

THE BLIND MAN'S ELEPHANT:
BROADENING PERSPECTIVES TO SAVE THE AFRICAN ELEPHANT

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**THE BLIND MAN'S ELEPHANT:
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ABSTRACT

Ivory poaching has evolved from a local and regional nuisance to a vexing global threat in need of immediate action. The ivory trade is one of the world's largest illicit activities, funneling money to terrorist groups, creating instability, and bringing the world's largest land mammal to near extinction. The African elephant population has plummeted and poaching rates have reached an all time high driven by an insatiable Asian demand. The ivory trade has shifted from small, subsistence efforts to militarized, highly organized, and professional criminal networks. This change has not only expanded the scale of poaching activities, but also increased the threat to national security. In Africa, ivory trade has financed terrorist networks including the Lord's Resistance Army (LRA), al-Shabab and the Janjaweed. By leveraging unstable governments and underground financing from the global illicit ivory trade, terrorist and criminal organizations pose a threat well beyond Africa's borders.

Fragmented solutions have been presented to encourage the development of conservation programs; however, most policies have not been fully implemented or sustained at the range country level. While humans have an ethical responsibility to

act in the face of species extinction, conservation policies must be reasonable in the demands they place on fragile governments. The establishment of conservation programs must acknowledge the untenable situation placed on developing nations with unlimited demands and severely limited financial resources. By encouraging responsible economic growth combined with local engagement and sustainability, conservation programs to reestablish the African elephant can succeed in a world of restricted and limited resources.

While the size and scope of the illegal ivory trade is daunting, it is a winnable war. Unlike other highly trafficked resources, ivory is a vanity item. There is no perceived health benefit to overcome as seen in the rhino horn trade, no technology application like the coltan market, and no secondary utility like that of timber. The correct combination of economically viable policies founded on conservation ethics can bolster national security, reduce conflict, increase economic growth, and save the African elephant from extinction.

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INTRODUCTION

THE BLIND MAN'S ELEPHANT

It was six men of Indostan
To learning much inclined,
Who went to see the Elephant
(Though all of them were blind),
That each by observation
Might satisfy his mind.

The First approached the Elephant,
And happening to fall
Against his broad and sturdy side,
At once began to bawl:
"God bless me! but the Elephant
Is very like a WALL!"

The Second, feeling of the tusk,
Cried, "Ho, what have we here,
So very round, smooth and sharp?
To me 'tis mighty clear
This wonder of an Elephant
Is very like a SPEAR!"

The Third approached the animal,
And happening to take
The squirming trunk within his hands,
Thus boldly up and spoke:
"I see," quoth he, "the Elephant
Is very like a SNAKE!"

The Fourth reached out an eager hand
And felt about the knee
"What most this wondrous beast is like
a mighty plain," quoth he:
"'Tis clear enough the Elephant
Is very like a TREE!"

The Fifth who chanced to touch the ear
Said: "E'en the blindest man
Can tell what this resembles most;
Deny the fact who can,
This marvel of an Elephant
Is very like a FAN!"

The Sixth no sooner had begun
About the beast to grope,
Than seizing on the swinging tail
That fell within his scope,
"I see," quoth he, "the Elephant
Is very like a ROPE!"

And so these men of Indostan
Disputed loud and long,
Each in his own opinion
Exceeding stiff and strong,
Though each was partly in the right,
And all were in the wrong

– John Godfrey Saxe, *The Blind Men and the Elephant*

American poet John Godfrey Saxe based his poem on an ancient Indian fable. This timeless cautionary tale has great applicability to the plight of the African elephant in the 21st century as investigations into the facets of this crisis and the solutions presented are inadequate and lack coordination. As astutely

illustrated in “The Blind Man and the Elephant,” individual perception does not always produce the most effective or comprehensive answer. As with many issues of international concern, too often the perspective of those involved clouds progress. Countries responsible for ivory demand refuse to acknowledge the scope of damage caused, local Africa communities view elephants as pests or nuisances, and conservationists seek full and independent wildlife rights. While these are admittedly polarized examples, such differing opinions exist in the debate of how to save the African elephant.

