International Illegal Trade in Wildlife: Threats and U.S. Policy

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Summary

Global trade in illegal wildlife is a growing illicit economy, estimated to be worth at least $5 billion and potentially in excess of $20 billion annually. Some of the most lucrative illicit wildlife commodities include tiger parts, caviar, elephant ivory, rhino horn, and exotic birds and reptiles. Demand for illegally obtained wildlife is ubiquitous, and some suspect that illicit demand may be growing.

International wildlife smuggling may be of interest to Congress as it presents several potential environmental and national security threats to the United States. Threats to the environment include the potential loss of biodiversity, introduction of invasive species into U.S. ecosystems, and transmission of disease through illegal wildlife trade, including through illegal bushmeat trade. National security threats include links between wildlife trafficking and organized crime and drug trafficking. Some terrorist groups may also be seeking to finance their activities through illegal wildlife trade, according to experts. Wildlife source and transit countries may be especially prone to exploitation if known to have weak state capacity, poor law enforcement, corrupt governments, and porous borders.

The U.S. government addresses illegal wildlife trade through several national and international venues. Congress has passed numerous laws that regulate and restrict certain types of wildlife imports and exports, including the Endangered Species Act of 1973, the Lacey Act and Lacey Act Amendments of 1981, and several species-specific conservation laws. These laws and others establish authorities and guidelines for wildlife trade inspection at ports of entry, and wildlife crime law enforcement and prosecution. Internationally, the United States is party to several wildlife conservation treaties, including the United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which serves as the primary vehicle for regulating wildlife trade. Foreign training and assistance programs to combat illegal wildlife trade are also conducted by some federal agencies, including the U.S. Department of State, which leads an international initiative against wildlife trafficking.

The role of Congress in evaluating U.S. policy to combat wildlife trafficking is broad. Potential issues for Congress include (1) determining funding levels for U.S. wildlife trade inspection and investigation; (2) evaluating the effectiveness of U.S. foreign aid to combat wildlife trafficking; (3) developing ways to encourage private-sector involvement in regulating the wildlife trade; (4) using trade sanctions to penalize foreign countries with weak enforcement of wildlife laws; (5) incorporating wildlife trade provisions into free trade agreements; and (6) addressing the domestic and international demand for illegal wildlife through public awareness campaigns and non-governmental organization partnerships. This report focuses on the international trade in terrestrial fauna, largely excluding trade in illegal plants, including timber, and fish.

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Background

Illegal wildlife trade involves the illicit procurement, transport, and distribution—internationally and domestically—of animals, and animal parts and derivatives thereof, in contravention of laws, foreign and domestic, and treaties. Illegal wildlife trade ranges in scale from single-item, local bartering to multi-ton, commercial-sized consignments shipped all over the world. Wildlife contraband may include live pets, hunting trophies, fashion accessories, cultural artifacts, ingredients for traditional medicines, wild meat for human consumption (or bushmeat), and other products.

Numerous reasons exist for wildlife trade regulation. Current international and domestic laws often seek to prevent (1) the decline of species threatened or potentially threatened with extinction; (2) the import of non-native species, which could harm the receiving habitats; (3) the import of species that could transmit diseases harmful to humans, animals, or plants; (4) the inhumane transport of wildlife; and (5) the distortion of trade in otherwise legitimate wildlife products, through unfair foreign pricing, government subsidies, and forms of illegal trade protectionism.

Congress has sought to regulate wildlife trade for more than a century, enacting the first wildlife trade prohibitions under the Lacey Act in 1900.[1] Congress also regulates wildlife trade under freestanding provisions in the Lacey Act Amendments of 1981, the Endangered Species Act of 1973, and other laws that prohibit the trade in specific threatened species or specific animals that pose potential health and disease risks.[2] (See **Appendix A**.) Internationally, wildlife trade is regulated to safeguard certain species threatened by over-exploitation and extinction. The primary international treaty governing wildlife trade is the United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which imposes an import- and export-control licensing system that restricts certain species from international trade.[3]

The primary motivation to engage in illegal wildlife trade appears to be economic gain. Continued demand in many parts of the world for illegal wildlife provides opportunities for criminals to turn profits along the supply chain. According to international law enforcement officials, some of the most lucrative illicit wildlife commodities include tiger parts, caviar, elephant ivory, rhino horn, and exotic birds and reptiles. Due to its clandestine nature, the illegal trade is difficult to quantify with any accuracy. Nevertheless, some estimate that it is worth at least $5 billion, and may potentially total in excess of $20 billion annually.[4] This would rank the

[1] 16 U.S.C. §701, as amended.

[2] Lacey Act Amendments of 1981 (P.L. 97-79, as amended); Endangered Species Act of 1973 (P.L. 93-205, as amended).

[3] Congress implemented CITES under the Endangered Species Act of 1973. P.L. 96-159 designates the Secretary of the Interior, acting through the U.S. Fish and Wildlife Service (FWS), as both the CITES Management and Scientific Authority. See CRS Report RL32751, *The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Background and Issues*, by Pervaze A. Sheikh and M. Lynne Corn.

[4] Attempts to quantify the value of illegal wildlife trade have resulted in many estimates that vary in size and scope. For a range of estimates on the size of the illegal wildlife trade see U.S. Interagency Working Group, *International Crime Threat Assessment Report* (December 2000); U.S. Department of State, Bureau of Oceans and International Environment and Scientific Affairs, "Announcing the Formation of the Coalition Against Wildlife Trafficking," September 22, 2005; United Kingdom National Wildlife Crime Unit, "Wildlife Crime," at http://www.nwcu.police.uk/pages/wildlifecrime/crime.asp; and Interpol, "Wildlife Crime," at http://www.interpol.int/Public/EnvironmentalCrime/Wildlife/Default.asp.

illegal wildlife trade as among the most lucrative illicit economies in the world, behind illegal drugs and possibly human trafficking and arms trafficking.[5]

The 111th Congress might address illegal wildlife crime through oversight hearings and legislation. Potential issues for Congress include (1) determining funding levels for U.S. wildlife trade inspection and investigation; (2) evaluating the effectiveness of U.S. foreign aid to combat wildlife trafficking; (3) developing ways to encourage private-sector involvement in regulating the wildlife trade; (4) using trade sanctions to penalize foreign countries with weak enforcement of wildlife laws; (5) incorporating wildlife trade provisions into free trade agreements; and (6) addressing the domestic and international demand for illegal wildlife through public awareness campaigns and non-governmental organization partnerships. This report focuses on the international trade in terrestrial fauna, largely excluding trade in illegal plants, including timber, and fish.

Demand

Global Demand

Demand for illegally obtained wildlife is ubiquitous. Some estimate that countries and regions with the highest demand for legally obtained wildlife include the United States, the People's Republic of China, and the European Union. Globally, demand for illegal wildlife is also increasing according to several observers. Some attribute this partly to increasing numbers of wildlife species regulated by CITES and other international and domestic wildlife protection laws.[6] Others caution that estimates of demand may be increasing because of greater public and governmental awareness of the issue in recent years, which has led to more investigations into the scope and magnitude of wildlife crime.[7] As a result, some analysts question whether demand for illegal wildlife is necessarily growing, or whether new data is simply capturing more information about a potentially stagnant or declining source of demand.

Reasons behind the current demand for illegal wildlife and related products appear to vary according to regions and cultures. In Asia, where analysts claim that a substantial portion—possibly the largest in the world—of the global trade of illegal wildlife takes place, demand is driven by the need for specific animal parts to practice traditional Asian medicine, for human consumption, and as symbols of wealth.[8] Demand for illegal wildlife is reportedly increasing in Southeast Asia due in part to the region's economic boom and resulting affluence.[9] In Africa, demand for illegal wildlife is driven by bushmeat consumption in rural and urban areas. In other regions, such as Europe and North America, analysts find that demand for illegal wildlife includes

[5] U.S. Agency for International Development (USAID), "ASEAN Wildlife Enforcement Network," undated brochure, at http://usaid.eco-asia.org/files/fact_sheets/ASEAN_WEN.pdf.

[6] CITES covers approximately 5,000 species of animals and 28,000 species of plants.

[7] Duncan Brack, "Combating International Environmental Crime," *Global Environmental Change*, vol. 12, no. 2 (July 2002), pp. 143-147.

[8] Jolene Lin, "Tackling Southeast Asia's Illegal Wildlife Trade," *Singapore Year Book of International Law and Contributors*, vol. 9 (2005), pp. 191-208.

[9] Richard T. Corlett, "The Impact of Hunting on the Mammalian Fauna of Tropical Asian Forests," *Biotropica*, vol. 39, no. 3 (2007), pp. 292-303.

a wide variety of products, such as luxury fashion items, tourist souvenirs purchased abroad, and exotic pets, as well as traditional medicines and wildlife meats for human consumption.[10]

Quantifying U.S. Demand

While no reliable estimates of U.S. demand for illegal wildlife are publicly available, many analysts agree that demand for illegal wildlife in the United States is likely to parallel U.S. demand for legal wildlife. If this is the case, the United States may be a significant destination for illegal wildlife, and the magnitude of the illegal trade may be increasing. The United States is estimated to purchase nearly 20% of all legal wildlife and wildlife products on the market.[11] Further, the value of U.S. legal wildlife trade has grown significantly in recent years—from $1.2 billion in FY2000 to $2.8 billion in FY2007.[12] (See **Table 1**.) In the same time period, the number of declared wildlife shipments has also grown—from 111,296 declared shipments in FY2000 to 179,323 in FY2007.[13] According to the U.S. Fish and Wildlife Service (FWS), which is the lead U.S. agency for wildlife trade law enforcement, illicit U.S. demand stems primarily from two sources: (1) wildlife items for personal use, such as tourist souvenirs or exotic pets, and (2) products for commercial use and products related to hunting (e.g., trophies).[14]

The globalization of trade and internationalization of the U.S. population and culture have apparently exacerbated the illegal wildlife trade. For example, immigrants from Central America have reportedly created a demand for sea turtle eggs and meat that cannot be met legally.[15] Further, reports indicate that demand for traditional Asian medicines, once confined to parts of Asia, has gained new users in the United States.[16]

[10] Maylynn Engler and Rob Perry-Jones, *Opportunity or Threat: The Role of the European Union in the Global Wildlife Trade* (Brussels, Belgium: TRAFFIC Europe, 2007).

[11] Randi Alacron, "The Convention on the International Trade of Endangered Species: The Difficulty in Enforcing CITES and the United States Solution to Hindering the Trade in Endangered Species," *N.Y. International Law Review*, vol. 14, no. 2 (2001), pp. 105-108.

[12] U.S. Department of the Interior, Fish and Wildlife Service (FWS), Office of Law Enforcement, Annual Reports, FY2000-FY2006, at http://www.fws.gov/le/AboutLE/annual.htm; and personal communication with FWS officials, February 20, 2008. Figures are in constant FY2008 U.S. dollars.

[13] Ibid.

[14] This analysis is based on the types and quantities of wildlife shipments refused entry at the U.S. border. Although the data may reflect the categories of illegal wildlife in demand by consumers, the data may not accurately reflect the full magnitude of the illegal trade in the United States. See U.S. Department of the Interior, FWS, Office of Law Enforcement, Intelligence Unit, *U.S. Illegal Wildlife Trade: LEMIS Data Analysis and Risk Assessment*, November 2005.

[15] U.S. Department of the Interior, FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*, at http://www.fws.gov/le/AboutLE/OLEStrategicPlanDec2005.pdf.

[16] Richard Ellis, *Tiger Bone and Rhino Horn: The Destruction of Wildlife for Traditional Chinese Medicine* (Washington, DC: Island Press, 2005).

Table 1. Value of Legal Wildlife Imports and Refused Shipments into the United States, 2000-2007

Year	Value of Legal Trade[a]	Value of Refused Imports[a]	Percentage Illegal
2000	$1,200	$13.1	0.8%
2001	$1,800	$8.5	0.4%
2002	$1,500	$5.3	0.3%
2003	$1,700	$5.1	0.2%
2004	$1,900	$4.6	0.2%
2005	$2,300	n/a	n/a
2006	$2,200	n/a	n/a
2007	$2,800	n/a	n/a

Source: U.S. Department of the Interior, FWS, Office of Law Enforcement, Intelligence Unit, U.S. Illegal Wildlife Trade: LEMIS Data Analysis and Risk Assessment, November 2005.

Note: n/a = not available.

a. In constant FY2008 U.S. millions. The value of illegal trade in wildlife given in this table reflects declared shipments that were refused entry at the U.S. border. It does not reflect the value of undetected wildlife shipments entering the United States, which may differ considerably from the values given in the table.

Supply

Source countries of wildlife exports, both legal and illegal, tend to include countries across the developing world with rich biological diversity. Although definitive data are unavailable, many analysts argue that biologically rich countries with weak governance and poor law enforcement capacity may be especially vulnerable as sources for illegal wildlife trade.[17] While the United States is a source country for some wildlife including bears, predatory birds, and reptiles, most analysts indicate that U.S. wildlife is unlikely to play a large role in the illegal international market. The United States, however, is a destination country for illegal wildlife products. According to a report published by FWS, the top three suppliers to the United States from which wildlife shipments were refused between 2000 and 2004, included Mexico, Canada, and the People's Republic of China.[18] (See **Table 2**.) These statistics, however, might be skewed because they are based only on shipments refused at the border and ignore undetected shipments.

[17] Dee Cook, Martin Roberts, and Jason Lowther, *The International Wildlife Trade and Organised Crime: A Review of the Evidence and the Role of the UK* (United Kingdom: World Wildlife Fund, 2002), p. 18.

[18] FWS, *U.S. Illegal Wildlife Trade: LEMIS Data Analysis and Risk Assessment.*

Table 2. Top 10 Countries from which Wildlife Imports were Refused Entry into the United States, 2000-2004

Country	Shipments Refused Entry[a]
Mexico	3,772
Canada	1,560
People's Republic of China	1,138
Philippines	728
Hong Kong	591
Russia	562
Unknown[b]	524
Thailand	473
Italy	406
South Africa	341

Source: U.S. Department of Interior, FWS, Office of Law Enforcement, Intelligence Unit, U.S. Illegal Wildlife Trade: LEMIS Data Analysis and Risk Assessment, November 2005.

a. Total refused shipments does not refer to the number of individual items to be shipped. As a result, the actual number of wildlife items shipped is substantially higher than indicated in this table.

b. "Unknown" includes shipments found by FWS officials without packaging, labels, or supporting documentation showing the country of export.

Causes

Numerous factors explain the persistence of the international black market in wildlife. Observers suggest that one such factor is the high profits associated with wildlife trafficking. Driven by a demand for wildlife products that exceeds what the market can legally supply, the value of illegal wildlife products continues to increase as consumers are willing to pay greater amounts. (See **Table 3**.) Thus, as a certain type of animal or wildlife product becomes more endangered and rare, its price increases, along with the financial rewards for smugglers.[19]

In many developing countries, however, the income derived from illegal wildlife poaching and trading is often vital for sustaining the livelihoods of impoverished hunters and traders. Some observers say small-scale hunters and traders have few alternatives for generating subsistence-level incomes.[20] Additionally, some indigenous peoples may consider hunting certain animals a fundamental part of their culture, religion, or traditions. These considerations may differentiate poor hunters and traders from international criminal syndicates involved in the trade, who engage in the trade purely for profit.

[19] Gavin Hayman and Duncan Brack, "International Environmental Crime: The Nature and Control of Environmental Black Markets," *The Royal Institute of International Affairs* (2002), p. 114. See also Cook, Roberts, and Lowther, *The International Wildlife Trade and Organised Crime*, p. 10.

