

THE TRAGEDY OF THE ELEPHANTS

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INTRODUCTION

According to popular legend, mass elephant burial sites riddle Africa.¹ As the myth goes, dying elephants instinctively gravitate to

1. See *African Legends and Myths Explained*, SIYABONA AFRICA http://www.safari.co.za/African_Safari_Guide-travel/africa-legends.html [<https://perma.cc/268V-R2UU>].

elephant graveyards to die.² Unfortunately, the romanticized legend has become a dark, anthropogenic reality. Each year poachers litter the plains of sub-Saharan Africa with thousands of bloody elephant carcasses.³ Entire herds of elephants are routinely and wantonly slaughtered. The genocide is a tragedy: a tragedy of the commons.

The tragedy of the commons is an economic theory that describes people's tendency to deplete unowned, open-access limited resources.⁴ In the commons, users individually face incentives to overexploit a limited resource even though the aggregate consequences of their actions may be contrary to their interests.⁵ The African elephant has been rapaciously overexploited. Over the past century, Africa's elephant population has dropped precipitously primarily due to poaching.⁶ The World Wildlife Fund estimates that there were approximately 3–5 million African elephants in the 1930s and 1940s.⁷ Today, only about 415,000 African elephants remain.⁸

There are two broad solutions to the tragedy of the commons: (1) government ownership and regulation of the resource; or (2) decentralized private or communal ownership and regulation of the resource.⁹ Most international African elephant conservation policy dogmatically focuses on the former solution to the detriment of the elephant. The Convention on International Trade in Endangered Species of Flora and Fauna (CITES) heavily circumscribes the international commercial trade of live African elephants and elephant products such as ivory.¹⁰ Moreover, African governments outside of Southern Africa

2. *See id.*

3. *See* George Wittemyer, *Illegal Killing for Ivory Drives Global Decline in African Elephants*, 111 PROC. NAT'L ACAD. SCI. 13117 (2014).

4. *See generally* Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968).

5. *See id.* at 1244.

6. *African Elephants*, WORLD WILDLIFE FUND, http://wwf.panda.org/what_we_do/endangered_species/elephants/african_elephants/ [<https://perma.cc/26PZ-2NLE>].

7. *Id.*

8. *Id.*

9. *See* Elinor Ostrom et al., *Revisiting the Commons: Local Lessons, Global Challenges*, 284 SCI. 278, 279 (1999). The economist Elinor Ostrom notes that private (individual), group, and governmental property rights regimes can potentially prevent a common-pool resource from being open-access. *Id.* This Article refers to both forms of non-governmental property rights solutions collectively as "decentralized ownership" solutions. *Id.*

10. *African Elephant*, CONVENTION ON INT'L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA, http://www.cites.org/eng/gallery/species/mammal/african_elephant.html [<https://perma.cc/PV7Z-CNG4>] (noting the African Elephant's Appendix I listing under CITES except the populations of Botswana, Namibia, Zimbabwe, and South Africa).

have severely constricted the private ownership and commercial use of African elephants within their nation's borders.¹¹ Despite decades of this strict regulatory approach, poachers killed over 24,000 African elephants in 2015, and the international ivory trade is thriving.¹² The current poaching rate exceeds the reproductive replacement rate.¹³ In some parts of Africa, the elephant is at risk of localized extinction.¹⁴

CITES' inability to protect the African elephant stems largely from cultural and economic incompetence. The West sees the African elephant as a majestic, venerable animal and sees the use of ivory as archaic and inhumane.¹⁵ However, in much of the world, these values are alien and imperialistic. In East Asia, ivory is seen as a vital cultural and religious object.¹⁶ In Africa, the elephant is a crop-destroying pest and the global ivory trade represents economic opportunity and an escape from poverty.¹⁷ These people face little incentive to adhere to centralized conservation policies imbued with cultural imperialism.

International elephant trade and conservation policy need a radical new approach that is compatible with the world's economic and cultural landscape. This Article will argue that CITES should abrogate its restrictions on the trade of African elephant products. CITES must encourage member nations to permit local communities and private landowners to have property rights in African elephants.

The body of this Article has four parts. Part I explicates the tragedy of the commons concept. This section argues that the African elephant has been an open-access, common-pool resource, and represents a commons dilemma. Part II discusses government regulation solutions to the tragedy of the commons and provides a general overview of CITES. Part III argues that the government

11. See Kay Muir-Leresche & Robert H. Nelson, *Private Property Rights to Wildlife: The Southern African Experiment*, INT'L CTR. FOR ECON. RES. WORKING PAPERS, Apr. 2000, at 1, <http://www.bibliocon.unito.it/biblioservizi/RePEc/icr/wp2000/Nelson22000.pdf> [https://perma.cc/UQ88-MH5M].

12. *24,000 Elephants Poached for Ivory in 2015*, BORN FREE FOUNDATION (Oct. 1, 2015), http://www.bornfree.org.uk/index.php?id=34&tx_ttnews%5Btt_news%5D=1979&cHash=ff6dc8a80ad85ea74af7213540ad6b8d [https://perma.cc/RJ5V-S42N].

13. KASPER AGGER & JONATHAN HUTSON, *KONY'S IVORY: HOW ELEPHANT POACHING IN CONGO HELPS SUPPORT THE LORD'S RESISTANCE ARMY 1* (2013).

14. UNITED NATIONS ENV'T PROGRAMME ET AL., *ELEPHANTS IN THE DUST – THE AFRICAN ELEPHANT CRISIS 6* (2013).

15. See Patty F. Storey, *Development vs. Conservation: The Future of the African Elephant*, 18 WM. & MARY J. ENVTL. L. 375, 377 (1994).

16. See UNITED NATIONS ENV'T PROGRAMME ET AL., *supra* note 14, at 67.

17. See Shawn M. Dansky, Comment, *The CITES "Objective" Listing Criteria: Are They "Objective" Enough to Protect the African Elephant?*, 73 TUL. L. REV. 961, 970 (1999).

regulation approach has failed to resolve the African elephant's tragedy of the commons. The section critically evaluates CITES and the government regulation solution from economic, cultural, and ethical policy perspectives. Part IV describes decentralized conservation solutions to the tragedy of the commons. This section argues that CITES should embrace decentralized private and communal ownership of the African elephant. This section advocates that CITES should legalize the ivory trade in countries that have established decentralized ownership in African elephants. This approach could simultaneously save the elephant and balance competing cultural perspectives of the species. Finally, Part IV also addresses and responds to ethical and feasibility critiques of decentralized African elephant ownership.

I. THE TRAGEDY OF THE COMMONS AND ITS APPLICATION TO THE AFRICAN ELEPHANT

A. *The Tragedy of the Commons Paradigm: Theory and Explanation*

The tragedy of the commons is an idea that dates back as early as Aristotle.¹⁸ However, the theory only achieved its contemporary, popular recognition after the ecologist, Garrett Hardin, published his famous article *The Tragedy of the Commons* in 1968.¹⁹ The theory has become an important concept in understanding overexploitation and environmental quandaries.

The tragedy of the commons involves a common-pool resource. A common-pool resource has two core features: (1) exclusion of resource beneficiaries is difficult or costly; and (2) the resource is rivalrous such that use of the resource by one user reduces the resource's availability for others.²⁰ In the absence of property rights and rules defining access and exclusion, a resource is known as open-access.²¹ The commons dilemma arises when a common-pool resource is open-access. Common-pool, open-access resources foster perverse incentives that lead to the resources' degradation.²²

One can best understand the tragedy of the commons through example. For instance, consider a hypothetical society with a large

18. See Elinor Ostrom, How Inexorable is the "Tragedy of the Commons?" Institutional Arrangements for Changing the Structure of Social Dilemmas, Distinguished Faculty Research Lecture at Indiana University (Apr. 3, 1986), <https://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/1998/EOHO86AA.pdf> [<https://perma.cc/4YKJ-VKU9>].

19. See *id.*

20. Ostrom et al., *supra* note 9, at 278.

21. *Id.* at 279.

22. See *id.*

fishing lake enjoyed by multiple fishermen. The lake's fish are a common-pool resource. The lake's size makes it very difficult to exclude anyone from fishing it. Use of the fish is also rivalrous. One fisherman's use of the fish prevents the simultaneous use of the fish by another fisherman. The lake is also open-access. There are no property rights or rules defining access to the lake.

The lake's fish population is fairly robust and can withstand some fishing. However, the lake's fish population will be unsustainable if the fishing rate exceeds the fish population's reproductive replacement rate. Each of the fisherman's actions individually has little impact on the fish population, but in the aggregate the consequences are substantial. Although it is within each fisherman's individual interests to keep the fish population alive, the fishermen ironically face rational incentives to overfish the lake.

Each individual fisherman experiences concentrated benefits and "commonized" costs. The benefit to fishing belongs exclusively to the fisherman, but the negative impacts of his fishing on the lake's sustainability are shared by all of the fishermen. The private costs the fisherman experiences are attenuated and minute. The self-driven fisherman is incentivized to consume the fish to the extent that the private marginal benefit of fishing equals their private marginal cost.²³ Consequently, the fisherman is rationally incentivized to overfish as the fisherman's private costs discount the collective costs. Furthermore, the unselfish fisherman too is driven to overfish. The unselfish fisherman knows that even if he exercises self-restraint he cannot force others to act in this manner because the resource is non-excludable. No matter what he does the fish will inevitably perish. His sustainable practices are futile and he has little incentive to constrict his fishing. As every fisherman tends to overexploit the lake, the fish eventually become endangered.

B. The Tragedy of the Commons and the African Elephant

One can analogize the fish hypothetical with the African elephant.²⁴ Africa's elephant population is a common-pool resource similar to the lake's fish population. Although it may seem less intuitive than the lake's fish, Africa's elephant population satisfies both elements of a common-pool resource.

23. Cf. Andrew J. Heimert, *How the Elephant Lost His Tusks*, 104 YALE L.J. 1473, 1490 (1995) (describing the classic profit maximizing point in economics in the context of a fishery).

24. *Id.* (analogizing oil and marine resource commons problems with the African elephant).

First, the exclusion of beneficiaries of African elephants is difficult and costly. The African elephant's range and behavioral patterns make it extraordinarily difficult to prevent individuals from consuming the elephant. Africa's elephant population is widely dispersed across thirty-seven countries in sub-Saharan Africa.²⁵ African elephant populations are also highly migratory.²⁶ Elephants can travel hundreds of miles across countries and property lines.²⁷ From an elephant's migratory perspective, unfenced private land and national borders are wholly arbitrary.

Second, the elephant has several rivalrous uses. This may initially seem peculiar from a contemporary Western perspective. The West tends to focus on the elephant's non-rivalrous uses. The elephant's existence is valuable as a source of fascination, inspiration, and education in the West.²⁸ The elephant is intrinsically valuable as a symbol of biodiversity and as a part of the African ecosystem.²⁹ Use of the African elephant in these ways does not foreclose the possibility of use of the elephant by others in these ways.

Nevertheless, the African elephant also has several rivalrous uses that are important to many people throughout the world. For example, the elephant is an important source of food for many Africans. Elephant meat is alien to Western food palettes, but Africans have hunted wild animals such as elephants for bush meat for centuries.³⁰ Additionally, hunters have long used the elephant for sport hunting.³¹ The elephant is a treasured big game trophy for hunting enthusiasts around the world because of the species' gargantuan size and power.³² Both currently and historically, however, the largest rivalrous use of the elephant is for the elephants' tusks.

Cultures across the world have collected and traded elephant tusks for centuries. The tusks are actually elephants' upper incisor teeth and can be found both in male and female African elephants.³³ The elephant

25. See *Basic Facts About Elephants*, DEFENDERS OF WILDLIFE, <http://www.defenders.org/elephant/basic-facts> [<https://perma.cc/UD78-TDSJ>].

26. See BEN HOARE, *ANIMAL MIGRATION: REMARKABLE JOURNEYS IN THE WILD* 58 (2009).

27. See *id.*

28. See Storey, *supra* note 15, at 377.

29. See ELEPHANT MANAGEMENT 451 (RJ Scholes & KG Mennell eds., 2008).

30. See Mario Del Baglivo, *CITES at the Crossroad: New Ivory Sales and Sleeping Giants*, 14 *FORDHAM ENVTL. L.J.* 279, 283 (2003).