Ivory poaching has become a global problem. The ivory trade is now one of the world’s largest illicit activities, funneling money to terrorist groups, creating instability, and bringing the world’s largest land mammal to near extinction. While the Indian elephant also has tusks, the ivory of the African elephant is considered superior for carving needs. The African elephant produces larger tusks and their ivory has a finer grain than its Indian counterpart. As a more valued commodity, African elephants became the prime target for ivory poachers. Many solutions have been presented to encourage conservation programs; however, most policies have not been sustained at the range country level. In order for efforts to save the African elephant to be maintained, the conservation community and nations must change how they approach the problem. It is estimated that the number of plant and animal species disappearing annually ranges from 10,000 to 25,000 a year, equaling one

species every 20 minutes.¹ The United Nations Environment Programme (UNEP) found an even higher disappearance rate of 150-200 species of plant, insect, bird and mammal becoming extinct every 24 hours.² Some test the world's willingness to take drastic steps to address biodiversity loss by posing the question: "If the international community condemns genocide, might it one day be ready to condemn ecocide?"³ Without a concerted effort to save the African elephant, it may become a case study in "ecocide". A recent report estimates that the African elephant, the world's largest land mammal, will be extinct in the next century.⁴ It is time for nations to prioritize anti-poaching policies.

While we have an ethical responsibility to act in the face of species extinction, or "ecocide," conservation policies must be reasonable in the demands they place on fragile governments. As the primary actor in the current world order, the needs and demands of the nation-state must be taken into consideration in the development of programs to save the African elephant. Without this attention, policies are doomed

¹ Jasper Humphreys and MLR Smith, "War and Wildlife: the Clausewitz Connection," *International Affairs* 87, no. 1 (January 2011): 125.

² John Vidal, "Protect nature for world economic security, warns UN biodiversity chief," *Guardian*, August 16, 2010, accessed August 5, 2014, <http://www.theguardian.com/environment/2010/aug/16/nature-economic-security>.

³ Robyn Eckersley, "Ecological Intervention," *Ethics and International Affairs* 21, no. 3 (Fall 2007): 293.

⁴ Terrence McCoy, "How illegal poaching could exterminate the African elephant 'in 100 years,'" *Washington Post*, August 20, 2014, accessed August 5, 2014, <http://www.washingtonpost.com/news/morning-mix/wp/2014/08/20/how-illegal-poaching-could-exterminate-the-african-elephant-in-100-years/>; George Wittemyer, et al., "Illegal Killing for Ivory Drives Global Decline in African Elephants," *Proceedings of the National Academy of Sciences* 111, no. 36 (September 2014): 13118.

to fail because of dynamic and competing demands that are placed on government resources. Nations, especially developing nations, focus limited financial resources on national security and economic prosperity not environmental ethics. Therefore, an approach that focuses on national security and economic growth should be taken to address environmental concerns such African elephant poaching. In recent years, elephant poaching has shifted from small, subsistence episodes to militarized, highly organized networks. This change has not only expanded the level of poaching activities, but also raised the threat to national security. Previously, poaching was often considered a threat to nature, not a threat to the nation. However, that paradigm is now shifting with the increasing activity of organized crime syndicates and terrorist networks. The conservation community should capitalize upon this shift in order to increase the visibility and priority of anti-poaching policies at the nation-state level. With unlimited demands placed on a country's government and limited amounts of resources to apply to these needs, solutions for complex issues must be realistic in terms of the other demands placed on a particular state. Only the right combination of economically viable policies that can provide a nation with sound revenue sources founded on conservation ethics can bolster national security and save the African elephant from extinction. Ecotourism can produce an economy that revalues the live elephant over its ivory and disrupt funding streams used by terrorists and organized crime.

