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The Illegally Traded Elephant in the Room: Species Terrorism & Combating Illegal Wildlife Trade

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THE ILLEGALLY TRADED ELEPHANT IN THE ROOM: SPECIES TERRORISM & COMBATING ILLEGAL WILDLIFE TRADE

Áine Dillon*

ABSTRACT

The illegal wildlife trade has been a dilemma for decades and remains prevalent globally – international intervention is required now. While most countries participate in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”), not all countries have the same approaches to combating the illegal wildlife trade. Unique approaches can be beneficial because each illegally traded species requires a different response, and countries with limited resources can also participate. However, the lack of a unified response hinders the global fight against the illegal wildlife trade. While traditional methods to combat crime, such as passing laws, are an excellent place to start, they are meaningless without effective enforcement and prosecution. Due to the complexity of the illegal wildlife trade, the lack of understanding severely hinders the ability to effectively combat it. This comment begins with reasons why the illegal wildlife trade is critical to confront. This comment continues with illustrating what CITES is, CITES’s shortcomings, and other international organizations that aid in the fight against illegal wildlife trade. This comment then details the potential approaches to decrease the demand for

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unsustainable wildlife products that come from endangered species. This comment will explain the community-based natural resource management (“CBNRM”) approach and how it can empower communities and sustain biodiversity. This comment will then discuss insufficient data collection and submission to CITES and how both can increase to aid in the global fight against wildlife crimes. This comment will explore how a lack of enforcement on a national level affects the country and affects the world. This comment will conclude with recommendations on strengthening the fight against illegal wildlife trade using demand reducing programs, CBNRM where appropriate, increased shared data, and more vigorous enforcement.

TABLE OF CONTENTS

I.	Background	130
II.	Reasons for Protecting Wildlife	130
III.	CITES	136
	A. CITES Background	136
	B. CITES Shortcomings	138
IV.	Other Regulatory Agencies	140
V.	Recommendations	143
	A. Cutting Demand	143
	B. Community-based Natural Resource Management Approach	146
	C. Increased Data Shared and Collected	149
	1. Disclosure of Data to CITES	149
	2. Lack of Data on Particular Species	150
	3. Look-alike Species	151
	4. Useful Applications of Data	152
	D. Lack of Enforcement	154
VI.	Conclusion	157

I. BACKGROUND

The Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") defines wildlife crime as the "taking, trading (supplying, selling or trafficking), importing, exporting, processing, possessing, obtaining and consumption of wild fauna and flora, including timber and other forest products, in contravention of national or international law."¹ The illegal wildlife trade causes severe animal suffering, harms ecosystems, and negatively affects the communities and nations the species are stripped from.² The illicit wildlife trade funds many guerrilla and organized crime groups.³ Additionally, many species are essential sources of tourism in these countries.⁴ Human interaction with wildlife in the illegal trade has caused zoonotic viruses, such as Ebola, HIV, and the novel Coronavirus ("COVID-19").⁵ Accordingly, endangered wildlife requires efforts to cut demand, increase shared data, and regulation with enforcement for species to be maintained and human well-being and communities' opportunities to benefit from protecting endangered species.

II. REASONS FOR PROTECTING WILDLIFE

The need for biodiversity in ecosystems is essential for both human well-being and the planet as a whole.⁶ The African elephant (*Loxodonta Africana*) alone spreads seeds, digs watering

¹ *Wildlife crime*, CITES, <https://cites.org/eng/prog/iccwc/crime.php> (last visited Sept. 18, 2021) [hereinafter CITES].

² See Sandra E. Baker et al., *Rough Trade: Animal Welfare in the Global Wildlife Trade*, 63 *BIOSCIENCE* 928, 928 (2013) (reviewing the negative impacts of the illegal wildlife trade).

³ See generally TANYA WYATT, *WILDLIFE TRAFFICKING: A DECONSTRUCTION OF THE CRIME, THE VICTIMS, AND THE OFFENDERS* (Palgrave Macmillan U.K. eds., 2013) (explaining the effects the illegal wildlife trade can have on communities).

⁴ See Norman L. Christensen, Jr. & Jerry F. Franklin, *Ecosystem Function and Ecosystem Management*, in *ECOSYSTEM FUNCTION & HUM. ACTIVITIES* 1, 2 (R. David Simpson et al. eds., 1997) (discussing the importance of a healthy ecosystem and its impact on tourism).

⁵ See generally John S. Mackenzie & David W. Smith, *COVID-19: a novel zoonotic disease caused by a coronavirus from China: what we know and what we don't*, *MICROBIOLOGY AUSTL.* 45, 49 (Mar. 17, 2020) (explaining how the unregulated sale of wild animals can cause zoonotic diseases).

⁶ Shahid Naeem et al., *Biodiversity and human well-being: an essential link for sustainable development*, 283 *ROYAL SOC'Y PUBL'G* 1, 1–2, 5 (Oct. 10,

holes tapping into water reserves, which allows drinking water for other species, and knocks down plants to allow for more plant diversity.⁷ Moreover, the overexploitation of animals and plants leads to possible extinction, which can harm tourism industries.⁸ CITES recognizes that healthy ecosystems involve human involvement, and that for some species, exploitation is necessary to maintain ecosystems and communities; however, CITES's goal is to maintain species survival while allowing trade.⁹

In addition to the detrimental effects on surrounding ecosystems, wildlife trafficking affects communities and nations because it funds many militant and guerrilla groups.¹⁰ Throughout the world, militant groups use species from their environments to feed their soldiers and generate funds.¹¹ An estimated 80% of major armed conflicts have occurred in biodiversity hotspots.¹² For example, during the 1970s, the União Nacional para an Independência Total de Angola ("UNITA") militant group caused thousands of elephant deaths, fed soldiers with bushmeat, and sold tusks to fund their rebellion.¹³ The effects of these killings are still evident today in the areas that were previously UNITA occupied.¹⁴ In these areas there still is a high percentage of tuskless elephants, which is an otherwise infrequent occurrence.¹⁵ Additionally, the illicit wildlife trade

2016).

⁷ Graham I. Kerley et al., *Effects of elephants on ecosystems and biodiversity*, in ELEPHANT MANAGEMENT: A SCIENTIFIC ASSESSMENT FOR SOUTH AFRICA 146, 151, 155–61 (RJ Scholes & KG Mennell eds., 2008).

⁸ Vanda Felbab-Brown, *Wildlife and drug trafficking, terrorism, and human security*, BROOKINGS (Nov. 8, 2018), <https://www.brookings.edu/articles/wildlife-and-drug-trafficking-terrorism-and-human-security/#footnote-2> [hereinafter Felbab-Brown]; Bryan Christy, *How Killing Elephants Finances Terror in Africa*, NAT'L GEOGRAPHIC (Aug. 12, 2015), <https://www.nationalgeographic.com/tracking-ivory/article.html>.

⁹ CITES, *supra* note 1.

¹⁰ Felbab-Brown, *supra* note 8.

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ See Vox, *How poaching is changing the face of African elephants*, YOUTUBE (Mar. 15, 2017), <https://www.youtube.com/watch?v=K8EVQdIUWBE> (explaining that tuskless elephants, although recessive in the elephant population, are much more prominent in places that have been affected by war in the past because tuskless elephants were not poached due to their lack of tusks).

¹⁵ See *id.*

can be very profitable with very low consequences.¹⁶ A white rhinoceros horn can sell up to \$25,000 per pound on the Asian black market, making it more valuable than cocaine or gold and thus lucrative for militant groups.¹⁷ Communities are often forced to become compliant with the militant groups because they do not have the means available to mount a significant resistance.¹⁸ Throughout history militant groups have provided benefits to the local populations.¹⁹ For example, militant groups in South America have furnished local communities with clinics, roads, and schools.²⁰ Many scholars believe it is not that militant groups are driving the international illegal wildlife trade, but rather, militant groups are benefiting from an existing system where there is little enforcement and high monetary rewards.²¹ Bolstering regulation and enforcement would aid in quelling funding to militant groups and empowering communities that have come under these militant groups' control.²²

Tourism is another reason for protecting wildlife and maintaining ecosystems.²³ It is estimated that wildlife tourist attractions account for 20-40% of global tourism and will be worth \$1.8 billion by 2030.²⁴ It is a misconception that only certain species attract tourism (i.e., elephants); to the contrary, wildlife tourism has grown in popularity worldwide.²⁵ Wildlife tourism increases

¹⁶ Bryan Christy, *Special Investigation: Inside the Deadly Rhino Horn Trade*, NAT'L GEOGRAPHIC (Oct. 2016), <https://www.nationalgeographic.com/magazine/2016/10/dark-world-of-the-rhino-horn-trade/>.

¹⁷ Gwynn Guilford, *Why Does a Rhino Horn Cost \$300,000? Because Vietnam Thinks It Cures Cancer and Hangovers*, ATLANTIC (May 15, 2013), <https://www.theatlantic.com/business/archive/2013/05/why-does-a-rhino-horn-cost-300-000-because-vietnam-thinks-it-cures-cancer-and-hangovers/275881/>.

¹⁸ Felbab-Brown, *supra* note 8.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ Susanna Curtin & Gitte Kragh, *Wildlife Tourism: Reconnecting People with Nature*, 19 HUM. DIMENSIONS WILDLIFE 545, 545 (2014).

²⁴ Tom P. Moorhouse et al., *The Customer Isn't Always Right—Conservation and Animal Welfare Implications of the Increasing Demand for Wildlife Tourism*, PLOS ONE 1, 1 (2015).