31. See *Hunting*, *THE COLUMBIA ENCYCLOPEDIA* (7th ed. 2017).

32. See *id.*

33. *Ivory*, *ENCYCLOPEDIA BRITANNICA*, <http://www.britannica.com/EBchecked/topic/298285/ivory> [<https://perma.cc/EX2S-55EB>].

tusks are used to make a product called ivory. Ivory is prized for its beauty, durability, and malleability.³⁴ Historically, the substance was used in everything from piano keys to combs.³⁵ In contemporary Western society, interest in ivory has waned and the commodity is frequently seen as taboo. Nevertheless, ivory remains important to many Asian cultures.³⁶

For centuries, peoples of East Asia have used ivory for art, traditional medicines, and religious ceremonies.³⁷ In fact, ivory carving is one of China's oldest art forms.³⁸ The practice dates back as far as 1046 BCE.³⁹ Today, ivory serves multifarious purposes in East Asia, including for trinkets, medicine, jewelry, ornaments, and utensils.⁴⁰ Many East Asians also see ivory as a status symbol,⁴¹ as historically, ivory was a luxury good restricted to wealthy aristocrats.⁴² Peoples across East Asia covet and worship ivory, and some societies cherish ivory even more than gold.⁴³

The product is highly esteemed by numerous religious groups in Asia, including Buddhists, Muslims, and Christians.⁴⁴ In fact, ivory is a central component of many religious ceremonies in Asia.⁴⁵ Some see ivory as a holy material that indicates one's spiritual devotion.⁴⁶ Some

34. *Id.*

35. *See id.*

36. *See* Aislinn Laing, *Ivory Demand in Far East Could See African Elephant Wiped Out*, TELEGRAPH (Apr. 12, 2012, 6:30 AM), <http://www.telegraph.co.uk/news/earth/wildlife/9198258/Ivory-demand-in-Far-East-could-see-African-elephant-wiped-out.html> [<https://perma.cc/BE7Q-QF2K>].

37. *Ivory Carving*, ENCYCLOPEDIA BRITANNICA, <http://www.britannica.com/EBchecked/topic/298315/ivory-carving> [<https://perma.cc/EC9K-4TH5>]; Sharon Montazeri, Note, *Protecting the Pachyderm: The Significance of Ivory Trade Regulation for African Elephant Conservation*, 22 CARDOZO J. INT'L & COMP. L. 121, 126 (2013).

38. *Ivory Carving*, *supra* note 37.

39. *Id.*

40. *See* Laing, *supra* note 36; Montazeri, *supra* note 37, at 126.

41. Danielle Elliot, *Poachers Killed 22,000 African Elephants in 2012, Study Shows*, CBS NEWS (Dec. 2, 2013, 4:57 PM), <http://www.cbsnews.com/news/poachers-killed-22000-african-elephants-in-2012-study-shows/> [<https://perma.cc/8PPM-7GM7>].

42. Montazeri, *supra* note 37, at 126.

43. *Id.* at 125.

44. *Demand for Illegal Ivory Explodes in Asia, Where Industry Expands Despite Ban*, PBS NEWSHOUR (Oct. 11, 2012, 12:00 AM), http://www.pbs.org/newshour/bb/world-july-dec12-ivory_10-11/ [<https://perma.cc/9VE4-FC65>].

45. Montazeri, *supra* note 37, at 125.

46. *Id.*

Thai Buddhist Monks even believe that ivory has the ability to extinguish bad spirits.⁴⁷

In addition to being a common-pool resource, the elephant was effectively open-access for centuries. Until the latter part of the twentieth century, Africa's elephant populations were largely unmanaged and uncontrolled throughout the continent.⁴⁸ Property rights and rules of access regarding African elephant populations were either absent or poorly enforced. As a result, ivory traders drew from Africa's elephant populations without restraint.⁴⁹ By the end of the twentieth century, unsustainable ivory hunting drove the African elephant into extinction in North Africa, and in much of South and West Africa.⁵⁰ This unnecessary genocide was a blatant feature of the tragedy of the commons.

Given that the African elephant is a common-pool resource, the tragedy of the commons paradigm can readily explain why African ivory suppliers overexploit the African elephant when the animal is open-access. Rationally, ivory hunters should not want to hunt the elephants faster than the elephants can reproduce, similar to the fishermen's fish. The hunters' livelihood is ivory. Why would ivory hunters want to bite the hand that feeds them by forcing the elephant into near extinction?

Moreover, African elephants and their ivory have unique properties that compound the irony of their overexploitation. The value of an elephant's ivory increases each year it is allowed to live because elephant tusks grow continuously throughout an elephant's lifetime.⁵¹ The value of an elephant's ivory also increases at an *increasing* rate the longer the elephant lives. There are two reasons for this. First, the larger an elephant's tusks the more the tusks are worth per kilogram because larger tusks have greater carving opportunities than smaller tusks.⁵² Second, in male elephants, tusks "grow at an exponentially increasing rate until the end, or nearly the end, of life."⁵³ In large part

47. *Id.*

48. *See* JOHN M. MACKENZIE, *THE EMPIRE OF NATURE* 148 (1998).

49. *See id.*

50. *See* Keith Lindsay, *Trading Elephants for Ivory*, *NEW SCIENTIST*, Nov. 6, 1986, at 48, 48-50.

51. 8 FOWLER'S ZOO AND WILD ANIMAL MEDICINE 517 (R. Eric Miller & Murray E. Fowler eds., 2015).

52. E.J. MILNER-GULLAND & RUTH MACE, *CONSERVATION OF BIOLOGICAL RESOURCES* 58 (1998); *THE EXPLOITATION OF MAMMAL POPULATIONS* 362 (Victoria J. Taylor & Nigel Dunstone eds., 1996).

53. T. Pilgram & D. Western, *Managing African Elephants for Ivory Production Through Ivory Trade Regulations*, 23 *J. APPLIED ECOLOGY* 515, 526 (1986). "[T]he relationship between tusk size and age is described by a power law for both sexes, but male tusks grow at a much faster rate than female tusks." E.J. Milner-

because of these non-linear properties of elephants and their ivory. Computer models show that the best way to manage elephants in order to maximize ivory production is to let the elephant's die of old age and to collect their ivory after they die.⁵⁴

Similar to the fishermen, ivory hunters face a perverse cost-benefit calculus when confronted with open-access African elephants. Although ivory hunters could collectively maximize their profits by allowing elephants to live and collecting ivory from elephants that die of natural causes, each individual ivory hunter has little incentive to collect ivory without killing the elephants. This is because ivory hunters receive little private benefit in letting the elephants survive. Similar to the fishermen, the total benefits of letting an elephant survive are diffuse and shared by all the elephant's users when the elephant is an open-access resource. If an ivory hunter lets an elephant survive, he has no way of precluding another ivory hunter from later claiming the ivory because he does not possess any property rights in the elephant. Therefore, an ivory hunter is rationally incentivized to kill the elephant and collect its ivory, because if he does not, another ivory hunter could simply do so later.

Nonetheless, why would ivory hunters choose to kill the elephants rather than collect the ivory from the living elephants without killing them? Cursorily, harvesting ivory from living elephants may seem like the rational action when elephants are an open-access resource. An ivory hunter who collects ivory from living elephant could both exclude other ivory hunters from collecting the ivory and maintain the viability of the resource. Particularly, if ivory were harvested from elephants without killing them, the elephants could still reproduce and potentially continue to grow ivory.⁵⁵ However, the benefits of harvesting ivory from living elephants without killing them do not outweigh the costs for individual ivory hunters. Again, as the ivory hunters do not hold property rights in the elephants, there is little private benefit gained from this action because the sustainability benefits are shared by all the ivory harvesters. While the total benefit of this action would be large, individual ivory hunters only receive a small fraction of this total benefit when the elephant is open-access. While ivory hunters receive little private benefit in harvesting ivory from living elephants, they do

Gulland & Ruth Mace, *The Impact of the Ivory Trade on the African Elephant *Loxodonta Africana* Population as Assessed by Data from the Trade*, 55 *BIOLOGICAL CONSERVATION* 215, 216 (1991).

54. See Pilgram & Western, *supra* note 53; *THE EXPLOITATION OF MAMMAL POPULATIONS*, *supra* note 52, at 362.

55. Jacob V. Cheeran, *Elephant Facts*, in *HEALTHCARE MANAGEMENT OF CAPTIVE ASIAN ELEPHANTS* 23, 25 (G. Ajitkumar et al. eds., 2009) (noting that elephant tusks will continue to grow even after being cut, but extreme care must be taken not to damage the pulp when cutting the tusks).

face immense private costs. For example, ivory hunters face large private costs associated with the tremendous danger of collecting ivory from enormous, live animals. Ivory hunters also face a large opportunity cost in not being able to harvest an additional part of the tusk embedded inside elephants' skulls.⁵⁶

In sum, ivory hunters have rational incentives to kill the elephants at an unsustainable rate when the African elephant is open-access. Taken together these incentive structures necessitate resource degradation even though it is ultimately detrimental to all the elephants' users.

II. CITES AND THE GOVERNMENT REGULATION SOLUTION

A. *Theory and Background of the Government Regulation Solution*

Common-pool resources like the African elephant do not have to be inevitably degraded. Broadly, a tragedy of the commons can be resolved by stopping common-pool resources from being open-access. Hardin argued that this must be done by imposing excludability rules on a common-pool resource's users.⁵⁷ One of the two ways he argued this could be achieved is through central government regulation of the resource.⁵⁸

The government regulation approach stops a common-pool resource from being open-access through top-down level management. Governments attempt to limit the use of a common-pool resource to prevent overexploitation, centrally.⁵⁹ Resource users are incentivized to sustainably use a resource through compulsion.⁶⁰ In the United States, resource management on public lands often embodies this approach. For example, the US forest service limits tree overexploitation on public lands through government regulation that restricts the numbers of trees that one can harvest.⁶¹ In the wildlife conservation context, this

56. See *Poaching*, MARA ELEPHANT PROJECT, <http://maraelephantproject.org/the-crisis/poaching/> [https://perma.cc/5DEB-S76K]; *The Elephants We Protect*, MARA ELEPHANT PROJECT, <http://maraelephantproject.org/the-crisis/the-elephants-we-protect/> [https://perma.cc/ZJ2G-4GDK] (noting that poachers do not merely cut off an elephant's tusks because one third of the elephant's tusk is inside the elephant's skull, so poachers kill the elephant instead to obtain all of the elephant's ivory).

57. See Hardin, *supra* note 4, at 1245–47.

58. See *id.* at 1245–46.

59. Gary D. Libecap, *The Tragedy of the Commons: Property Rights and Markets as Solutions to Resource and Environmental Problems*, 53 AUSTL. J. AGRIC. & RESOURCE ECON. 129, 131 (2009).

60. See *id.*

61. 16 U.S.C. § 1604 (2012).

approach frequently takes the form of creating protected wildlife areas, the nationalization of wildlife ownership, and prohibitions and restrictions on the use and trade of endangered species.⁶²

The top-down, government regulation approach requires strict enforcement to be effective. The enforcement of the regulation must be strong enough to dissuade unsustainable common-pool resource use sufficiently. This generally requires both the political will and the resources to enforce the policies rigorously.⁶³ Consequently, this method is commonly ineffective in developing countries.⁶⁴ Where strict enforcement is not applied, previously open-access common-pool resources effectively remain open-access and are subject to the tragedy of the commons.⁶⁵

Despite the problems with this approach, international African elephant conservation policy has unwaveringly clung to the government regulation solution in two ways. First, on the domestic level, most African developing nations employ domestic conservation policy that focuses on state ownership and management of the African elephants.⁶⁶ Many of these nations centrally regulate takings and the use of the African elephant.⁶⁷

Second, at the international level, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) uses the government regulation solution by restricting trade in African elephants.⁶⁸ CITES is a multilateral treaty intended to protect endangered animals and plants by limiting the international trade of endangered species.⁶⁹

B. The Convention on International Trade in Endangered Species of Wild Fauna and Flora

CITES was first signed on March 6, 1973, and the treaty took effect on July 1, 1975.⁷⁰ The international community made its first

62. See Stefan Carpenter, *The Devolution of Conservation: Why CITES Must Embrace Community-Based Resource Management*, 2 ARIZ. J. ENVTL. L. & POL'Y 1, 6 (2011).

63. See *id.*

64. *Id.*

65. See *id.* at 7.

66. See Muir-Leresche & Nelson, *supra* note 11.

67. See *id.*

68. See *African Elephant*, *supra* note 10.

69. See *What is CITES?*, CONVENTION ON INT'L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA, <http://www.cites.org/eng/disc/what.php> [https://perma.cc/T2J7-CHMD].