[20] See, for example, Emily Wax, "Poaching and Population Threatens India's Tigers," *Washington Post*, October 16, 2007; "Trade in Wildlife: Just Let Them Get on with It," *The Economist*, May 29, 2008.

Table 3. Selected Illicit Wildlife Trade and Estimated Retail Value

Illegally Traded Wildlife	Estimated Retail Value
Elephants	$121-$900 per kilogram of ivory
Rhinos	$945-$50,000 per kilogram of rhino horn
Tibetan Antelopes	$1,200-$20,000 per shatoosh shawl
Big Cats	$1,300-$20,000 per tiger, snow leopard, or jaguar skin; $3,300-$7,000 per set of tiger bones
Bears	$250-$8,500 per gallbladder
Sturgeon	$4,450-$6,000 per kilogram of caviar
Reptiles and Insects (often live)	$30,000 per oenpelli python; $30,000 per komodo dragon; $5,000-$30,000 per plowshare tortoise; $15,000 per Chinese alligator; $20,000 per monitor lizard; $20,000 per shingleback skink; $8,500 per pair of birdwing butterflies
Exotic Birds (often live)	$10,000 per black palm cockatoo egg ($25,000-$80,000 per mature breeding pair); $5,000-$12,000 per hyacinth macaw; $60,000-$90,000 per lear macaw; $20,000 per Mongolian falcon
Great Apes (often live)	$50,000 per Orangutan

Sources: Compiled from U.S. government agencies, international organizations, non-governmental organizations, and media sources.

Another factor is the perceived low risk of capture or penalties associated with wildlife trafficking.[21] Such a perception can be the consequence of limited enforcement capabilities or willingness to punish such illegal behavior, due to a lack of resources, infrastructure, expertise, or political corruption. Additionally, the wildlife trade may be considered less risky than other high-value black markets, including the drug trade, as the penalties associated with wildlife crime tend to be substantially less severe than with other trafficking crimes. According to a series of United Nations reports, powdered rhinoceros horn can be worth more than the equivalent weight of cocaine or gold. Combined with the "low level of vigilance" and "modest level of penalties" applied to wildlife crime cases, criminal entrepreneurs are attracted by the prospect of high profits and low risks.[22]

Pathways

Illicit wildlife trade uses complex distribution networks connecting raw material from source states and producers of wildlife products to customers.[23] Observers have yet to identify a distinct

[21] Hayman and Brack, "International Environmental Crime," p. 144.

[22] Report of the U.N. Secretary-General, "Progress Made in the Implementation of Economic and Social Council Resolution 2001/12 on Illicit Trafficking in Protected Species of Wild Flora and Fauna," U.N. Economic and Social Council, Commission on Crime Prevention and Criminal Justice, 11th session, Vienna, Austria, February 26, 2002, p. 6; Report of the U.N. Secretary-General, "Illicit Trafficking in Protected Species of Wild Flora and Fauna and Illicit Access to Genetic Resources," U.N. Economic and Social Council, Commission on Crime Prevention and Criminal Justice, 12th session, Vienna, Austria, March 4, 2003, p. 9.

[23] See, for example, Greg Warchol, Linda Zupan, and Willie Clack, "Transnational Criminality: An Analysis of the Illegal Wildlife Market in Southern Africa," *International Criminal Justice Review*, vol. 13, no. 1 (2003), p. 7; Lin, "Tackling Southeast Asia's Illegal Wildlife Trade," p. 198; and Hayman and Brack, "International Environmental Crime."

criminal profile that describes wildlife poachers and traffickers.[24] Illicit wildlife trade networks can involve a combination of any of the following: (1) village hunters, who trade small wildlife as a source of subsistence cash income or who kill some wildlife to protect their people and crops from attacks; (2) wildlife experts; (3) criminal entities, sometimes including terrorists, rebels, drug traffickers, and others, able to evade detection, and transport and secure the products, as well as launder the proceeds; (4) legitimate businesses serving as a front for the trade; (5) corrupt government officials to facilitate import and export; and (6) consumers willing to pay for the contraband.

Various combinations of these actors conspire to exploit a variety of trafficking pathways, which appear to be growing as globalization has improved the ease of travel, transport, transactions, and other cross-border barriers that previously limited wildlife trade. The magnitude of highly organized criminal syndicates' role in wildlife trafficking is subject to debate. Although little is certain about wildlife traffickers, anecdotal evidence indicates that suppliers have historically tended to work in small, but well-organized groups.[25] Organized criminal syndicates, by contrast, while likely to be participating in the trade of certain, high-value wildlife commodities—including caviar, traditional Asian medicine, ivory, and reptile skins—are not necessarily operating in all segments of the illegal wildlife trade.[26]

Some observers, including officials from FWS and Interpol, have identified a growth in the scope, sophistication, and organization of wildlife crime in recent years. According to one FWS report, investigations increasingly involve "multiple suspects in multiple locations committing multiple felonies."[27] Traffickers are reportedly connected globally to suppliers of exotic animals in developing countries; consumers at upscale art galleries; safari operators guiding hunters to illegal animal trophies; and international and interstate networks of wildlife exporters, taxidermists, and wildlife retailers.

In the process of trafficking live animals and wildlife products, contents are often smuggled through three primary methods: (1) hidden in secret compartments of luggage, shipping containers, or clothing; (2) mis-declared on customs forms and trade permits by fraudulently identifying look-alike, non-protected species, changing the declared number of items shipped, changing the declared value of items, or declaring wild species as captive-bred species; or (3) trafficked using forged or stolen trade permits to give the false impression that the contents are being legitimately traded.[28] In other cases, observers have also found live animals and wildlife products trafficked using common delivery services (e.g. postal services, Fedex, DHL, and others) as well as diplomatic luggage not subject to scrutiny. Additional potential areas of market growth include the Internet, where traders are reportedly using chat rooms and auction websites, such as eBay, to engage in illicit wildlife sales.[29]

[24] Warchol, Zupan, and Clack, ibid, p. 24; Hayman and Brack, "International Environmental Crime," p. 7.

[25] See, for example, Warchol, Zupan, and Clack, ibid.

[26] Report of the U.N. Secretary-General (2003), p. 10; and U.S. Interagency Working Group, *International Crime Threat Assessment.*

[27] FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*, p. 7.

[28] Cook, Roberts, and Lowther, *The International Wildlife Trade and Organised Crime*, pp. 19-20; Report of the U.N. Secretary-General (2002), pp. 5-6.

[29] International Fund for Animal Welfare (IFAW), "Caught in the Web: Wildlife Trade on the Internet," 2005, at http://www.ifaw.org/ifaw/dfiles/file_562.pdf.

Case Study: Tracing the African Ivory Trade

The African elephant population has dwindled from roughly 1.2 million in the 1970s to less than 500,000 today.[30] In 1989, CITES effectively banned international, commercial elephant ivory trade; most trade in elephant ivory today remains illegal.[31] Widely hailed as a success by many observers, the 1989 ban resulted in a near-disappearance of the illegal elephant ivory market. In the past several years, however, many analysts are concerned that the trade has rekindled—primarily driven by a surging demand for ivory jewelry, or other symbols of wealth in Japan, the People's Republic of China, and several other countries in Asia. Between August 2005 and August 2006, authorities across the world seized more than 26 metric tons of illegally trafficked elephant ivory.[32]

The price of wholesale elephant ivory has reportedly skyrocketed from approximately $100 per kilogram in the late 1990s, to $200 per kilogram by 2004, to as much as $900 per kilogram today.[33] Based on a TRAFFIC study of 12,400 elephant ivory tusk seizures since the ivory ban, seizures are growing in both frequency and size.[34] On average, there are reportedly three seizures of ivory tusks each day worldwide, which can range in scale from a few tourist trinkets to six-ton, commercial consignments. Many observers suggest that the larger, commercial-sized shipments often use sophisticated means to evade law enforcement authorities.

Experts generally contend that elephants from central Africa are the primary targets of poachers today, with additional poaching hotspots surfacing around Zimbabwe, Tanzania, and Zambia.[35] Based on an analysis of elephant product seizure data from 1998 to 2006, the most heavily implicated ivory trading countries include Cameroon, the People's Republic of China, the

[30] International Union for Conservation of Nature and Natural Resources (IUCN), *African Elephant Status Report 2007: An Update from the African Elephant Database*, Occasional Paper Series of the IUCN Species Survival Commission, no. 33 (2007). According to the IUCN, primary reasons for the elephant population's decline include habitat loss and fragmentation, human-elephant conflict, and poaching for elephant meat and ivory. International trade in Asian elephant ivory is also illegal under CITES.

[31] Under CITES, ivory from southern African elephants from Botswana, Namibia, Zimbabwe, and South Africa is allowed to be traded. Most recently, in 2007, CITES approved a second auction of 60 tons of government-stockpiled elephant ivory from Botswana, Namibia, and South Africa; CITES has yet to decide when this second auction will take place and to which countries it will be sold.

[32] "CITES Permits 60 Tons of Elephant Ivory to Be Sold," *Environmental News Service*, June 4, 2007.

[33] The price of ivory may vary significantly, depending on its size, quality, and type. Additionally, experts highlight distinctions between forest elephant tusks and savannah elephant tusks; the forest elephant tusk is known to be more desirable for its pinkish hue and density, which makes it preferable for carving. See, for example, Esmond Martin and Daniel Stiles, "U.S. Exposed as Leading Ivory Market," Report prepared for Care for the Wild International, June 5, 2007.

[34] TRAFFIC, "Monitoring of Illegal Trade in Ivory and Other Elephant Specimens," Fourteenth Meeting of the Conference of the Parties, June 3, 2007, at http://www.cites.org/eng/cop/14/doc/E14-53-2.pdf. The study reports that the number of "big seizures," defined as seizures involving more than 1 metric ton of ivory, grew from 17, between 1989 through 1997, to 32, between 1998 through 2006. In 2002, Singapore officials confiscated a single shipment of more than 6 tons of illicit ivory—the largest seizure since the 1989 ban.

[35] According to IUCN, the distribution of African elephants vary across western, central, southern, and eastern Africa. Southern Africa accounts for approximately 39% of the total species' known population, Central Africa accounts for 29%, East Africa accounts for 26%, and West Africa accounts for 5%. The accuracy of the population estimates also varies across the continent, with estimates in conflict zones or countries emerging from conflict being especially limited. See Nigel Hunter, Esmond Martin, and Tom Milliken, "Determining The Number of Elephants Required to Supply Current Unregulated Ivory Markets in Africa and Asia," *Pachyderm*, no. 36 (January-June 2004), pp. 116-128; and IUCN, *African Elephant Status Report 2007*.

Democratic Republic of Congo, and Nigeria.[36] U.S. and international law enforcement officials also indicate that highly organized cross-border poachers from Sudan and Somalia are poaching elephant populations in Chad and Kenya.[37] Analysts suspect that large-scale ivory trafficking involves transnational crime syndicates, which are located in African source countries and along transit routes through countries that include Tanzania, Djibouti, United Arab Emirates, Hong Kong, Macao, Philippines, and Singapore.[38]

Due to the clandestine nature of the activity, analysts have difficulty identifying specific pathways of illicit wildlife trade. However, one documented case of elephant ivory trafficking, which law enforcement officials clandestinely monitored, provides some insight into how the illicit trade in African elephant ivory operates. This case also highlights the often circuitous pathways that illicit shipments travel to avoid detection: In 2006, Taiwanese authorities confiscated more than five metric tons of elephant ivory over a three-day period, concealed in shipping cargo. Shipping documents indicated that the illegal consignment originated in Tanzania and was destined for the Philippines. After departing from Tanzania, the ivory transited through Malaysia and into Singapore, where the cargo remained for some time. The shipment then departed for the Philippines but was re-routed to Taiwan. From Taiwan, the consignment arrived in the Philippines, but, without being offloaded, returned to Taiwan. As the ivory was about to return to the Philippines—with shipping documents identifying a different importer than when the shipment was originally sent to the Philippines—Taiwanese authorities confiscated the contraband. Shortly after the seizure, however, the five tons of ivory disappeared from a storage warehouse contracted by Philippine customs authorities while the case remained under further investigation.[39]

Threats

Environmental Implications

The illegal wildlife trade can affect the natural resources and environment of importing and exporting countries. The potential environmental harm of the illegal wildlife trade include (1) reducing biodiversity, (2) disrupting ecosystems by introducing non-native species, and (3) and transmitting disease.

[36] TRAFFIC, "Monitoring of Illegal Trade in Ivory and Other Elephant Specimens." Thailand is also a heavily-implicated elephant ivory trading country, but some of its ivory trade includes Asian elephant ivory as well.

[37] See, for example, "Sudan is 'Centre of Ivory Trade,'" *BBC News*, March 14, 2005; and Esmond Martin, "Large Quantities of Illegal Ivory for Sale in Sudan," Report for Care for the Wild International, March 14, 2005. Some 75% of the ivory is reportedly bought by Chinese customers, many of whom are working in Sudan in the oil industry.

[38] Martin, "Large Quantities of Illegal Ivory for Sale in Sudan"; and "Illegal Ivory Seized in Taiwan," World Wildlife Fund, July 7, 2006; also based on CRS discussions with Interpol law enforcement officials familiar with the case in 2007.

[39] Samuel Wasser et al., "Using DNA to Track the Origin of the Largest Ivory Seizure Since the 1989 Trade Ban," *Proceedings of the National Academy of Science of the United States of America* vol. 104, no. 10 (March 6, 2007), at http://depts.washington.edu/conserv/web-content/Press/Wasser%20et%20al%202007.pdf.

Threats to Biodiversity

Observers report that the illegal wildlife trade may directly contribute to the decline of some species. In addition, others report that the illegal wildlife trade combines with habitat loss or alteration to contribute to species decline. The actual extinction of species as a result solely of trade is not widely documented in the literature,[40] although exploitation combined with habitat loss and alteration, is linked to significant declines in several species.[41] Some observers, for example, claim that while great apes make up less than 1% of the bushmeat trade in West and Central Africa, this rate of harvest, combined with habitat loss and alteration, has led to very severe population declines; if this trend is unchecked, extinction is likely.[42] Species that are currently in decline due primarily to exploitation for trade are species that are rare or have historically low population levels. For example, some have attributed sharp declines in three rare species of tropical Asian bears to the illegal trade in bear parts, especially bear gallbladders, for use in traditional Asian medicine.[43]

Insufficient data and a lack of understanding of how the trade affects wildlife populations limit current knowledge of the impact of illegal wildlife trade on biodiversity. A study seeking to measure the impact of the trade on wild populations of amphibians and reptiles, for example, was inconclusive because the authors were unable to obtain comprehensive data on the actual amount of wildlife traded through licit and illicit channels, as well as the sustainable harvest rate of species in the wild.[44] Further, research remains incomplete in understanding how illegal wildlife trade could indirectly affect ecosystems, when species important to the functioning of the ecosystem are depleted. Some analysts suggest that the illegal harvesting of wildlife could indirectly affect ecosystems when species important to the functioning of the ecosystem are reduced.[45]

Invasive Species[46]

Illegal wildlife trade may introduce harmful, non-native species that could disrupt ecosystems. Non-native species can affect human, animal, and plant health, causing considerable economic and environmental damage.[47] Many non-native species that were introduced to the United States

[40] One possible explanation might be that as a species becomes depleted and rare, the costs of finding and harvesting individuals becomes prohibitive; species are likely to become extinct economically before they become extinct biologically.