²⁵ *Id.* at 1–3.

knowledge about wildlife and increases incentives for the community to maintain the natural ecosystems.²⁶ Along with wildlife tourism, there is a sense of empathy for those who experience wildlife in their natural habitats.²⁷ For example, five groups were interviewed after a Swedish Arctic fox safari and each expressed how their knowledge and empathy for the animals grew throughout the tour.²⁸ Tourism can be an avenue for communities to generate funds and to maintain their natural environments.²⁹

Wildlife must also be protected to prevent zoonotic viruses.³⁰ Zoonotic diseases result from humans interacting with animals in unsanitary conditions and are often associated with wet markets in Asia,³¹ although examples can be found across the world.³² Even in the United States, imports of wild animals are not screened for diseases, which raises concern about the legal animal trade.³³ Wet markets are typically outdoor markets where animals are often stacked on top of each other in cages and sold either alive or as fresh meat.³⁴ While these markets

²⁶ Malin Larm et al., *The role of wildlife tourism in conservation of endangered species: Implications of safari tourism for conservation of the Arctic fox in Sweden*, 23 HUM. DIMENSIONS WILDLIFE 257, 258 (Dec. 18, 2017), <https://doi.org/10.1080/10871209.2017.1414336> [hereinafter *Tourism in Sweden*].

²⁷ *Tourism in Sweden*, *supra* note 26.

²⁸ *Id.* at 267.

²⁹ Isabelle D. Wolf et al., *Nature Conservation and Nature-Based Tourism: A Paradox?*, 6 ENVIRONMENTS (Special Issue) 1, 3 (2019), <https://www.mdpi.com/2076-3298/6/9/104/htm>.

³⁰ David N. Cassuto & Stephen Wells, *Torturing fewer animals will mean burying fewer people*, HILL (July 22, 2020, 10:30 AM), <https://thehill.com/opinion/energy-environment/508462-torturing-fewer-animals-will-mean-burying-fewer-people>.

³¹ *Id.*

³² Matthew Scully, *China's Wet Markets, America's Factory Farming*, NAT'L REV. (Apr. 9, 2020, 10:20 AM), <https://www.nationalreview.com/2020/04/chinas-wet-markets-americas-factory-farming-both-violate-moral-common-sense/>.

³³ Jonathan Kolby, *To prevent the next pandemic, it's the legal wildlife trade we should worry about*, NAT'L GEOGRAPHIC (May 7, 2020), <https://www.nationalgeographic.com/animals/2020/05/to-prevent-next-pandemic-focus-on-legal-wildlife-trade/>.

³⁴ Patrick C.Y. Woo et al., *Infectious diseases emerging from Chinese wet-markets: zoonotic origins of severe respiratory viral infections*, 19 CURRENT OP. IN INFECTIOUS DISEASES 401, 403 (2006), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7141584/pdf/coidi-19-401.pdf>.

have provided many people in Asian countries with livable incomes, the animals, often endangered, pay the price while locked in small, unsanitary cages.³⁵ Lack of regulation and enforcement leads to these markets being flooded with endangered animals piled on top of each other.³⁶ When animals are close to other species in unsanitary conditions, diseases can jump from one animal to another and jump to humans, causing zoonotic diseases.³⁷ COVID-19, for example, may have been caused by a sick pangolin transmitting the disease to humans.³⁸ Further, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (“IPBES”) recently estimated that an additional “1.7 million currently undiscovered viruses are thought to exist in mammal and avian hosts.”³⁹ The IPBES also estimated that of those undiscovered viruses, “631,000–827,000 could have the ability to infect humans.”⁴⁰ Deforestation is another leading cause of increasing interactions between humans and wildlife, while also causing zoonotic diseases and habitat loss for plants and animals.⁴¹ The threat of zoonotic diseases can

³⁵ Woo et al., *supra* note 35.

³⁶ See Vanda Felbab-Brown, *Reopening the World: To prevent zoonotic pandemics, regulate wildlife trade and food production*, BROOKINGS (June 16, 2020), <https://www.brookings.edu/blog/order-from-chaos/2020/06/16/reopening-the-world-to-prevent-zoonotic-pandemics-regulate-wildlife-trade-and-food-production/>.

³⁷ Woo et al., *supra* note 34, at 403–04.

³⁸ Roberto Cazzolla Gatti, *The pangolin’s revenge: SARS-CoV-2 did not emerge from a lab but from wildlife exploitation*, 29 ECOLOGICAL PERSPECTIVES ON SCI. & SOC’Y. 79, 82 (2020).

³⁹ PETER DASZAK ET AL., IPBES WORKSHOP ON BIODIVERSITY AND PANDEMICS: WORKSHOP REPORT 2 (2020), https://ipbes.net/sites/default/files/2020-12/IPBES%20Workshop%20on%20Biodiversity%20and%20Pandemics%20Report_0.pdf.

⁴⁰ *Id.*

⁴¹ *Stopping Deforestation Can Prevent Pandemics*, SCI. AM. (June 1, 2020), <https://www.scientificamerican.com/article/stopping-deforestation-can-prevent-pandemics1/> (explaining how stopping deforestation will reduce exposure and spread of many diseases); Joanna M. Tucker Lima et al., *Does deforestation promote or inhibit malaria transmission in the Amazon? A systematic literature review and critical appraisal of current evidence*, 372 PHIL. TRANSACTIONS ROYAL SOC’Y LONDON B BIOLOGICAL SCI. 1, 2–3 (2017) (discussing the connection between deforestation in the Brazilian State of Acre and the increase in a risk of malaria); Amy Y. Vittor et al., *How deforestation helps deadly viruses jump from animals to humans*, CONVERSATION (June 25, 2020, 8:35 AM), <https://theconversation.com/how-deforestation-helps-deadly-viruses-jump-from-animals-to-humans-139645> (describing the negative impact of human encroachment, through deforestation, on natural habitats).

ultimately be limited by keeping animals sold for their parts in sanitary conditions and eliminating and decreasing deforestation.⁴²

Another reason for protecting wildlife is the constant threat of extinction for over exploited plants and animals.⁴³ Wildlife consumption is driven by the demand for animal byproducts, trophies, medicine, trinkets, wild meat, and wild pets.⁴⁴ Globally, the illicit wildlife trade is estimated to be valued between seven and twenty-three billion dollars and the fourth largest criminal market.⁴⁵ One of the most challenging issues presented by the illicit wildlife trade is that demand is constantly changing.⁴⁶ Although some animals have been trafficked for decades (i.e., elephants), other lesser-known animals have recently entered the illegal wildlife trade or have grown in popularity.⁴⁷ For example, the popularity of rhinoceros horns in Vietnam has grown, especially after 2008 when a Vietnamese politician claimed to be cured of cancer by ingesting a rhinoceros horn.⁴⁸ The politician's proclamation caused the death of nearly all of the Javan rhinoceroses (*Rhinoceros sondaicus*) remaining in Vietnam, which are now extinct.⁴⁹ Although rhinoceroses worldwide have encountered threats to their species, extensive efforts have been made

⁴² See U.N. Environment Programme, *Preventing the next pandemic: Zoonotic diseases and how to break the chain of transmission*, 33 (July 6, 2020) <https://www.unep.org/resources/report/preventing-future-zoonotic-disease-outbreaks-protecting-environment-animals-and>.

⁴³ UNEP-INTERPOL, *THE RISE OF ENVIRONMENTAL CRIME: A GROWING THREAT TO NATURAL RESOURCES, PEACE, DEVELOPMENT AND SECURITY* 4 (Christian Nellemann et al. eds., 2016).

⁴⁴ TEDx Talks, *Laws of the Wild: A Strategic Approach Against Wildlife Trafficking* | Onkuri Majumdar | TEDxLimassol, YOUTUBE (Jan. 5, 2016), <https://www.youtube.com/watch?v=Fah2gLQeztw>.

⁴⁵ See UNEP-INTERPOL, *supra* note 43, at 20–21 (detailing that drugs are estimated to be worth \$344 billion, human trafficking to be worth \$157.1 billion, counterfeit crimes to be worth \$288 billion, and small arms illegal trafficking to be worth \$1.5-3 billion).

⁴⁶ Simon Robertson, *Why law enforcement is essential to stopping illegal wildlife trade*, WORLD BANK BLOGS: VOICES (July 27, 2017), <https://blogs.worldbank.org/voices/why-law-enforcement-essential-stopping-illegal-wildlife-trade> (discussing the need for quick adaptation to changing conditions).

⁴⁷ See, e.g., Christy, *supra* note 16.

⁴⁸ Jonathan Watts, 'Cure for cancer' rumour killed off Vietnam's rhinos, GUARDIAN (Nov. 25, 2011, 7:54 AM), <https://www.theguardian.com/environment/2011/nov/25/cure-cancer-rhino-horn-vietnam>.

⁴⁹ Watts, *supra* note 48.

to protect them within the last fifty years, and many populations have seen improvements.⁵⁰ The Javan rhinoceroses' extinction exemplified that even a species that has made improvements in their worldwide populations can still become extinct within a couple of years if the market demand increases.⁵¹ Implementing strategies for reducing demand, increasing data, and strengthening enforcement can prevent native species like the Javan rhinoceros going extinct due to excessive poaching.

III. CITES

A. CITES Background

CITES is an international treaty administered by the United Nations Environment Programme ("UNEP") with 183 countries currently participating.⁵² CITES aims to prevent animal and plant species from becoming endangered or extinct due to international trade.⁵³ CITES was first signed in 1973 and discussed the endangerment of a few species with eighty participating countries.⁵⁴ Since 1973, CITES has compiled an index of both animals and plants in need of international attention to maintain their preservation.⁵⁵

CITES mandates that each country, referred to as a "Party," must implement a Management Authority to ensure CITES-listed species are traded legally⁵⁶ and a Scientific Authority to determine whether a particular animal or plant's trade could be detrimental to the wild species' overall health.⁵⁷ However, CITES does not mandate how individual Parties are to enforce

⁵⁰ See, e.g., Nathan Williams, *Black rhino population shows steady growth*, PHYS.ORG (Jan. 17, 2020), <https://phys.org/news/2020-01-black-rhino-population-steady-growth.html> (discussing the rebound in the rhinoceros populations after conservation efforts were made).