70. *Id.*

significant coordinated effort to regulate the use of African elephants in 1977 through CITES.⁷¹ This was done against the backdrop of the African elephant's stark population decline driven by the tragedy of the commons that was outlined in Part I. Countries join CITES voluntarily but are legally bound by the agreement.⁷² Member countries are known as "Parties."⁷³ CITES has been widely adopted, and there are presently 183 Parties to CITES.⁷⁴ The treaty protects approximately 5,600 species of animals and 30,000 species of plants.⁷⁵ CITES does not control the takings of protected species.⁷⁶ Instead, CITES attempts to curb overexploitation by curtailing international trade in protected species "specimens."⁷⁷ Under the treaty, specimens include "animals or plants, whether alive or dead," and "readily recognizable" parts or products derived from animals or plants such as ivory.⁷⁸ Both worked and unworked ivory are currently considered readily recognizable.⁷⁹ Unworked or "raw" ivory is unpolished and uncarved, such as whole or partial tusks.⁸⁰ Worked ivory is modified pieces of ivory carved and polished into items such as jewelry, art, and musical instruments.⁸¹

Restricting trade in protected species specimens is intended to reduce the commercial benefit of overexploiting endangered species like the African elephant.⁸² CITES regulates the trade of endangered species

71. See *CITES & Elephants: What is the "Global Ban" on Ivory Trade?*, U.S. FISH & WILDLIFE SERV. (Nov. 2013), <http://www.fws.gov/le/pdf/CITES-and-Elephant-Conservation.pdf> [<https://perma.cc/5MQS-343C>] (noting the African elephant's first Appendix II listing in 1977).

72. See Del Baglivo, *supra* note 30, at 287.

73. *List of Parties to the Convention*, CONVENTION ON INT'L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA, <http://www.cites.org/eng/disc/parties/index.php> [<https://perma.cc/CKD8-99B9>].

74. *Id.*

75. *The CITES Species*, CONVENTION ON INT'L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA, <http://www.cites.org/eng/disc/species.php> [<https://perma.cc/V2TT-YBR6>].

76. See Del Baglivo, *supra* note 30, at 287.

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

78. See *id.* at 27 U.S.T. at 1090, 993 U.N.T.S. at 245.

79. Convention on Int'l Trade in Endangered Species of Wild Fauna and Flora [CITES], *Trade in Elephant Specimens*, Resolution Conf. 10.10 (2000) [hereinafter CITES Resolution 10.10], <https://www.cites.org/sites/default/files/document/E-Res-10-10-R17.pdf> [<https://perma.cc/RCF8-9VK6>].

80. See *id.*

81. See *id.*

82. See ERICA THORSON & CHRIS WOLD, INT'L ENVTL L. PROJECT, BACK TO BASICS: AN ANALYSIS OF THE OBJECT AND PURPOSE OF CITES AND A BLUEPRINT FOR IMPLEMENTATION 11 (2010), www.ifaw.org/sites/default/files/An%20Analysis%20of%20the%20Object%20and%20Purpose%20of%20the%20CITES.pdf [<https://perma.cc/36LH-AQH6>].

specimens by requiring Parties to implement importation and exportation permit systems.

Parties' permit systems must be in compliance with the CITES three-tiered protection structure.⁸³ Protected species under CITES are listed under three Appendices: Appendix I, II, and III. The Appendices define the particular level of trade protection a protected species receives based on the species' relative threat of extinction. The Appendices indicate when Parties can issue export and import permits, and where they are required.

Species listed under Appendix I are afforded the highest level of protection. These are the most endangered CITES listed species. Particularly, Appendix I listings are species threatened with extinction.⁸⁴ As discussed below, most African elephant populations are listed under Appendix I. Specimens of species listed under Appendix I can only be traded when the exporting country issues an export permit and the importing country issues an import permit authorizing a trade in the protected species.⁸⁵ Additionally, "re-exports," or Appendix I specimen exports from a country that has already imported those specimens also require certification.⁸⁶ Under CITES, Parties can only authorize international trades in Appendix I specimens under "exceptional circumstances."⁸⁷ An importing Party may only permit an international trade in Appendix I specimens if the trade is "not detrimental to the survival of the species" and the importation is not "for primarily commercial purposes."⁸⁸ An Appendix I listing is broadly accepted as an effective ban on all international trade in Appendix I specimens.⁸⁹

Appendix II provides the second highest level of protection for listed species. Appendix II species include "all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival."⁹⁰ African elephant

83. See Michael J. Glennon, *Has International Law Failed the Elephant?*, 84 AM. J. INT'L L. 1, 10 (1990).

84. See *The CITES Appendices*, CONVENTION ON INT'L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA, <http://www.cites.org/eng/app/index.php> [<https://perma.cc/2VJG-CFDY>].

85. *Id.*

86. *Id.*

87. See Note, *The CITES Fort Lauderdale Criteria: The Uses and Limits of Science in International Conservation Decisionmaking*, 114 HARV. L. REV. 1769, 1773 (2001) (quoting CITES, 27 U.S.T. 1087, 993 U.N.T.S. 243).

88. See *id.* at 1774 (quoting CITES 27 U.S.T. 1087, 993 U.N.T.S. 243).

89. See Del Baglivo, *supra* note 30, at 288.

90. CITES, *supra* note 77, at art. II, 27 U.S.T. at 1092, 993 U.N.T.S. at 245.

populations in Botswana, Namibia, South Africa, and Zimbabwe are listed under Appendix II.⁹¹ Appendix II imposes similar restrictions on protected species exportation as Appendix I.⁹² However, in contrast to Appendix I, import permits are not required for imported protected species.⁹³ Thus, Appendix II species specimens and derivative products may be imported for commercial purposes.⁹⁴

Appendix III provides the lowest level of protection.⁹⁵ Appendix III includes “all species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the cooperation of other parties in the control of trade.”⁹⁶ Appendix III differs from the other Appendices as the exporting Party unilaterally decides Appendix III listings.⁹⁷ The listing only requires export permitting when the exporting Party has itself listed that species under Appendix III.⁹⁸ Exporting Parties that list a species under Appendix III can request that importing Parties monitor the importation of the species in order to assist the exporting Party in controlling illegal exports of the exporting Parties’ Appendix III species.⁹⁹

CITES Parties are required to meet at least every two years.¹⁰⁰ During these meetings, Parties may submit proposals to amend species placement on Appendix I and II.¹⁰¹ These proposals are based on a set of biological and trade criteria regarding Appendix I and II species placement established under CITES Resolution Conf. 9.24.¹⁰² A two-

91. See *Loxodonta Africana*, SPECIES+, http://www.speciesplus.net/#/taxon_concepts/4521/legal?taxonomy=cites_ [<https://perma.cc/BA27-KYSZ>].

92. See Glennon, *supra* note 83, at 11.

93. *Id.*

94. *Id.*

95. *Id.*

96. CITES, *supra* note 77, at 27 U.S.T. at 1092, 993 U.N.T.S. at 245.

97. Glennon, *supra* note 83, 11.

98. See CITES, *supra* note 77, at 27 U.S.T. at 1092, 993 U.N.T.S. at 245.

99. See Del Baglivo, *supra* note 30, at 289.

100. See CITES, *supra* note 77, at 27 U.S.T. at 1104, 993 U.N.T.S. at 251.

101. See *How CITES Works*, CONVENTION ON INT’L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA, <http://www.cites.org/eng/disc/how.php> [<https://perma.cc/79DZ-GRCY>].

102. See Convention on Int’l Trade in Endangered Species of Wild Fauna and Flora [CITES], *Criteria for Amendment of Appendices I and II*, Resolution Conf. 9.24 (1994) [hereinafter CITES Resolution 9.24], <https://www.cites.org/sites/default/files/document/E-Res-09-24-R17.pdf> [<https://perma.cc/WZL9-F79A>].

thirds majority of the voting Parties in attendance at the meeting must approve any amendment proposals.¹⁰³

CITES does not have its own enforcement mechanism. CITES relies on the internal police powers of each Party.¹⁰⁴ The Parties themselves are responsible for implementing CITES through domestic legislation and enforcement.¹⁰⁵ There is no provision in CITES that requires Parties to sanction other Parties that violate CITES.¹⁰⁶ CITES only recommends that Parties penalize countries that violate CITES.¹⁰⁷

In addition to using the government regulation approach to restrict trade in the African elephant, CITES also encourages Parties to further incorporate government regulation based conservation at the national level.¹⁰⁸ For instance, the CITES Strategic Vision for 2008–2013 advocates that Parties “enact appropriate legislation, procedures, and enforcement to restrict [domestic] trade of endangered species at the national level.”¹⁰⁹ CITES also entreats that Parties incorporate government regulation conservation through resolutions.¹¹⁰ For example, these resolutions sometimes advocate measures such as domestic prohibitions on the use of protected species.¹¹¹ In sum, these factors shape a global African elephant conservation policy that is firmly entrenched with government regulation based conservation.

III. THE GOVERNMENT REGULATION SOLUTION’S FAILURE TO SAVE THE AFRICAN ELEPHANT

A. CITES’ Historical and Current Failures

The government regulation approach has failed to resolve the African elephant’s tragedy of the commons. On the international level, CITES has persistently blundered. From 1977 to 1990, the African elephant was first listed as an Appendix II species.¹¹² Nevertheless, African elephant population numbers collapsed during these years from

103. See CITES, *supra* note 77, at 27 U.S.T. at 1110, 993 U.N.T.S. at 254.

104. See Del Baglivo, *supra* note 30, at 290.

105. See *id.*

106. *Id.*

107. *Id.*

108. See Carpenter, *supra* note 62, at 8–9.

109. *Id.* at 8.

110. See *id.*

111. See *id.* at 8–9.

112. See Del Baglivo, *supra* note 30, at 292.

1.3 million in 1978, to 600,000 in 1988,¹¹³ predominately because of poaching.¹¹⁴

In this period, CITES regulated the ivory trade through a registration system.¹¹⁵ Each African Party was required to set a quota delineating the number of elephants that could be killed each year within that Party's borders.¹¹⁶ Large raw ivory pieces were marked with country-coded serial numbers.¹¹⁷ Whenever these pieces were exported a copy of the permit and the corresponding serial numbers had to be submitted to the Secretariat, the administrative body of CITES.¹¹⁸ The Secretariat tallied the exports to ensure that each Party did not exceed its respective quota.¹¹⁹ Importing Parties also had to obtain notice from Secretariat that the exporting Party was in compliance before they could accept any shipment of ivory.¹²⁰

In spite of this strict regulatory scheme, the system did little to control overexploitation because the system was poorly enforced. Poor ivory producing states had little incentive to implement CITES because of the high value of ivory and the high cost of enforcement.¹²¹ Only sixteen of thirty-five African Parties complied with the registration system.¹²² With this lack of enforcement, the African elephant remained a primarily open-access resource. Hence, the tragedy of the commons continued and the African elephant population degraded further.

In response to the failure of the 1977 to 1990 system, the CITES Parties agreed to impose even stricter regulation on the African elephant through a ban on the international ivory trade.¹²³ In 1989, the Parties to CITES voted to move the African elephant to Appendix I.¹²⁴

Presently, most populations of the African elephant remain listed under Appendix I.¹²⁵ Less threatened populations in Botswana,

113. *Elephant Ivory Trade-Related Timeline with Relevance to the United States*, HUMANE SOC'Y INT'L, http://www.hsi.org/assets/pdfs/Elephant_Related_Trade_Timeline.pdf [https://perma.cc/J4GW-J4R5].

114. Bill Padgett, Note, *The African Elephant, Africa, and CITES: The Next Step*, 2 IND. J. GLOBAL LEGAL STUD. 529, 538 (1995).

115. See Glennon, *supra* note 83, at 12.

116. *Id.*

117. Dansky, *supra* note 17, at 968.

118. *Id.*

119. Glennon, *supra* note 83, at 12.

120. *Id.*

121. Glennon, *supra* note 83, at 20–21.

122. Dansky, *supra* note 17, at 969.

123. Scott Hitch, Note, *Losing the Elephant Wars: Cites and the "Ivory Ban,"* 27 GA. J. INT'L & COMP. L. 167, 169 (1998).

124. *Id.*

125. *Loxodonta Africana*, *supra* note 91.