[41] Steven Broad et al., *The Nature and Extent of Legal and Illegal Trade in Wildlife.*

[42] See Evan Bowen-Jones and Stephanie Pendry, "The Threats to Primates and Other Mammals from the Bushmeat Trade in Africa and How This Could Be Diminished," *Oryx*, vol. 33, no. 3 (1999), pp. 233-247.

[43] Ellis, *Tiger Bone and Rhino Horn.*

[44] Martin Schlaepfer et al., "Challenges in Evaluating the Impact of the Trade in Amphibians and Reptiles on Wild Populations," *BioScience*, vol. 55, no. 3 (2005), pp. 256-264.

[45] In some tropical forests in Africa and Asia, for example, the loss of some mammals may slow vegetation recovery because of the dependence on mammals as seed dispersers and pollenators. See Richard T. Corlett, "Frugivory and Seed Dispersal in Degraded Tropical East Asian Landscapes," in D.J. Levey et al., eds., *Seed Dispersal and Frugivory: Ecology, Evolution, and Conservation* (Wallingford, UK: CABI Publishing, 2002), pp. 451-465.

[46] For more on harmful non-native species, see CRS Report RL30123, *Invasive Non-Native Species: Background and Issues for Congress*, by M. Lynne Corn et al.

[47] One study estimates the annual economic damage of non-native species in the United States to be approximately $123 billion. See David Pimentel, Lori Lach, Rodolfo Zuniga, and Doug Morrison, "Environmental and Economic Costs of Nonindigenous Species in the United States," *BioScience*, vol. 50 (January 2000), pp. 53-65.

came initially through legal channels, some of them through the pet trade.[48] Such species are often banned from import only after government officials find documented evidence of a non-native species' threat to humans, agriculture, or ecosystems.[49] Some banned species, however, still enter the country illegally through trade. Chinese mitten crabs, for example, banned under the Lacey Act, continue to be smuggled into the United States and Europe for consumption. Chinese mitten crabs are harmful to the environment if released; they damage riverbanks by their burrowing and clog drainage systems.

The impact of non-native species is also considered a contributing factor for listing indigenous species as endangered or threatened. Congress identified non-native species as the second-leading contributing factor, after habitat loss and alteration, for listings under the Endangered Species Act of 1973, affecting nearly half of all threatened and endangered native species.[50] Non-native species may out-compete native species for prey, transmit diseases to native species, and alter native ecosystems. For example, the Burmese python is a non-native species brought illegally from Southeast Asia to parts of the United States as a pet.[51] These pythons consume large quantities of native prey and compete with alligators at the top of the food chain.[52] The entry of non-native species is reportedly increasing in the United States and globally. In San Francisco Bay, a new non-native species now enters the ecosystem every 14 weeks, on average, compared to an average of one every 55 weeks from 1851 to 1960.[53]

Disease

Another concern includes the potential entry and spread of animal-borne diseases through the illegal trade in wildlife.[54] According to some, the ability of human and other diseases to spread throughout the world is becoming increasingly linked to the global nature of wildlife trade, coupled with the expansion of regional and international transportation routes.[55] Diseases transmitted through wildlife may affect not only humans and result in outbreaks that cause social and economic harm, but also threaten native wildlife and ecosystems.[56] Indeed, some have stated

[48] Of 212 non-native vertebrate species that established wild populations in the United States, 48 species (23%) were originally imported as cage birds or other pets. U.S. Congress, Office of Technology and Assessment, *Harmful Non-Indigenous Species in the United States*, OTA-F-565 (Washington: GPO, 1993).

[49] See discussion on the Lacey Act and the injurious species provisions in **Appendix A** .

[50] David Wilcove et al., "Quantifying Threats to Imperiled Species in the United States," *BioScience*, vol. 48 (1998), pp. 607-615.

[51] Burmese pythons are illegal in some states (e.g., Illinois). In other states, it is illegal to release them into the wild (e.g., Florida, where over 1,000 are estimated to be in the wild). See Florida Fish and Wildlife Conservation Commission, Notice of New Florida Rules and Regulations Concerning Possession of Captive Wildlife, at http://myfwc.com/permits/Docs/SynopsisCaptiveWLRuleChanges.pdf.

[52] Defenders of Wildlife, "Broken Screens: The Regulations of Live Animal Imports into the United States," 2007, at http://www.defenders.org/resources/publications/programs_and_policy/international_conservation/broken_screens/broken_screens_report.pdf.

[53] FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*.

[54] U.S. Congress, Senate Committee on Environment and Public Works, Importation of Exotic Species and their Impact on Public Health and Safety, hearing, 108th Cong., 1st sess., July 17, 2003, at http://epw.senate.gov/hearing_statements.cfm?id=212889.

[55] William B. Karesh, "Wildlife Trade and Global Disease Emergence," *Emerging Infectious Diseases*, vol. 11, no. 7 (2005), pp. 1000-1002.

[56] William B. Karesh et al., "Implications of Wildlife Trade on the Movement of Avian Influenza and other Infectious Diseases," *Journal of Wildlife Diseases*, vol. 43, no. 3 (2007), pp. 55-59.

that the most dangerous emerging infectious diseases, in terms of total fatalities and fatality rates, have come from wildlife.[57] According to the General Accounting Office (now Government Accountability Office), nearly 75% of emerging diseases reach humans through animals.[58] The link between the illegal wildlife trade and disease, however, remains contested by some analysts as being mostly an unrealized threat. Indeed, little is known about the extent to which illegally imported wildlife may carry harmful diseases.[59]

Several countries have reported disease outbreaks caused by wildlife trade. However, most documented disease outbreaks linked to wildlife trade involve imports and exports of legal wildlife. After an outbreak, the suspected wildlife might be banned from import, effectively making its trade illegal in the affected country. In the United States, diseases from imported wildlife have infected or threaten native species, livestock, and humans. Some examples include the following:

- **Severe Acute Respiratory Syndrome (SARS):** The SARS virus can infect wildlife and humans. Experts suspect that SARS originated in the People's Republic of China, where SARS-infected civets, a variety of wild cat common in the Chinese wildlife trade, came in contact with humans.[60] Although civets remain legally traded in China, the Centers for Disease Control and Prevention (CDC) banned civet imports into the United States.
- **Heartwater Disease:** Heartwater is a disease of cattle, sheep, and goats, and can cause mortality rates of 60% in cattle and up to 100% in sheep.[61] African tortoise ticks that reside on some imported snakes and tortoises carry this disease. The U.S. Department of Agriculture (USDA) banned the import and interstate commerce of three types of African tortoises because African ticks carrying heartwater were found on them.
- **Avian Influenza:** Highly pathogenic avian influenza virus (H5N1) can infect humans through poultry-human interactions. Its natural reservoir is wild birds, but it can be transmitted through poultry as well. Avian flu has been common in live bird markets and can be disseminated through wildlife trade.[62] CDC has banned poultry and poultry products from bird flu source countries.
- **Monkeypox:** Monkeypox infects wildlife commonly found in Africa, and can spread to wildlife native to the United States and humans. Monkeypox was introduced to the United States by legally imported African rodents. The rodents transmitted the disease to prairie dogs in a pet store. The prairie dogs were, in

[57] Peter Daszak, "Risky Behavior in the Ebola Zone," *Animal Conservation*, vol. 9 (2006), pp. 366-367.

[58] U.S. General Accounting Office, "West Nile Virus Outbreak, Lessons for Public Health Preparedness," September 2000, GAO/HEHS-00-180, p. 68.

[59] Some examples include a psittacosis infection in custom officers in Belgium after being exposed to illegally imported parakeets, and an avian influenza virus carried by crested hawk eagles smuggled into Europe. Bruno B. Chomel, "Wildlife, Exotic Pets, and Emerging Zoonoses," *Emerging Infectious Diseases*, vol. 13, no. 1 (2007), pp. 6-11.

[60] Y. Guan et al., "Isolation and Characterization of Viruses Related to the SARS Coronavirus from Animals in Southern China," *Science*, vol. 302, no. 5643 (2003), pp. 276-278.

[61] Center for Food Security and Public Health, Iowa State University, *Heartwater*, at http://www.cfsph.iastate.edu/Factsheets/pdfs/heartwater.pdf.

[62] See CRS Report RL33795, *Avian Influenza in Poultry and Wild Birds*, by Jim Monke and M. Lynne Corn.

turn, the source for transmitting the disease to humans.[63] CDC has banned all African rodents from entering the United States, except under certain circumstances.

Some have suggested that since many diseases are zoonotic (diseases that can be passed from animals to humans), the wildlife trade might have bio-terrorism implications. For example, imports of lightly regulated wildlife might be used to carry a disease that could be transmitted to other animals or agricultural crops. Another possibility might be intentionally importing and releasing ill animals to spread a disease to humans. Zoonotic diseases, included plague, tularemia, and hantavirus, have been used in weapons programs.[64] The Japanese during the 1930s, for example, used fleas to cause plague in China.[65] Some have suggested that a terrorist group with access to pathogens, but lacking dissemination technology, could conceivably use animal vectors to transmit the disease.[66] However, no open source evidence is currently available to suggests that terrorists are planning attacks involving the transmission of disease through illegal wildlife trade.

Congress is addressing zoonotic disease transmission through proposed legislation that would add non-human primates (e.g., chimpanzees and apes) to the list of prohibited wildlife species under the Lacey Act (H.R. 80).[67] This legislation is directed toward the non-human primate pet trade and would make it illegal to import, export, transport, sell, receive, acquire, or purchase (in interstate or foreign commerce) non-human primates with exceptions (e.g., for science and zoos). It would not make it illegal to possess a non-human primate. Some who support this legislation cite the propensity of non-human primates to transmit disease to, and inflict injury on humans and animals.[68] Some others who oppose this legislation contend that non-human primates kept as pets in the United States generally do not carry disease and should not be considered a threat to the safety of others.[69]

Case Study: Illegal Bushmeat Trade

Illegal bushmeat trade refers to the harvesting of wildlife for consumption and its subsequent trafficking within or outside source countries.[70] Although many cultures around the world consume wildlife meat, the term bushmeat commonly refers to wildlife hunted in African forests.

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[63] In response to the outbreak, CDC banned the import of all African rodents into the United States and prohibited the transportation, sale, distribution or release of prairie dogs and African rodents that might have been carrying the disease. For more information on monkeypox, see CRS Report RS21557, *Monkeypox: Technical Background and Outbreak Implications for Bioterrorism Preparedness*, by Dana A. Shea, Frank Gottron, and Holly Harvey.

[64] Center for Non-Proliferation Studies, Monterey Institute of International Studies, "Chemical and Biological Weapons Resource Page," at http://cns.miis.edu/research/cbw/possess.htm.

[65] Ibid.

[66] See CRS Report RS21557, *Monkeypox: Technical Background and Outbreak Implications for Bioterrorism Preparedness*, by Dana A. Shea, Frank Gottron, and Holly Harvey.

[67] This bill has been referred to the Committee on Natural Resources.

[68] Testimony of Gail Golab, Director of Animal Welfare Division, American Veterinary Medical Association, House Natural Resources Committee, Subcommittee on Fisheries, Wildlife, and Oceans, *Legislative Hearing on H.R. 2964 and H.R. 5534*, hearing, 110th Cong., 2nd sess., March, 11, 2008.

[69] Testimony of Sian Evans, Director of the DuMond Conservancy for Primates and Tropical Forests, House Natural Resources Committee, Subcommittee on Fisheries, Wildlife, and Oceans, *Legislative Hearing on H.R. 2964 and H.R. 5534*, hearing, 110th Cong., 2nd sess., March, 11, 2008.

[70] See Elizabeth L. Bennett et al., "Hunting for Consensus: Reconciling Bushmeat Harvest, Conservation, and Development Policy in West and Central Africa," *Conservation Biology*, vol. 21, no. 3 (2006), pp. 884-887.

Bushmeat trade is considered illegal when imports occur in contravention of CITES, national quarantine laws, and other laws than ban the trade of specific animals.[71] In Africa, this illegal trade is considered a threat to the diversity and abundance of endangered and threatened animal species, and the ecosystems in which they reside. Some are also concerned that illegal bushmeat trade could facilitate the transmission of exotic diseases throughout the world.

Illegal bushmeat trade in Africa is driven primarily by economic gain and subsistence, and is greatest in areas of West and Central Africa. The illegal bushmeat trade is reportedly a significant, and sometimes primary, source of income in Africa, generating an estimated $50 million annually.[72] The bushmeat trade is a significant source of protein for many communities in Africa, especially among the rural poor. Bushmeat provides an affordable source of animal protein as well as income-generating opportunities.[73] In some cases, bushmeat is preferred over domestic sources of meat by Africans. It is estimated that between 1 and 3.4 million tons of bushmeat are consumed annually in Africa, of which 60% is consumed in urban centers, where demand is highest.[74] Further, illegal bushmeat is sold primarily in urban markets in some parts of Africa, where they generate greater profits than legal bushmeat.[75] The illegal bushmeat trade also satisfies a global demand, which includes certain communities in the United States.

Entry of bushmeat into the United States is a concern because of its potential to carry disease.[76] This concern is exacerbated because the health of the animal from which the bushmeat is derived is not documented and the meat is generally not screened for diseases at the border.[77] Bushmeat is associated with several diseases that affect humans. The United States has experienced outbreaks from diseases such as HIV/AIDS, which some suggest emerged in Africa through consuming primates that carry the Simian Immunodeficiency Viruses (SIV);[78] and monkeypox, which originated from African rodents, commonly consumed as bushmeat and traded globally. Other diseases that affect humans and are linked to bushmeat include the Ebola hemorrhagic fever, which has been transmitted to bushmeat hunters who were in contact with infected great apes; and the SARS coronavirus, which has been associated with the international trade in small carnivores.[79]

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[71] Bushmeat Crisis Taskforce, *Global Human Health Fact Sheet*, October 2003.

[72] Ibid.

[73] Evan Bowen-Jones, "Bushmeat: Traditional Regulation or Adaptation to Market Forces," in Oldfield, ed., *The Trade in Wildlife*.

[74] Zinta Zommers and David Macdonald, *Wildlife Trade and Global Disease Emergence*, Office of Science and Innovation, Trade and Industry Division, 2006.

[75] Emmanuel De Merode and Guy Cowlishaw, "Species Protection, the Changing Informal Economy, and the Politics of Access to the Bushmeat Trade in the Democratic Republic of Congo," *Conservation Biology*, vol. 20, no. 4 (2006), pp. 1262-1271.

[76] Testimony of Marshall Jones, Deputy Director, FWS, in Senate Committee on Environment and Public Works, *Importation of Exotic Species and Their Impact on Public Health and Safety*.

[77] Declared bushmeat shipments might be checked by FWS at the border, but there is no requirements for quarantine to check bushmeat for disease. FWS inspectors are not trained in disease detection. However, the USDA's Animal and Plant Health Inspection Service (APHIS) may confiscate illegal bushmeat detected at the border, if suspected of carrying disease that might affect livestock. If the bushmeat is suspected carrying a disease harmful to humans, CDC is contacted.

[78] Gao Feng et al., "Origin of HIV-1 in the Chimpanzee Pan Troglodytes Troglodytes," *Nature*, vol. 397 (1999), pp. 436-441.

[79] Karesh, "Wildlife Trade and Global Disease Emergence," pp. 1000-1002.