⁵¹ *Rhino*, WORLD WILDLIFE FUND, <https://www.worldwildlife.org/species/rhino> (last visited Sept. 18, 2021).

⁵² *List of Contracting Parties*, CITES, <https://cites.org/eng/disc/parties/chronolo.php> (last visited Sept. 18, 2021).

⁵³ Convention on International Trade in Endangered Species of Wild Fauna and Flora, art. II, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 [hereinafter CITES Convention].

⁵⁴ *What is CITES?*, CITES, <https://cites.org/eng/disc/what.php> (last visited Sept. 18, 2021).

⁵⁵ CITES Convention, *supra* note 53.

⁵⁶ *Id.* art. IX(1)(a).

⁵⁷ *Id.* art. IX(1)(b).

the rules to strive towards the convention's unified goals.⁵⁸ Although discretion allows countries with fewer resources to participate in CITES, some countries can be more effective than others.⁵⁹ For CITES to be victorious, there must be a unified approach to ending wildlife trafficking.

CITES has three Appendices of species categorized by their threat of extinction, and they are reviewed every two years.⁶⁰ Species can be added to the Appendices by a conference of the Parties, either at a regular meeting or through other measures.⁶¹ Appendix I includes species that are most threatened with extinction due to trade.⁶² These species are allowed in trade for non-commercial reasons or through the Management and Scientific Authorities granting an import and export permit.⁶³ Examples of species in Appendix I are species typically associated with having threats of extinction, for example, the Asian elephant (*Elephas maximus*), sea turtles (*Cheloniodea*), and lesser-known species such as Brazilian rosewood (*Dalbergia nigra*) and giant tropical pitcher plants (*Nepenthes attenboroughii*).⁶⁴

Appendix II includes animals and plants whose international trade requires monitoring to stimulate the countries' economies but are not considered threatened by trade due to legislative safeguards to protect overexploitation.⁶⁵ Examples of species in Appendix II include the American black bear (*Ursus americanus*) and green iguanas (*Iguana iguana*).⁶⁶ For Appen-

⁵⁸ See CITES Convention, *supra* note 53, art. VIII(1) (stating “[t]he Parties shall take appropriate measures to enforce the provisions of the present Convention and to prohibit trade in specimens in violation thereof.”).

⁵⁹ Leigh Henry, *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, WORLD WILDLIFE FUND, <https://www.worldwildlife.org/pages/cites> (last visited Sept. 19, 2021).

⁶⁰ CITES Convention, *supra* note 53, art. XI(2)–(3).

⁶¹ See *id.* art. XV(1), (2) (explaining the procedures used to add species to the Appendices).

⁶² *Id.* art. II(1).

⁶³ *Id.* art. III(5).

⁶⁴ *Convention on International Trade in Endangered Species (CITES)*, HUMANE SOC’Y INT’L (Mar. 3, 2009), https://www.hsi.org/news-media/cites_source_1/.

⁶⁵ CITES Convention, *supra* note 53, art. II(2).

⁶⁶ *Convention on International Trade in Endangered Species (CITES)*, *supra* note 64.

dix II listed species to be traded internationally, an export permit or re-export certificate must be granted.⁶⁷ The Scientific Authority determines if the trade would be detrimental to the species' survival and the Management Authority determines if the item in question had been legally acquired.⁶⁸ If both criteria have been met, then the item may be internationally traded.⁶⁹

Appendix III includes species that may not be approaching extinction but still require international efforts to control their trade.⁷⁰ Currently, there are 162 species listed in Appendix III, including the alligator snapping turtle (*Chelydridae*) and the barbary stag (*Cervus elaphus barbarous*).⁷¹ Any animals that are not listed in the Appendices have no CITES protection.⁷² Unlisted species do not necessarily have any international protection since individual countries can implement their own regulations, but many cater their wildlife laws to comply with CITES Appendices.⁷³ For example, the United States' Endangered Species Act typically aligns protected species with CITES listed species.⁷⁴

B. CITES Shortcomings

Although CITES has contributed to many species' maintained survival, it has numerous shortcomings, limiting the convention's ultimate goals.⁷⁵ CITES is a trade treaty, and therefore, has no enforcement measures.⁷⁶ Instead, CITES mandates

⁶⁷ See CITES Convention, *supra* note 53, art. IV.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.* art. II(3).

⁷¹ European Commission Press Release, Overview of CITES Appendix III listings (Nov. 2015).

⁷² Rachel Nuwer, *The vast majority of animals in the wildlife trade are not protected*, NAT'L GEOGRAPHIC, (Dec. 14, 2018), <https://www.nationalgeographic.com/animals/2018/12/animals-dying-without-protection/>.

⁷³ See, e.g., Hannah Dale, *ESA and CITES: Avenues for the Future of Species Conservation and Legislation*, ENV'T L. INST.: VIBRANT ENV'T (Oct. 24, 2018), <https://www.eli.org/vibrant-environment-blog/esa-and-cites-avenues-future-species-conservation-and-legislation>.

⁷⁴ *Id.*

⁷⁵ Daniel W.S. Challender et al., *Towards informed and multi-faceted wildlife trade interventions*, 3 GLOB. ECOLOGY CONSERVATION 129, 130 (2015).

⁷⁶ Frederic L. Kirgis, *Enforcing International Law*, 1 AM. SOC'Y INT'L L. (Jan. 22, 1996), <https://www.asil.org/insights/volume/1/issue/1/enforcing-international-law>; Paul Matthews, *Problems Related to the Convention on the International Trade in Endangered Species*, 45 INT'L COMPAR. L. Q. 421, 424 (2016).

participating Parties to have laws implemented to comply with the conference's goals but does not have penalties for lack of enforcement.⁷⁷ One of the most prominent issues with CITES is that although many countries are Parties, not all enforce the regulations to comply with CITES.⁷⁸ CITES also permits the trade of endangered animals through its exceptions.⁷⁹ These exceptions include hunting trophies,⁸⁰ specific uses like research,⁸¹ and if the trader can get an export permit and import permit.⁸² Permits are an exception because they stimulate economies (in the case of trophy hunting) and information (in the case of research) and allow some communities to benefit from animals that are local to their ecosystems.⁸³ Further, CITES only applies to international trade.⁸⁴ Domestic trade does not have to comply with CITES Appendices.⁸⁵ Additionally, CITES does not cite all species in the Appendices.⁸⁶ Recently, the International Union for Conservation of Nature ("IUCN") estimated that there are almost 17,000 animals currently facing extinction, and the current extinction rate is "between 1,000 and 10,000 times higher than the 'background' or expected natural extinction rate."⁸⁷

⁷⁷ *FAQs about CITES*, HUMANE SOC'Y INT'L (Aug. 29, 2002), https://www.hsi.org/news-media/faqs_about_cites/.

⁷⁸ See generally DLA PIPER, *EMPTY THREAT: DOES THE LAW COMBAT ILLEGAL WILDLIFE TRADE? AN ELEVEN-COUNTRY REVIEW OF LEGISLATIVE AND JUDICIAL APPROACHES* (2014), <https://www.dlapiper.com/en/canada/insights/publications/2014/05/illegal-wildlife-trade-report-2014/> [hereinafter *EMPTY THREAT*] (discussing the implementation of CITES legislation in eleven countries).

⁷⁹ CITES Convention, *supra* note 53, art. VI; *CITES & Elephants: What is the "global ban" on ivory trade?*, U.S. FISH & WILDLIFE SERV. 1 (Nov. 2013) <https://www.fws.gov/le/pdf/CITES-and-Elephant-Conservation.pdf> [hereinafter U.S. FISH & WILDLIFE SERV.].

⁸⁰ CITES Convention, *supra* note 53, art. VI; U.S. FISH & WILDLIFE SERV., *supra* note 79.

⁸¹ CITES Convention, *supra* note 53, art. VI; U.S. FISH & WILDLIFE SERV., *supra* note 79.

⁸² CITES Convention, *supra* note 53, art. III.

⁸³ See CITES, *CITES and Vicuñas – a conservation journey*, YOUTUBE (Mar. 11, 2013), <https://www.youtube.com/watch?v=ROnMnfBDUQ4> (telling the story of a town in Peru that benefits from the selling of wool from the endangered vicuña, but does so by ethically raising and shearing the animals).

⁸⁴ CITES Convention, *supra* note 53, art. XIV(1)(b).

⁸⁵ *Id.*

⁸⁶ Nuwer, *supra* note 72.

⁸⁷ INT'L UNION FOR CONSERVATION OF NATURE (IUCN), *SPECIES EXTINCTION – THE FACTS 1* (May 1, 2007) <https://www.iucn.org/content/species-extinction>.