Namibia, South Africa, and Zimbabwe have been recently listed under Appendix II for limited exclusive purposes.¹²⁶

One of these purposes was the commercial export of raw ivory.¹²⁷ In 2007, however, the Parties agreed to a nine-year suspension in the ivory trade in Appendix II countries.¹²⁸ Prior to this, exports were restricted to “one-off” sales authorized by the Parties to CITES.¹²⁹ Under CITES, one-off sales are “the legal sale of post-1989 ivory stockpiles from one CITES member nation to another.”¹³⁰ These sales were limited to registered government-owned stocks, excluding government seized ivory and ivory of unknown origin.¹³¹ Each Appendix II country was also limited in the amount they could export.¹³² Botswana was limited to exporting 20,000 kilograms of ivory, Namibia was limited to 10,000 kilograms and South Africa was limited to 30,000 kilograms.¹³³ All proceeds of these ivory trades also had to be used exclusively for elephant conservation or community conservation and development within or adjacent to an elephant range.¹³⁴

Since the nine-year suspension in 2007, there is a nearly complete ban on the ivory trade.¹³⁵ Nonetheless, the African elephant is still being horrendously overexploited. A *de jure* prohibition on the trade of a good does not necessarily equate to a *de facto* ban on trade. No matter how uncompromising the applicable regulation, the law cannot end all trade of a good. Regulation can only make trade more difficult. The *de jure* commercial ban on ivory merely increases the private marginal cost of poaching an elephant for ivory. This increase has not been great enough to deter overexploitative poaching sufficiently. Ivory demand in East Asia has grown rapidly¹³⁶ and has counterbalanced the effects of increased government regulation. This is supported by findings from CITES’ Monitoring the Illegal Killing of Elephants (MIKE) program and the Great Elephant Census.¹³⁷

126. *Id.*

127. *Id.*

128. Montazeri, *supra* note 37, at 134.

129. *See id.* at 134–35.

130. *Id.*

131. *Loxodonta Africana*, *supra* note 91.

132. *See id.*

133. *Id.*

134. *Id.*

135. Del Baglivo, *supra* note 30, at 288.

136. UNITED NATIONS ENV’T PROGRAMME ET AL., *supra* note 14, at 63.

137. *Id.*; *Great Elephant Census Final Results*, GREAT ELEPHANT CENSUS, <http://www.greatelephantcensus.com/final-report/> [https://perma.cc/ARQ2-N6K7].

CITES' Monitoring the Illegal Killing of Elephants (MIKE) program demonstrates that the African elephant continues to be overexploited despite the 2007 trade suspension. MIKE collects information on elephant poaching in Africa and Asia.¹³⁸ The system monitors sample sites and identifies the cause of death of elephant carcasses found on sample sites.¹³⁹ In Africa, the sites incorporate 40 percent of the total African elephant population.¹⁴⁰ Poaching rates are considered likely unsustainable when at least half of the elephant carcasses surveyed are identified as illegally killed.¹⁴¹ The MIKE data indicates that poaching rates followed a starkly increasing trend—even after the 2007 trade suspension—until reaching unsustainable levels in 2010 and 2011.¹⁴² While leveling off since 2011, poaching rates have persisted at unsustainable levels in each year since 2010.¹⁴³ CITES estimates that these unsustainable levels of poaching could destroy a fifth of African elephants in the next decade.¹⁴⁴

The recently released results of the Great Elephant Census similarly show continued unsustainable African elephant population declines and provides further evidence of continued overexploitation. The Great Elephant Census was the largest pan-African aerial survey of African elephants since the 1970s.¹⁴⁵ The Great Elephant Census found that since the 2007 trade suspension, Savanna African elephant populations declined 30 percent between 2007 and 2014.¹⁴⁶ The Great

138. UNITED NATIONS ENV'T PROGRAMME ET AL., *supra* note 14, at 32.

139. *Id.*

140. *Id.* at 32–33.

141. Convention on International Trade in Endangered Species of Wild Fauna & Flora, Seventeenth Meeting of the Conference of Parties, *Report on Monitoring the Illegal Killing of Elephants (MIKE)*, CoP17 Doc. 57.5 (Sept. 5–Oct. 5, 2016) [hereinafter *Monitoring Illegal Killing of Elephants*] <https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-57-05.pdf> [<https://perma.cc/5HA7-5PHA>].

142. See UNITED NATIONS ENV'T PROGRAMME ET AL., *supra* note 14, at 33 fig.9.

143. See *Monitoring Illegal Killing of Elephants*, *supra* note 141, at 3 fig.1 (indicating that at least half of the elephant carcasses surveyed were identified as illegally killed in every year since 2010).

144. *New Figures Reveal Poaching for the Illegal Ivory Trade Could Wipe Out a Fifth of Africa's Elephants Over Next Decade*, CONVENTION ON INT'L TRADE ENDANGERED SPECIES WILD FAUNA & FLORA (Dec. 2, 2013), http://www.cites.org/eng/news/pr/2013/20131202_elephant-figures.php [<https://perma.cc/FGR9-CZ4Q>].

145. *Paul G. Allen Introduces Major Initiative to Conserve African Elephant Population*, PR NEWswire (Dec. 4, 2013, 9:00 AM), <http://www.prnewswire.com/news-releases/paul-g-allen-introduces-major-initiative-to-serve-african-elephant-population-234400521.html> [<https://perma.cc/L9LW-GAFZ>].

146. *Great Elephant Census Final Results*, *supra* note 137.

Elephant Census further found that since 2007, Savanna African elephant populations have declined at a startling rate of eight percent per year primarily because of poaching.¹⁴⁷ The rate of population decline even accelerated from 2007 to 2014.¹⁴⁸

Despite the near complete ban on the trade in ivory, the Great Elephant Census and the MIKE data both show that the African elephant continues to be overexploited. The continued unsustainable use of the African elephant indicates that the elephants' tragedy of the commons has not been resolved. Even under the new more restrictive regulatory regime, ivory hunters have not been disincentivized enough to discontinue overexploitation.

B. CITES' Current Approach to the African Elephant Cannot Save the Species

The seemingly natural solution to CITES' failures is to merely expand the government regulation solution. Apparently, CITES should continue its current approach and "step-up" enforcement and government regulation to more substantially reduce poaching incentives. The CITES Rapid Response Assessment on the elephant recommends this approach.¹⁴⁹ For example, the report advocates strengthening anti-smuggling operations, customs controls, container search programs, and anti-poaching tracking operations.¹⁵⁰ Sharon Montazeri also recommends this approach. Montazeri argues that CITES should extend the ivory trade ban to existing ivory stocks, supplement nation-specific government regulation based conservation efforts, and improve security control.¹⁵¹

The obvious critique of the increased enforcement and regulation solution is that many exporting Parties are developing nations and lack the financial resources to implement these types of measures. One response to this is that poor countries should be given additional foreign aid for CITES enforcement.¹⁵² Even if one assumed this was possible, there are two additional flaws in this solution: (1) it assumes that if a Party has the ability to strictly enforce CITES that it also has the *willingness* to strictly enforce CITES; and (2) it assumes that increased enforcement will sufficiently disincentivize poaching to significantly reduce overexploitation. Both of these assumptions are unlikely to hold

147. *Id.*

148. *Id.*

149. *See* UNITED NATIONS ENV'T PROGRAMME ET AL., *supra* note 14, at 8.

150. *Id.*

151. Montazeri, *supra* note 37, at 142, 145–46, 150–51.

152. *See* UNITED NATIONS ENV'T PROGRAMME ET AL., *supra* note 14, at 8.

because of cultural and economic conditions in the ivory producing and consuming states.

The CITES conservation policy of increased government regulation and increased enforcement suffers from ethnocentric bias. CITES does not sufficiently account for East Asian and African cultural and economic perspectives on the elephant.

1. AFRICANS AND THE IVORY PRODUCING PARTIES

Most ivory producing states have few internal incentives to increase enforcement of the ivory ban. Elephant preservation is politically unpopular in Africa.¹⁵³ Most Africans see CITES as promoting Western preservationist idealism that is out of step with African values.¹⁵⁴ In contrast to the idyllic image of the elephant in the West, many Africans see the elephant as a dangerous pest.¹⁵⁵ To many impoverished African farmers, the elephant is a menace to their crops and their livelihood.¹⁵⁶ David Western, the former director of Kenya's Wildlife Service, has poignantly articulated this point. He has stated, "[e]lephants are the darlings of the Western world, but they are enemy number one in Kenya. . . . African farmer's enmity toward elephants is as visceral as Western mawkishness is passionate."¹⁵⁷ Africans have little incentive to stop the illegal poaching and trading of an animal that they detest.¹⁵⁸ In fact, some African communities readily accept and even assist poaching groups.¹⁵⁹

CITES prioritizes western values of the elephant by banning the international trade of African elephant specimens. The developed world values the elephant for its nobility and its mere existence, but Africans primarily value the elephant as a source of food and wealth.¹⁶⁰ Elephant hunting represents an economic opportunity to a poverty-stricken Africa. Famished Africans see the elephant as a bountiful source of

153. See Hitch, *supra* note 123, at 169.

154. See *id.*

155. See *id.* at 169–170.

156. See LISA NAUGHTON ET AL., THE SOCIAL DIMENSIONS OF HUMAN-ELEPHANT CONFLICT IN AFRICA: A LITERATURE REVIEW AND CASE STUDIES FROM UGANDA AND CAMEROON 6 (1999).

157. Doug Bandow, *When You Ban The Sale Of Ivory, You Ban Elephants*, FORBES (Jan. 21, 2013, 8:00 AM), <https://www.forbes.com/sites/dougbandow/2013/01/21/when-you-ban-the-sale-of-ivory-you-ban-elephants/#156bc0564b03> [<https://perma.cc/VLF8-HBR2>].

158. See Hitch, *supra* note 123, at 169.

159. Montazeri, *supra* note 37, at 149.

160. See Thaddeus McBride, Book Note, *The Dangers of Liberal Neo-Colonialism: Elephants, Ivory and the CITES Treaty*, 19 B.C. THIRD WORLD L.J. 733, 742 (1999).

meat, and see the ivory trade as an escape from poverty.¹⁶¹ Nevertheless, the United States and the European community have declared that the African elephant specimen trade ban is the only solution to African elephant conservation.¹⁶² The Western world has instituted and has maintained the ban despite express opposition from African Parties¹⁶³ with the largest African elephant populations.¹⁶⁴ African nations must bear the costs of CITES enforcement but receive few of the benefits from conservation. These factors disincentivize Africans to adhere to the ivory ban and undermine the willingness of African Parties to more strictly enforce CITES.

In response, some have argued that the key to increasing African Parties willingness to more strictly enforce CITES and to adhere to the ivory ban is changing public perceptions of the elephant in Africa. For example, Montazeri advocates using education to reduce African peoples' enmity towards the African elephant.¹⁶⁵ She argues that it is important to educate local communities about the importance of conservation and promote violence free alternatives to deter elephants from raiding African crops.¹⁶⁶ She asserts that this could reduce human-elephant conflict and "has the potential to effectively and safely control elephant crop raids, thus reducing resentment among villagers towards elephant and therefore also reducing the likelihood that the public will be indifferent towards elephant slaughter."¹⁶⁷

However, the education solution suffers from several problems that make the solution infeasible. Several factors would limit the effectiveness of conservation education campaigns in Africa. Almost every conventional information channel is limited in Africa including television, books, the internet, and databases.¹⁶⁸ Moreover, many African communities live in remote areas and are disconnected from African population centers.¹⁶⁹ Because of these factors, educational campaigns would require tremendous amounts of labor and monetary

161. *See id.*

162. *See id.*

163. Western Parties led the uplisting of the African elephant to Appendix I at the Seventh Meeting of The Conference of the Parties. African Parties protested the action, but Western Parties were able to overcome their efforts because of the relatively low two-thirds majority required for amendment. *Id.* at 740.

164. *See id.* at 745.

165. *See* Montazeri, *supra* note 37, at 149–50.

166. *Id.*

167. *Id.* at 150.

168. *See* Wiliam Wresch, *Information Access in Africa: Problems with Every Channel*, 14 INFO. SOC'Y: AN INT'L J. 295, 299.

169. UNITED NATIONS DEP'T OF ECON. & SOC. AFFAIRS POPULATION DIV., WORLD URBANIZATION PROSPECTS: THE 2009 REVISION 1 (2010) (noting how 60 percent of Africa's population still lives in rural areas.)

resources to reach the millions of Africans who live in African elephant range states. Educational campaigns could not rely on many conventional education and communication techniques.