CDC bans imports of certain animals, including African rodents, known to be prominent in bushmeat trade and vectors of disease.[80] In response to avian influenza, CDC and USDA banned imports of birds and unprocessed bird products from countries with the avian flu virus in domestic poultry. Other species that are known to carry diseases (e.g., non-human primates and live bats) may require a permit from CDC and other agencies for import into the United States.

Security Implications

The impact of wildlife smuggling has the potential to reach beyond environmental threats. Numerous sources indicate that organized criminal syndicates, insurgency groups, and military units are among the primary actors involved in large-scale, commercial-sized wildlife trafficking. Limited anecdotal evidence also indicates that some terrorist groups may be engaged in the wildlife smuggling trade for monetary gain. Some observers claim that the participation of such actors in wildlife trafficking can threaten the stability of countries, foster corruption, and encourage the use of violence to protect the trade.[81]

Links to Organized Crime

According to a series of U.N. studies on the illicit traffic of wildlife, wildlife experts claim that Chinese, Japanese, Italian, and Russian organized crime syndicates are "heavily involved in illegal wildlife trade."[82] While such claims do not suggest that organized crime syndicates are involved in all forms of wildlife trafficking, the United Nations reports that syndicates are "strongly present" in some sectors. Further, even when criminal syndicates are not controlling the trade, much of the trafficking is commonly described as "highly organized."[83]

East Asian Triad societies, such as the Wo Shing Wo group and 14K, as well as the Japanese Yakuza, have reportedly smuggled elephant ivory, rhino horn, tigers, shark fin, abalone, and whale meat.[84] The United Nations also reports that "no sector of the illegal fauna and flora trade has been criminalized to the extent of that of sturgeon and caviar." Most of the caviar business is reportedly controlled by Russian organized crime, which several analysts also claim is engaged in the poaching of tigers and bears.[85] According to FWS, recent investigations into U.S. caviar trade revealed that seven of the ten major importers on the East Coast had been illegally importing millions of dollars worth of caviar annually.[86] Members of the Italian Mafia, the former Medellin drug cartel in Colombia, and possibly additional groups in Central Asia and Brazil reportedly

[80] Centers for Disease Control and Prevention, visited at http://www.cdc.gov/ncidod/monkeypox/animals.htm, February 23, 2008.

[81] See, for example, Mara Zimmerman, "The Black Market for Wildlife: Combating Transnational Organized Crime in the Illegal Wildlife Trade," *Vanderbilt Journal of Transnational Law*, vol. 36 (2003), pp. 1672-1673; and Greg Warchol, "The Transnational Illegal Wildlife Trade," *Criminal Justice Studies*, vol. 17, no. 1 (March 2004), p. 58.

[82] Report of the U.N. Secretary-General (2002), p. 6; Report of the U.N. Secretary-General (2003), pp. 9-12. See also Jonathan Kazmar, "The International Illegal Plant and Wildlife Trade: Biological Suicide," *U.C. Davis Journal of International Law and Policy*, vol. 6, no. 105 (Winter 2000).

[83] Report of the U.N. Secretary-General (2003), p. 9.

[84] Report of the U.N. Secretary-General (2002), p. 6; Report of the U.N. Secretary-General (2003) p. 11; Kazmar, "The International Illegal Plant and Wildlife Trade"; and Cook, Roberts, and Lowther, *The International Wildlife Trade and Organised Crime*, p. 15.

[85] Report of the U.N. Secretary-General (2002), p. 6; and Report of the U.N. Secretary-General (2003), p. 11.

[86] FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*, p. 7.

have been involved in the illicit trafficking of rare parrots or falcons.[87] Anecdotal accounts also indicate that some organized groups are involved in both illegal wildlife and human trafficking.[88]

Links to Drug Trafficking

A 2002 British study, commissioned by the World Wildlife Fund and the World Conservation Union, found that key illicit drug production and distribution countries that coincide with major source states for endangered wildlife are areas where illicit wildlife trafficking has likely taken place.[89] Anecdotal evidence indicates that illicit wildlife has been found to be smuggled along the same routes as narcotics as a subsidiary trade for drug traffickers, especially in Latin America. The United Nations reports that members of the former Cali drug cartel in Colombia and Mexican drug dealers have also allegedly smuggled mixed shipments of drugs and wildlife products into the United States.[90] According to the Brazilian National Network Against the Trafficking of Wild Animals (RENCTAS), 40% of an estimated 400 criminal rings smuggling animals were also involved in other criminal activities, especially drug trafficking.[91] The CITES Secretariat has also reported that combinations of parrots and drugs have been smuggled together from Cote d'Ivoire to Israel.[92]

Wildlife, both legal and illegal, are also used as the means to conceal illegal drugs. In one famous case, U.S. Customs Service inspectors in Miami recovered 86 pounds of cocaine-filled condoms from Colombia, which had been inserted into 225 boa constrictor snakes.[93] More recently, international law enforcement officials say they have confiscated mixes of narcotics and illicit wildlife that range from elephant tusks with hashish stuffed inside to exotic birds smuggled with methamphetamine pills.[94] Wildlife products are reportedly also used as a currency in exchange for drugs. According to FWS officials, smugglers often trade illegal drugs for endangered animals in cashless transfers that serve as a special form of money laundering. In South Africa, street gangs reportedly provide highly prized, but illegal, catches of abalone to Asian crime syndicates for methamphetamine.[95]

Links to Terrorism

There is limited publicly available evidence of terrorist groups involved in wildlife trafficking. According to U.N. reports and Interpol officials, some insurgent groups and possibly terrorist groups are reportedly engaged in illegal poaching for profit in several areas of Asia and Africa.[96]

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[87] Report of the U.N. Secretary-General (2002), p. 6; Kazmar, "The International Illegal Plant and Wildlife Trade"; and Report of the U.N. Secretary-General (2003), p. 12.

[88] Testimony of Steven R. Galster, House Natural Resources Committee, "Poaching American Security," Hearing, March 5, 2008.

[89] Cook, Roberts, and Lowther, *The International Wildlife Trade and Organised Crime*, p. 23.

[90] Report of the U.N. Secretary-General (2002), pp. 6-7.

[91] "First National Report on the Traffic of Wild Animals," *RENCTAS*, 2001, p. 53.

[92] Report of the U.N. Secretary-General (2002), pp. 6-7.

[93] "Organized Criminal Gangs Deal Wildlife and Drugs," *Environment News Service*, June 18, 2002.

[94] Based on discussions with several Interpol law enforcement officials in 2007.

[95] Mark Schoofs, "Traffic Jam: As Meth Trade Goes Global, South Africa Becomes a Hub—Cape Town Gangs Barter Rare Shellfish for Drugs; Chinese, Russian Ties," *Wall Street Journal*, May 21, 2007.

[96] Report of the U.N. Secretary-General (2002), p. 6.

The limited anecdotal evidence indicates that terrorist groups may be engaged in illegal wildlife smuggling for monetary gain, if sources of rich biodiversity are near their operating arenas. **Figure 1** shows noted regions of high biodiversity and their proximity to selected zones of possible terrorist safe havens.[97] Although not necessarily indicative of an existing relationship between terrorists and wildlife trafficking, the map highlights the possibility of terrorist groups or other criminal entities in regions of high biodiversity taking advantage of porous borders, weak states, and criminal sympathizers.

Some experts caution that terrorist involvement may be more of an exception to the overall scope of wildlife trafficking, rather than indicative of an emerging trend or pervasive characteristic of illegal wildlife trade. Other experts suggest that terrorist groups may look to organized crime groups, some of which are known to traffic in illegal wildlife, as models for financing terrorist activities.[98] Both types of groups benefit from generating clandestine sources of income in non-legal markets. Al Qaeda, for example, has been allegedly involved in several forms of organized crime, such as money laundering and credit card fraud, to fund its activities.[99] Some experts also suggest that the loosely-connected, cellular structure of some international terrorist organizations today may lend itself to increased links between terrorism and organized crime. Experts argue that as loosely connected terrorist cells are expected to secure their own funding, organized crime may present itself as an attractive funding option.[100]

Some law enforcement officials indicate that Somali elephant and rhino poachers are now linked to at least one Somali warlord, who has provided safe haven and other forms of protection to known Al Qaeda operatives.[101] In Kaziranga, India, two Islamic extremist groups with ties to Al Qaeda, Harakat ul-Jihad-I-Islami/Bangladesh (HUJI-B) and Jamaatul Mujahedin Bangladesh (JMB), are reportedly sponsoring elephant and rhino poaching for profit, according to several news articles.[102]

[97] Notably, the map is not indicative of zones where terrorist activity is necessarily occurring and where organized wildlife smugglers are necessarily operating.

[98] See Louise I. Shelly and John T. Picarelli, "Methods Not Motives: Implications of the Convergence of International Organized Crime and Terrorism," *Policy Practice and Research*, vol. 3, no. 4 (2002).

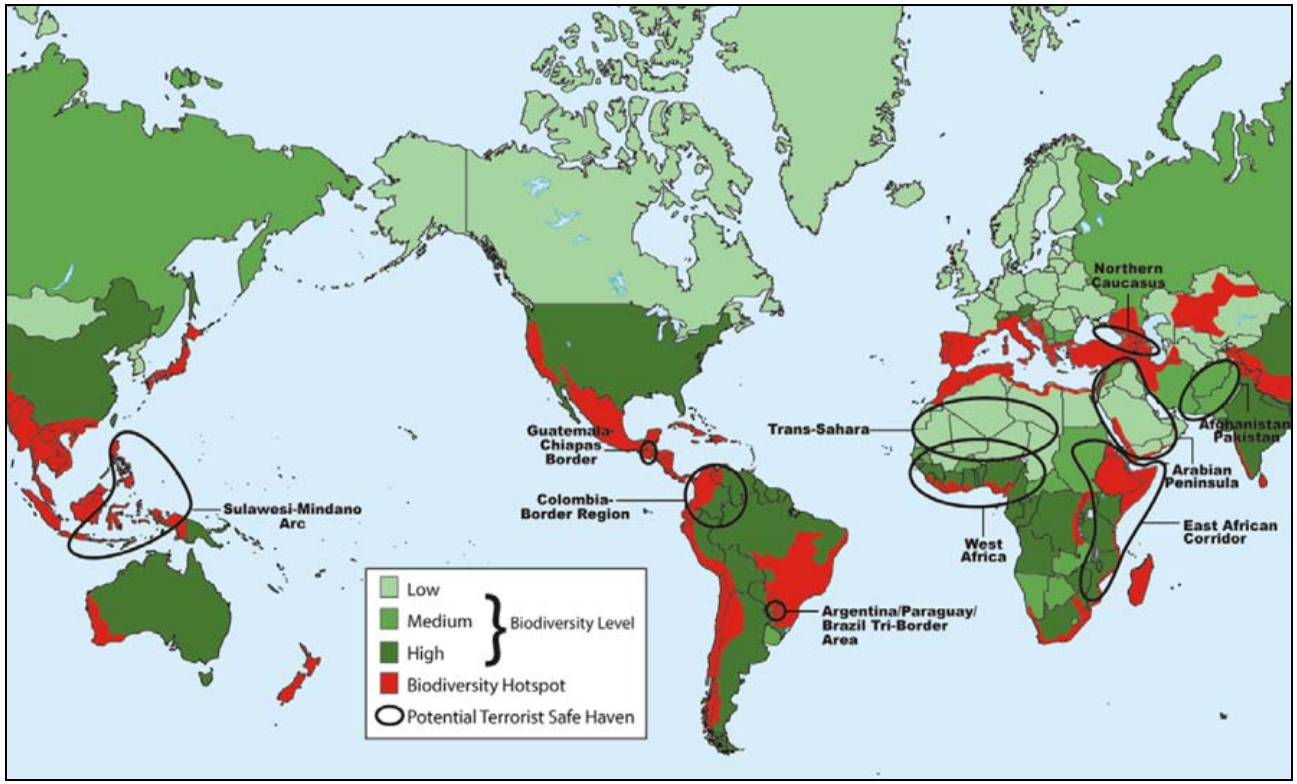
[99] See Rohan Gunaratna, *Inside Al Qaeda: Global Network of Terror* (New York: Columbia University Press, 2002).

[100] Lin, "Tackling Southeast Asia's Illegal Wildlife Trade."

[101] Somali warlords are generally not considered international terrorists. Interpol officials, however, say wildlife poaching is linked to at least one known Somali warlord, allegedly known to have protected Al Qaeda operatives allegedly involved in the 1998 Kenya and Tanzania U.S. Embassy bombings and the 2002 Kenya hotel bombing. For a description of terrorism activity linked to Somalis, see U.S. Department of State, Office of the Coordinator for Counterterrorism, *Country Report on Terrorism*, April 30, 2007. Some Interpol officials speculate that the poached wildlife could be used to finance Somali warlord activities, or possibly even Al Qaeda terrorism activities; CRS has yet to find public evidence to support these speculations. There remains some debate among analysts, however, regarding the level of sufficient evidence linking Somali warlords to the terrorist suspects involved in the bombings described above. For more of this debate, see CRS Report RL33911, *Somalia: Current Conditions and Prospects for a Lasting Peace*, by Ted Dagne.

[102] "Poaching for Bin Laden," *The Guardian*, May 5, 2007; Sharon Begley, "Extinction Trade," *Newsweek*, March 1, 2008. HUJI-B and JMB are designated as Foreign Terrorist Organizations by the U.S. Department of State.

Figure 1. Regions of Biodiversity and Selected Terrorist Safe Havens



Sources: For "Potential Terrorist Safe Haven": U.S. Department of State, Office of the Coordinator for Terrorism, *Country Reports on Terrorism*, Chapter 5: Terrorist Safe Havens, April 2007; and Angel Rabasa et al., *Ungoverned Territories: Understanding and Reducing Terrorism Risks* (Santa Monica, CA: Rand Corporation, 2007). For "Biodiversity Level": Brian Groombridge and Martin D. Jenkins, *World Atlas of Biodiversity* (Berkeley, CA: University of California Press, 2002). For "Biodiversity Hotspot": Conservation International, *Biodiversity Hotspots*, at http://www.biodiversityhotspots.org, accessed February 19, 2008.

Note: This map does not imply that terrorists are necessarily involved in wildlife trafficking where zones of high biodiversity and potential safe havens overlap. Additionally, it should be noted that the State Department and the Rand Corporation data differs on which regions are potential safe havens. Actual and potential locations identified by the State Department include Somalia; the Trans-Sahara, including Mali, Mauritania, Niger, Algeria, and Chad; the Sulu/Sulawesi Seas Littoral, including the southern Philippines and Indonesia; Iraq, including northern Iraq; Lebanon; Yemen; Afghanistan and Pakistan, including the Afghanistan-Pakistan border; the Colombia border region; and the Tri-Border area, including Argentina, Brazil, and Paraguay. Locations identified by Rand include the Pakistan-Afghanistan border, the Arabian Peninsula, the Sulawesi-Mindano arc, East Africa, West Africa, the Northern Caucasus, the Colombia-Venezuela border, and the Guatemala-Chiapas border.

Links to Weak States and Political Instability

Wildlife criminals may seek to exploit countries with a weak capacity to govern, poor law enforcement, high government corruption, and porous borders.[103] These country characteristics, common to weak states in the developing world, are not only frequently linked to drug trafficking, organized crime, and, on occasion, terrorism, but are also reportedly linked to the illegal trade in wildlife. Analysts contend that weak states at any point along wildlife trafficking routes—source countries, transit countries, and destination countries—are especially attractive to wildlife criminals, who hope to operate in these countries with impunity.