Currently, there are only 35,000 species listed in the Appendices⁸⁸ out of the estimated 8.7 million species worldwide.⁸⁹

IV. OTHER REGULATORY AGENCIES

Additional international regulations have been implemented to bolster the CITES goals and enhance data about international wildlife crimes on a country-by-country basis.⁹⁰ The International Consortium on Combating Wildlife Crime ("ICCWC") aims to strengthen the international criminal justice system that utilizes national wildlife law enforcement agencies and the sub-regional and regional networks.⁹¹ The ICCWC uses five international organizations as partners (CITES, INTERPOL, the United Nations Office on Drugs and Crime ("UNODC"), the World Bank ("WBG"), and the World Customs Organization ("WCO")) to create a unified front to combat the illegal wildlife trade through criminal justice.⁹² Europol's Environmental Crime Network prosecutes environmental crime, including the "killing, destruction, possession or trade of protected wild animal or plant species."⁹³ The South Asia Wildlife Enforcement Network ("SAWEN") provides a platform for the eight participating countries to collaborate with each other to share information, strengthen the enforcement against wildlife crime, and harmonize laws with policies.⁹⁴ Similarly, the Association of Southeast Asian Nations ("ASEAN") wildlife network provides a platform for participating countries to collaborate on laws and

⁸⁸ *Understanding CITES: CITES Appendix II Supports Sustainable Use*, U.S. FISH & WILDLIFE SERV. 1 (2014) <https://www.fws.gov/international/pdf/factsheet-cites-appendix-ii-2014.pdf>.

⁸⁹ Richard Black, *Species count put at 8.7 million*, BBC (Aug. 23, 2011), <https://www.bbc.com/news/science-environment-14616161>.

⁹⁰ James B. Murphy, *Alternative Approaches to the CITES "Nondetriment" Finding for Appendix II Species*, 36 ENV'T L. 531, 533–35 (2006).

⁹¹ STRATEGIC PROGRAMME 2016-2020, INT'L CONSORTIUM ON COMBATING WILDLIFE CRIME 2 (July 2016) https://cites.org/sites/default/files/eng/prog/ic-cwc/ICCWC_Strategic_Programme_2016-2020_final.pdf.

⁹² *Id.* n.1.

⁹³ *Environmental Crime*, EUROPOL, <https://www.europol.europa.eu/crime-areas-and-trends/crime-areas/environmental-crime> (last visited Sept. 20, 2021).

⁹⁴ See *Establishment of SAWEN*, S. ASIA WILDLIFE ENFT NETWORK, <https://www.sawen.org/page/about-sawen> (last visited Sept. 20, 2021) (including member countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka).

enforcement practices in the hopes of proactively responding to the illegal wildlife trade.⁹⁵

The Wildlife Justice Commission (“WJC”) investigates the world of organized crime in the illegal wildlife trade⁹⁶ and operates differently than the aforementioned international organizations. The WJC conducts intelligence law enforcement and uses undercover agents to investigate sellers in the wildlife trade.⁹⁷ Once a controversy becomes evident within a particular country, the WJC works with the government's ambassadors and urges them to take action and enforce their nation's laws.⁹⁸ If the WJC finds that the country is unwilling to enforce its laws by investigating and prosecuting wildlife crimes, the WJC will hold a public hearing.⁹⁹ While the WJC rarely takes such an action, the public hearing serves as a last resort when other efforts have failed to serve justice as a way to urge the government to take action.¹⁰⁰ For example, on November 15, 2016, the WJC held the first-ever public hearing compelling Vietnam to take immediate action to address wildlife trafficking.¹⁰¹ At the hearing, the WJC Executive Director, Olivia Swaak-Goldman, stated that the hearing was not to shame the Vietnamese government but rather to demonstrate the severity of the illegal wildlife trade and

⁹⁵ See *ASEAN Wildlife Enforcement Network*, DEVEX, <https://www.devex.com/organizations/asean-wildlife-enforcement-network-49520> (last visited Sept. 20, 2021) (listing the participating countries of Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Vietnam, and Thailand).

⁹⁶ *Our Cause*, WILDLIFE JUST. COMM’N, <https://wildlifejustice.org/our-cause/> (last visited Sept. 13, 2021).

⁹⁷ *Our Work*, WILDLIFE JUST. COMM’N, <https://wildlifejustice.org/our-work/> (last visited Sept. 13, 2021).

⁹⁸ *Id.*

⁹⁹ See *First-ever WJC Public Hearing, Hanoi Conference Recommend Actions to Stop Wildlife Trafficking*, INT’L INST. FOR SUSTAINABLE DEV. (Nov. 22, 2016), <http://sdg.iisd.org/news/first-ever-wjc-public-hearing-hanoi-conference-recommend-actions-to-stop-wildlife-trafficking%E2%80%8B%E2%80%8B/> (discussing the first ever public hearing held by the WJC to investigate Vietnamese trafficking and processing of endangered wildlife parts and products).

¹⁰⁰ *Frequently Asked Questions*, WILDLIFE JUST. COMM’N, <https://wildlifejustice.org/faq/> (last visited Sept. 27, 2021).

¹⁰¹ *Independent panel confirms that immediate action by the Vietnamese government is required to shut down wildlife trafficking networks in Vietnam*, WILDLIFE JUST. COMM’N (Nov. 17, 2016), <https://wildlifejustice.org/independent-panel-confirms-immediate-action-vietnamese-government-required-shut-wildlife-trafficking-networks-viet-nam/> [hereinafter WILDLIFE JUST. COMM’N].

the need for swift action.¹⁰²

The Trade Records Analysis of Flora and Fauna in Commerce ("TRAFFIC") is a non-governmental organization that works globally to promote biodiversity conservation and sustainable development through fauna and flora trade.¹⁰³ TRAFFIC investigates wildlife crimes to compile reports used to motivate governments, businesses, and individuals to not contribute to the illegal wildlife trade, threats of extinction, and biodiversity losses.¹⁰⁴ Current projects include reducing trade threats to African wild species ("ReTTA"), tracking wildlife transportation, and the global shark and ray initiative.¹⁰⁵ TRAFFIC projects often involve collaboration with governmental organizations such as CITES and the U.S. Agency for International Development ("USAID").¹⁰⁶ Various publications released by TRAFFIC have included research into the illegal trade of marine turtles in Indonesia, Malaysia, and Vietnam,¹⁰⁷ Brazil's wildlife trafficking,¹⁰⁸ and corruption in the use of permits and allocation of access rights.¹⁰⁹ These publications compile information and

¹⁰² WILDLIFE JUST. COMM'N, *supra* note 101.

¹⁰³ *our mission*, TRAFFIC, <https://www.traffic.org/about-us/our-mission/> (last visited Sept. 27, 2021).

¹⁰⁴ *Id.*; see also *our conservation strategy*, TRAFFIC, <https://www.traffic.org/about-us/our-conservation-strategy/> (last visited Sept. 20, 2021) (explaining TRAFFIC's strategies to reduce unsustainable wildlife practices).

¹⁰⁵ *ReTTA: Reducing Trade Threats to Africa's wild species and ecosystems*, TRAFFIC, <https://www.traffic.org/what-we-do/projects-and-approaches/supporting-law-enforcement/retta/> (last visited Sept. 20, 2021) (explaining the threats to African wild species); *ROUTES Partnership*, TRAFFIC <https://www.traffic.org/what-we-do/projects-and-approaches/private-sector-guidance/routes/> (last visited Sept. 20, 2021) (discussing the need to reduce the use of legal transportation in trafficking); *Global Shark and Ray Initiative*, TRAFFIC <https://www.traffic.org/what-we-do/projects-and-approaches/promoting-sustainable-trade/global-shark-ray-initiative/> (last visited Sept. 20, 2021) (emphasizing the need to improve the conservation status of sharks and rays).

¹⁰⁶ *projects and approaches*, TRAFFIC, <https://www.traffic.org/what-we-do/projects-and-approaches/> (last visited Sept. 20, 2021).

¹⁰⁷ *E.g.*, Lalita Gomez & Kanitha Krishnasamy, *A Rapid Assessment on the Trade in Marine Turtles in Indonesia, Malaysia and Viet Nam*, TRAFFIC (Nov. 2019), <https://www.traffic.org/site/assets/files/12524/se-asia-marine-turtle-trade.pdf>.

¹⁰⁸ *E.g.*, Sandra Charity & Juliana Machado Ferreira, *Wildlife Trafficking in Brazil*, TRAFFIC (July 2020), https://www.traffic.org/site/assets/files/13031/brazil_wildlife_trafficking_assessment.pdf [hereinafter *Wildlife Trafficking in Brazil*].

¹⁰⁹ *E.g.*, Willow Outhwaite, *Accessing, harvesting and trading in wildlife: Corruption in the use of permits and allocation of access rights*, TRAFFIC (Oct.

recommendations that can be implemented to alleviate some of the problems discussed.¹¹⁰ TRAFFIC has also called upon governments, such as the Vietnamese government, for increased action concerning illegal wildlife crime.¹¹¹ Further, some publications published by TRAFFIC have led to discussions at CITES conferences. For example, one publication, *Taming the Tiger Trade*,¹¹² led to a discussion at the fourteenth conference of Parties about the use of commercial tiger trading.¹¹³ This publication led to CITES calling upon countries with commercial tiger farms to restrict the captive population only to conserve wild tigers.¹¹⁴

V. RECOMMENDATIONS

A. Cutting Demand

While there is still a demand for illegally trafficked wildlife, the market will continue to exploit plants and animals in danger of extinction. WildAid is a non-profit organization that utilizes ambassadors, often famous figures, to raise awareness about the illegal wildlife trade.¹¹⁵ WildAid recognized celebrities' power in educating the public about the dangers of buying and consuming plant and animal products from the illegal wildlife trade.¹¹⁶ For

2020), <https://www.traffic.org/site/assets/files/13282/topic-brief-accessing-harvesting-and-trading-in-wildlife-corruption-in-the-use-of-permits-and-allocation-of-access-rights.pdf>.

¹¹⁰ See, e.g., *Wildlife Trafficking in Brazil*, *supra* note 109, at 93–99 (explaining findings and recommendations for Brazil to combat their illegal wildlife trafficking).