In addition, there are several cultural barriers to conservation education in Africa. First, traditional cultural attitudes are difficult to change with conservation education.¹⁷⁰ Second, African communities that live within the African elephant's range are highly heterogeneous in terms of language and culture, which makes conservation education very difficult to communicate.¹⁷¹ Different African cultures each use different phrases and words to express similar ideas.¹⁷² Even equivalent words with the same literal meaning can have very different meanings in practice once translated into a local language.¹⁷³ As a result, African elephant conservation education programs would have to be rigorously tailored to each individual African culture to have any chance of success. Third, even with successful conservation education, it is very difficult to transform new ideas into concrete action.¹⁷⁴ New knowledge takes time to incorporate into cultural value systems and even when new values integrate into local cultures, cultural behavior may not change until much later.¹⁷⁵ Each of these factors would limit the ability of conservation education to cause Africans to incorporate non-violent African elephant deterrents and change public perceptions of the African elephant.

Furthermore, even if one assumed that conservation education could reduce human elephant conflict and improve African perceptions of the elephant, the shift would have to be strong enough to overcome the economic and food value of the elephant to Africans. Montazeri herself concedes this point by noting that the economic value of ivory to African Parties may “outweigh the price African governments may be willing to pay to protect elephants for [the intrinsic value established through conservation education].”¹⁷⁶ The ivory market clearly demonstrates that this would likely be the case. The price of raw ivory is approximately \$1,500 per pound¹⁷⁷ and is worth more than the entire

170. See T.L. Bettinger et al., *Discovering the Unexpected: Lessons Learned from Evaluating Conservation Education Programs in Africa*, 72 AM. J. PRIMATOLOGY 445, 448 (2010).

171. See *id.*

172. See *id.*

173. See *id.*

174. *Id.*

175. *Id.*

176. Montazeri, *supra* note 37, at 150 (alteration in original).

177. See Adam Welz, *Amid Elephant Slaughter, Ivory Trade in U.S. Continues*, GUARDIAN ENV'T NETWORK (Feb. 13, 2014, 11:33 AM),

annual income of the typical African.¹⁷⁸ According to some reports, Africans can earn ten times the amount they earn from farming for an entire year in a single poaching raid.¹⁷⁹ This makes ivory a tremendously valuable export opportunity for African Parties who are economically struggling.

Furthermore, even assuming that conservation education could make African Parties themselves more willing to increase CITES enforcement substantially, it is unlikely that conservation education would change the behavior of private ivory suppliers. Montazeri concedes this point as well. She admits that her education solution would be unlikely to affect “impoverished poachers and ivory peddlers who rely on trading illegal ivory as a means of supporting themselves and their families.”¹⁸⁰ In addition, any increased CITES enforcement by African Parties as the result of conservation education would likely have little impact on private ivory suppliers. Although greater CITES enforcement by African Parties could increase risks and supply costs to ivory traders, these costs would have to be great enough to outweigh the enormous benefits of illegally exporting ivory.

2. IVORY CONSUMING PARTIES AND EAST ASIA

Similarly, ivory consuming states face internal disincentives to enforce CITES strictly. East Asian countries are the primary consumers of ivory.¹⁸¹ Most East Asians do not share the West’s repugnance towards ivory.¹⁸² To the contrary, as discussed in Part I of this Article, ivory is a longstanding and coveted cultural and religious object.

China is a Party to CITES, but China is the single largest importer of illegal ivory. Estimates indicate that approximately 70 percent of illegal ivory is going to China.¹⁸³ As a matter of law, China has

<http://www.theguardian.com/environment/2014/feb/13/elephant-slaughter-ivory-trade-us> [<https://perma.cc/L8CV-8XSQ>].

178. See McBride, *supra* note 160, at 742.

179. Emily Hutchens, *The Law Never Forgets: An Analysis of the Elephant Poaching Crisis, Failed Polices, and Potential Solutions*, 31 WIS. INT’L L.J. 934, 948 (2013).

180. Montazeri, *supra* note 37, at 150.

181. See *Demand for Illegal Ivory Explodes in Asia, Where Industry Expands Despite Ban*, *supra* note 44.

182. See Montazeri, *supra* note 37, at 126–27.

183. Jeffrey Gettleman, *Elephants Dying in Epic Frenzy as Ivory Fuels Wars and Profits*, N.Y. TIMES (Sept. 3, 2012), <http://www.nytimes.com/2012/09/04/world/africa/africas-elephants-are-being-slaughtered-in-poaching-frenzy.html> [<https://perma.cc/A5RH-ACTA>].

seemingly shown strong support for the international ivory trade ban.¹⁸⁴ Currently, China limits domestic trade in ivory to legally imported ivory sold through state-run dealers¹⁸⁵ and has recently announced plans to end its legal domestic ivory trade.¹⁸⁶ However, as a matter of actual practice, China poorly supports its laws. Corruption is rampant among state officials enforcing China's ivory trade laws because of ivory's cultural significance and high economic value.¹⁸⁷

Nevertheless, even if importing countries such as China were to increase enforcement of the ivory ban, any decrease in demand would likely be miniscule. Analogous to the United States prohibition of alcohol, even the most stringent enforcement of a government regulation can fail if a good is desired strongly enough. Even in the United States, where the ivory ban is firmly enforced and buttressed with strong national legislation such as the Endangered Species Act and the African Elephant Conservation Act, there is a thriving black market for ivory.¹⁸⁸

The CITES' Rapid Response Assessment on the elephant crisis recommended promoting awareness-raising campaigns targeted at East Asian ivory consumers to reduce market demand for ivory.¹⁸⁹ Similarly, Montazeri recommends using conservation education to build awareness about the ivory trade and African elephants in ivory consuming states.¹⁹⁰ Some non-governmental organizations have begun attempting awareness campaigns in China.¹⁹¹ The intention of these types of educational campaigns is to breed the intrinsic or "existence" value of the African elephant in East Asia.¹⁹² However, there are substantial challenges to the long-term success of educational campaigns in East Asia because of ivory's enduring cultural and religious significance in the region. As Montazeri herself admits, conservation education initiatives likely have little effect on "members of cultures that value ivory for its religious significance, which may very well be

184. See *China Widens Ban on Ivory Imports*, PHYS.ORG (Mar. 22, 2016), <https://phys.org/news/2016-03-china-widens-ivory-imports.html> [<https://perma.cc/TQ53-WDKW>].

185. See *id.*

186. *Id.*

187. Gettleman, *supra* note 183.

188. See Beth Allgood et al., *U.S. Ivory Trade: Can A Crackdown on Trafficking Save the Last Titan?*, 20 LEWIS & CLARK ANIMAL L. 27, 30–32 (2013).

189. See UNITED NATIONS ENV'T PROGRAMME ET AL., *supra* note 14, at 8.

190. Montazeri, *supra* note 37, at 147–48.

191. See, e.g., *Elephant Campaign Targets China Consumers*, SKY NEWS (Feb. 20, 2013, 10:42 UK), <http://news.sky.com/story/elephant-campaign-targets-china-consumers-10454026> [<https://perma.cc/XNN3-EUMQ>].

192. See *id.*

priceless.”¹⁹³ East Asian cultures have esteemed ivory culturally and religiously for centuries, and these types of longstanding, traditional values are difficult to change with conservation education.¹⁹⁴

Furthermore, rising incomes in East Asia will likely counteract any effect awareness campaigns would have on decreasing demand. This is because the rising trend in demand for ivory is primarily income driven, so any effect of public awareness campaigns on decreasing demand would have to outweigh increases in demand caused by rapidly growing incomes in East Asia.¹⁹⁵ Additionally, research by economists Jyoti Khanna and Jon Harford has found that there is “little incentive on part of the consumer states to commit resources for the purpose of restricting trade, even if these countries attach an existence value to elephants.”¹⁹⁶

C. Unintended Consequences of CITES and the Government Regulation Solution

Part of the reason why CITES is ineffective is because of inadequate enforcement. However, CITES is also ineffective because it propagates unintended consequences that exacerbate the African elephant’s plight.

One of CITES’ potential unintended consequences is that it incentivizes elephant overexploitation. Some argue that the international ban on ivory has steepened the price of ivory by making the good scarcer.¹⁹⁷ As a result, CITES could be unwittingly increasing the incentive for ivory hunters to poach African elephants by making ivory more valuable.¹⁹⁸

Furthermore, the government regulation approach is inadvertently fueling indiscriminate elephant killings. In exporting countries where the African elephant ownership is nationalized and takings are prohibited, poachers have an increased incentive to blindly and rapidly slaughter elephants to avoid punishment. For example, in Cameroon poachers have indiscriminately massacred large groups of elephants en

193. Montazeri, *supra* note 37, at 150.

194. See Bettinger et al., *supra* note 170, at 448.

195. See Kai Ryssdal, *With No Elephants Around, the Chinese Keep Buying Ivory*, MARKETPLACE (Mar. 17, 2014, 3:11 PM) <http://www.marketplace.org/topics/world/no-elephants-around-chinese-keep-buying-ivory> [https://perma.cc/Z7ZJ-EW9X].

196. Bandow, *supra* note 157.

197. See ECONOMICS AND THE ENVIRONMENT: A RECONCILIATION 309 (Walter Block ed., 1990).

198. See Note, *supra* note 87, at 1777.

masse.¹⁹⁹ These massacres included infant elephants that were too young to even have tusks.²⁰⁰ These poachers would have had little reason to waste resources on young elephants in the absence of criminal punishment. The risk of punishment has led to an increasing use of clandestine and mass killing technologies such as rocket launchers and helicopters.²⁰¹

D. Cultural Imperialism and CITES' Tenuous Morality

CITES' cultural and economic incompetence renders CITES not only ineffective but also ethically precarious. The government regulation approach to the African elephant is entrenched with cultural imperialism. Broadly, cultural imperialism is the forcible imposition of foreign cultural values on a people who do not share those values.²⁰²

Many Africans see CITES' trade restrictions on African elephant specimens as a form of neocolonialism designed to keep Africa impoverished.²⁰³ Their perspectives on this issue are well justified.²⁰⁴ By banning the trade in African elephant specimens, CITES' regulation of the African elephant prioritizes the Western existence environmental values. CITES bans the trade of ivory, but the peoples of the primary ivory producing and consuming states support the ivory trade. CITES current approach to African elephant conservation parallels colonial era exploitation. CITES forces Africans to use their own limited economic resources to enforce CITES. As most Africans do not share Western conservation values with respect to the elephant, CITES benefits foreign powers at the expense of Africans. In addition, the international community gives local African communities little to no opportunity to influence the international conservation policies that CITES imposes upon them.²⁰⁵

CITES unjustly prioritizes the values of societies that are dissociated from the object regulation. There is no legitimate reason for

199. See John Platt, *Cameroon Elephant Massacre Shows Poaching, Ivory Trade Require an International Response*, SCIENTIFIC AMERICAN (Mar. 20, 2012), <https://blogs.scientificamerican.com/extinction-countdown/cameroon-elephant-massacre-poaching-ivory-trade/> [<https://perma.cc/E46F-W9PE>].

200. See *id.*

201. See John Frederick Walker, *Rethinking Ivory: Why Trade in Tusks Won't Go Away*, 30 WORLD POL'Y J. 91, 93 (2013).

202. *Cultural Imperialism*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/topic/cultural-imperialism> [<https://perma.cc/Q8U8-GDJ4>].

203. See Storey, *supra* note 15, at 380.

204. *Cultural Imperialism*, *supra* note 202.

205. Storey, *supra* note 15, at 380.

Western values to take precedence. Western environmental values are not inherently superior to other cultural values.

CITES fails to consider African and East Asian perceptions of the elephant and ivory adequately. This vitiates the efficacy of African elephant conservation and incites moral concerns. CITES needs to adopt a conservation approach that is compatible with the values of the people in consuming and producing ivory states.

IV. DECENTRALIZED OWNERSHIP IN AFRICAN ELEPHANTS AND LEGALIZING THE IVORY TRADE

A. Theory behind the Decentralized Ownership Solution and the Solution's Empirical Support

Despite the failure of the government regulation approach to resolve the African elephant commons dilemma, there is an alternative solution. Decentralized private or communal ownership and regulation of the African elephant could simultaneously save the animal and eschew cultural imperialism.

Hardin's second policy prescription in *The Tragedy of the Commons* was decentralized ownership.²⁰⁶ Hardin argued that tragedies of the commons could be resolved through *government defined* private property rights. The Nobel economist, Elinor Ostrom, has demonstrated, however, that tragedies of the commons can frequently be resolved through decentralized means without any central government intervention at all.²⁰⁷ She argued that under certain conditions users of a resource can self-organize.²⁰⁸ Local communities commonly adopt their own common-pool resource property and access rules that successfully ensure sustainable use.²⁰⁹

In either case, the decentralized solution transfers ownership of an unowned, open-access resource to individuals or groups of individuals such as local communities. This solution remedies the tragedy of the commons by correcting the perverse incentives created by open-access, common-pool resources. The costs of overexploitation are no longer commonized because the users of the common-pool resource own the resource they are using. Each user of the resource bears the whole burden of their actions. The private marginal costs of the resource users are no longer discounted. This creates rational incentives to collect the common-pool resource sustainably. Additionally, as the resource is

206. See Hardin, *supra* note 4.

207. See Ostrom, *supra* note 9.

208. See *id.* at 278.

209. See *id.* at 280–81.

privately or communally owned, owners of the resource have both the authority and the incentive to exclude free riders from accessing the resource to prevent degradation.

