

Recent U.S. Imports of Certain Products from the African Elephant

Jorgen B. Thomsen

TRAFFIC (USA), World Wildlife Fund
1250 Twenty-fourth Street, NW, Washington DC 20037

INTRODUCTION

For many years the plight of the African elephant (*Loxodonta africana*) has been the subject of engaged debate among various sectors of the U.S. public. At least one conservation organization was established solely for the purpose of protecting elephants, and in 1978, the concerns resulted in the listing of the African elephant as "threatened" under the U.S. Endangered Species Act. In addition, in 1977, 1979, 1981, and 1983 bills were introduced in the U.S. Congress that would prohibit imports of elephant products (Anon., 1979; Anon., 1981; and Anon., 1983).

The Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) have been equally concerned that elephant populations are declining, mainly as a result of poaching and illegal trade. However, the Parties have recognized that the African elephant still has large populations that, if properly managed, can sustain commercial exploitation, but that this cannot be achieved unless the substantial illegal trade, in raw ivory is eliminated.

Recognizing this, the delegates attending the fifth meeting of the Conference of the Parties (Buenos Aires, 1985) agreed to adopt an ivory export quota system for the African elephant, whereby the countries with elephant populations would set export quotas based on sound management principles, and the ivory importers would accept raw ivory only from countries that had agreed to this system (Caldwell, 1987). In addition, the Parties mandated the CITES Secretariat to form a special ivory unit to coordinate and monitor trade between exporting/reexporting and importing countries. This system, called the CITES Ivory Quota Control System, was endorsed by the U.S. delegation to the Conference of the Parties in Buenos Aires and entered into effect in January 1986.

It is premature to assess the effectiveness of the quota system, although some positive trends have been documented by Caldwell (1987). However, it is clear that the illegal trade in raw ivory remains extensive and elephant populations have continued to decline. The African Elephant and Rhino Specialist Group (AERSG) of the International Union for Conservation of Nature and Natural Resources (IUCN) has estimated that in 1986 — the first year of the quota system — only 22% of the raw ivory trade was carried out within the system and that tusks from some 89 000 elephants may have entered the trade illegally (AERSG, 1987).

Based on this information and a report by Douglas-Hamilton (1987), the U.S. delegation to the sixth meeting of the Conference of the Parties (Ottawa, 1987) stated that a U.S. import ban on elephant products is under consideration. On 23 July 1987, Congressman Anthony Beilenson (D-California) introduced a bill (H.R. 2999) that, if enacted, would prohibit the import into the U.S. of any product from the African-elephant.

The purpose of the proposed "Elephant Protection Act" is to "eliminate the role of the United States in creating the world

demand for elephant products, including but not limited to ivory," and to "encourage other nations to join in a ban on trade in such products." The proposed Act further states that the President or his delegate shall propose to CITES that all trade in elephant products by Parties be suspended until accurate data demonstrate that "large and healthy elephant populations have been re-established and are biologically stable over large geographic areas."

The following report on U.S. imports of elephant ivory and skins was written in response to requests for trade information made to TRAFFIC (U.S.A.) by the House Subcommittee on Fisheries and Wildlife Conservation and the Environment after Bill H.R. 2999 was introduced. The intention is to assess the U.S. role in creating or perpetuating a demand for elephant products.

SOURCES OF INFORMATION

The principal sources of information for this report are U.S. CITES Annual Report data for the years 1983-1985, and U.S. Fish and Wildlife Service Law Enforcement "DECS" data for the years 1984-1986 and the first seven months of 1987, which come from U.S. Declarations for Importation or Exportation of Fish or Wildlife (form 3-177). These data are obtained from the Division of Law Enforcement of the U.S. Fish and Wildlife Service (USFWS/LE) and are further processed on Micro Vax II and IBM computers at TRAFFIC. In addition, information has been retrieved from Customs import declarations for the years 1983-1986 and the first five months of 1987 received on microfiche from the U.S. Department of Commerce.