¹¹¹ *Viet Nam under scrutiny after a remarkable sequence of ivory seizures*, TRAFFIC (Nov. 11, 2016), <https://www.traffic.org/news/viet-nam-under-scrutiny-after-remarkable-sequence-of-ivory-seizures/>.

¹¹² See, e.g., Kristin Nowell & Xu Ling, *Taming the Tiger Trade*, TRAFFIC (Mar. 2007), <https://www.traffic.org/publications/reports/taming-the-tiger-trade-chinas-markets-for-wild-and-captive-tiger-products-since-the-1993-domestic-trade-ban/> [hereinafter *Taming the Tiger Trade*] (explaining the possible relationship between captive tigers and the illegal tiger trade).

¹¹³ CITES Dec. 14.69 & 17.102 (2019); see also Rachael Bale, *The World Is Finally Getting Serious About Tiger Farms*, NAT'L GEOGRAPHIC (Sept. 29, 2016), <https://www.nationalgeographic.com/news/2016/09/wildlife-watch-tiger-farms-cites-protections/> (explaining the continued discussions at the seventeenth conference of parties).

¹¹⁴ CITES Dec. 14.69 & 17.102, *supra* note 113.

¹¹⁵ *About*, WILDAID (last visited Sept. 29, 2021), <https://wildaid.org/about/>.

¹¹⁶ *WildAid: 'When the buying stops, the killing can too.'* TIMEOUT (Apr. 1, 2020), <http://timeoutbeijing.com/m/timeOutArticleDetail.html?id=6208>.

example, in China many thought that elephants were not harmed in obtaining ivory.¹¹⁷ After a sample group was informed of the realities of elephant poaching through WildAid's public service announcements, 90% said they would never repurchase ivory.¹¹⁸ After issuing more public service announcements, Wildaid found that there had been a 44.8% increase in knowledge that elephants were illegally poached for their tusks and a 51.5% increase in the belief that elephant poaching is a problem.¹¹⁹ Determining the market for illegally trafficked wildlife can tailor a response that can cut down that demand through education and social deterrence.¹²⁰ WildAid's efforts show that a lack of knowledge about the illegal wildlife trade contributes to the continued consumption of illegally obtained plant and animal products.¹²¹ There should be more public service announcements about the realities of the illegal wildlife trade. Because of their viewership, public service announcements are likely the most effective means to cause a decrease in demand for illegally obtained wildlife products.¹²²

Another example of successful public service announcements reducing wildlife demand includes the work of Chinese basketball star Yao Ming.¹²³ Ming starred in an advertisement detailing the process of capturing and killing various types of sharks (*Selachimorpha*) for their fins to make shark fin soup.¹²⁴ Chinese consumption of shark fin soup subsequently dropped by 80%.¹²⁵ The thirty-one-second advertisement ends with Ming

¹¹⁷ See WILDAID, *IVORY DEMAND IN CHINA* 8 (2014) [hereinafter *IVORY DEMAND IN CHINA*] (depicting that as of 2014, less than 50% of survey respondents were aware that elephants were poached for their tusks).

¹¹⁸ *Id.* at 10.

¹¹⁹ *Id.* at 7–8.

¹²⁰ *Id.* at *About Wildaid*, 6.

¹²¹ See, e.g., *Consumer Awareness of Ivory and Rhino Horn Trade's Impact Grows Rapidly in China*, WILDAID (Mar. 3, 2015), <https://wildaid.org/consumer-awareness-of-ivory-and-rhino-horn-trades-impact-grows-rapidly-in-china/> [hereinafter *Consumer Awareness of Ivory and Rhino Horn*] (explaining that a lack of understanding leads consumers to buy illegally traded animal products).

¹²² *Id.*

¹²³ *Yao Ming*, WILDAID, <https://wildaid.org/ambassadors/yao-ming/> (last visited Sept. 29, 2021) [hereinafter *Yao Ming*].

¹²⁴ *Id.*

¹²⁵ *Sharks*, WILDAID, <https://wildaid.org/programs/sharks/> (last visited Sept. 29, 2021).

looking at the camera and stating, "[r]emember, when the buying stops, the killing can too."¹²⁶ While sharks are not commonly associated with being endangered, ten shark species are listed in CITES Appendix II.¹²⁷ The IUCN has hundreds of shark species listed on their "Red List,"¹²⁸ many of which are listed as "data deficient."¹²⁹ Sharks have low reproduction rates and long life cycles, which worsens the threat of extinction.¹³⁰ Sharks are apex predators at the top of the food chain, and their declining populations have a profound effect on marine ecosystems.¹³¹ Before the WildAid advertisement came out, an estimated 75% of Chinese citizens were unaware that shark fin soup contained sharks because the Mandarin translation is "fish wing soup," and 19% believed that fins grew back on sharks.¹³² In reality, after sharks are caught, and their fins are cut off, they are thrown back into the ocean, sink to the bottom, and remain there until they die.¹³³ In 2013, six years after the advertisement came out, an independent iResearch survey found that over 80% of respondents stopped consuming shark fin soup because of Ming's campaign, and 91% supported a nationwide ban of the former delicacy.¹³⁴ As WildAid's Executive Director, Peter Knight, stated, "[i]t is a myth that people in Asia don't care about wildlife

¹²⁶ Yao Ming, *supra* note 123, at 00:25.

¹²⁷ *History of CITES listing of sharks (Elasmobranchii)*, CITES, <https://cites.org/eng/prog/shark/history.php> (last visited Sept. 29, 2021).

¹²⁸ *IUCN Red List update highlights perilous state of world shark populations*, TRAFFIC (Dec. 11, 2020), <https://www.traffic.org/news/iucn-red-list-update-highlights-perilous-state-of-world-shark-populations/>.

¹²⁹ *The IUCN Red List of Threatened Species and Sharks*, IUCN SHARK SPECIALIST GROUP <https://www.iucnssg.org/red-list-sharks.html> (last visited Sept. 29, 2021).

¹³⁰ DIRECTORATE-GEN. FOR INT'L P'SHIP (EUR. COMM'N), *LARGER THAN TIGERS: INPUTS FOR A STRATEGIC APPROACH TO BIODIVERSITY CONSERVATION IN ASIA - SYNTHESIS REPORT 44* (2018); Caty Fairclough, *Shark Finning: Sharks Turned Prey*, SMITHSONIAN OCEAN (Aug. 2013), <https://ocean.si.edu/ocean-life/sharks-rays/shark-finching-sharks-turned-prey>.

¹³¹ Francesco Ferretti et al., *Patterns and ecosystem consequences of shark declines in the ocean*, 13 *ECOLOGY LETTERS* 1055, 1060–62 (July 14, 2010).

¹³² Story Hinckley, *How Yao Ming appeased the Chinese appetite for shark fin soup*, CHRISTIAN SCI. MONITOR (June 2, 2016), <https://www.csmonitor.com/World/Global-News/2016/0602/How-Yao-Ming-appeased-the-Chinese-appetite-for-shark-fin-soup>.

¹³³ Fairclough, *supra* note 130.

¹³⁴ WILDAID, *EVIDENCE OF DECLINES IN SHARK FIN DEMAND CHINA* 27 (2014); Orion McCarthy, *For Yao Ming, Saving Sharks is a Slam Dunk*, CONSERVE (Sept. 11, 2015), <https://howtoconserve.org/2015/09/11/yao-ming-saving-sharks/>.

... [c]onsumption is based on ignorance rather than malice.”¹³⁵ This is an example of a successful public educational effort made to cut the demand for a species going extinct due to overexploitation. This approach should be used for other species exploited on an international scale and facing extinction.

According to the World Bank, since 2010, over \$1.3 billion has been donated towards combating the illegal wildlife trade, but only six percent of that money was used to support communication and awareness-raising.¹³⁶ As seen with sharks, ivory, and rhinoceros horns, targeted educational efforts are extremely effective in curtailing demand.¹³⁷ Although these efforts may initially only be successful in certain areas or demographics (for example, shark fin soup has grown in popularity in other Asian countries in the past few years),¹³⁸ it is an approach that can be used in tandem with other efforts to stop the overexploitation of species in danger of extinction.

B. Community-based Natural Resource Management Approach

Community-based natural resource management ("CBNRM") is another method used to preserve endangered species and natural habitats.¹³⁹ CBNRM is an approach where governments grant small communities the ability to use and manage public land.¹⁴⁰ The programs begin with a central

¹³⁵ Simon Denyer, *In China, victory for wildlife conservation as citizens persuaded to give up shark fin soup*, WASH. POST (Oct. 19, 2013), https://www.washingtonpost.com/world/in-china-victory-for-wildlife-conservation-as-citizens-persuaded-to-give-up-shark-fin-soup/2013/10/19/e8181326-3646-11e3-89db-8002ba99b894_story.html.

¹³⁶ Elisson M. Wright et al., *Analysis of International Funding to Tackle Illegal Wildlife Trade* 9 (World Bank Group., Working Paper No. 110267, 2016), <https://documents1.worldbank.org/curated/en/695451479221164739/pdf/110267-WP-Illegal-Wildlife-Trade-OUO-9.pdf>.

¹³⁷ See, e.g., *Sharks*, *supra* note 125 (explaining the effectiveness of existing educational efforts).

¹³⁸ Simon Denyer, *Even as China turns away from shark fin soup, the prestige dish is gaining popularity elsewhere in Asia*, WASH. POST (Feb. 15, 2018), <https://www.washingtonpost.com/news/worldviews/wp/2018/02/14/even-as-china-turns-away-from-shark-fin-soup-the-prestige-dish-is-gaining-popularity-elsewhere-in-asia/>.

¹³⁹ C. Fabricius & S. Collins, *Community-based natural resource management: governing the commons*, 9 WATER POL'Y 83, 84 (2007).