For example, several reports indicate that weak law enforcement and uncontrolled borders in Southeast Asia—especially the border region between Burma, Thailand, China, and Laos, which is also known as a significant drug production and trafficking region—are contributing to the problem.[104] Sun bears, clouded leopards, Burmese pythons, monitor lizards, and other protected species are reportedly available for sale in numerous markets and trading posts throughout Southeast Asia. According to some observers, the lack of law enforcement along these borders is contributing to the local extinction of several wildlife species.[105]

In rare instances, extensive cross-border, commercial poaching and trafficking operations have reportedly been associated with political instability in certain regions. This has been documented in several cases in Africa, where some conflicts have been reportedly financed, in part, by the elephant ivory trade. As local elephant populations decline, Sudanese and Somalis have also been known to stage heavily-armed ivory raids across their borders into Kenya, Chad, and the Central African Republic—using machine guns, rocket launchers, and other sophisticated weapons not only to poach wildlife but to fight park rangers and other border guards they may encounter. Rebel groups from Sudan, for example, would reportedly trade elephant ivory, sometimes dubbed "conflict ivory," for military weapons, and Somali troops were once reportedly encouraged to poach ivory in lieu of receiving salaries.[106] According to discussions with law enforcement officials and media reports, members of the Sudanese Janjaweed militia are also poaching elephants in and around Chad's Zakouma National Park.[107] Other militia or insurgent groups that were allegedly involved in wildlife trafficking for profit include Mozambique's Mozambican National Resistance (RENAMO) and Angola's National Union for the Total Independence of Angola (UNITA).[108]

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[103] See, for example, R. Thomas Naylor, "The Underworld of Ivory," *Crime, Law, and Social Change*, vol. 42, no. 4-5 (January 2005), p. 261.

[104] Chris R. Shepherd and Vincent Nijman, "The Trade in Bear Parts from Myanmar: An Illustration of the Ineffectiveness of Enforcement of International Wildlife Trade Regulations," *Biodiversity Conservation*, vol. 17, no. 1 (January 2008), p. 35.

[105] "Southeast Asia's Illegal Wildlife Trade," *National Public Radio*, November 3-5, 2003, at http://www.npr.org/programs/re/archivesdate/2003/nov/wildlife/index.html.

[106] Naylor, "The Underworld of Ivory," pp. 261-277; Warchol, "The Transnational Illegal Wildlife Trade," p. 58; Warchol, Zupan, and Clack, "Transnational Criminality: An Analysis of the Illegal Wildlife Market in Southern Africa," p. 5; and John Nielsen, "Confronting Central Africa's Poaching Crisis," *National Public Radio*, January 12, 2003, at http://www.npr.org/templates/story/story.php?storyId=912962.

[107] See also "DNA Test Pinpoints Elephant Poaching, Aiding Conservation: Genetic Evidence Could Prove Key in Halting the Illegal Slaughter of Africa's Elephants for their Ivory Tusks," *Scientific American*, February 26, 2007; and "War and Politics Threaten Congo's Endangered Rhinos," *The New York Times*, March 28, 2005.

[108] In addition to ivory, RENAMO reportedly ran rackets in rhino horn, rare hardwoods, stolen gemstones, and counterfeit currency. See Naylor, "The Underworld of Ivory," p. 278.

U.S. Policy

Law Enforcement and Trade Inspection

Several agencies are responsible for law enforcement and trade inspection involving wildlife trade, including the Department of Homeland Security's Customs and Border Patrol (CBP) and the Department of the Interior's Fish and Wildlife Service (FWS). CBP maintains the primary authority to inspect goods imported into the United States and vessels carrying goods into U.S. ports of entry. If wildlife goods are declared they are generally referred to FWS, which is the primary agency responsible for inspecting wildlife shipments. Other agencies also have some authorities to inspect wildlife trade, including the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), the Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), and the Department of Health and Human Services' Centers for Disease Control and Prevention (CDC). Inspectors from these agencies may not be trained to handle all types of wildlife imports; as a result, when inspectors from one agency need guidance or clarification on a shipment, other relevant agencies are contacted.

Fish and Wildlife Service

FWS is responsible for monitoring and detecting illegal trade in endangered species, invasive species, and other statutorily regulated wildlife. Under the Endangered Species Act of 1973 and the Lacey Act and Lacey Act Amendments of 1981, FWS has the authority to detain and inspect any international shipment of wildlife, including items in baggage, parcels, or vehicles. In 2007, FWS posted 114 uniformed wildlife inspectors at 38 ports of entry across the country—at 18 designated ports, through which most wildlife traffic is required to pass, border ports, and a handful of other ports.[109] (See **Figure 2**.) Ports are designated for importing and exporting wildlife to consolidate shipments for inspectors. Under certain circumstances, some wildlife shipments may travel through non-designated ports.[110] A designated port, however, must be used for importing wildlife that requires a permit under certain federal regulations that cover threatened and endangered species, marine mammals, and CITES listed species, among others. See **Table 4** for changes in the quantity and activity of FWS inspectors from 2000 to 2006.

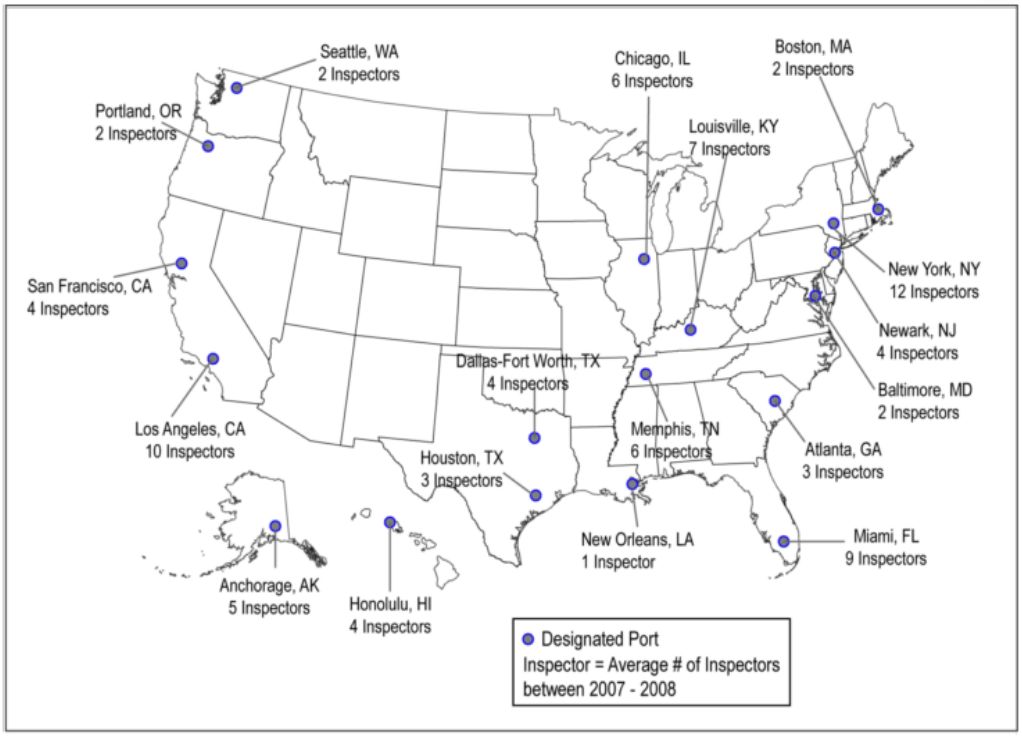
FWS reportedly inspects approximately 25% of declared wildlife shipments at the U.S. border.[111] FWS does not inspect undeclared shipments except during planned investigations or seasonal periods when certain illegally obtained wildlife have a higher probability of being imported into the United States. Undeclared shipments may also be targeted for inspection if FWS has reason to suspect that the shipment could be contraband. Shipments containing wildlife that are in transit through the United States are generally not required to be declared to FWS. However, in-transit shipments must comply with foreign and domestic wildlife laws, including the humane transport of live animals. Certain species listed on endangered or threatened species lists under the Endangered Species Act of 1973, migratory birds, marine mammals, or injurious species listed under the Lacey Act and Lacey Act Amendments of 1981, among others, may not transit within the United States.

[109] Most of the posted wildlife inspectors are located at the Los Angeles, New York, New Jersey, and Miami ports of entry. FWS, *U.S. Illegal Wildlife Trade: LEMIS Data Analysis and Risk Assessment*.

[110] FWS, *Importing and Exporting Your Commercial Wildlife Shipment*, at http://www.fws.gov/le/ImpExp/CommWildlifeImportExport.htm.

[111] Interview with Tom Tidwell, Senior Special Agent, FWS, November 2007.

Figure 2. Map of FWS Designated Ports and Number of Inspectors



Source: Adapted from FWS information provided to CRS, February 21, 2008.

Table 4. Statistics on the Activities of the U.S. Fish and Wildlife Office of Law Enforcement

Year	FWS Office of Law Enforcement Enacted Budget (in constant U.S. millions)	Number of Special Agents[a]	Number of Wildlife Inspectors[a]	Investigative Caseload	Number of Declared Shipments[b]	Number of Staffed Ports of Entry
FY2000	$48.1	201	90	9,105	111,296	29
FY2001	$59.2	224	90	8,681	120,004	30
FY2002	$39.2	238	88	8,412	123,720	30
FY2003	$59.4	229	94	10,369	139,541	31
FY2004	$60.1	231	95	10,536	157,617	31
FY2005	$60.4	218	105	13,980	172,404	35
FY2006	$58.7	202	112	15,128	183,247	38
FY2007	$57.3	199	114	12,177	187,670	37
Avg. annual % change, FY2000-FY2006	5.3%	0.1%	3.5%	5.6%c	7.8%	4.4%

Source: FWS, Office of Law Enforcement, Annual Reports, FY2000-FY2007, at http://www.fws.gov/le/AboutLE/annual.htm, visited February 2, 2009.

a. Number lists end-of-year size of forces.

b. The number of declared shipments does not reflect the actual number of individual items traded. For example, a shipment with 1,000 geckos or 10 geckos would be counted as one shipment. In addition, this statistic does not take into account the amount of wildlife trade that is not declared to U.S. officials. As a result, the number of wildlife items shipped per year is likely to be higher than indicated in this table.

c. Note that from 2000 to 2006 there was nearly a 10% average annual increase per year in caseloads. It is unclear what caused the nearly 20% caseload reduction from 2006 to 2007.

Customs and Border Control

CBP's mission is to protect U.S. borders from terrorism, human and drug smuggling, illegal migration, and agricultural pests while facilitating the flow of legitimate travel and trade. CBP addresses the illegal wildlife trade directly by preventing the entry of exotic plant and animal pests, and any other emerging threats in agro- and bio-terrorism from entering the country. CBP collaborates with other agencies, including FWS, when they find suspicious wildlife shipments. CBP is also considered by U.S. officials as the first line of defense against import of undeclared illegal wildlife shipments.

Animal and Plant Health Inspection Service

The U.S. Department of Agriculture's APHIS regulates the imports of some animal and animal products that could harm agriculture or livestock. Among its responsibilities, APHIS serves to facilitate safe international trade, monitor the health of animals presented at the border, and regulate the import and export of animals and animal products. APHIS enforces provisions of the Animal Health Protection Act,[112] which give APHIS the authority to prohibit or restrict the importation of any animal if it will prevent a pest or disease from affecting agriculture or livestock. Further, APHIS has the authority to prosecute individuals who smuggle any animals or animal products into the country. APHIS works with FWS and CBP to monitor agricultural imports at the border and has a dedicated team for investigating the illegal wildlife trade.[113]

In response to the growing volume of smuggled and improperly imported agricultural products entering the United States, APHIS created the Smuggling Intervention and Trade Compliance unit (SITC), a special anti-smuggling unit to prevent the unlawful entry and distribution of prohibited agricultural commodities, and products that may harbor harmful wildlife, including animal pests, diseases, and invasive species.[114] The unit routinely works with CBP agents during agricultural anti-smuggling and cooperative interdiction efforts at air, land, and sea ports of entry.

[112] P.L. 100-478, as amended.

[113] Under the Homeland Security Act of 2002 (P.L. 107-296), some of APHIS' border security responsibilities were transferred to the Department of Homeland Security. These duties include border inspection of shipments and baggage containing plant, animal, and agricultural products that could harbor pests and diseases. APHIS retains the responsibility to create inspection policies and train inspection agents. The specific functions that were transferred from APHIS to DHS are included in an agreement at [http://www.aphis.usda.gov/plant_health/moa_dhs/index.shtml].

[114] See U.S. Department of Agriculture, APHIS, "Smuggling Intervention and Trade Compliance Program," at http://is.aphis.usda.gov/lpa/pubs/pub_smuggling.html.

National Oceanic and Atmospheric Administration

NOAA's National Marine Fisheries Service (NMFS) enforces laws that protect and regulate the marine resources of the United States. Some of these laws, such as the Magnuson-Stevens Fishery Conservation and Management Act, regulate the trade and catch of marine organisms.[115] NOAA Fisheries Service also enforces trade in CITES-regulated marine species. NOAA's Office of Law Enforcement uses special agents to patrol the sea, conduct investigations, monitor fishing practices, inspect fish processing plants, and review sales of wildlife products on the Internet. Some agents are also stationed at the border to assist in the inspection of imports.

Centers for Disease Control and Prevention

The Department of Health and Human Services' CDC takes the lead in protection against communicable human diseases at the border. In recent years, CDC has banned certain wildlife imports to prevent the introduction, transmission, and spread into the United States of specific diseases from animals to humans, including monkeypox (African rodents), SARS (civets), and the highly pathogenic avian influenza H5N1 (birds and bird products from source countries).[116] Under its delegated authority, CDC's Division of Global Migration and Quarantine is empowered to detain, medically examine, or conditionally release individuals and wildlife suspected of carrying a communicable disease. Not all diseases are quarantinable; zoonotic diseases that are, however, include SARS and influenza, such as bird flu, that is causing or has the potential to cause a pandemic.[117] CDC officials are not present at the border on a day-to-day basis, but maintain quarantine stations located in Anchorage, Atlanta, Boston, Chicago, Dallas, Detroit, El Paso, Honolulu, Houston, Los Angeles, Miami, Minneapolis, New York, Newark, Philadelphia, San Diego, San Francisco, San Juan, Seattle, and Washington, D.C.

Wildlife Crime Prosecution

The Department of Justice (DOJ) prosecutes individuals and organizations charged with wildlife trafficking. The Environment and Natural Resources Division (ENRD), within DOJ, is responsible for all environmental and natural resources-related litigation, including wildlife crimes, filed on behalf of or against the United States in federal courts.[118] Investigations initiated by law enforcement agents from FWS, NOAA, and other agencies related to the illegal wildlife trade are referred to ENRD for prosecution.

Wildlife traffickers face charges from traditional wildlife trafficking statutes such as the Lacey Act and the Endangered Species Act, but also from other statutes that prohibit money laundering,

[115] 16 U.S.C. §§1801-1882, as amended; P.L. 94-265, as amended.

[116] CDC has the authority to prevent the spread of communicable diseases under the Public Health Service Act (42 U.S.C. §201 et seq.).

[117] For full list of quarantinable diseases, see Executive Order 13295, "Revised List of Quarantinable Communicable Diseases,"April 4, 2003; and "Executive Order: Amendment to E.O. 13295 Relating to Certain Influenza Viruses and Quarantinable Communicable Diseases," April 1, 2005.