In order to eliminate possible data errors, certain transactions and entries have been verified with importing companies, USFWS/LE, and the CITES ivory unit. In addition, certain data have been excluded because they were either incomplete or fell under general headings (e.g. "trophy") that could not be converted into raw ivory, skin, etc. Hence, the results presented in this report should be regarded as minimum totals and treated with some caution as it is likely that the U.S. trade is larger than illustrated here.

THE VOLUME AND PATTERN OF THE U.S. IMPORT OF ELEPHANT PRODUCTS

Raw Ivory

According to USFWS/LE, the U.S. is not a significant market for raw ivory (C. Bavin, pers. comm. 29 May 1987). However, for the period 1983 through 1986 the U.S. imported a minimum of 16 827 raw tusks and an additional 18 187 kg of raw tusks (Table 1). The reported imports peaked in 1984 when they amounted to 9 078 tusks and 2 222 kg of tusks, and declined towards 1986; during the latter year imports amounted to only 855 tusks and 238 kg of tusks. This decline, particularly in 1986, coincides with the Introduction of the CITES Ivory Quota Control System, but it is uncertain to what extent this was the determining factor. In addition to the imports of tusks, the U.S. imported a small number of cut pieces of raw

Table 1. U.S. imports of raw ivory 1983-1986

Year	Raw tusks (Apparent increase)	Cut pieces
1983	5991 items 6 053.4 kg	— —
1984	9 078 items (+52%) 2222 kg (-63 %)	103 items 173 kg
1985	903 items (-90 %) 9 683.7 kg (+336%)	24 items 340 kg
1986	855 items (-5%) 238 kg (-98 %)	8 items 20 kg
Totals	16827 items 18 187.1 kg	135 items 533 kg

Source: U.S. CITES Annual Report Data and USFWS "DECS" data.

ivory amounting to 135 pieces and 533 kg (Table 1; 1983 figures excluded).

With some caution it is possible to convert the total amount of imported raw ivory (excluding the 135 Cut pieces) into the number of elephants this represents. Using' Parker and Martin's (1982) estimate of 1.88 tusks/elephant and Caldwell's (1987) calculation of the mean weight of 4.7 kg for tusks traded under the quota system in 1986 (which involved large amounts of stocks acquired during previous years), the number of elephants killed for the U.S. market during 1983-1986 is a minimum of 12 934.

A comparison of USFWS and Customs data for raw ivory imports shows a number of marked discrepancies both in the countries and amounts of ivory involved. Table 2 shows the imports that took place during 1984-1986 and which were cleared by USFWS compared to those reportedly cleared by Customs and documented under Customs tariff 1 906 000 (i.e. ivory tusks, crude, or cut vertically across the grain only). Table 3 shows only the raw ivory that was imported directly

Table 2. Comparison of import data for raw ivory obtained from U.S. Fish and Wildlife Service and U.S. Customs (Department of Commerce), 1984-1986.

Year	USFWS import records (1)	Customs import records (2)
1984	9 181 items 2 395 kg	0 items 9 749.5 kg
1985	927 items 10023.7kg	0 items 5126kg
1986	863 items 258 kg	0 items 3 524.1 kg

Source: U.S. CITES Annual Report data, USFWS "DECS" data, and U.S. Department of Commerce data under tariff 1906000 ("Ivory tusks, crude, or cut vertically across the grain only").

(1) Records for "raw tusks" and "cut pieces" added together.

(2) Data converted from pounds (lbs).

Table 3. Raw ivory imported by the U.S. directly from African countries 1983-1986. Numbers in parenthesis are raw ivory imports registered by U.S. Customs.