Decentralized ownership is generally more efficient and more effective at preventing a resource's overexploitation.²¹⁰ In contrast to the government regulation approach, this policy does not centrally dictate incentives and levels of sustainable use. Private or community owners of the resource decide their own sustainable resource use levels based upon their idiosyncratic situations. This approach embraces the unique situations and values of heterogeneous individuals and communities.

Some opponents of decentralized ownership in African elephants have argued that the decentralized ownership solution fails in the wildlife context because of market failure.²¹¹ These critics argue that the decentralized solution only satisfies the needs of wildlife market participants and discounts the conservation demands of parties who are not a part of the wildlife trade.²¹² This argument is misguided because decentralized ownership aligns the interests of wildlife market participants with the interests of nonmarket parties. Under private ownership, wildlife suppliers of a species have an interest in ensuring that the species they trade survives. Empirical evidence firmly supports this theoretical claim. The decentralized ownership solution has already protected numerous endangered species from extinction.²¹³

The American bison is an illustrative case. Decentralized ownership is widely accepted as saving the species.²¹⁴ The American bison's near extinction in the 19th century is a well-established tragedy of the commons.²¹⁵ In the early 19th century, the American bison population ranged in the tens of millions.²¹⁶ However, by the end of the century, only a few hundred bison remained.²¹⁷ Similar to the African elephant today, during the 19th century westward expansion the

210. See John Hasnas, *Two Theories of Environmental Regulation*, 26 *SOC. PHIL. & POL'Y* 95, 98 (2009).

211. See, e.g., Glennon, *supra* note 83, at 6.

212. See, e.g., *id.*

213. See *ECONOMICS AND THE ENVIRONMENT*, *supra* note 197, at 307–10.

214. See *id.* Brian Yablonski, *Bionomics*, 25 *PERC REP.* 5, 6 (2007), <https://www.perc.org/sites/default/files/sept07.pdf> [<https://perma.cc/698W-YFT2>].

215. See Yablonski, *supra* note 214.

216. See Benjamin M. Wiegold, *Endangered Species, Private Property, and the American Bison*, *MISES INST.* (Feb. 10, 2014), <http://mises.org/daily/6660/Endangered-Species-Private-Property-and-the-American-Bison> [<https://perma.cc/PC9W-83BW>].

217. *Id.*

American bison was effectively open-access.²¹⁸ Settlers freely hunted the bison by the millions for its meat and hide. As Recreation Magazine described the situation in 1901, “[a] wild buffalo is looked on as a small fortune walking around without an owner.”²¹⁹

At the turn of century and at the brink of bison extinction, ranchers began privately owning bison populations.²²⁰ Private ownership made the bison’s survival within the bison suppliers’ best interests.²²¹ Ranchers adamantly bred and cultivated the animal at a sustainable rate.²²² The species recovered during the 20th century as the result of private ranching.²²³ Private buffalo ranching has been able to satiate the demand for buffalo products.²²⁴ Privately owned bison products have replaced wild bison products.²²⁵ Consequently, wild bison have also been able to recover. By the 1990s, there were approximately 25,000 wild bison and 250,000 privately owned bison.²²⁶ Decentralized ownership jointly satisfied the demands of bison consumers and the demands of bison conservationists.

Additionally, decentralized ownership in African elephants has already had demonstrable empirical success in a small group of Southern African countries at the national level.²²⁷ Over the past three decades, Zimbabwe, South Africa, Namibia, and Botswana have started integrating decentralized ownership principles into their domestic wildlife conservation policies.²²⁸ It is not a coincidence that these countries are also the four Parties whose African elephant populations are listed under Appendix II for limited purposes. Although the African elephant population has been declining overall due to poaching, there is stark regional variation. Zimbabwe, South Africa, Namibia, and Botswana have been relatively unaffected by African elephant overexploitation under decentralized ownership.²²⁹

218. *See id.*

219. Yablonksi, *supra* note 214.

220. *See id.*

221. *See* ECONOMICS AND THE ENVIRONMENT, *supra* note 197, at 307–08.

222. *See* Wiegold, *supra* note 216; Yablonksi, *supra* note 214.

223. *See* Yablonksi, *supra* note 214.

224. *Id.*

225. *See id.*

226. Wiegold, *supra* note 216.

227. *See* Muir-Leresche & Nelson, *supra* note 11, at 26.

228. *See* Andrew J. Heimert, *How the Elephant Lost His Tusks*, 104 YALE L.J. 1473, 1482–85 (1995) (describing community and private ownership of African elephants in Zimbabwe). *See also* ECONOMICS AND THE ENVIRONMENT, *supra* note 197, at 311 (noting private ownership of African elephants in Zimbabwe). *See also* Kay Muir-Leresche & Nelson, *supra* note 11.

229. *See* UNITED NATIONS ENV’T PROGRAMME ET AL., *supra* note 14, at 69.

These countries have begun allowing private and community landowners to benefit personally from African elephants and other types of wildlife living on private and communal lands. Although title in wildlife formally belongs to governments, landowners are given *de facto* ownership of the wildlife on their lands.²³⁰ Citizens in these countries can obtain wildlife hunting rights, management rights, and rights to assign or license these rights to others on any land that they own.²³¹ Private and community landowners are now able to legally fence, breed, and profit from any animals that inhabit their land with relatively few governmental restrictions.²³²

The *de facto* privatization of wildlife has caused a surge in wildlife tourism operations, commercial hunting, and the sale of animal products.²³³ Africans charge for access to the wildlife and their land by selling hunting, photography, and visitation permits.²³⁴ Large amounts of farming and ranching land have been converted into successful wildlife preserves, hunting ranges, and safari parks that include African elephants.²³⁵ As a result, in countries with decentralized wildlife ownership policies, habitat reduction has plummeted and African elephant and wildlife population numbers have grown.²³⁶

Africans in these countries are incentivized to ensure that use of wildlife on their lands is sustainable because they now have a personal stake in the animals' survival. For example, consider an African hunting range owner who controls an elephant population. If the owner allows too much elephant hunting on his land, he risks losing his elephant population and the renewable profits that come with it. In order to maximize his profits, he must prevent overexploitation. The owner also has the authority and the incentive to exclude illegal poachers to ensure the elephant population's renewability.

230. Muir-Leresche & Nelson, *supra* note 11, at 1 (noting how title to wildlife belongs formally to the state, but landowners can obtain full rights to control the use of wildlife on their land).

231. *See id.* As of January 1, 2014, Botswana has banned the hunting of wildlife. However, privately owned ranches are exempted from this ban. *See* Roelof Bezuidenhout, *Botswana's Hunting Ban Fallout*, FARMERS WKLY (Dec. 11, 2013, 2:07 PM), <http://www.farmersweekly.co.za/article.aspx?id=50866&h=Botswana%E2%80%99s-hunting-ban-fallout> [<https://perma.cc/L7G8-7DP5>].

232. *See* Muir-Leresche & Nelson, *supra* note 11, at 1.

233. *Id.*

234. *See id.* at 1, 8, 15.

235. *See id.* at 5–6, 8. *See also*, N. Leader-Williams et al., *Elephant Hunting and Conservation*, 293 SCI. 2203, 2203–04 (2001).

236. *See* Muir-Leresche & Nelson, *supra* note 11, at 13–15. *See also*, Leader-Williams et al., *supra* note 235, at 2203.

Landowners in countries with effectively open-access elephant populations face very different incentive structures, however. A landowner in one of these countries would have little incentive to stop or report poaching on his land because the elephants have little value to the landowner. In fact, as discussed in Part III, the owner might even welcome the elephant poaching. For a landowner in this situation, the poachers would merely be removing crop killers and safety hazards from the landowner's land.

Landowners in African countries outside of Southern Africa, which have focused on strict government regulation of wildlife resources, have likely experienced this situation.²³⁷ For example, Kenya bans all elephant hunting and domestic trade in elephant products.²³⁸ Additionally, Kenyan people, until the 2013 Wildlife Conservation and Management Act came into effect in 2014, have not been compensated for damages caused by African elephants.²³⁹ Because of Kenya's stranglehold on the use of the African elephant, the Kenyan people have borne the personal and economic costs of African conservation policy and have reaped few of its benefits. There is little popular motivation to restrict poaching, and Kenyan elephants are effectively open-access because of inadequate enforcement.²⁴⁰ As a result, Kenya's elephant population has fallen to critical levels in the past few decades.²⁴¹ Other African countries with similar African elephant conservation policies have suffered similar deleterious results.²⁴² The comparative success of decentralized ownership cannot be understated.

The establishment of property 1 for African wildlife in Southern Africa has created personal incentives for Africans to support wildlife conservation. Africans are seeing elephants and others species less as pests and competition, and more as protectable economic opportunities. The budding trend towards decentralized conservation policy at the national level is important progress. Nonetheless, this progress is undercut by CITES. As discussed in Part II, CITES places international pressure on Parties to use government regulation solutions at the

237. See Muir-Leresche & Nelson, *supra* note 11, at 1.

238. Heimert, *supra* note 23, at 1486–88. See Muir-Leresche & Nelson, *supra* note 11, at 1.

239. See Heimert, *supra* note 23, at 1487. *Kenya Finally Gets a New Wildlife Law*, WORLD WILDLIFE FUND (Feb. 17, 2014), <http://wwf.panda.org/?216350/Kenya-finally-gets-a-new-wildlife-law> [<https://perma.cc/V2CA-STZ7>].

240. Heimert, *supra* note 23, at 1486–88 (noting insufficient conservation enforcement funding and widespread corruption among Kenyan conservation enforcement officials).

241. Muir-Leresche & Nelson, *supra* note 11, at 1.

242. *Id.*

national level. Furthermore, prudent national level conservation policy alone cannot save the elephant.

B. Lifting the Ivory Trade Ban

Decentralized ownership on the national level is fundamentally limited by CITES. This is because CITES limits one of the most important property rights of all to Africans: the right to sell ivory internationally.²⁴³ The right to sell ivory internationally is the primary economic benefit of owning African elephants and it is foreclosed by CITES. The unsuccessful government regulation solution remains the overarching conservation regime. Even though there is an increased incentive for Africans to prevent poaching and politically support conservation under national-level decentralized ownership, this incentive is not nearly as great as if international law allowed the international commercial sale of ivory.²⁴⁴

In addition, one can non-lethally harvest ivory sustainably by collecting the ivory from elephants that die from natural causes or by harvesting the ivory from living elephants.²⁴⁵ Nonetheless, the ivory ban destroys the incentive to harvest ivory sustainably. There is little incentive for ranchers to farm the African elephants sustainably for ivory because these elephant ranchers cannot currently sell ivory internationally. Landowners' elephant supply incentives are mostly restricted to tourism, food, hunting, and other uses that do not transcend national boundaries. As a result, CITES limits the potential marginal benefit of sustainably using African elephants under decentralized ownership. This, in turn, reduces the incentive for African elephant owners to practice sustainable use of the elephant in

243. See DG ECOLOGICAL CONSULTING, NATIONAL POLICY AND STRATEGY FOR THE CONSERVATION AND MANAGEMENT OF ELEPHANTS IN BOTSWANA 10 (2003), <https://cmsdata.iucn.org/downloads/bwstrategyfinal.pdf> [<https://perma.cc/3QA6-K4BT>] (noting that the inability to trade ivory internationally because of CITES halves the economic value of African elephants in Botswana).

244. See, e.g., Heimert, *supra* note 23, at 1484–85 (describing the decline in success of community ownership of African elephants in the Nyaminyami area of Zimbabwe after the CITES ivory trade ban).