[118] As of 2004, ENRD employed more than 400 attorneys to handle more than 10,000 cases per year in all federal jurisdictions. Approximately 30 ENRD attorneys specialize in prosecuting environmental crime cases. See Jim Rubin and Shata Stucky, "Fighting Black Markets and Oily Water: The Department of Justice's National Initiatives to Combat Transnational Environmental Crime," *Sustainable Development Law and Policy*, vol. 4 (2004), pp. 21-26.

smuggling, and conspiracy.[119] One of the primary statutes for prosecuting wildlife traffickers is the Lacey Act and Lacey Act Amendments of 1981, which prohibits the (1) import, export, transport, selling, receiving, acquiring, or purchase of any fish or wildlife already taken, possessed, transported, or sold (2) in violation of state, federal, American Indian tribal, or foreign laws or regulations that are fish- or wildlife-related.[120] Violation of foreign laws with respect to only fish and wildlife (the act does not include foreign plants) can trigger Lacey Act offenses. Under the Lacey Act, a defendant may be prosecuted if they did not violate the law in question, but knowingly, or in the exercise of due care, should know, about the illegal nature of the wildlife or wildlife products.

Wildlife traffickers can also be penalized under the Endangered Species Act of 1973 which makes it unlawful for any person, subject to the jurisdiction of the United States, to import, export, offer, sell in interstate or foreign commerce, or to receive, carry, transport, or ship in interstate or foreign commerce in the course of a commercial activity, any endangered or threatened species. This law also implements CITES into law, and prescribes penalties for violations of CITES. Violations under the Endangered Species Act of 1973 can occur without the defendant knowing which species are listed under this law and without intending to violate the law.[121]

Other laws not directly related to wildlife can be used to prosecute wildlife traffickers. For example, wildlife traffickers can be prosecuted as smugglers under Title 18 of the U.S. Code. Violations such as a concealing contraband (e.g., illegal wildlife) upon import, or knowingly receiving, concealing, buying, or selling contraband, or facilitating these actions, might be prosecuted under the smuggling statutes.[122]

International Assistance and Cooperation

The U.S. government participates in several international venues to enhance the visibility of wildlife crime issues and coordinate with other countries and entities to halt wildlife trafficking. In recent years, the United States has provided funding to three primary international conservation programs that address wildlife trafficking: CITES, the Coalition Against Wildlife Trafficking (CAWT), and the ASEAN Wildlife Law Enforcement Network. U.S. contributions fund efforts to facilitate policy approaches and technical expertise to assist developing countries in building their capacity to combat the illegal wildlife trade.

The United States also participates in several other relevant international venues, including the North American Agreement on Environmental Cooperation, Interpol, World Customs Organization, Group of Eight, and additional U.N. bodies. In addition to these organizations,

[119] Because illegal wildlife traffickers are often caught before violating the Lacey Act, conspiracy is a way to charge the wrongdoers for committing a crime. The crime of conspiracy occurs when "two or more persons conspire" to violate the Lacey Act. The conspiracy offense can act as further arsenal against wildlife violators. In fact, charging an individual with conspiracy may be considered a graver offense than the contemplated crime and can lead to harsher penalties.

[120] Some address the categories labeled above for violating the Lacey Act as the two steps necessary for prosecution. See Testimony of Eileen Sobeck, Deputy Assistant Attorney General, Environment and Natural Resources Division, U.S. Department of Justice, in U.S. Congress, House Natural Resources Committee, Subcommittee on Fisheries, Wildlife, and Oceans, *Illegally Harvested Plants*, hearing, 110th Cong., 1st sess., October 16, 2007.

[121] John T. Webb and Robert S. Anderson, "Prosecuting Wildlife Traffickers: Important Cases, Many Tools, Good Results," *United States Attorneys' Bulletin* (December 1999), pp. 4-10.

[122] For example, see 18 U.S.C. §545.

several additional, regional anti-trafficking organizations exist, in which the United States does not play an active role. These include the South Asia Wildlife Trade Initiative, established in February 2008; the European Union's E.U. Enforcement Action Plan to Combat Illegal Wildlife Trade, established in June 2007; and the Lusaka Agreement Task Force, established in 1994. (See **Appendix B** for descriptions.)

The United States does not participate in international efforts to regulate international wildlife trade to prevent disease transmission or invasive species, as no such international organization currently exists. However, some international organizations, of which the United States is a member, are involved in efforts to track major animal diseases and emerging diseases that can be passed from animals to humans. One such effort launched in 2006, the Global Early Warning System for Major Animal Diseases, involves collaboration between the World Health Organization, the World Organization for Animal Health, and the U.N. Food and Agriculture Organization.[123]

CITES

The CITES Secretariat is the primary multilateral organization that regulates trade in wildlife. The United States is one of 172 parties to CITES, which entered into force in March 1973 and established legal guidelines for the international trade of certain wild animals, plants, and derivatives thereof. These animals, plants, and parts are subject to varying degrees of trade regulation, based on their being listed in the appendices of the Convention. Appendix I lists animals and plants that are threatened with extinction and trade in these species is only authorized in exceptional circumstances. Appendix II lists species not immediately threatened with extinction but may become so if trade is not regulated. Appendix III lists species that are regulated within the jurisdiction of at least one CITES party. Trade in Appendix-listed animals and plants is based on a system of government-issued permits and certificates that must be presented before consignments can leave or enter a country.

Many analysts observe, however, that CITES is limited in its ability to monitor illegal wildlife trade and enforce member states' compliance with the provisions of the treaty.[124] CITES, on its own, does not make illegal wildlife trading a crime or prescribe criminal penalties against violators. Instead, the treaty relies on member states to execute national legislation that enforces CITES commitments and to report to the CITES Secretariat cases of noncompliance. A 2003 U.N. report on wildlife crime and CITES, for example, claims that many member states suffer from an inability to enforce wildlife trade laws, and the penalties associated with the laws are so low that they are unlikely to deter potential wildlife criminals.[125] To address flagrant violators of the treaty, the CITES Secretariat does, on occasion, issue notifications informing member states to suspend trade in CITES-listed species with noncompliant countries. Currently, CITES has active suspension notifications against Djibouti, Guinea-Bissau, Liberia, Mauritania, Nigeria, Rwanda,

[123] World Health Organization, "Launch of Global Early Warning System for Animal Diseases Transmissible to Humans," Press Release, at http://www.who.int/mediacentre/news/new/2006/nw02/en/index.html.

[124] Hayman and Brack, "International Environmental Crime," p. 22.

[125] Report of the U.N. Secretary-General (2003).

and Somalia.[126] It remains unclear, however, to what extent these suspensions are carried out by member states.[127]

Coalition Against Wildlife Trafficking

Initiated in 2005, the Coalition Against Wildlife Trafficking (CAWT) is a voluntary partnership among governments and non-governmental entities that seeks to raise the political profile of international wildlife crime. CAWT maintains three goals: (1) improve wildlife law enforcement by expanding training, information sharing, and strengthening regional cooperative networks; (2) reduce consumer demand for illegally traded wildlife by raising awareness of its consequences; and (3) broaden support for combating wildlife trafficking at the highest political levels. As the sole founder of this initiative, the United States is serving as the first two-year chair.

Since its inception, CAWT has been active in holding several international training courses about wildlife law enforcement and related topics and conducting awareness activities. Although some observers welcome this relatively new initiative to help raise the profile of wildlife trafficking issues, others perceive that some countries may be hesitant to commit financially to CAWT. As one expert explained in congressional testimony in 2007, CAWT has suffered from a "slow response from other foreign governments."[128] Currently, there are five other countries, besides the United States, involved in CAWT: Australia, Canada, Chile, India, and the United Kingdom. Furthermore, some observers question whether CAWT has been able to define and differentiate its role among U.S. agencies that have responsibilities to combat illegal wildlife trafficking.

ASEAN Wildlife Enforcement Network

In December 2005, the Association of Southeast Asian Nations (ASEAN)[129] launched the ASEAN Wildlife Law Enforcement Network (ASEAN-WEN) as a regional effort to improve cooperation in combating wildlife crime in Southeast Asia. In the ASEAN statement for its launch, member states noted the "need to strengthen enforcement of CITES and other legislation for wildlife protection" and to "address the serious problem caused by illegal domestic and international trade in wild fauna and flora" given that the "available resources for enforcement are inadequate."[130] Although not a member of ASEAN, the United States provides foreign aid for ASEAN-WEN through USAID's ECO-Asia ASEAN-WEN Support Project. Under this USAID program, the United States is assisting ASEAN-WEN to provide development and capacity building for national wildlife crime task forces, regional cooperation and interaction among task forces, and collaboration with the global law enforcement community.[131]

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[126] CITES Notification to the Parties, No. 2003/027 (May 6, 2003); No. 2004/055 (July 30, 2004); No. 2005/038 (July 19, 2005); No. 2006/073 (December 14, 2006); No. 2006/074 (December 14, 2006).

[127] Rosalind Reeve, "Wildlife Trade, Sanctions, and Compliance: Lessons from the CITES Regime," *International Affairs*, vol. 82, no. 5 (2006), pp. 881-897; and Zimmerman, "The Black Market for Wildlife," p. 1666.

[128] Testimony Crawford Allan, World Wildlife Fund, in U.S. Congress, House Natural Resources Committee, Subcommittee on Fisheries, Wildlife, and Oceans, *Endangered Species Treaty Meeting*, hearing, 109th Cong., 2nd sess., May 3, 2007.

[129] The ten members of ASEAN are Burma, Brunei, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

[130] "ASEAN Statement on Launching of the ASEAN Wildlife Law Enforcement Network at the Special Meeting of the ASEAN Ministers Responsible for the Implementation of CITES," Bangkok, Thailand, December 1, 2005.

[131] USAID, "Environmental Cooperation-Asia (ECO-Asia) ASEAN Wildlife Enforcement Network."

Other regional efforts to combat the illegal wildlife trade similar to ASEAN-WEN have grown in popularity in recent years, though the United States is not as heavily involved in them at this time. These regional efforts are generally perceived by observers as a positive development, as they bolster regional commitments to solve a criminal activity that is inherently transboundary in nature. Some, however, question whether these new initiatives will be sufficient in curtailing the illegal wildlife trade.

Issues for Congress

The role of Congress in evaluating U.S. policy to combat wildlife trafficking is broad. This section analyzes some issues Congress may choose to consider, which include (1) funding levels for U.S. wildlife trade inspection and investigation capacity; (2) assessing the role of U.S. foreign aid to combat wildlife trafficking; (3) supplementing legislative provisions to encourage private-sector involvement in controlling wildlife trade; (4) evaluating trade sanction laws relative to foreign countries with weak enforcement of wildlife laws; (5) incorporating wildlife trade provisions into free trade agreements (FTAs); and (6) addressing the domestic and international demand for illegal wildlife through public awareness campaigns and non-governmental organization partnerships.

Funding for Domestic and International Wildlife Trade Inspection and Investigation

Some observers suggest that improving U.S. capacity to prevent illegal wildlife from entering the border and combat transnational wildlife crime syndicates may require Congress to fund and authorize additional inspectors at the border. According to FWS, approximately 75% of declared wildlife shipments are not inspected at the border. There are few inspectors in undesignated ports of entry, where undeclared wildlife shipments are rarely checked.[132] Some have suggested that FWS should increase its inspection of declared and undeclared shipments of wildlife in both designated and undesignated ports of entry in the United States. One possibility would be to increase the number of wildlife inspectors, in proportion to the increase in wildlife shipments entering the United States. In recent years, this has not occurred. Since 2000, the number of wildlife inspectors has increased at an annual average of 3.5%, while the number of shipments has increased at an annual average of approximately 7.8%. (See **Table 4**.) The cost of implementing this proposal, however, would likely involve Congress increasing appropriations for FWS, or increasing user fees for inspecting wildlife at the border.[133]

Others suggest increasing the investigative capacity of FWS to address the illegal wildlife trade controlled by organized crime. From 2000 to 2006, the number of special agents for FWS has increased an average of 0.01% annually, while the investigative caseload has increased an average of 9.7% annually. More special agents might result in a greater number of arrests and prosecutions of wildlife smugglers. Further, more agents may increase the FWS capacity to target specific wildlife smuggling rings or to monitor wildlife smuggling in developing countries where

[132] CBP checks a percentage of all shipments and contacts FWS if wildlife shipments are intercepted.

[133] FWS finalized a rule to gradually increase inspection fees and update license and fee requirements for importing and exporting wildlife in December 2008. Fees have not been increased since 1996. Raising fees is intended to recover some costs of inspecting shipments.

it is thought to be most prevalent. The cost of adding more special agents to the FWS may also involve an increase in appropriations by Congress. Some have argued that this cost might be partially offset by fines paid to the government from more prosecutions of wildlife criminals.

Many observers have highlighted the value of recent international law enforcement initiatives to combat illegal wildlife crime.[134] To this end, some suggest that FWS receive additional authorities from Congress to expand its reach beyond the U.S. border. Proponents argue that such a policy could help FWS, in conjunction with foreign counterparts, target more high-value transnational smuggling syndicates. In testimony to the House Natural Resources Committee in 2008, one analyst indicated that such an expansion if FWS authorities could be modeled on U.S. Drug Enforcement Administration authorities, which permit federal drug law enforcement agents to conduct operations internationally as well as to staff numerous country offices worldwide.[135] Critics of this option, however, argue that wildlife crime is not sufficiently a priority policy issue to warrant the attendant budgetary costs that would be associated with such an expansion of FWS authorities.

Foreign Assistance for Combating Wildlife Trafficking

The majority of endangered species in the world are found in developing countries, where there is need for assistance in protecting species and habitats.[136] Some contend that one opportunity to stem the illegal trade in wildlife is to improve the enforcement capacity of developing countries to control the illegal harvest and export of species. Congress could further this option by appropriating new funds or directing funds in pre-existing conservation programs to train and assist foreign wildlife trade officials in monitoring, detecting, and investigating wildlife trafficking.

FWS and other observers have identified building of wildlife law enforcement infrastructure in source countries as a priority for stemming the illegal trade.[137] Options for achieving this include increasing U.S. efforts to train wildlife inspectors and special agents in developing countries where the illegal wildlife trade is flourishing. The justification of such a proposal is based on three premises: (1) direct training of inspectors and special agents in developing countries will increase their capacity to monitor, investigate, and reduce illegal wildlife trade; (2) interaction between FWS agents and agents in developing countries will improve the coordination and communication among agencies when addressing transnational wildlife crimes; and (3) training programs may give some FWS agents the opportunity to assist their foreign counterparts in foreign countries. Currently, FWS has conducted training programs in Africa, Southeast Asia, Mongolia, and other countries and regions. Training for judges and prosecutors is also being done in foreign countries by DOJ. In collaboration with ASEAN-WEN, U.S. officials are training foreign nationals on methods of prosecuting crimes involving trade in illegally taken wildlife and wildlife parts. This training is conducted in conjunction with the ASEAN-WEN Support Group, FWS and several non-governmental organizations (NGOs).

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[134] See for example, testimony by Claudia A. McMurray, House Natural Resources Committee, "Poaching American Security: Impact of Illegal Wildlife Trade," March 5, 2008.

[135] Testimony of Steven R. Galster, House Natural Resources Committee, "Poaching American Security: Impact of Illegal Wildlife Trade," March 5, 2008.

[136] Alacron, "The Convention on the International Trade of Endangered Species."

[137] FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*, p. 5.