¹⁴⁰ *Id.*

government allocating property to communities to utilize natural resources, including water, forests, rangeland, and wildlife.¹⁴¹ CBNRM programs have proven to be most effective when designed to include: “(1) a well-delineated community; (2) clearly defined property interests and tenure; (3) the ability for the community to see and retain benefits from conservation; and (4) sufficient external support.”¹⁴² CBNRM can empower communities to protect endangered wildlife and protect species that may be in danger if over-exploited.¹⁴³ CBNRM has proven particularly useful in areas where infertile soil and erratic rainfall limit agricultural endeavors.¹⁴⁴ CBNRM generates funds from eco-tourism, as it can stimulate empathy from visitors regarding wildlife.¹⁴⁵

For example, Namibia has had a successful CBNRM approach.¹⁴⁶ In 1996, Namibia granted local communities the right to manage wildlife and benefit from tourism associated with wildlife.¹⁴⁷ Since then, rural communities in Namibia have employed CBNRM and shown increased employment opportunities and social capital.¹⁴⁸ CBNRM alone has created 6,472 jobs in Namibia between 1991 and 2013.¹⁴⁹ Another impact of CBNRM is the attitude change towards wildlife previously perceived as a

¹⁴¹ *What is Community-Based Natural Resource Management (CBNRM)?*, USAID 1, 1 https://pdf.usaid.gov/pdf_docs/pa00jrv1.pdf (last visited Sept. 29, 2021) [hereinafter USAID, CBNRM]; see also James C. Murombedzi, *The Evolving Context of Community-Based Natural Resource Management in Sub-Saharan Africa in Historical Perspective*, Presentation at the International Workshop on CBNRM (May 1998), in CBNRM NET (discussing the use of CBNRM in Africa).

¹⁴² Stefan Carpenter, *The Devolution of Conservation: Why CITES Must Embrace Community-Based Resource Management*, 2 ARIZ. J. ENV'T L. & POL'Y 1, 18 (2011).

¹⁴³ USAID, CBNRM, *supra* note 141, at 2.

¹⁴⁴ Brianne Riehl et al., *Effects of Community-Based Natural Resource Management on Household Welfare in Namibia*, PUB. LIBRARY OF SCI. ONE 1, 3-4 (2015) [hereinafter Riehl, *Effects of CBNRM on Household Welfare*].

¹⁴⁵ Tourism in Sweden, *supra* note 26, at 258–59.

¹⁴⁶ Karol Boudreaux, *A New Call of the Wild: Community-Based Natural Resource Management in Namibia*, 20 GEO. INT'L ENV'T L. REV. 297, 309–21 (2008) (discussing the benefits Namibia has seen using CBNRM).

¹⁴⁷ National Conservation Ordinance 4 of 1975 (Namib.); Nature Conservation Amendment Act, 1996 (Act No. 5/1996) (Namib.); Brian T.B. Jones, *Rights, Revenue and Resources: The problems and potential of conservancies as community wildlife management institutions in Namibia* 9 (Int'l Inst. Env't & Dev., Working Paper, Discussion Paper No. 2, 1999).

¹⁴⁸ Boudreaux, *supra* note 146, at 313, 316.

¹⁴⁹ Riehl, *Effects of CBNRM on Household Welfare*, *supra* note 144, at 4.

detriment.¹⁵⁰ Wildlife is increasingly seen as an asset for capital and regarded with pride by conservation members.¹⁵¹ Since the implementation of CBNRM, there has been a significant increase in Namibia's elephant populations, which many scholars attribute to both the CBNRM and Namibian legislation protecting the species.¹⁵²

A species that has done exceptionally well due to the CBNRM approach is the African lion (*Panthera leo*).¹⁵³ The African lion is currently in CITES Appendix II¹⁵⁴ and defined as vulnerable by the IUCN.¹⁵⁵ Populations have dramatically increased in numbers and range due to CBNRM.¹⁵⁶ Unfortunately, in general, the African lion population continues to decline due to habitat loss, prey depletion, killing to protect humans or livestock, poorly regulated trophy hunting, and the demand for traditional Asian and African medicines.¹⁵⁷ Despite an average decline, four southern African countries, including Namibia, have had increases in their African lion numbers and many believe that it is these intensely managed areas that maintain these populations.¹⁵⁸ These protected areas have proven to be effective in protecting lions and their prey.¹⁵⁹ Other countries should mimic this approach, especially for endangered animals that face similar declines in their populations due to habitat loss or prey depletion like the African lion.

Countries should look at others' successes that have imple-

¹⁵⁰ Riehl, *Effects of CBNRM on Household Welfare*, *supra* note 144, at 5.

¹⁵¹ *Id.*

¹⁵² Michael Schnegg & Richard Kiaka, *Subsidized elephants: Community-based resource governance and environmental (in)justice in Namibia*, 93 GEOFORUM 105, 109 (2018).

¹⁵³ Riehl, *Effects of CBNRM on Household Welfare*, *supra* note 144, at 4–5.

¹⁵⁴ Press Release, CITES & CMS, Saving lions: Africa agrees on ways forward (Jan. 12, 2021).

¹⁵⁵ H. Bauer et al., *Lion*, IUCN RED LIST (June 20, 2014), <https://www.iucnredlist.org/species/15951/115130419>.

¹⁵⁶ Riehl, *Effects of CBNRM on Household Welfare*, *supra* note 144, at 4–5.

¹⁵⁷ Hans Bauer et al., *Lion (Panthera leo) populations are declining rapidly across Africa, except in intensively managed areas*, 112 PNAS 14894, 14894 (2015).

¹⁵⁸ Bauer et al., *supra* note 157.

¹⁵⁹ P.A. Lindsey et al., *The performance of African protected areas for lions and their prey*, 209 BIOLOGICAL CONSERVATION 137, 143 (2017).

mented CBNRM and utilize those in places with similar circumstances. Communities should benefit from their natural wildlife because it stimulates economic growth and an appreciation for the wildlife.¹⁶⁰ Although CBNRM does require money and governmental intervention to facilitate,¹⁶¹ the benefits can include empowering communities with a lack of resources for agriculture and maintaining ecosystems with endangered species.¹⁶² Specifically, animals that are facing extinction due to habitat loss can have their environments protected via CBNRM.¹⁶³ CBNRM is also a method for economies to expand without creating further habitat loss that would threaten wildlife.¹⁶⁴ The CBNRM can be essential for countries with limited resources, and although it can come at the cost of animal exploitation, it is far better to have controlled exploitation of endangered species than uncontrolled poaching and illegal trade.

C. Increased Data Shared and Collected

1. Disclosure of Data to CITES

One of the most considerable barriers CITES faces is a lack of data shared worldwide concerning illegal wildlife trade.¹⁶⁵ CITES requires each Party to disclose data on their illegal wildlife trade detected within their country through Annual Illegal Trade Reports (“AITRs”).¹⁶⁶ However, many countries do not

¹⁶⁰ Riehl, *Effects of CBNRM on Household Welfare*, *supra* note 144, at 4.

¹⁶¹ Carpenter, *supra* note 142, at 23.

¹⁶² See, e.g., Lindsey et al., *supra* note 159, at 147.

¹⁶³ Bauer et al., *supra* note 157.

¹⁶⁴ See Kathleen Fitzgerald, *The Silent Killer of Africa's Wildlife*, AFR. WILDLIFE FOUND., <https://www.awf.org/blog/silent-killer-africas-wildlife> (last visited Sept. 21, 2021) (explaining Africa's economic growth and the need for government regulation to prevent habitat loss).

¹⁶⁵ Annecoos Wiersema, *Uncertainty, Precaution, and Adaptive Management in Wildlife Trade*, 36 MICH. J. INT'L L. 375, 378–81 (2015) [hereinafter Wiersema]; Kate J. Brandis et al., *Novel detection of provenance in the illegal wildlife trade using elemental data*, SCI. REPORTS 1, 2 (2018), <https://www.nature.com/articles/s41598-018-33786-0>.

¹⁶⁶ See *Annual Illegal trade report*, CITES, https://cites.org/eng/resources/reports/Annual_Illegal_trade_report (last visited Sept. 30, 2021).

submit their AITRs.¹⁶⁷ Between 2017 and June 2020, only seventy-eight countries submitted AITRs at least once.¹⁶⁸ The lack of data on organized criminal groups, prices, modus operandi, and criminal justice responses both severely hinders the understanding of the illicit wildlife market and harms the responses' effectiveness on an international and individual country level.¹⁶⁹ Without this data, it is difficult to know which species are trafficked and where they are coming from.¹⁷⁰ Further, even the AITRs do not report gender-related matters; very little is known about women and men's specific roles in wildlife crime.¹⁷¹ This information could be used to create initiatives to prevent susceptible groups of people from joining the illegal wildlife trade.¹⁷² This type of information is also essential in detecting criminal organizations.¹⁷³ For example, some organized crime groups have begun to use captive populations to meet demand.¹⁷⁴ In countries with little or no remaining wild tiger populations and large captive tiger populations, the detection of illegal tiger products strongly suggests the illegal trade involves these tiger farming facilities.¹⁷⁵ This type of information would be very useful in cultivating a unified approach to the illegal wildlife trade, and without enforcement to obtain this data, CITES may never cultivate enough data to do so.

2. Lack of Data on Particular Species

In addition to little data on the illicit wildlife trade as a

¹⁶⁷ U.N. OFF. ON DRUGS AND CRIME, WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES, at 24, U.N. Sales No. E.20.XI.8 (2020) [hereinafter WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES].

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.* at 25–26.

¹⁷¹ *Id.* at 24.