Country	1983 (tusks only)	1984	1985	1986
Botswana	58	103	25	0
Botswana (kg)	468 (1 455) [1]	68	7 560 (28)	0
CAR	0	509 [3]	0	4
CAR (kg)	1 096	0 (52)	0 (189)	0
Congo	0	0	0	2
Congo (kg)	0	0	0 0	(35)
Cameroon	4	0	2	0
Ethiopia	0	0	0	5
Gabon	3	0	0	0
Kenya (kg)	0 (8)	0 (30)	0	0
Liberia	2	0	0	2
Malawi	2	3	0	0
Namibia	2	0	0	0
Nigeria	8	0	17	0
Senegal	0	0	3	0
Sierra Leone	0	0	1	0
Sudan	22	0	0	2
Tanzania	18	0	17	58
Tanzania (kg)	591 (61)	260	289 (105)	0
South Africa	49	80	341 [5]	80
South Africa (kg)	2814 (2082) [2]	488 (3434) [4]	38 (2 460)	84 (580)
Zaire	654	249	0	590 [6]
Zaire (kg)	430	1 250 (5 934)	0 (987)	0
Zambia	1	4	4	30
Zambia (kg)	83 (9)	48	0	0
Zimbabwe	178	54	193	96
Zimbabwe (kg)	70 (1118)	112	933 (1 133)	0 (143)

Source: U.S. CITES Annual Report data, USFWS "DECS" data, and U.S. Department of Commerce data under tariff 1906000 ("Ivory tusks, crude, or cut vertically across the grain only").

[1] Includes 375 kg with the country of origin South Africa.

[2] Includes 1 000 kg with the country of origin Zimbabwe.

[3] Includes 500 tusks with the country of origin Zaire.

[4] Includes 86 kg with the country of origin Zimbabwe.

[5] Includes 2 tusks with the country of origin Zambia and 9 tusks with the country of origin Zimbabwe.

[6] According to USFWS, 132 of these tusks have been returned to Zaire.

from African countries during 1983-1986 compared to that reported by Customs. In general, there' is no or very little correlation between the two sets of data. In each of the three years examined, the reported total volume of the USFWS data is substantially larger than that reported by Customs. On a country basis there is some correlation, but the discrepancies in volume follow a similar pattern, i.e. the volume reported for individual countries by USFWS is almost always the larger. This tendency is difficult to explain but can perhaps be attributed to the fact that Customs data are less specific and the potential for error is greater.

A number of the transactions illustrated in Table 3 may represent violations of the U.S. Lacey Act. During 1983-1985, the most questionable are those imports of raw ivory from the Central African Republic (CAR) and Zaire. According to the CITES Secretariat (1983), CAR had an annual hunting quota of only 200 elephants during the period examined. In addition to the numbers found in Table 3, the U.S. imported more than 1 000 kg of raw ivory of CAR origin, re-exported from Hong Kong, Spain, and the United Kingdom.

Zaire did not issue any permits for the export of commercial

shipments of ivory from 1981 until the quota system was instituted in 1986 (Caldwell, 1984 and Douglas Hamilton, 1987); in fact, Zaire suspended exports of ivory on 18 August 1978 (CITES Secretariat, 1980). Despite this, the U.S. apparently allowed the import from Zaire of 903 tusks and 1 680 kg of raw ivory during 1983-1984; in addition, in 1983 and 1984 the U.S. imported from Hong Kong 4 938 and 7 233 tusks of Zairian origin, respectively. Douglas-Hamilton (1987) also reports that the U.S. imported ivory from Zaire in 1985. These imports are also evident in U.S. Customs data (Table 3).

During the period 1983 through 1985 a number of shipments of raw ivory were reportedly allowed entry into the U.S., despite the fact that they were declared as originating in countries where the African elephant does not occur or were exported from countries that were not Party to CITES at that time. These transactions may represent violations of both the U.S. Lacey Act and the U.S. Endangered Species Act. Some of the most notable examples are the imports of 425 tusks from India declared as originating in India (where only the endangered Asian elephant (*Elephas maximus*) occurs), and 9 tusks from Angola.