The benefits associated with this proposal would have to be weighed against the costs of increasing training overseas by FWS. To offset these costs, some contend that Congress could direct funds in some conservation programs toward increasing the law enforcement capacity in countries with high wildlife crime. For example, the Tropical Forest Conservation Act[138] authorizes the use of debt-for-nature swaps to create funds that can given as grants to local organizations to improve the security of nature reserves. Species-specific programs under the Multinational Species Conservation Fund address various components of the illegal wildlife trade and conservation, including law enforcement. Some argue for Congress to appropriate more funds for these programs to address training and monitoring needs. Further, some programs administered by USAID under their Environment and Biodiversity programs address the illegal wildlife trade. For example, in FY2005, USAID supported the training of wildlife law enforcement officials in Cambodia to investigate the illegal wildlife trade..[139]

Private-Sector Cooperation

To prevail against wildlife trafficking, many analysts claim that there is a need for more information on international trafficking routes and a need for that information, if or when collected, to be shared among interested parties. Today, national intelligence on environmental crimes is reportedly not collated and disseminated effectively across countries and law enforcement jurisdictions.[140] As a FWS report explains, combating wildlife trafficking today requires "stepped-up intelligence sharing" and "the pursuit of complex, cooperative investigations that stretch across continents."[141] However, the sharing of intelligence with other countries remains a politically sensitive subject. According to another report, "Actionable information is often withheld in order to avoid embarrassing the countries involved or because of the perceived confidentiality of national enforcement processes."[142]

Intelligence sharing may not necessarily require divulging potentially sensitive political information. Some analysts have suggested introducing heightened industry requirements for tracking commercial wildlife shipments.[143] A broad array of trade-tracking technologies could be applied to wildlife products, including satellite monitoring and the use of barcodes, chemical tracers, and radio-frequency ID tags and transponders. These technologies are already used in tracking a wide variety of products, ranging from narcotics to high-value fashion merchandise. Furthermore, recent scientific findings indicate that ivory products can be traced through DNA analysis with significant accuracy, although this technology is not ready for commercial use.[144] Not all source countries, however, especially in the developing world, have the financial resources to commit to potentially costly tracking technologies. Other questions include whether such tracking technologies are reliable, consistent, or feasible for a market, such as the illegal

[138] 22 U.S.C. §2431

[139] USAID, *USAID Biodiversity and Forestry Conservation Programs, FY2005*, 2007, at http://www.usaid.gov/our_work/environment/biodiversity/pubs/biodiversity_conservation_forestry_2005_508_ready_102507.pdf.

[140] Hayman and Brack, "International Environmental Crime," p. 24; FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*, p. 5.

[141] FWS, Office of Law Enforcement, *Strategic Plan, 2006-2010*, p. 5.

[142] Hayman and Brack, "International Environmental Crime," p. 24.

[143] Ibid., pp. 26-27.

[144] Samuel Wasser et al., "Using DNA to Track the Origin of the Largest Ivory Seizure Since the 1989 Trade Ban."

wildlife market, that includes such a wide variety of products. Indeed, such trade tracking options are unlikely to be applicable for regulating small-scale wildlife shipments.

Another option could involve further expansion of partnerships with the private sector and development of models of corporate social responsibility for "soft" regulatory regimes.[145] Such regimes could involve industry certification schemes for manufacturers of traditional Asian medicine products, Internet-based companies that sell wildlife products, the fashion industry, wild game hunting and tour guide operations, and many other businesses that may involve illegal wildlife. In some cases, as with the labeling of traditional Asian medicines, some pilot programs are underway in other countries, such as the United Kingdom. The non-profit organization, International Fund for Animal Welfare (IFAW), has also sought to promote legislation in California to establish a state-wide labeling program for traditional Asian medicines—and Congress may choose to consider establishing similar, national programs.[146] Potential limitations to this option include the possibility that some wildlife commodities may be so valuable, that profits would trump voluntary commitments. This has been seen in the U.S. illegal caviar trade, where companies fraudulently mislabeled tins of illegal caviar.[147]

Trade Sanctions

Some environment analysts have argued that U.S. trade sanctions can be used as a diplomatic tool to encourage other countries to improve their efforts in combating illegal wildlife trafficking.[148] One such tool, which has been used on a bilateral basis, is the 1971 Pelly Amendment to the Fishermen's Protective Act of 1967.[149] This provision involves a two-step sanctioning process, first requiring the Secretary of Commerce or of the Interior to issue a certification notice to the President when "nationals of a foreign country, directly or indirectly, are engaging in trade or taking which diminishes the effectiveness of any international program for endangered or threatened species."[150] The President, in turn, may choose to direct the Secretary of the Treasury to impose sanctions on imports of any products from the offending country for any duration, provided that the sanction is not prohibited by the World Trade Organization.

A total of 23 countries or territories have been certified a total of 36 times under the Pelly Amendment.[151] The majority of certifications were due to commercial whaling and unsustainable fishing practices. The remaining cases involved other endangered wildlife, including Japan in

[145] Hayman and Brack, "International Environmental Crime," p. 32.

[146] International Fund for Animal Welfare (IFAW), "Traditional Medicine: A Major Threat That Few Suspect," at http://www.ifaw.org/ifaw/general/default.aspx?oid=180459.

[147] Andrew C. Revkin, "Vast Caviar Smuggling Case Brings Guilty Pleas," *The New York Times*, July 22, 2000.

[148] Theodora Greanias, "A Tool of Persuasion: International Wildlife Conservation," *Endangered Species Bulletin* (July 1998); and Andrew F. Upton, "The Big Green Stick: Reducing International Environmental Degradation through U.S. Trade Sanctions," *Boston College Environmental Affairs Law Review*, vol. 22 (1994-1995), pp. 671-692.

[149] 22 U.S.C. §1978, as amended.

[150] Additionally, this law requires the Secretaries to issue a certification notice to the President when foreign countries are allowing fishing operations to occur that diminish the effectiveness of an international fishery conservation program

[151] These countries include (dates of certification in parentheses): Japan (1974, 1988, 1991, 1992, 1995, 2000); the former Soviet Union (1974, 1985); Chile (1978); Peru (1978); South Korea (1978); Norway (1986, 1990, 1992, 1993); Taiwan (1989, 1991, 1993); Mexico (1991); Colombia (1992); Canada (1992, 1996); Malaysia (1992); Netherlands Antilles (1992); Singapore (1992); Spain (1992); United Kingdom (1992); Venezuela (1993); Vanuatu (1992); Costa Rica (1992); France (1992); Italy (1992); Panama (1992, 1993); China (1993); and Iceland (2004).

1991 for trade in sea turtles; and China and Taiwan in 1993 for trade in rhino horn and tiger bone. On only one occasion—Taiwan for trade in rhino and tiger parts and products—has the President imposed sanctions pursuant to the Pelly Amendment. The sanctions temporarily banned the import of certain fish and wildlife products from Taiwan into the United States. After a few years of improvements in Taiwanese wildlife trade controls, including cooperative law enforcement training between FWS and the Taiwanese authorities, the United States terminated its certification of Taiwan in 1997.[152]

The certification status listing and the threat of American sanctions under the Pelly Amendment, however, remains a source of controversy over its effectiveness and legality. On the one hand, it has been credited for pressuring Japan in the 1990s into addressing its illegal trade in sea turtles.[153] In other cases, however, analysts report that the Pelly certification process has had no, or limited, effect on offending nations.[154] Additionally, some analysts argue that its sporadic use since the early 1990s, including no further use of sanctions since Taiwan in 1994, may be a reflection of its ineffectiveness. Other analysts suggest that the U.S. government may have a political disinclination to impose sanctions against countries for wildlife trafficking. As noted earlier, the CITES Secretariat currently identifies seven countries in non-compliance with CITES provisions, none of which are currently certified or sanctioned for their non-compliance. It also remains unclear how the United States monitors and evaluates foreign country compliance with international programs for endangered or threatened species—and how or when such evaluations trigger the certification process.

There also appears to remain some debate surrounding whether the Pelly Amendment sanction violates World Trade Organization (WTO) and General Agreement on Tariffs and Trade (GATT) guidelines. Although Article XX of GATT allows for certain environmental trade measures to trump the international free trade regime, GATT and WTO have often ruled against unilateral trade restrictions based on environmental conservation statutes. During the one instance in which the United States applied a Pelly sanction, it was against a country that was not a member of GATT or WTO. As a result, it remains to be seen whether a Pelly Amendment sanction would hold up in a WTO dispute challenge.[155] In the meantime, Congress could move to re-evaluate the effectiveness of the Pelly Amendment as a sanctioning tool and conduct oversight on agencies involved in the certification and sanctioning process.

Free Trade Agreements

The increasing globalization of trade, interconnectedness of markets and supply routes, and emergence of transnational businesses has increased the potential for the illegal trade in wildlife. Indeed, some contend that free trade agreements such as the North American Free Trade Agreement (NAFTA) may facilitate the illegal trade in wildlife because of fewer trade

[152] "Termination of the Pelly Amendment Certification of Taiwan," *Federal Register*, vol. 62, no. 83 (April 30, 1997); and Greanias, "A Tool of Persuasion."

[153] Peter H. Sand, "Whither CITES? The Evolution of a Treaty Regime in the Borderland of Trade and Environment," *European Journal of International Law*, vol. 8 (1997), p. 39.

[154] See, for example, Steve Charnovitz, "Environmental Trade Sanctions and the GATT: An Analysis of the Pelly Amendment on Foreign Environmental Practices," *American University Journal of International Law and Policy*, vol. 9 (1993-1994), pp. 751-807.

[155] For a discussion of this, see Scott C. Owen, "Might a Future Tuna Embargo Withstand a WTO Challenge in Light of the Recent Shrimp-Turtle Ruling?," *Houston Journal of International Law* (Fall 2000).

restrictions, generally. For example, some argue that a free trade agreement (FTA) with Singapore increased U.S. imports of illegally obtained timber and wildlife from Singapore and other countries that transport products through Singapore.[156] Others argue that a trade agreement with Peru would have led to an increase in exports of illegally logged timber and wildlife to the United States from Peru. To address these environmental concerns and others, some have proposed that FTAs should include specific provisions that direct countries to implement and enforce CITES, and adhere to existing laws regarding the wildlife trade. Congress is responsible for implementing legislation for FTAs, and might consider FTAs with Columbia, Panama, and South Korea in the 111th Congress.

Some of these concerns were addressed in U.S.-Peru Trade Promotion Agreement (TPA).[157] The TPA requires that Parties adopt laws and measures to fulfill its obligations under multilateral environmental agreements, such as CITES. Further, the TPA would require Parties to enforce their own environmental laws and would establish a policy mechanism to address public complaints that a Party is not effectively enforcing its environmental laws whether or not the failure is trade related. Complaints could be filed by individuals and firms of each Party to the agreement and would be addressed according to a set of procedures outlined in the TPA.[158] An annex on forest sector governance in the TPA specifically addresses the Parties commitment to combat trade associated with illegal logging and illegal trade of wildlife.[159]

The framework for the environmental section in U.S.-Peru TPA could be modified to address the illegal wildlife trade in future agreements with countries that have a significant illegal wildlife trade. Proponents of this view see several benefits to including environmental provisions to deter the illegal wildlife trade in free trade agreements. The FTA may increase the awareness of the illegal wildlife trade and create additional enforcement mechanisms to address trade violations (e.g., dispute mechanisms within the agreement). Further, agreements can provide a layer of assurances that Parties comply with international treaties and enforce their environmental laws. If there is a mechanism for third parties (e.g., outside groups, such as NGOs) to verify compliance and report violations to a committee, supporters assert that it might uncover more wildlife crimes.

A potential drawback of this proposal is that requirements for compliance might require additional funding. If funding is not available, resources might be allocated away from other enforcement and monitoring activities to meet the conditions of the agreement. If the agreement allows outside parties to monitor and conduct investigations into possible violations, some within the country might view this as an infringement on national sovereignty.

Public Awareness and Government-NGO Cooperation

One potential strategy to combat the illegal trade in wildlife is to reduce demand for wildlife. Supporters of this view suggest raising public awareness through public service announcements

[156] Environmental Investigation Agency, "America's Free Trade for Illegal Timber," 2006.

[157] United States-Peru Trade Promotion Agreement, Chapter 18, Environment, at http://www.ustr.gov/Trade_Agreements/Bilateral/Peru_TPA/Final_Texts/Section_Index.html.

[158] Ibid.

[159] This annex requires Peru to: (1) increase the number and effectiveness of personnel to enforce laws; (2) provide criminal and civil liability at adequate deterrent levels for actions that undermine the sustainable management of forests and violate laws pertaining to the harvest and trade of timber; (3) verify that timber products are harvested in compliance with all laws; and (4) monitor the timber trade within the country, among other things.

and campaigns to educate consumers, retailers, and importers of wildlife products. In some cases, as with many tourists, consumers are simply unaware of laws prohibiting the import of products made of protected wildlife. Retail shop-keepers, manufacturers, as well as import-export suppliers may also benefit from learning about the availability of sustainable alternatives and the potential consequences of illegal wildlife trade.

U.S. government and non-governmental organization (NGO) campaigns aimed at demand reduction, domestically and internationally, are ongoing. In October 2007, for example the State Department identified Bo Derek as a "Special Envoy of the Secretary of State for Wildlife Trafficking Issues." Together with Assistant Secretary of State for Oceans, Environment and Science, Claudia McMurray, Derek conducted a series of outreach events to raise public awareness about the illegal global trade in wildlife in Southern Florida, which is one of the major points of entry for legal and illegal wildlife. In Afghanistan, there has been some concern that U.S. personnel may be attempting to bring back to the United States furs and other wildlife artifacts that are protected under CITES, Afghanistan law, and U.S. and miliary laws. To address this the Department of Defense, in concert with officials from the State Department, Environmental Protection Agency, and the non-profit Wildlife Conservation Society, organized information sessions to educate U.S. personnel about illegal wildlife and the consequences of fostering demand for such wildlife products.[160]

Some reports indicate that these public awareness campaigns may show results. The wildlife protection NGO WildAid, for example, launched a reportedly successful series of public advertisements and short films to create awareness about the impacts of the sharkfin trade among consumers in Asia; the campaign reported a 50-70% decrease in demand in some markets.[161] However, it remains to be seen whether future campaigns can show similar results and if these campaigns can effect long-term changes in consumer culture. Congress might play a role in the use and evaluation of demand-side strategies in several ways. For example, Congress could conduct oversight of existing demand-side reduction programs, evaluating the effectiveness of demand-side programs and assessing what policy options may exist to enhance the cost-effectiveness of demand-side anti-trafficking initiatives. Additionally, Congress could direct funds or require U.S. agencies to include demand-side reduction programs in their anti-wildlife trafficking efforts.

[160] "Environmental Education for Afghans Essential, U.S. Officials Say," *Armed Forces Press Service*, August 15, 2007.

[161] Hayman and Brack, "International Environmental Crime," p. 31.

Appendix A. Selected Laws Related to the Wildlife Trade

African Elephant Conservation Act [162]

This act establishes as U.S. policy the goals of assisting in conservation and protection of the African elephant. This law directs the Secretary of the Interior to review export controls of raw African elephant ivory in producing states and import controls in raw ivory destination countries. If source or transit countries are found lacking in adequate management of ivory trade, the Secretary of the Interior can issue a moratorium on the import of raw and worked African elephant ivory into the United States. The law also makes illegal the (1) import of raw African elephant ivory from any country other than ivory producing states; (2) the export of raw ivory from the United States; (3) the import of raw or worked ivory from other countries in violation of their laws or of CITES regulations; (4) the import of worked ivory from other countries unless that country certifies that the ivory was derived from legal sources; (5) the import of raw or worked ivory from a country under moratorium; and (6) the sale of raw or worked ivory in the United States from importers or exporters that have not obtained permission to do so by the Secretary of the Interior.