¹⁷² See, e.g., Dominique Prinsloo et al., *Trading Years for Wildlife: An Investigation into Wildlife Crime From the Perspectives of Offenders in Namibia*, TRAFFIC 48 (Jan. 21, 2021) [hereinafter *Years for Wildlife*], <https://www.traffic.org/publications/reports/trading-years-for-wildlife-interviews-with-offenders-convicted-of-wildlife-crimes-in-namibia/>.

¹⁷³ WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES, *supra* note 167, at 27.

¹⁷⁴ *Id.* at 13–14.

¹⁷⁵ *Id.* at 13.

whole, there is also little data on many illegally traded species.¹⁷⁶ Some species have less data because they have not historically been trafficked or endangered due to human intervention.¹⁷⁷ For example, elephant populations have been studied throughout the 20th century, whereas pangolin (*Pholidota*) populations have only started being extensively researched within the last twenty years.¹⁷⁸ Due to the lack of data on pangolin populations, it is difficult to know how close to extinction they are, how much their populations have been harmed, and the extent to which they comprise the illegal wildlife trade.¹⁷⁹ Further, some animals have been historically under-researched, such as polar bears (*Ursus maritimus*).¹⁸⁰ Since polar bear research did not start until the 1960s, there is very little data about polar bear populations, which questions the reliability of the current belief that the polar bear populations have bounced back in recent decades.¹⁸¹ Increased data can aid in a tailored response to these illegally trafficked animals and raise awareness about the seriousness of extinction threats some species face.

3. Look-alike Species

There is also less data on ‘look-alike species’ within the illegal wildlife trade.¹⁸² Look-alike species are plants or animals that can substitute for more desired illegally traded species.¹⁸³ Examples include leopard, jaguar, and lion bones as substitutes for the tiger bone,¹⁸⁴ or helmeted hornbill ivory as a replacement

¹⁷⁶ WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES, *supra* note 167, 24.

¹⁷⁷ *Id.* at 27; Holly Doremus, *Adaptive Management as an Information Problem*, 89 N.C. L. REV. 1455, 1469–71 (2011).

¹⁷⁸ *Pangolins*, NAT’L GEOGRAPHIC, <https://www.nationalgeographic.com/animals/mammals/group/pangolins/> (last visited Sept. 30, 2021).

¹⁷⁹ Li Yang et al., *Historical data for conservation: reconstructing range changes of Chinese pangolin (Manis pentadactyla) in eastern China (1970–2016)*, 285 PROC. ROYAL SOC’Y B 1, 8 (2018).

¹⁸⁰ Wiersema, *supra* note 165, at 383.

¹⁸¹ *Id.*

¹⁸² Sara Alfino & David L. Roberts, *Estimating identification uncertainties in CITES ‘look-alike’ species*, 18 GLOB. ECOLOGY & CONSERVATION 1, 1–2 (Apr. 2019) [hereinafter *Estimating identification uncertainties in CITES ‘look-alike’ species*].

¹⁸³ *Id.* at 2.

¹⁸⁴ WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES, *supra* note 167, at 79, 81–82.

for elephant ivory.¹⁸⁵ These species may not even be listed in one of the CITES Appendices, and therefore, go unregulated in international trade.¹⁸⁶ CITES does list some species that are used as look-alike species.¹⁸⁷ However, CITES only lists these species if they are so similar to the Appendix-protected species that law enforcement would not be able to tell the difference.¹⁸⁸ For example, the entire family of the plant orchids is listed in CITES Appendix II even though many orchids are not internationally traded.¹⁸⁹ Due to the similarities of all orchids, especially when not in bloom, the vast majority of orchids are listed in CITES Appendix II.¹⁹⁰ Due to the lack of comprehensive data in the illegal wildlife trade, more species may be used as look-alike species that are not listed in any CITES Appendices.¹⁹¹ More research and data on look-alike species can prevent more species from becoming extinct or being threatened with extinction. Additional data can also help CITES list look-alike animals so they can be protected on an international scale, similar to the protections afforded to all orchids.

4. Useful Applications of Data

In 2018, TRAFFIC, coupled with USAID, collected data on ivory, rhinoceros horn, and pangolin scale consumers in Vietnam to learn more about the market to later educate consumers about the repercussions of purchasing these products.¹⁹² Through data

¹⁸⁵ Daniel J. Ingram, *Spectacular helmeted hornbill could be wiped out by Chinese demand for 'avian ivory'*, CONVERSATION (Nov. 16, 2015, 5:47 AM), <https://theconversation.com/spectacular-helmeted-hornbill-could-be-wiped-out-by-chinese-demand-for-avian-ivory-50349>.

¹⁸⁶ Wiersema, *supra* note 165, at 395.

¹⁸⁷ CITES Convention, *supra* note 53, art. II(2); *Estimating identification uncertainties in CITES 'look-alike' species*, *supra* note 182, at 2.

¹⁸⁸ *Estimating identification uncertainties in CITES 'look-alike' species*, *supra* note 182, at 2; see CITES Res. Conf. 9.24 (Rev. CoP17), annex 2(b) (2016) (examining criteria for the inclusion of species in Appendix II in accordance with Article II, paragraph 2 (a), of the Convention).

¹⁸⁹ *Estimating identification uncertainties in CITES 'look-alike' species*, *supra* note 182, at 2; Amy Hinsley et al., *A review of the trade in orchids and its implications for conservation*, 186 BOTANICAL J. LINNEAN SOC. 435, 442 (Dec. 13, 2017).

¹⁹⁰ Hinsley et al., *supra* note 189, at 440.

¹⁹¹ *Estimating identification uncertainties in CITES 'look-alike' species*, *supra* note 182, at 2.

¹⁹² Minh D. T. Nguyen et al., *From Tusk to Trinket: Persistent illegal ivory*

collection, researchers found that the rhinoceros horn was often given to help treat such things as hangovers, male sexual health, and even cancer and was seen as a symbol of wealth.¹⁹³ Therefore, in 2020, with the combined efforts of USAID's Wildlife Asia Project, TRAFFIC launched a public service announcement, named the Chi Initiative (meaning inner strength in Vietnamese), in hopes to curtail the demand for rhinoceros horn.¹⁹⁴ This video utilized information from the report that appealed to the viewer's pathos and reminded them that strength comes from within and not from status symbols like a rhinoceros horn.¹⁹⁵ Although it is too early to tell if the advertisements will be effective, it is imperative to note when data is collected about consumers; tailored educational efforts are made to appeal to the significant demographics that consume the product.

TRAFFIC conducted a study in 2008 concerning the economic and social facets of illegal wildlife trade in Laos, Cambodia, Indonesia, and Vietnam.¹⁹⁶ The study noted that it was believed to be the first effort to do so and that lack of information severely hinders the effort to maintain ecosystems.¹⁹⁷ TRAFFIC also conducted a study released in January 2021 that included interviewing people convicted of illegal wildlife crimes in Namibia.¹⁹⁸ The report found that 100% were men, most only had a primary school education, irregular sources of income, and were all considered "low-level" actors within the illegal wildlife trade.¹⁹⁹ The study continued to state that this information

markets in Viet Nam, TRAFFIC vii, 38 (2018), <https://www.traffic.org/site/assets/files/11494/traps-tusk-to-trinket.pdf>.

¹⁹³ USAID, Presentation of Research Study on Consumer Demand for Elephant, Pangolin, Rhino and Tiger Parts and Products in China (June 12, 2018), https://rmportal.net/library/content/research-study-consumer-demand-elephant-pangolin-rhino-tiger-parts-products-china-english?set_language=pt-br.

¹⁹⁴ *TRAFFIC and USAID launch video PSA against rhino horn consumption in Viet Nam*, TRAFFIC (Aug. 31, 2020), <https://www.traffic.org/news/traffic-and-usaid-launch-video-psa-against-rhino-horn-consumption-in-viet-nam/> [hereinafter *TRAFFIC and USAID launch video*].

¹⁹⁵ *Id.*

¹⁹⁶ *What's Driving the Wildlife Trade?*, TRAFFIC ix (2008), <https://www.traffic.org/publications/reports/whats-driving-the-wildlife-trade/>.

¹⁹⁷ *Id.* at x.

¹⁹⁸ *Years for Wildlife*, *supra* note 172, at 12, 46.

¹⁹⁹ *Id.* at 46; *see also* ANNE PETERS, ANIMALS IN INTERNATIONAL LAW 547–48 (Brill ed., 2021) (estimating that nearly 80% of poachers in Tanzania cited shortage of food and/or income as main motive for poaching and 96% stated they would give it up if alternative livelihoods were available).

could develop prevention strategies for society members who may be tempted to engage in international wildlife crimes.²⁰⁰ More money should be allocated to this research to develop strategies to cut demand and understand those involved with illegal wildlife crime. Countries should be incentivized to release data on the illegal wildlife trade trends within their borders to bolster information about criminal groups and the species that are being traded. The more information made available to law enforcement, the more effective their approach can be in curtailing the illegal wildlife trade. Increasing data on endangered species, look-alike species, and individual countries' data can strengthen the fight against the illegal wildlife trade. This information can be used to understand the illegal wildlife trade more accurately and most likely manifest the gravity of how critically endangered many species are. This data can also encourage countries that historically have not enforced their wildlife laws to be pushed to begin.