To fully explore the complex issue of ivory poaching, this paper will review three components of the ivory trade: the problem the African elephant faces, the

current framework of protection, and economic-based solutions for long term success. A historical perspective of the evolving normative standards that influences the ivory trade will provide context to today's growing demand. By reviewing the historic importance ivory has played in representing wealth and status in society for thousands of years, the reader can better understand modern day ivory consumers. This paper will explore modern demand, predominantly from Asia, and the introduction of organized crime and terrorism to the trade. This paper will then outline the current legal and ethical frameworks that provide protection to the African elephant including the challenge that sovereignty presents to enforcement. Lastly, the paper will address the economics behind the trade, including re-legalizing the ivory trade, ecotourism, and the need for local involvement. In conclusion, the paper will argue that the changing face of the ivory trade to include terrorism and organized crime provided the impetus for state action to focus on economic solutions that can create a lasting solution for revenue generation and conservation of the African elephant.

International awareness of ivory poaching has transformed from the original years of excess hunting in the late 19th and early 20th centuries into a global concern of ivory's role in the shadow economies of criminal networks. Current conservation approaches of international policies and treaties are inadequate to properly address the scope of ivory poaching. As this paper will outline, the growing involvement of criminal and terrorist networks in global ivory trafficking provides challenges and opportunities. When addressing competing priorities, nations prioritize issues that

impact national security and economic prosperity. Therefore, by combining the threat to national security that poaching creates with sustainable economic policies such as ecotourism, nations can develop a novel, interdisciplinary approach to African elephant conservation. The instability brought by terrorism and criminal networks provides a compelling reason as to “why” nations should intervene and economic growth potential provides nations a compelling “how” to carry out anti-poaching efforts. Many states want to act to prevent the proliferation of illegal poaching activities, but do not have the resources to do so. By establishing an anti-poaching, conservation solution that creates revenue and increases economic prosperity, a state is more apt to act. Together, these perspectives can foster long-term solutions to save the blind man’s elephant.

CHAPTER 1

THE PROBLEM

The word 'ivory' rang in the air, was whispered, was sighed. You would think they were praying to it.

– Joseph Conrad, *Heart of Darkness*

With poignant and enduring words, author Joseph Conrad wrote of the brutality of the nineteenth century African ivory trade based on King Leopold II of Belgium's obsession with ivory.¹ Over one hundred years later Conrad's "heart of darkness" still thrives with an insatiable appetite for ivory. In May 2014, the world lost one of the last remaining "Great Tuskers," Satao. Born in the 1960s, he lived out his years in the Tsavo Nation Park in Kenya and was among an elite and shrinking population of African elephants with tusks weighing over 100 pounds. Satao demonstrated the intelligence and awareness that exemplified the humanity held by these great creatures. After witnessing poaching and the increasing slaughter of elephants, Satao began to conceal his tusks in foliage to avoid detection.² While the exact location and number of these "Great Tuskers" is not publicized out of fear of

¹ Gettleman, "Elephants Dying in Epic Frenzy as Ivory Fuels Wars and Profits," *New York Times*, September 3, 2012, accessed March 26, 2014, http://www.nytimes.com/2012/09/04/world/africa/africas-elephants-are-being-slaughtered-in-poaching-frenzy.html?pagewanted=all&_r=0.

² Eyder Peralta, "One of Kenya's Legendary 'Tuskers' is Killed by Poachers," *NPR*, June 14, 2014, accessed August 8, 2014, <http://www.npr.org/blogs/thetwo-way/2014/06/14/321972100/one-of-kenyas-legendary-tuskers-is-killed-by-poachers>.

leading poachers to them, there are less than a dozen left in Tsavo National Park.³ Over its range of 42,000 square kilometers, Tsavo was home to over 35,000 African elephants in 1967. Today, that population stands at 12,000 and sadly still represents the largest African elephant population in Kenya.⁴