In 1986, the USFWS apparently did not follow the newly-instituted CITES Ivory Quota Control System, and this is reflected in the data (Table 4). A number of possible Lacey Act violations also appear, which might have been avoided if the Secretariat's ivory unit or the countries of export had been consulted, as prescribed in the ivory quota procedures. In addition, on a number of occasions the CITES ivory unit apparently requested information from the USFWS regarding certain shipments of ivory; this information was not provided by the USFWS (J. Yovino, pers. comm. 20 July 1987). Discussions with the ivory unit (J. Caldwell in litt. 12 May 1987 and pers. comm. 12 August 1987) reveal that at the very least, the U.S. imports from CAR, Liberia, Sudan and Zaire apparently took place outside the quota system.

As in previous years, the most notable of these questionable imports are those from Zaire. In 1986, Zaire had a CITES export quota of 10000 tusks but only authorized export of

Table 4 Comparison of reported U.S. imports of raw tusks from African countries in 1986 with exports authorized by these countries under the CITES Ivory Quota Control System (IQCS)

Country	Tusks reported imported by USFWS	Tusks authorized for export to U.S. under IQCS	Explanation
CAR	2	0	Zero quota [1]
Ethiopia	2	?	
	3	0	Entire quota exported to HK [1]
Liberia	2	0	Zero quota [1]
Sudan	2	0	[2]
Tanzania	56	130	Authorized for export by TZ [2]
South Africa	79+ 84 kg	63	Authorized for export by ZA [2]
Zaire	590	0	Entire quota exported to HK/JP [2]
Zambia	30	?	
Zimbabwe	94	169	Authorized for export by ZW [2]

Source: USFWS "DECS" data, unless otherwise stated.

[1] Caldwell (1987)

[2] Caldwell in litt. and pers. comm.

* This country is not a party to CITES and the import should not have been allowed under the Endangered Species Act.

1 425 (Caldwell, 1987). All the authorized tusk exports went to Belgium (from where they were re-exported to Hong Kong and Japan) and Japan. While the U.S. imported a minimum of 590 tusks or an estimated 2 301 kg (1986 mean tusk weight of 3.9 kg from Caldwell, 1987) directly from Zaire, none of these were accompanied by the required CITES tusk data sheets. At least four of the shipments in question were accompanied by irregular permits, and the CITES ivory unit has expressed concern to this effect (J. Yovino, pers. comm. 19 August 1987). When the USFWS was informed by TRAFFIC about the possible illegal nature of the Zairian ivory imports, the import declaration packages were reviewed. Subsequently, the USFWS opened an official investigation of these imports (N. Roeper, pers. comm. 27 August 1987). In addition, the Zairian export documents were brought to Ottawa for discussion with the CITES ivory unit during the sixth meeting of the Conference of the Parties (N. Roeper, pers. comm. 27 August 1987).

Another shipment of 140 tusks from Zaire reportedly was cleared for import by USFWS on 13 July 1987. According to the CITES ivory unit (J. Yovino, pers. comm. 19 August 1987), Zaire so far has not authorized any commercial shipment destined for the U.S. in 1987. It is, therefore, likely that this shipment also took place outside the quota system, probably with a forged permit (reported as No. 238/87 in "DECS") (J. Yovino, pers. comm. 19 August 1987).

Other imported shipments cleared during the first seven months of 1987 amount to 188 tusks and 198 kg of tusks. Some of these, as during previous years, are small shipments and probably consist of hunting trophies; however, these are also covered by the ivory quota system and imports from countries with a zero quota or without the required documents should not be allowed entry. Such imports reportedly took place, for instance, from the Ivory Coast.

Other discrepancies in 1986 concern imports from South Africa, Tanzania, and Zimbabwe. These countries reported to the CITES ivory unit (J. Caldwell, pers. comm. 12 August 1987) that they had authorized the export of 63, 130 and 169 tusks, respectively (Table 4).

In 1986, the declared value of raw ivory imports reported by USFWS was \$194 418. Compared to the international trade price for raw ivory, this seems to be a low figure. Douglas-Hamilton (1987) reports that since 1982 the wholesale price of raw ivory has risen to over U.S. \$100 per kg. Based on this information it seems likely that the true import value of the U.S. trade in 1986 was at least \$430 000.