D. Lack of Enforcement

Lack of enforcement is a worldwide concern for the illegal wildlife trade.²⁰¹ There are many reasons for this lack of enforcement including limited law enforcement resources, corruption, wildlife crimes not taken seriously, and a lack of data on the problem's extent.²⁰² These reasons combine to create a reduction of the deterrent effect on criminals.²⁰³ Further, these reasons for lack of enforcement compound on each other.²⁰⁴ For example, understaffed and underpaid law enforcement are more likely to be subject to corruption, and an absence of data on the extent of the wildlife crimes makes it more likely the crimes will not be taken seriously.²⁰⁵ Additionally, the penalties for violating wildlife crimes in many countries are regulatory or technical offenses and have little social deterrence.²⁰⁶ For these reasons, criminal groups tend to utilize the illegal wildlife trade to fund criminal

²⁰⁰ *Years for Wildlife*, *supra* note 172, at 46.

²⁰¹ *EMPTY THREAT*, *supra* note 78, at 189.

²⁰² Melanie Wells-Smith, *Wildlife Crime: The Problems of Enforcement*, EUR. J. ON CRIM. POL'Y RSCH. 125, 134 (2011).

²⁰³ *Id.*

²⁰⁴ *Id.*

²⁰⁵ *Id.* at 125.

²⁰⁶ *Id.* at 138.

enterprises.²⁰⁷

For example, a study conducted in Myanmar found the widespread sale of bear products of the Asiatic black bear (*Ursus thibetanus*) and the sun bear (*Helarctos malayaus*) both of which are listed in CITES Appendix I.²⁰⁸ Both bear species are defined as protected species under Myanmar law, with the Asiatic bear and the sun bear carrying prison sentences of three and seven years, respectively.²⁰⁹ The study found that bear parts were being sold mainly in plain sight at wildlife markets.²¹⁰ Many markets were located near Myanmar's borders with China and Thailand, suggesting that the bear parts were then leaving the country, thus entering the international market.²¹¹ The study concluded that "[t]he fact that all bear parts observed during this survey were openly displayed, and the frankness of the dealers, suggests a serious lack of enforcement effort."²¹² This is only one example of a suspected lack of enforcement for wildlife crime.²¹³ According to the Environmental Agency Institute, Vietnam did not seize a single illegally imported rhinoceros horn or prosecute any traders from 2008 to 2013.²¹⁴ During this time, Vietnam was recognized as "a country of primary concern" for illegal ivory sales.²¹⁵ TRAFFIC indicated in a report that political leaders were directly involved with the trade of rhinoceros horn.²¹⁶

²⁰⁷ Hannah McNeish, *\$213bn Illegal Wildlife and Charcoal Trade 'Funding Global Terrorist Groups'*, OUR WORLD (June 27, 2014), <https://our-world.unu.edu/en/213bn-illegal-wildlife-and-charcoal-trade-funding-global-terror-groups>.

²⁰⁸ Chris R. Shepherd & Vincent Nijman, *The trade in bear parts from Myanmar: an illustration of the ineffectiveness of enforcement of international wildlife trade regulations*, 17 BIODIVERSITY CONSERVATION 35 (2008).

²⁰⁹ *Id.* at 36.

²¹⁰ *Id.* at 41.

²¹¹ *Id.* at 35.

²¹² Shepherd & Nijman, *supra* note 208, at 41.

²¹³ See, e.g., EMPTY THREAT, *supra* note 78, at 258 (finding Vietnam has had a severe lack of enforcement due to numerous listed factors).

²¹⁴ ENV'T INVESTIGATION AGENCY, VIETNAM'S ILLEGAL RHINO HORN TRADE: UNDERMINING THE EFFECTIVENESS OF CITES 3 (2013).

²¹⁵ *EIA Briefing Document on CITES National Ivory Action Plans (NIAPs)*, ENV'T INVESTIGATION AGENCY 5, 14 (Nov. 17, 2017), <https://eia-international.org/report/eia-briefing-document-cites-national-ivory-action-plans-niaps/>.

²¹⁶ Tom Milliken & Jo Shaw, *The South Africa - Vietnam Rhino Horn Trade Nexus: A deadly combination of institutional lapses, corrupt wildlife industry professionals, and Asian crime syndicates*, TRAFFIC 127 (Aug. 21, 2012), <https://www.traffic.org/publications/reports/the-south-africa-viet-nam-rhino>.

Another report conducted by the DLA Piper, an international law firm, studied eleven countries including Botswana, Cameroon, China, the Democratic Republic of the Congo, Kenya, Malaysia, the Philippines, Thailand, Tanzania, Uganda, and Vietnam.²¹⁷ The study examined the relationship between principal legislation, penalties, ancillary legislation, and judicial processes and capacity.²¹⁸ The report found that although there is no legislation, many of the countries listed have regulations set in place to comply with CITES, but there is little enforcement of the regulation that results in rampant wildlife crimes.²¹⁹ The report suggests that utilizing data sharing worldwide would be beneficial, especially for countries that share borders because they often face the same problems in terms of species and criminal groups.²²⁰ The report also suggests that CITES and other international agencies should create standardized training modules to aid law enforcement and prosecutors in prosecuting wildlife crimes.²²¹

Tools such as data sharing and educational modules can help countries strengthen their enforcement and prosecution of wildlife crimes.²²² However, these tools cannot force countries to enforce and prosecute their laws. International organizations such as TRAFFIC and WJC have the power to motivate countries. These organizations can make recommendations to both CITES²²³ and make public hearings to compel countries to enforce their laws.²²⁴ Combined with increased efforts to understand why there is a lack of enforcement regarding illegal wildlife trade and international organizations' encouragement for countries to enforce their laws will increase enforcement worldwide. Without enforcement, criminal groups will continue to exploit governments who refuse to enforce their own laws and harm their countries' citizens, ecosystems, and animals.

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²¹⁷ EMPTY THREAT, *supra* note 78, at 1.

²¹⁸ *Id.* at 2–4.

²¹⁹ *Id.* at 1.

²²⁰ *Id.* at 4.

²²¹ *Id.*

²²² *Id.*

²²³ See, e.g., CITES, *National Reports*, Conf. 11.17 (Rev. CoP14), Annex. 8 (2019) (examining data from TRAFFIC about tiger farming).

²²⁴ See, e.g., WILDLIFE JUST. COMM'N, *supra* note 102.

VI. CONCLUSION

The illegal wildlife trade is not a victimless crime. It affects not only the animals but their ecosystems, communities, and nations.²²⁵ It is no different from any other international criminal enterprises. Adopting species-saving methods benefit the ecosystems but can also lead to empowerment communities desperate for resources. Without swift action, future generations may not have the opportunity to save these animals.

Cutting demand will decrease the rewards for criminals attempting to benefit off of wild animals. Therefore, more money should be allocated towards demand reduction efforts and educating consumers of illegally traded wildlife. Countries, non-governmental organizations, and CITES should also study the consumer's relationship with the illegal wildlife trade to understand both the market and demand. This information can help create a tailored approach to public service announcements condemning the consumption of illegally traded products and most likely will result in fewer consumers buying these products.

Implementing CBNRM where possible and appropriate can maintain the well-being of species and empower communities. CITES can highlight successful examples of CBNRM and entice Parties to also administer CBNRM. CITES can also provide resources to help governments facilitate successful CBNRM initiatives, which will further entice governments to empower local communities to benefit from their natural resources.²²⁶

Worldwide data sharing will facilitate understanding of the criminal groups and information about species' illegal wildlife trade.²²⁷ Information about look-alike species, historically less researched species, and changes in demand can all demonstrate the severity of the risk of extinction and inspire governments to act.²²⁸ Bolstering information and data about criminal groups can improve enforcement by creating tailored methods to catch and dissuade criminals from engaging in the illegal wildlife trade. With additional knowledge, CITES can create initiatives

²²⁵ Felbab-Brown, *supra* note 8.

²²⁶ Carpenter, *supra* note 142, at 43–44.

²²⁷ See U.N. OFF. ON DRUGS AND CRIME, WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES, at 29, U.N. Sales No. E.16.XI.9 (2016) (emphasizing the amount of seizures conducted through data sharing).

²²⁸ See *id.* at 96 (discussing the use of non-protected look-alikes to evade the system).

for groups of people who may join illegal wildlife criminal groups.

Finally, enforcement is essential in combating the illegal wildlife trade.²²⁹ Without enforcement, there is little deterrence for criminals who stand to monetarily gain immensely from selling illegal and, many times, endangered animal products. Because of CITES status as a trade treaty, CITES cannot force or punish Parties for lack of enforcement.²³⁰ Intergovernmental organizations, such as TRAFFIC, can keep countries accountable by holding public hearings or releasing reports about the enforcement methods.²³¹ These organizations should use their resources to compel governments to enforce their laws and share data about criminal wildlife activities within their borders. CITES can offer training modules for enforcement personnel and prosecutors so all Parties can benefit and use them for educating their local policing forces.

A unified approach to wildlife protection is the only way to preserve species from international exploitation and pressing extinction threats. Without a multinational effort to dissolve the illegal wildlife trade, many more species will become extinct within the coming years, and ecosystems will suffer the losses. Decreasing demand, executing CBNRM where appropriate, sharing data on species and criminal groups, and increasing enforcement are steps towards abolishing the overexploitation of species already suffering from habitat loss, the changing climate, and lack of resources. Simply implementing small-scale methods would merely be a gesture in comparison to what is needed to make a difference. Worldwide changes are required now to slow the impending extinction of the world's most beloved animals.

²²⁹ *Enforcement-Introduction*, CITES, <https://cites.org/eng/prog/imp/enf/introduction> (last visited Sept. 30, 2021).

²³⁰ *FAQs about CITES*, HUMANE SOC'Y INT'L (Aug. 29, 2002), https://www.hsi.org/news-media/faqs_about_cites/.

²³¹ *Setting the score for international wildlife trade*, TRAFFIC, <https://www.traffic.org/about-us/working-with-cites/> (last visited Sept. 30, 2021).