory Chase Moves On." *New Scientist* (January 7, 1988): 30-31. ITRG. "The Ivory Trade and the Future of the African Elephant: Interim Report." Gaborone, Botswana, 1989.

Joyce, Christopher. "Dying to Get on the List." *New Scientist* 30 (September 30, 1989): 42-45.

Lallas, Peter L.; Esty, D. S.; and van Hoogstraten, D.J. "Environmental Protection and International Trade: Toward Mutually Supportive Rules and Policies." *The Harvard Environmental Law Review* 16/2: 271.

Lewin, Roger. "Global Ban Sought on Ivory Trade." *Science* 244/9 (June 9, 1989): 1135. Lewin, Roger. "Ivory Signatures

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