Worked Ivory

In 1982, the U.S. was the second largest importer of worked ivory after Japan, accounting for 17% of the minimum number of pieces reported in trade and 32% of the volume by weight (Barzdo, 1984). More than 1.6 million pieces and 58300 kg of carvings were imported that year. Since then, the reported imports have increased considerably, peaking in 1985 when a minimum of 4 810 667 pieces, 27346 kg of pieces, and 9678 sets and 58 kg of sets of piano keys with a total declared import value of \$24 362 513 entered the country (Table 5). The total declared value of worked ivory imported to the U.S. in 1986 was \$17 574 775; this parallels the reported decrease in imports between 1985 and 1986 when the number of pieces and the volume by weight dropped 5% and 82%, respectively. The single largest supplier of worked ivory to the U.S. during the period examined was Hong Kong, accounting for more

Table 5. U.S. imports of worked ivory 1984–1986

Year	Worked ivory	Apparent increase
1984	4220933 items of carvings	+161 % [1]
	23 790.1 kg of carvings	-60% [1]
	6 207 sets of piano keys	
	441 kg sets of piano keys	
1985	4 810 667 items of carvings	+14%
	27 346.7 kg of carvings	+ 15 %
	9 678 sets of piano keys	
	58 kg sets of piano keys	
1986	4577429 items of carvings	-5%
	4 970 kg of carvings	-82 %
	10 261 sets of piano keys	
	6 kg sets of piano keys	

Source: U.S. CITES Annual Report Data and USFWS “DECS” data.

[1] Compared to U.S. import figures for 1982 in Barzdo (1984).

than 90% of total imports. In 1982, Hong Kong was the supplier of 97% of the U.S. trade reported as pieces (Barzdo, 1984). In 1986, worked ivory imported by the U.S. directly from African source countries accounted for only 3% of the total reported trade. This trade was dominated by CAR, Congo, South Africa, Sudan, Tanzania, Zaire, and Zimbabwe; all these countries, except perhaps the Congo, are known to have domestic carving industries (e.g. Martin, 1986 and Martin, 1987).

It is difficult to estimate how many elephants were killed to supply the U.S. market for worked ivory products. Barzdo (1984) cautiously estimates the mean weight of individual ivory carvings in Hong Kong’s trade for the years 1981-1982 to be 0.062 kg and states that this figure is likely to be a maximum. Based on this estimate and Caldwell’s (1987) mean tusk weight of 4.7 kg, the U.S. consumption of imported ivory carvings in 1986 (which was dominated by products from Hong Kong) converts into some 285 tonnes of raw ivory or 32 254 elephants.

The trade in worked ivory is complex for a variety of reasons, one of them being the number of years that can pass between the time the elephant is killed until the ivory product reaches the final consumer. Therefore, it is difficult to assess the legality of the U.S. trade in these products in terms of the laws of the countries of origin. It is important to point out, however, that a number of African countries have either prohibited the export of raw ivory or have not issued any export permits for raw ivory for several years. In 1986, 75% of the U.S. imports of ivory carvings were declared as originating in one of four countries: Congo, Kenya, Sudan, and Zaire (domestic manufacturing subtracted), all of which prohibited raw ivory exports well before 1986 (Caldwell, 1984). Excluding Sudan, which imposed the most recent ban (30 December 1983 (Caldwell, 1984)), these questionable imports still amount to 65% of the total trade in carvings. These imports may represent violations of the U.S. Lacey Act. Reports by Caldwell (1984 and 1987) document that, despite the export bans in Congo and Zaire, these countries (in particular the latter) have been among the main suppliers of raw ivory to Hong Kong’s carving industry. It is assumed that Hong Kong holds considerable stocks of raw ivory (Caldwell,

1987), but it is unlikely that the turn-over in the carving industry is so slow that the industry is still producing from raw ivory stocks imported prior to 1981 or earlier.