Human infatuation with ivory as a symbol of wealth and status began millennia ago. Mammoth ivory adornments were discovered in Russian Paleolithic burial sites that are estimated to be 28,000 years old.⁵ As early as 3000 BCE, Egyptians developed varied hieroglyphs to differentiate between trained elephants and wild elephants.⁶ In the fifteenth century BCE, Queen Hatshepsut sent five ships on down the Nile to then be carried across the desert to the Red Sea in order to sail southward.⁷ The expedition returned with 700 elephant tusks. In addition, a painted chest found in the tomb of the Egyptian King Tutankhamen was adorned with painted ivory as was his headrest.⁸ With the increasing value and status placed upon ivory, the desire for ivory products continued to grow throughout time. In addition to commissioning a “great throne of ivory” as described in 1 Kings 10:18 of the Old Testament, King Solomon’s temple in Jerusalem was adorned with large

³ “Extra Protection for the Last Giants of the Elephant World,” Tsavo Trust, last modified 2014, accessed August 28, 2014, <http://tsavotrust.org/tsavo-tuskers/>.

⁴ “Tsavo Trust,” Tsavo Trust, last modified 2014, accessed August 28, 2014, <http://tsavotrust.org/overview/>.

⁵ John Frederick Walker, *Ivory’s Ghosts* (New York: Atlantic Monthly Press, 2009), 9.

⁶ Martin Meredith, *Elephant Destiny* (New York: Public Affairs, 2001), 8.

⁷ *Ibid.*, 8.

⁸ *Ibid.*, 9.

quantities of ivory.⁹ King Ahab the Israelite followed suit, building a temple decorated with so much ivory that would be later referred to as the “ivory house.”¹⁰ Poaching can take many forms. Elephants can be dangerous animals and have been known to trample humans when startled. Therefore to harvest the entire tusk, a significant portion of which is not visible, nearly all poachers first kill the elephant. Early hunters used simple weapons such as poison arrows or snares to kill elephants prior to removing their tusks. While those methods are still used today, poaching has grown into large-scale hunting expeditions with trackers that locate elephants on foot or in the air. They are often armed with military grade automatic rifles to shoot herds of elephants at a safe distance.

Today demand has shifted to primarily Asian markets. While China has been a destination for African elephant ivory for 4,000 to 5,000 years, the tradition has expanded with a growing middle class and increasing expendable wealth.¹¹ Due to its economic successes, China surpassed Japan in 1998 as the world largest consumer of ivory.¹² It is believed that 70 percent of illegal ivory traded today is being purchased by the Chinese.¹³ A survey of the growing Chinese middle class

⁹ 1 Kings 10:18-20.

¹⁰ Meredith, *Elephant Destiny*, 10.

¹¹ Brendan Moyle, “China’s legal ivory trade offers solution to end smuggling” (interview, Forum on China-Africa Cooperation, March 1, 2013), accessed June 8, 2014, <http://www.focac.org/eng/zxxx/t1018290.htm>.

¹² Anita Gossman, “Tusks and Trinkets: An Overview of Illicit Ivory Trafficking in Africa,” *African Security Review* 18, no. 4 (July 2010): 52.

¹³ Gettleman, “Elephants Dying in Epic Frenzy.”

found that 87 percent view ivory as an item of “prestige” and 84 percent intended to purchase ivory goods.¹⁴ However, education regarding the sourcing of ivory is lacking.¹⁵ Seventy percent of respondents were not aware that ivory is almost exclusively sourced from dead elephants.¹⁶ While statistics from China are notoriously misleading, China’s State Forest Administration, responsible for overseeing the ivory trade, admits that the amount of illegal ivory in the country is “huge.”¹⁷ However, the Chinese government is doing little to reverse the trend. In fact the Chinese government openly promotes expansion of ivory markets.¹⁸ To some extent this is expected as the central government owns many of the state-licensed ivory dealers.¹⁹ In 2013, China had 37 registered ivory carving factories with 145 registered ivory retailers and a considerably larger underground market.²⁰

Import enforcement is also lacking in China. At the largest port for illegal ivory entrance to China, Hong Kong, only one percent of the 60,000 containers that enter the port each day are searched. Even with low inspection percentages, seven

¹⁴ Anderson and Jooste, “Wildlife Poaching,” 2.