Alien Species Prevention and Enforcement Act of 1992 [163]

This act defines what types of plants and animals are "nonmailable," or prohibited from being sent to Hawaii using postal services. Specifically, nonmailable animals include injurious animals prohibited under 18 U.S.C. §42 and illegally taken wildlife prohibited under 16 U.S.C. §3372, are nonmailable.

Animal Health Protection Act [164]

This act aims to regulate interstate and foreign commerce to prevent, detect, control, and eradicate animal diseases and pests that can affect the livestock industry. Under this act, the Secretary of Agriculture is authorized to prohibit or restrict the import, entry, export, and movement in interstate commerce of any animal, article, or means of conveyance, or use of any means of conveyance or facility if determined to be necessary to prevent the introduction or dissemination within the United States of any pest or disease of livestock.

Animal Welfare Act [165]

This act regulates interstate and foreign trade, traffic, transport, or other commerce of animals to (1) insure that animals intended for use in research facilities, for exhibition purposes, or for use as

[162] 16 U.S.C. §§4201 et seq.; P.L. 100-478, as amended. Congress also enacted another elephant conservation law, the Asian Elephant Conservation Act of 1997 (16 U.S.C. §§4261-4266; P.L. 105-96, as amended). This law, however, does not include any provisions that restrict the trade in Asian elephant ivory.

[163] 39 U.S.C. §3015 note; P.L. 102-393.

[164] 7 U.S.C. §8301 et seq.; P.L. 107-171.

[165] 7 U.S.C. §§2131 et seq.; P.L. 89-544, as amended.

pets are provided humane care and treatment; and (2) assure the humane treatment of animals during transport in commerce. Among other stipulations, this law requires that animals in commerce must be marked or identified in a humane manner, and includes standards for handing, housing, feeding, watering, sanitation, ventilation, shelter from extremes of weather and temperature, and other guidelines. Further, this law prohibits buying, selling, delivering, or transporting animals for participation in animal fighting ventures.

Antarctic Conservation Act of 1978 [166]

This act provides for the conservation of wildlife and plants of Antarctica, consistent with the Antarctic Treaty and Protocol. The act makes it unlawful for any U.S. citizen to knowingly receive, acquire, transport, offer for sale, sell, purchase, import, export, or have custody, control, or possession of any native bird, mammal, plant, or invertebrate from Antarctica.

Antarctic Marine Living Resources Convention Act of 1984 [167]

This act makes it unlawful to ship, transport, offer for sale, sell, purchase, import, export, or have custody, control or possession of any Antarctic marine living resource, or part or product thereof, known to have been harvested in violation of U.S. laws consistent with the Convention on the Conservation of Antarctic Marine Living Resources. Antarctic marine living resources include finfish, mollusks, crustaceans, and all other species of living organisms, including birds, found south of the Antarctic convergence.

Bald and Golden Eagle Protection Act [168]

This act prohibits the taking, possession, selling, purchasing, bartering, offering to sell, purchase or barter, transporting, exporting, or importing of any bald or golden eagle, alive or dead, or any part, nest, or egg thereof. Under certain instances, the Secretary of the Interior may permit exceptions to this law. Exceptions include instances that are compatible with the preservation of the bald or golden eagle. Additionally, specimens may be permitted for scientific or exhibition purposes of public museums, scientific societies, zoos, for religious purposes of Native American tribes, and if necessary for the protection of certain interests in a particular locality.

Dog and Cat Protection Act of 2000 [169]

This law prohibits imports, exports, sale, manufacture, offer for sale, transport, and distribution in the United States of dog and cat fur products. The purpose of this law is to ensure that U.S. market demand does not provide an incentive to slaughter dogs or cats for their fur.

[166] 16 U.S.C. §§2401 et seq.; P.L. 95-541, as amended.

[167] 16 U.S.C. §§2431 et seq.; P.L. 98-623.

[168] 16 U.S.C. §§668 et seq.; P.L. 86-70, as amended.

[169] 19 U.S.C. §1308; P.L. 106-476.

Endangered Species Act of 1973 [170]

This act establishes a U.S. program for the conservation of endangered and threatened species, consistent with CITES and other international agreements. The law prohibits any person subject to the jurisdiction of the United States to engage in any trade in any specimens contrary to the provisions of CITES, or to possess any specimens traded contrary to the provisions of CITES. Further, if the Secretaries of the Interior and of Commerce determines a species to be endangered or threatened, this law prohibits any such species from being imported, exported, taken, possessed, sold, delivered, carried, transported, shipped by any means, sold or offered for sale in interstate or foreign commerce. Under certain circumstances, some U.S. persons may be permitted to take or import listed species.

Fisherman's Protective Act of 1967 (Pelly Amendment) [171]

This act establishes provisions to protect U.S. vessels on the high seas and in the territorial waters of foreign countries. Located within this law is the so-called Pelly Amendment,[172] which establishes restrictions on imports of fishery and wildlife products from countries that violate international fishery or endangered or threatened species programs. Specifically, the law directs the Secretary of Commerce and/or of the Interior to certify to the President when nationals of a foreign country directly or indirectly conduct operations in a manner or under circumstances that diminish the effectiveness of conservation programs for fish and endangered or threatened species. Once certified, the President may direct the Secretary of Treasury to prohibit the import of any products from the offending country for any duration, as the President determines is appropriate and to the extent that such prohibitions are sanctioned by the World Trade Organization and other multilateral trade agreements.

Fur Seal Act of 1966 [173]

This act prohibits any person to transport, import, offer for sale, or possess at any port or place or on any vessel, subject to the jurisdiction of the United States, fur seals or the parts thereof, including, but not limited to, raw, dressed, or dyed fur seal skins, except under certain circumstances.

Lacey Act [174]

This act seeks to aid in restoring U.S. birds that have become scare or extinct and to regulate the introduction of American or foreign birds or animals in localities where they are not native. All but the first section of the law has since been repealed. In the original, however, this act prohibited any person or persons to import into the United States any foreign wild animal or bird except under special permit from the U.S. Department of Agriculture.

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[170] 16 U.S.C. §§1531-1544; P.L. 93-205, as amended.

[171] 22 U.S.C. §§1971 et seq.; P.L. 90-482, as amended.

[172] 22 U.S.C. §1978; P.L. 92-219, as amended.

[173] 16 U.S.C. §§1151 et seq.; P.L. 89-702, as amended.

[174] 16 U.S.C. §701; 31 Stat. 187, as amended.

Lacey Act Amendments of 1981 [175]

This act makes it unlawful to import, export, transport, sell, receive, acquire, or purchase any fish or wildlife already taken, possessed, transported, or sold in violation of state, federal, tribal, or foreign wildlife laws or regulations. The Lacey Act also requires that all shipments of wildlife or wildlife products be accurately marked or labeled on shipping containers; it is a violation to transport wildlife and wildlife products under falsely marked containers. The Lacey Act contains provisions that restrict the import or transport of species deemed injurious or potentially injurious to human beings, agriculture, horticulture, forestry, and fish and wildlife resources of the United States. The statute applies only to wild mammals, birds, fish, amphibians, reptiles, mollusks, and crustaceans. It does not apply, for example, to insects, plants, and fungi.[176]

Marine Mammal Protection Act of 1972 [177]

This act establishes a moratorium on the taking and import of marine mammals and marine mammal products. It is unlawful to use any port, harbor, or other place under jurisdiction of the United States to take or import marine mammals and marine mammal products. Further, it is unlawful to transport, purchase, sell, export, or offer to purchase, sell, or export such animals taken on the high seas or in waters or land under the jurisdiction of the United States. Some exceptions to this moratorium are allowed, such as the taking of marine mammals and marine mammal products for scientific research and other purposes.

Marine Turtle Conservation Act [178]

This act seeks to assist in conserving marine turtles and in nesting habitats in foreign countries by supporting and providing financial resources for projects to conserve the nesting habitats, and marine turtles in those habitats, and to address other threats to the survival of marine turtles. With regard to the trade in marine turtles, this law states that it will use conservation projects to prevent the illegal trade in marine turtles, among other goals. There are no specific prohibitions on trade of marine turtles in this law.

Migratory Bird Treaty Act [179]

The act was enacted in 1918 to implement the International Convention for the Protection of Migratory Birds signed by the United States and Great Britain (acting for Canada). With exceptions listed in this act, it shall be unlawful "at any time, by any means, or in any manner, to pursue, hunt, take, capture, kill, attempt to do these acts, [or] possess ... any migratory bird, [or] any part, nest, or eggs of any such bird.... " Specifically in relation to trade, it is unlawful to sell or transport migratory birds as defined in the act and associated products contrary to the laws of the State, Territory, or district in which it was captured, killed, or taken. These conditions also

[175] 16 U.S.C. §§3371 et seq.; P.L. 97-79, as amended.

[176] There are currently 26 individual species, genera, or families listed as injurious species.

[177] 16 U.S.C. §§1361 et seq.; P.L. 92-522, as amended.

[178] 16 U.S.C. §§6601 et seq.; P.L. 108-266.

[179] 16 U.S.C. §§703 et seq.; 40 Stat. 755, as amended.

apply to the import of birds and associated materials from any Province in Canada. This applies to migratory species native to the United States and its Territories.

Neotropical Migratory Bird Conservation Act [180]

This act provides grants to conserve the hundreds of bird species that migrate between North and South America and the Caribbean. Conservation also includes law enforcement under this act. Further, the act authorizes the Secretary of the Interior to support and coordinate existing efforts to conserve neotropical birds.

Public Health Service Act [181]

This act addresses the importation of wildlife that might be carrying communicable diseases to humans. Specifically, §264(a) authorizes the Surgeon General to enforce regulations that "are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions.... " The Surgeon General is authorized to inspect, fumigate, disinfect, sanitize, and destroy animals or articles found to be infected or contaminated "as to be sources of dangerous infection to human beings.[182]"

Rhinoceros and Tiger Conservation Act of 1994 [183]

This act seeks to assist in the conservation of all species of rhinos and tigers, including those already listed as protected species from trade under CITES and U.S. regulations. The law specifically prohibits the sale, import, and export of products intended for human consumption or application that contain or are labeled or advertised as containing, any substance derived from any species of rhino or tiger.

Wild Bird Conservation Act of 1992 [184]

This act limits or prohibits imports of exotic birds when necessary to ensure that wild exotic bird populations are not harmed by removal of exotic birds from the wild for trade and that exotic birds in trade are not subject to inhumane treatment. The law includes provisions to limit or prohibit U.S. imports of exotic bird species covered by CITES and authorizes moratoria on the import of species not necessarily covered by CITES.

[180] 16 U.S.C. §§6101 et seq.; P.L. 106-247, as amended.

[181] 42 U.S.C. §264(a); 58 Stat. 703, as amended.

[182] A list of embargos on specific species can be found at http://www.cdc.gov/ncidod/dq/animal.htm.

[183] 16 U.S.C. §§5301 et seq.; P.L. 103-391, as amended.

[184] 16 U.S.C. §§4901 et seq.; P.L. 102-440.

Appendix B. Additional International Efforts to Combat Wildlife Crime

North American Agreement on Environmental Cooperation

In conjunction with the North American Free Trade Agreement (NAFTA), Canada, Mexico, and the United States also signed the North American Agreement on Environmental Cooperation and created the Commission for Environmental Cooperation in 1993. This international organization was established to address regional environmental concerns, help prevent potential trade and environmental conflicts, and promote the effective enforcement of environmental law, including those protecting wildlife. Through its North American Working Group on Environmental Enforcement and Compliance Cooperation, this organization provides senior wildlife enforcement officials from NAFTA countries a forum for regional cooperation, expertise exchange, and enforcement capacity building. One component of this working group is the North American Wildlife Enforcement Group (NAWEG), created in 1995.

Interpol

As parts of its efforts to address environmental crimes, Interpol established a Working Group on Wildlife Crime in 1994. The wildlife working group's primary goals are to coordinate information sharing related to wildlife crime on an international scale and to facilitate and coordinate operational enforcement activity. To achieve this, Interpol maintains an international network for the exchange of information, enhances domestic operations in member countries through cooperation and coordination activities, and assists in training wildlife enforcement officers in developing countries. In 1996, a full-time officer was appointed to manage Interpol's wildlife crime programs.

World Customs Organization

With its specialty in international trade and customs administration and 171-country membership, including the United States, the World Customs Organization works with other international organizations and member countries on wildlife trafficking and other issues. Since July 1996, the World Customs Organization and the CITES Secretariat have maintained a legal framework for international cooperation to exchange information related to wildlife crime and promote awareness and training for customs and management authorities at the national level.

Group of Eight

During the March 2007 Group of Eight (G-8) meeting of environmental ministers in Postdam, Germany, the attendees committed to the "Postdam Initiative—Biological Diversity 2010."[185] This agreement aims to strengthen international efforts to combat the illegal trade in wildlife, among other concerns, by 2010.

[185] Countries represented at the meeting included the United States, Germany, France, Italy, Japan, Russia, and the United Kingdom.

UN Commission on Crime Prevention and Criminal Justice

Acknowledging that the trafficking of forest products, including wildlife, is often linked to organized crime and can involve the same actors who traffic drugs, arms, and persons, the United States, in conjunction with Indonesia, Australia, the Philippines, and Thailand, sponsored a resolution that urges countries to fight forest and wildlife crime by strengthening law enforcement cooperation, combating criminal groups operating within their borders, and cooperating through the U.N. Convention Against Transnational Organized Crime and the U.N. Convention Against Corruption. The resolution, first presented for adoption in 2006, was adopted on April 25 at the 2007 commission meeting in Vienna.[186]

Lusaka Agreement and Task Force

The Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora is a formal intergovernmental organization, which entered into force in 1996, under the auspices of the U.N. Environment Programme. The group aims to improve wildlife crime law enforcement cooperation and capacity-building. As part of the Lusaka Agreement, the member states launched the Lusaka Task Force as a permanent law enforcement institution to facilitate international cooperation in carrying out wildlife crime investigations in Africa. The Task Force, which includes as parties to the agreement the governments of the Republic of Congo, Kenya, Lesotho, Uganda, Tanzania, and Zambia, is sometimes referred to as the "African Interpol for Wildlife."

Enforcement Action Plan to Combat Illegal Wildlife Trade

Unveiled in 2007, the E.U. Enforcement Action Plan to Combat Illegal Wildlife Trade seeks to improve wildlife trade enforcement across the E.U. as well as in wildlife source countries. In the source countries, the E.U. aims to provide law enforcement capacity building as well as increase awareness of illegal wildlife trade.

South Asia Wildlife Trade Initiative

Established in February 2008 under the South Asia Cooperative Environmental Programme, the South Asia Wildlife Trade Initiative includes country representatives from Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. During the initiative's first regional workshop from January 31 to February 1, 2008, senior wildlife officials from these countries agreed to increased cooperation in regulating their wildlife trade. The country representatives established two efforts to realize this goal: the South Asia Experts Group on Wildlife Trade and the South Asia Regional Strategic Plan on Wildlife for 2008 through 2013.

[186] U.N. Commission on Crime Prevention and Criminal Justice, "International Cooperation in Preventing and Combating Illicit International Trafficking in Forest Products, Including Timber, Wildlife and Other Forest Biological Resources," Australia, Indonesia, Philippines, Thailand and United States of America: revised draft resolution, April 25, 2007.

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