However, Hong Kong’s import of stocks from Belgium in 1983/84 and from other countries (Caldwell and Barzdo, 1986) may obscure the picture.

Elephant Skins

Table 6 shows the U.S. imports of elephant skins (i.e. “raw or partially processed skins/hides”) during 1984-1986. Reported imports of “Pieces of Skin” and “Large Leather Products” have been left out as they may represent anything from tails and trunks to penis skins and skin pieces of foreheads, and are thus difficult to convert to number of elephants involved. During the three years examined, 1984 seems to represent the year of the largest imports; however, the different units used in this trade make comparison difficult. The overall trend is a considerable decrease towards 1986. Leather industry representatives in the U.S., who asked to remain anonymous, have confirmed this trend and attribute it to factors in the exporting countries; i.e. the demand has not decreased. The reason is simply that during 1983-1985, the world supply of elephant skins was artificially high because more elephants were culled in the main exporting countries, which were struck by drought. This situation has changed, and industry representatives predict a very “low” year in 1987.

In 1986, the U.S. reportedly imported 20 702 skins, 1 979 kg, 400 sq/metre, and 6 500 sq/feet of skin. However, according to the industry representatives, these data are not accurate. The unit “skin” is misleading as in most cases one elephant skin is split into two or more large pieces. A large proportion of the “skins” are traded as “panels” or sides, and, therefore, one reported skin probably is only half a skin or less. D. Cumming, of the Zimbabwean Department of National Parks and Wildlife Management (in litt. 25 August 1987), reports that the number of skin panels taken from culled elephants in Zimbabwe usually is six plus the head panel and the trunk making eight or sometimes nine pieces per animal.

One industry source claims that an average skin piece imported by their company is 15 sq/feet, and that an adult

Table 6. U.S. imports of elephant skins 1984-1986

Year	Skins imported	Apparent increase
1984	21 937 skins	
	7 797 kg	
	126 664 sq/metre	
	2 616 sq/feet	
1985	37 937 skins	+73%
	12762.4 kg	+64%
	7376 sq/metre	-94%
	5 181 sq/feet	+98%
1986	20702 skins	-45%
	1 979 kg	-85%
	400 sq/metre	-95%
	6500 sq/feet	+26%

Source: U.S. CITES Annual Report data and USFWS “DECS” data.

southern African elephant probably contains between 40 and 50 sq/feet commercial skin. In addition, the unit "kg" does not give any idea of the number of elephant skins involved as the thickness of the skin often varies depending on the purpose for which the skin will be used. D. Cumming (in litt. 25 August 1987) further reports that the average weight of dry salted hide recovered per elephant from Zimbabwean culling operations is 60 kg, and that one kg of dry salted hide represents approximately 1.2 to 1.4 sq/feet of hide. Consequently, an average Zimbabwean elephant contains approximately 45 sq/feet commercial hide. In general, industry representatives seem to agree that the reported import figures are minimum figures and that the average annual U.S. import is around 500 000 sq/feet. Peak-years reportedly do not exceed 1 million sq/feet. Based on these estimates, the annual U.S. elephant skin trade may involve the skins from a minimum of 11 000 elephants. If these estimates are applied to the numbers in Table 6, then the reported skin trade in 1986 involved a minimum of 7 000 elephants. According to D. Cumming (pers. comm. 20 August 1987), this figure seems somewhat high. The culling operations in the countries that supply the U.S. market probably killed 7 000 elephants total in 1986, but the skins were not all exported to the U.S. Although the world trade in skins has not been analyzed, the U.S. net imports (re-exports subtracted) seem to rank at least at the same level as the imports into the European Economic Community. Certainly, the two markets together seem to represent the major part of the world market in elephant skins.

The overall picture of the skin trade is quite different than that of the ivory trade. The international supply is almost entirely from the southern African region where controlled culling takes place. The trade is largely legal and there is no evidence of poaching for skins (D. Cumming, pers. comm. 20 August 1987).