¹⁵ Ibid.

¹⁶ Ibid., 5.

¹⁷ Gettleman, “Elephants Dying in Epic Frenzy.”

¹⁸ Anderson and Jooste, “Wildlife Poaching,” 5.

¹⁹ John Walker, “Rethinking Ivory: Why Trade in Tusks Won’t Go Away,” *World Policy Journal* 30 (June 2013): 98.

²⁰ Ibid.

tons of ivory were confiscated in the last four months of 2012.²¹ Recent CBS News reports have illuminated the ways in which Chinese businessmen and tourists conceal illegal ivory. During an investigation in Cairo's Khan el-Khalili market, undercover reporters were given tips from Chinese customers, some of which claimed to be on official government travel, to spray paint ivory to make it appear wooden or metal in order to evade customs officials.²²

While China is the leader in ivory consumption, it is not alone. In 2007, 7.7 tons of illegal ivory were seized by customs in Manila with an additional 5.4 tons seized in 2009.²³ Taiwanese officials seized over six tons of illegal ivory in transit to the Philippines in 2006. Combined, these three seizures represent over 1,700 elephant deaths. In the Philippines, ivory is used as a status symbol in the church. The amount of investment made in religious icons is believed to determine the amount of blessings one will receive.²⁴ Ivory is considered one of the most precious and expansive materials. The most famous collector of ivory in the nation is Monsignor Chistobal Garcia, head of protocol for the Roman Catholic archdiocese in the Philippines.²⁵ Filipino Catholics are not alone in their attachment to ivory. The Vatican continues to condone the sale of ivory and has refused to sign the

²¹ Gettleman, "Elephants Dying in Epic Frenzy."

²² Holly Williams, "Wealthy Chinese Drive Illegal ivory Trade Boom," *CBS News*, November 27, 2012, accessed June 8, 2014, <http://www.cbsnews.com/news/wealthy-chinese-drive-illegal-ivory-trade-boom/>.

²³ Bryan Christy, "Ivory Worship," *National Geographic Magazine*, October 2012, 40.

²⁴ *Ibid.*, 39.

²⁵ *Ibid.*, 38.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) agreement to ban international ivory trade, which will be discussed in Chapter 3. If a tourist purchases an ivory item in St. Peter's Square, vendors explain that the item can be blessed by a Vatican priest.²⁶

Ivory poaching is a battle of economics. Due to an insatiable demand from Asia, one ivory tusk of an adult elephant can amount to more than ten times the average household annual income in most African nations.²⁷ The market price of ivory, like most other globally traded products, follows demand. In Kenya in 1969, uncarved ivory was \$2.50 per pound.²⁸ By 1978, uncarved ivory increased to \$34 per pound and reached \$90 per pound by 1989.²⁹ Prices peaked at a high of \$1,002 per pound in Beijing in 1998.³⁰ The skyrocketing market value of ivory has led to increased elephant poaching, the devastation of African elephant populations, and increased involvement of organized crime.

The ivory trade is a multi-billion dollar economy where the source of the commodity, African elephants, traverses some of the poorest regions in the world. As with most aspects of illicit and underground economies, discrepancies exist

²⁶ Gettleman, "Elephants Dying in Epic Frenzy."

²⁷ Ibid.

²⁸ Kent Messer, "The Poacher's Dilemma: The Economics of Poaching and Enforcement," *Endangered Species Update* 17, no. 3 (May/June 2000): 50.