245. In fact, ivory has been harvested commercially from living elephants as a renewable resource prior to the ivory trade ban and is currently harvested commercially from living elephants as a renewable resource in parts of South and Southeast Asia. See e.g., ESMOND MARTIN & DANIEL STILES, THE SOUTH AND SOUTH EAST ASIAN IVORY MARKETS 13–15, 23, 27, 29, 34, 37, 39, 47, 60, 77 (2002) (describing the current practice in South and South East Asia of harvesting ivory as a renewable resource from captive Asian elephants' tusk tips); 13 THE ENCYCLOPÆDIA BRITANNICA: A DICTIONARY OF ARTS, SCIENCES AND GENERAL LITERATURE 520–21 (Day Otis Kellogg ed., 1899) (describing elephant owners collecting ivory from their elephants as a renewable resource prior to the ivory trade ban).

their private conduct and the number of sustainable elephant practices supplied. In consequence, the tragedy of the commons remains a threat in countries with decentralized elephant ownership because of CITES.

The free international trade in ivory, buttressed with decentralized elephant ownership, would maximize the incentive for Africans to cultivate, breed, and protect African elephants. CITES would ensure better protection of the African elephant because CITES would unite the African elephant conservation interest with the interests of local African communities. CITES would also no longer have to prioritize the African elephant's existence value over the competing instrumental values of the African Elephant. Under decentralized ownership, conservation, and ivory trade legalization, the African elephant can survive and the needs of ivory market participants can be satisfied.

In order for the benefits of national level decentralized conservation to be fully realized, CITES must delist the African elephant from the CITES Appendices and overturn the ivory trade ban to allow private ivory suppliers to sell ivory internationally. However, any delisting must be constricted to exporting Parties that establish and maintain successful decentralized African elephant ownership programs such as Botswana, Namibia, South Africa, and Zimbabwe. If the ivory trade prohibition is lifted outright, this may compound the elephants' tragedy of the commons. Outright ivory trade legalization could render the African elephant populations in countries where elephants are unowned or owned by the state even more open-access.

Nonetheless, one might argue for outright legalization in the ivory trade in order to flood the ivory market and suppress ivory prices. Some argue that if the price of ivory were lower, ivory poachers should have a reduced incentive to poach African elephants, all else being equal.²⁴⁶ This is true under the law of supply that states that all else being equal, an increase in the price of a good leads to a decrease in the quantity of a good supplied.²⁴⁷ Nevertheless, the magnitude of the decrease in the quantity of ivory supplied and the effectiveness of this proposal depends upon the price elasticity of supply for ivory. In other words, it depends on the price sensitivity of ivory suppliers. For example, if the supply of ivory is relatively price insensitive or price inelastic, a lower price in ivory may not necessarily translate into a large reduction in the quantity of ivory supplied. Unfortunately, the

246. *See Should We Legalize Horn Trade to Save the Animals?*, SEEKER (Feb. 3, 2012, 3:00 AM), <http://news.discovery.com/animals/poaching-ivory-rhino-elephants-120203.htm> [<https://perma.cc/8DKJ-BZCS>].

247. *Law of Supply*, INVESTOPEDIA, <http://www.investopedia.com/terms/l/lawofsupply.asp> [<https://perma.cc/EM3T-ULYE>].

precise structure of the supply and demand in the international ivory market is largely unknown because of insufficient data.²⁴⁸ Therefore, any reduction in the quantity of ivory supplied as the result of an ivory price decrease may be overshadowed by increased overexploitation in countries where the African elephant is unowned or owned by the state. This ambiguity further suggests that African elephant downlisting should be contingent on decentralized African elephant ownership.

If CITES legalized the ivory trade in countries that have established strong decentralized property rights in African elephants at the national level, this could also incentivize countries to enact decentralized ownership on the national level that have not already done so. These African Parties would be incentivized to do so because of the high economic value of ivory as a legal export product. Additionally, CITES could further hasten the transition to global level decentralized ownership further by expressly advocating that Parties embrace decentralized African elephant ownership.

C. Critiques of Decentralized African Elephant Ownership

Despite the advantages of decentralized African elephant conservation, opponents have raised pragmatic and ethical critiques of decentralized African elephant ownership. One pragmatic argument against broad decentralized African elephant ownership is that even if landowners have the legal authority to privately own African elephants for ivory, it is impossible to privately own them for ivory as a practical matter because of commercial infeasibility. These critics have charged that the elephant, unlike other species, (1) is too large and aggressive to economically fence, and (2) requires too much land to cultivate feasibly.²⁴⁹ Evidence in Southern Africa demonstrates these arguments are nonsensical. As previously alluded, sustainable African elephant farms and ranches already exist in Southern African countries even without the economic benefit of the ivory trade.²⁵⁰ These elephant owners rely on non-ivory economic benefits such as profits of tourism, sport hunting, and domestic hide and meat sales to fund their ventures.²⁵¹ The opportunity cost of land has not foreclosed the existence of decentralized African elephant ownership. Additionally,

248. Rasmus Heltberg, *Impact of the Ivory Trade Ban on Poaching Incentives: A Numerical Example*, 36 *ECOLOGICAL ECON.* 189, 195 (2000).

249. See *ECONOMICS AND THE ENVIRONMENT*, *supra* note 197, at 310.

250. See, e.g., *Can Trophy Hunting Actually Help Conservation?*, U. WASH. CONSERVATION (Jan. 15, 2014), <http://conservationmagazine.org/2014/01/can-trophy-hunting-reconciled-conservation/> [<https://perma.cc/W8RD-SGHK>].

251. See Muir-Leresche & Nelson, *supra* note 11, at 15.

fencing elephants can be commercially viable with current electric fencing technology.²⁵² The legalization of the ivory trade would only make the commercial feasibility of fencing African elephants on adequate amounts of land more realizable.

Some critics also oppose decentralized African elephant ownership for ivory for reasons based on animal ethics. These critics oppose decentralized ownership and sustainable use because they believe the very use of African elephants commercially is unacceptable on a moral level.²⁵³ For example, the animal rights activist Michele Pickover argues that African elephants should not be considered chattel because they are intelligent and sentient creatures capable of deep emotions that command dignity and respect.²⁵⁴ These critics advocate non-anthropocentric policy evaluations. In other words, law and policy makers should assume that non-human beings have moral standing.²⁵⁵ Under this perspective, using solely anthropocentric policy arguments to justify international decentralized ownership, such as the policy's ability to promote human welfare, conserve the elephant for humanity's sake, and its ability to escape cultural imperialism, is inadequate by itself. Two of the common non-anthropocentric ethical paradigms critics invoke to evaluate the use of elephants are (1) Peter Singer's consequentialist animal ethics,²⁵⁶ and (2) rights-based systems of animal ethics.²⁵⁷

Many animal law and policy advocates champion Peter Singer's system of animal ethics.²⁵⁸ The philosopher Peter Singer is widely credited for being the impetus of the contemporary animal ethics movement.²⁵⁹ Peter Singer uses a consequentialist system of animal ethics.²⁶⁰ His approach evaluates the morality of an action by examining that action's consequences. Singer's ethical system broadens the

252. See *Upfront Cost of Game Ranches*, WILDLIFECAMPUS, http://www.wildlifecampus.com/Help/PDF/Upfront_Cost_of_Game_ranching.pdf [<https://perma.cc/4JWK-9FBN>] (describing the costs of electric fencing for African elephants and conditions under which game ranching is commercially profitable).

253. See ELEPHANT MANAGEMENT, *supra* note 29, at 428.

254. *Id.*

255. See generally *id.*

256. See *id.* at 419. Cf. Partick Tom, *The Debate Over Elephant Culling: Is It Ever Morally Justified to Cull Elephants?*, 29 ZAMBEZIA 76, 76–79 (2002) (describing how animal welfarists use Singer's consequentialist ethics and extend the utilitarian principle to animals, and morally evaluating elephant culling from an animal welfarist perspective).

257. See ELEPHANT MANAGEMENT, *supra* note 29, at 420–22.

258. See *Peter Singer*, EUR. GRADUATE SCH., <http://www.egs.edu/faculty/peter-singer/biography/> [<https://perma.cc/5XEW-UV5V>].

259. See *id.*

260. ELEPHANT MANAGEMENT, *supra* note 29, at 419.

universe of traditional utilitarian ethics to encompass all beings that can experience pain and pleasure.²⁶¹ Singer claims that “humans have no special place in nature and cannot claim any superior position to any other animal in any process of ethical decision making.”²⁶² Under Singer’s ethical system, the morally optimal action is determined by comparing the total pleasure and well-being produced by an action versus the total pain and suffering caused by that action.²⁶³

Singer qualifies his ethical theory by acknowledging that the relative morality of an action against a living organism depends on how sophisticated an organism’s experiences of pain and pleasure are.²⁶⁴ Thus, an action that harms an insect is generally less morally problematic than an action that harms a more complex organism such as a human being.²⁶⁵ Under this theory—holding all else constant—harming an elephant is likely a greater moral concern than harming a simpler animal because elephants are more sophisticated and intelligent than most animals.²⁶⁶ Hence, cultivating elephants under decentralized ownership may be more morally problematic than cultivating other species, such as fish or chickens.

In addition, many animal law and policy advocates alternatively champion deontological or rights-based systems of animal ethics.²⁶⁷ For example, the philosopher Tom Regan asserts that animals like humans are “subjects-of-a-life” and have inherent value.²⁶⁸ Consequently, animals such as elephants have natural rights that must be protected like the rights of human beings.²⁶⁹ Regan posits that possible elephant rights include the right to life and the right to liberty.²⁷⁰ In contrast to proponents of Singer’s ethical approach, Regan rejects utilitarian considerations because they open up the possibility of ethical conclusions that implicate sacrificing the life of an innocent animal in

261. *See id.*

262. *Id.*

263. *See id.*

264. *Id.*

265. *Cf. id.* (comparing the pain and suffering of humans against snakes under Singer’s ethical system).

266. *See* Ferris Jabr, *The Science Is In: Elephants Are Even Smarter Than We Realized*, SCI. AM. (Feb. 26, 2014), <http://www.scientificamerican.com/article/the-science-is-in-elephants-are-even-smarter-than-we-realized-video/> [<https://perma.cc/XUV3-PA6K>] (describing the relatively high intelligence of elephants).

267. ELEPHANT MANAGEMENT, *supra* note 29, at 420.

268. *Id.*

269. *Id.*

270. *Id.* at 421.

the interest of promoting the welfare of other animals and human beings.²⁷¹

There are numerous philosophical reasons to reject both the consequentialist and rights-based systems of animal ethics.²⁷² Nevertheless, this Article does not challenge either of these ethical paradigms because the commercial use of African elephants under decentralized African elephant ownership is ethically justifiable under either of the two systems of animal ethics. Here, the ethical issue is not whether the commercial use of African elephants is morally acceptable, but is rather *which* commercial use of African elephant is more ethically justifiable. The African elephant is used commercially under either government regulation and commercial use prohibition or decentralized ownership and commercial use legalization. As argued in this Article, the government regulation solution and its commercial use prohibitions do not sufficiently deter commercial use disincentives because of cultural and economic factors that undercut the laws' effectiveness. The commercial use of African elephants inexorably subsists *de facto* even under commercial use prohibition. One cannot abstract moral evaluations of policy from practical realities. Consumers will use African elephants commercially with or without the ivory trade ban and decentralized ownership.

First, decentralized ownership is the morally superior policy for CITES under Singer's consequentialist animal ethics. Under Singer's ethical system the morally desirable CITES policy is the policy that results in the least amount of pain and suffering. Under CITES and national level implementation of the government regulation solution, the commercial use of African elephants leads to unbridled poaching and tens of thousands of elephants enduring significant pain and suffering each year. This is because the government regulation solution fails to resolve the tragedy of the commons. As argued in this Article, ivory suppliers have a rational incentive to poach and commit violence against elephants to obtain the animals' ivory. The incentive to commit these acts is greater than it otherwise would be without the tragedy of the commons. In addition, their actions not only harm the elephants attacked, but also the attacked elephant's families. Poachers have a disproportionate incentive to target adult elephants because they have larger tusks.²⁷³ Hence, many young elephants become orphans when

271. *See id.* at 420.

272. *See id.* at 423 (describing criticisms of animal rights ethics); *see also* Michael Fox, "Animal Liberation": A Critique, 88 ETHICS 106 (1978) (critiquing Regan and Singer's animal ethics).

273. *Poachers Leaving Elephant Orphans*, CBS NEWS (Dec. 19, 2008), <http://www.cbsnews.com/news/poachers-leaving-elephant-orphans/> [<https://perma.cc/9ZPM-PGBT>].

poachers hunt down their mothers.²⁷⁴ Young, orphaned elephants can starve without their mothers and face the psychological trauma of being torn apart from their families.²⁷⁵

By contrast, decentralized ownership reduces pain and suffering by diminishing the tragedy of the commons. Africans, in countries where African elephant ownership is legal, have an incentive to prevent poaching because Africans derive economic value in keeping elephants alive and healthy. They also have the incentive to reduce their own hunting levels and elephant deaths to sustainable rates to ensure that elephant populations remain healthy. African elephant owners' incentive to protect elephants from poaching would increase if CITES adopted the decentralized conservation approach and legalized the trade of ivory because African elephants would have tourist *and* ivory value.