In 1986, the countries supplying the U.S. market were Zimbabwe, South Africa, and Botswana, in that order. These countries all have well-managed elephant populations with very little poaching (Douglas-Hamilton, 1987). More than 80% of the skins were imported directly from the source countries, and the majority of the remaining were re-exported from countries in the European Economic Community. The trade in 1986 had a declared import value of \$1 099 067, according to USFWS.

The majority of the elephant skins are manufactured in the U.S. by the boot industry in Texas. A minor proportion of the skins are re-exported to Mexico where they also are made into boots, and eventually imported back into the U.S. In 1986, these imports from Mexico numbered 9 948 boots with a declared import value of \$247 266.

DISCUSSION

The U.S. trade in elephant products is significant in several ways. First, the total trade in all types of products represents an average annual declared import value of \$29 million during 1984-1986. Worked ivory products constitute the bulk of these imports; in 1985, for instance, the reported value for these items was \$24.4 million. Based on discussions with industry representatives, TRAFFIC estimates that the annual retail value of elephant products sold in the U.S. may represent at least \$100 million.

Second, the U.S. is probably the world's largest importer of elephant skins. These imports come almost exclusively from southern African countries which have model elephant management programs, and are the products of carefully-controlled

culling activities. These exports are extremely important to national and local economies; in Zimbabwe, for instance, the skin exports generate revenue for the government amounting to about 2 million dollars annually (D. Cumming, pers. comm. 20 August 1987), thus providing tangible evidence for political leaders of the benefits of controlled wildlife utilization.

Third, U.S. ivory imports raise serious concerns about the national enforcement system. An international ivory trade control system has been set up through CITES that closely tracks shipments of raw tusks worldwide and provides a clearing house for legal information on the ivory trade. While this control system offers a vital tool for U.S. enforcement of the much stricter Lacey Act, the U.S. has largely ignored this system, and in the process, several ivory shipments of dubious legality have been allowed entry. This is not the fault of the port inspectors; the USFWS authorities responsible for issuing directives to the field have apparently made elephant ivory a low priority. As an example, the Fish and Wildlife Service's Import/Export Manual, which provides guidelines and policies for inspections at the ports of entry, includes a special chapter on ivory and marking of ivory. This chapter, however, has not been updated since April 1983. The USFWS has apparently failed to notify port inspectors that an ivory quota system has been established, that individual quotas and ivory marking schemes have been set up for African countries, and that numerous changes have taken place in the national legislation of many African countries.

Furthermore, the USFWS has failed to request importers and traders to register ivory stocks, as recommended under the ivory quota system. The significant imports of raw ivory during the 1980s may indicate that ivory stocks are being held for investment purposes in the U.S., and such stocks should not be re-exported under the quota system if they were not registered prior to 1 December 1986. This could possibly cause significant problems and economic hardship for U.S. ivory exporters in the future.

The U.S. is clearly an important player in the international ivory trade. With its considerable resources and enforcement expertise, this country could have a very positive impact on controlling the trade and conserving the African elephant. But the complexities of the ivory issue require an innovative and carefully-crafted approach. An excise tax on ivory products, for example, could provide significant revenues for improving wildlife trade controls and elephant conservation, and offer ample incentive for strengthening elephant management programs throughout Africa. Other alternatives to an outright ban that take into consideration the needs and realities — of African nations and their elephant populations should also be explored.

REFERENCES

- AERSG (1987). Elephant population estimates, trends, ivory quotes and harvests. Report to the CITES Secretariat from the African Elephant and Rhino Specialist Group. Doc. 6.21, Annex 2.
- ANONYMOUS (1979). U.S. to ban ivory imports? *Traffic* (U.S.A.), 1 (1): 3-4.
- ANONYMOUS (1981). Elephant ivory bill left hanging; imports up slightly. *Traffic* (U.S.A.), 3(2): 5.

Continued on P. 21