In fact, the decentralized conservation approach might also even eliminate most owner permitted elephant hunting and deaths. Owners of African elephants looking to maximize their ivory harvest would likely be incentivized to harvest ivory purely from dead elephants that die of old age and natural causes. As noted in Part I, this is the optimal strategy for harvesting ivory because larger tusks are worth more per kilogram than smaller tusks, and male African elephants' tusks grow at an exponential rate. Beth Allgood, the United States Campaigns director for the International Fund for Animal Welfare, is incorrect in claiming that: "Even if an international trade [in ivory] were sustainable . . . [y]ou can't trade ivory as a commodity and not hurt an elephant."²⁷⁶ Not only is sustainably using elephants for ivory without harming them possible through collecting ivory from a dead elephant that has died of natural causes, this is the optimal harvesting strategy to maximize ivory production.²⁷⁷

One might argue, however, that the risks of poaching would make harvesting ivory purely from elephants that die of old age impractical. These risks could lead owners of African elephants to sustainably harvest ivory from living elephants instead of dead ones to reduce the risk of poaching by keeping their tusks short. For instance, many owners of captive Asian elephants in Thailand frequently cut their tusks to keep their elephants' tusks as short as possible to reduce the risk of

274. *See id.*

275. *See id.*

276. Christina Russo, *Can Elephants Survive a Legal Ivory Trade? Debate is Shifting Against It*, NAT'L GEOGRAPHIC (Aug. 30, 2014), <http://news.nationalgeographic.com/news/2014/08/140829-elephants-trophy-hunting-poaching-ivory-ban-cities/> [https://perma.cc/HG39-4YL3].

277. *See, e.g.*, THE EXPLOITATION OF MAMMAL POPULATIONS, *supra* note 52, at 362.

theft.²⁷⁸ Some particularly impoverished owners of African elephants with lower life expectancies may also be encouraged to harvest ivory from living elephants instead of dead ones because they may have a high time preference, meaning they are likely to attach more relative value to present income than to future income.²⁷⁹ Arguably then, as some owners of African elephants may be driven to harvest ivory from living elephants instead, collecting ivory sustainably could still cause pain for some African elephants because the pulp of elephant tusks contains nerve tissue.²⁸⁰

However, several other factors may diminish the incentive to sustainably harvest ivory from living African elephants instead of dead ones that die of natural causes. Some have argued that harvesting ivory from living Asian elephants in Thailand is an infrequent occurrence because tourists value seeing elephants with uncut tusks.²⁸¹ Arguably, the tourist viewing benefit of keeping an African elephant's tusks uncut are even greater than for Asian elephants because African elephant tusks grow to be larger and more grandiose.²⁸² This may counterbalance the incentives to cut the tusks from living African elephants. African elephants are also larger and more aggressive²⁸³ than Asian elephants creating additional costs for African elephant owners to cut the tusks from living African elephants relative to Asian elephants. Cutting an African elephant's tusk would be a comparatively dangerous activity and could require expensive sedation. The benefits of harvesting the ivory from living elephants instead of dead ones would have to outweigh these costs for an African elephant owner to rationally want to harvest ivory from living elephants. The relative benefits of periodically cutting an elephant's tusks would also have to outweigh the relative benefits of having larger tusks that are worth more per kilogram than smaller tusk pieces for an owner to rationally want to choose to harvest ivory periodically from a living elephant.

Nevertheless, even assuming that some owners of African elephants would harvest the ivory from living elephants, they would have an incentive to avoid harming the pulp to maximize the elephant's

278. DANIEL STILES, *THE ELEPHANT AND IVORY TRADE IN THAILAND* 22 (2009).

279. See EDWARD B BARBIER & JOANNE C BURGESS, *ELEPHANTS, ECONOMICS AND IVORY* 17 (2009).

280. See *An Elephant's Tears*, AFRICAN WILDLIFE FOUNDATION (Feb. 2, 2010), <http://www.awf.org/blog/elephants-tears> [<https://perma.cc/8U77-YFUY>].

281. See, e.g., MARTIN & STILES, *supra* note 245, at 36.

282. BARRY K.B. BERKOVITZ, *NOTHING BUT THE TOOTH: A DENTAL ODYSSEY* 15 (2013).

283. See R.NORMAN OWEN-SMITH, *MEGAHERBIVORES* 126 (1992) (noting that Asian elephants are regarded as being less aggressive towards humans than African elephants).

value. This reason for this is that elephant tusks grow from the pulp tissue and one must cut the tusks below the pulp to ensure the tusks continue to grow.²⁸⁴ Furthermore, even if sustainable ivory users unintentionally damage part of an elephant's tusk pulp, anatomical evidence indicates that dentin and pulp damage causes only negligible amounts of pain in elephants.²⁸⁵

In rebuttal, one might also argue that even if there is relatively little physical pain from collecting ivory from living elephants, harvesting living elephants' tusks might also cause non-physical suffering. Elephants use their tusks to assist with removing bark from trees, foraging, moving objects, and digging.²⁸⁶ When an elephant's tusks are removed, the elephant could suffer indirectly even if the elephant does not experience significant physical suffering from the ivory harvesting. This is a possible consequence under decentralized ownership conservation, but this is already an existing consequence under government regulation based conservation. Again, one must evaluate policy in this context on a relative basis with reference to practical realities. Under decentralized conservation, even if African elephants experience some non-physical suffering from losing their tusks they escape the immense physical and psychological pain and suffering associated with open-access resource overexploitation. By contrast, under the government regulation solution, thousands of African elephants must not only experience the non-physical suffering associated tusk removal but must endure physical and psychological harms associated with poaching and overexploitation as well.

Furthermore, decentralized ownership also reduces human suffering and increases human welfare. Although humans do not have a special standing under Singer's ethics, all human beings are still a part of Singer's calculus.²⁸⁷ Decentralized ownership creates a substantial economic opportunity for poor Africans. Moreover, the policy also helps satisfy the strong human demand for ivory in East Asia.

Decentralized ownership also may indirectly increase human welfare and reduce human suffering by cutting into funding for terrorist groups that are taking advantage of the African elephant's open-access status, such as al-Shabab. Al-Shabab is the terrorist group responsible for the infamous July 2010 terrorist attacks in Kampala, Uganda that

284. See Cheeran, *supra* note 55, at 25.

285. G. E. Weissengruber et al., *Structure and Innervation of the Tusk Pulp in the African Elephant (Loxodonta Africana)*, 206 J. ANATOMY 387, 387 (2005).

286. *Elephant Tusks*, ELEAID, <http://www.eleaid.com/elephant-information/elephant-tusks/> [https://perma.cc/E679-2A9X].

287. See ELEPHANT MANAGEMENT, *supra* note 29, at 428.

killed 76 people during a screening of the World Cup finals²⁸⁸ and the September 2013 terrorist attack on the Westgate shopping in Nairobi, Kenya that killed 67 people.²⁸⁹ The Elephant Action League reported in 2011 that they had discovered evidence through an undercover investigation that al-Shabab had been profiting from buying and selling poached ivory.²⁹⁰ Poaching groups working in Kenya illegally smuggle and sell their ivory to Somali ivory brokers who then sell the ivory to al-Shabab.²⁹¹ Al-Shabab then profits from selling the ivory to East Asian end-users.²⁹² The Elephant Action League estimates that al-Shabab's monthly income from ivory is between \$200,000 and \$600,000 and up to 40 percent of al-Shabab's funds may stem from poached ivory trafficking.²⁹³ The Lord's Resistance Army, the terrorist group led by Joseph Kony, has also profited from ivory poaching.²⁹⁴ However, the Lord's Resistance Army has done so by participating in the poaching itself.²⁹⁵ The Lord's Resistance Army has viciously poached a staggering 3,000 African elephants for ivory to generate funds for its operations.²⁹⁶ Similarly, Boko Haram, the terrorist group responsible for the 2014 kidnapping of over 200 Nigerian school girls²⁹⁷ and the recent, infamous mass-murder of up to 2,000 Northern Nigerian villagers in January 2015,²⁹⁸ has also been potentially profiting

288. Nir Kalron & Andrea Crosta, *Africa's White Gold of Jihad: Al-Shabaab and Conflict Ivory*, ELEPHANT ACTION LEAGUE (Apr. 9, 2017), <http://elephantleague.org/project/africas-white-gold-of-jihad-al-shabaab-and-conflict-ivory/> [https://perma.cc/P5UA-CQZR].

289. *Kenya's Westgate Siege: MPs Start Intelligence Probe*, BBC NEWS (Sept. 30, 2013), <http://www.bbc.com/news/world-africa-24327108> [https://perma.cc/P92S-2B2H].

290. Kalron & Crosta, *supra* note 288.

291. *Id.*

292. *Id.*

293. *Id.*

294. Vidhi Doshi, *Elephant Campaign: How Africa's 'White Gold' Funds the al-Shabab Militants*, INDEPENDENT (Feb. 3, 2014, 1:04 GMT), <http://www.independent.co.uk/voices/campaigns/elephant-campaign/elephant-campaign-how-africas-white-gold-funds-the-alshabaab-militants-9102862.html> [https://perma.cc/R6YA-LMYT].

295. *Id.*

296. *Id.*

297. *U.S. Experts Arrive in Nigeria to Hunt Girls Taken by Boko Haram*, NBC NEWS (May 9, 2014, 4:38 AM), <http://www.nbcnews.com/storyline/missing-nigeria-schoolgirls/u-s-experts-arrive-nigeria-hunt-girls-taken-boko-haram-n101126> [https://perma.cc/EHS4-4G9T].

298. Aminu Abubakar & Faith Karimi, *2,000 Feared Killed in 'Deadliest' Boko Haram Attack in Nigeria*, CNN (Jan. 12, 2015, 4:11 AM), <http://www.cnn.com/2015/01/09/africa/boko-haram-violence/> [https://perma.cc/JT6W-DLSV].

from poaching by targeting African elephants in Cameroon.²⁹⁹ Given the financial links between ivory poaching and these terrorist groups, an international decentralized ownership conservation approach may be able to stymie terrorist campaigns in Africa by stifling African elephant poaching and obstructing an important funding source for African terrorist groups.

The decentralized ownership solution is also superior to the government regulation solution under rights-based animal ethics. If elephants have rights, CITES has an ethical responsibility to protect those rights. This implies that CITES also has a moral obligation to use the best available means to protect elephant rights. Given the choice between the decentralized ownership conservation and the government regulation solution, decentralized ownership conservation is the best mechanism for CITES to protect elephant rights. Relative to the government regulation solution, the decentralized ownership reduces violent human interference in elephants' lives by diminishing human incentives to overexploit the African elephant. As a result, this solution better protects numerous potential elephant rights such as an elephant's right to survive, reproduce and have a family, and live free of pain and suffering caused by human beings.

In sum, decentralized African elephant conservation is the economically and morally optimal policy solution. Ivory trade legalization and the promotion of decentralized ownership can better protect the elephant than the government regulation approach instituted through CITES. Moreover, the decentralized ownership solution is the morally superior under consequentialist and rights-based systems of animal ethics.

CONCLUSION

CITES must abandon the government regulation conservation approach. As demonstrated in Part III, the government regulation solution dissociates the benefits of conservation from the people connected with the African elephant in their day-to-day lives. CITES' current approach does not adequately account for East Asian and African cultural and economic perspectives of the African elephant. This fact diminishes the effectiveness and morality of CITES. CITES can rectify this inadequacy by delisting the African elephant from the

299. Richard Schiffman, *Ivory Poaching Funds Most War and Terrorism in Africa*, NEW SCIENTIST (May 14, 2014), <http://www.newscientist.com/article/mg22229692.700-ivory-poaching-funds-most-war-and-terrorism-in-africa.html?full=true#.VMQceP54ocY> [https://perma.cc/DQ4U-SQPR].

CITES Appendices in countries that have adopted national level decentralized ownership and encouraging other Parties to legalize decentralized African elephant ownership. If decentralized conservation principles are adopted at the international level, the values of disjointed groups can be united. Decentralized ownership can connect the international conservation interest with the interests of the people of Africa. CITES can simultaneously ensure the African elephant's survival and avert cultural imperialism.