²⁹ Andrew Lemieux and Ronald Clarke, "The International Ban on Ivory Sales and Its Effects on Elephant Poaching in Africa," *British Journal of Criminology* 49 (July 2009): 453.

³⁰ Katherine Lawson and Alex Vines, "Global Impact on Wildlife Trade" (report, Chatham House, February 2014), 13.

among researchers and academicians as to the scope of illegal ivory trade. Estimates range from \$7 to \$10 billion by the U.S. Department of State,³¹ \$5 to \$20 billion by the Congressional Research Service,³² and \$8 to \$10 billion by the Global Financial Integrity Report.³³ The U.S. Council on Foreign Relations ranks wildlife trafficking among the top five most profitable illegal trades along with drug smuggling, weapons proliferation, counterfeit goods, and human trafficking.³⁴ Other researchers provide more specific estimates. Jasper Humphreys found the ivory trade to be the second largest trade in 2012 and the fourth largest the year prior while the Office of the U.S. Director of National Security cited the illegal wildlife trade as the third largest international trade in 2013. While the ranks may vary, illegal wildlife crime is a large-scale, global problem that undermines the development and economic stability of African nations and national security worldwide.

African elephant populations in the Sub-Saharan elephant range countries are reaching dangerously low levels due to ivory poaching. The African elephant

³¹ Hillary Clinton, "Remarks at the Partnership Meeting on Wildlife Trafficking," U.S. Department of State, November 8, 2012, accessed March 11, 2014, <http://www.state.gov/secretary/20092013clinton/rm/2012/11/200294.htm>.

³² Liana Rosen, "Wildlife Poaching in Africa: Overview for Congress," *Congressional Research Service*, October 21, 2013.

³³ John Scanlon, "Ivory and Insecurity: The Global Implications of Poaching in Africa," (testimony, U.S. Senate Committee on Foreign Relations, Washington, DC, May 24, 2012).

³⁴ John Campbell, "Tracking the Traffickers: President Obama against Poaching," *Council on Foreign Relations*, July 15, 2013, accessed March 29, 2013, <http://blogs.cfr.org/campbell/2013/07/15/tracking-the-traffickers-president-obama-against-poaching/>.

population has dropped from an estimated 1.35 million in 1978 ranging over 7.3 million square kilometers in Africa³⁵ to as low as 420,000 in 2013³⁶ ranging across 3.3 million square kilometers.³⁷ The West African country named for the large elephant herds that used to inhabit its forests, the Ivory Coast, has nearly no sign of elephant rangeland left in the country.³⁸ While the African elephant population has been in decline since the 1970s, elephant poaching is now at its highest rate in 20 years. Rates of illegally traded ivory have been on the rise since 2004, dramatically so since 2009.³⁹ A recent survey counted more than 100,000 African elephant deaths from 2010 to 2012, with the peak in 2011 of 40,000 deaths.⁴⁰ A record-breaking 38.8 tons of illegal ivory, or the ivory from 4,000 elephants, was confiscated worldwide in 2012⁴¹ and an additional 41.6 tons in 2013.⁴²

³⁵ Daniel Stiles, "The Ivory Trade and Elephant Conservation," *Environmental Conservation* 31, no. 4 (December 2004): 312.

³⁶ Rosen, "Wildlife Poaching in Africa."

³⁷ "Elephant Database," IUCN Species Survival Commission, last modified 2014, accessed July 11, 2014, http://www.elephantdatabase.org/preview_report/2013_africa/Loxodonta_africana/2012/Africa.

³⁸ Gettleman, "Elephants Dying in Epic Frenzy."

³⁹ Iain Douglas-Hamilton, "Ivory and Insecurity: The Global Implications of Poaching in Africa" (testimony, U.S. Senate Committee on Foreign Relations, Washington, DC, May 24, 2012).

⁴⁰ Laura Geggel, "More than 100,000 Elephants Killed in 3 Years," *Discovery News*, August 19, 2014, accessed August 7, 2014, <http://news.discovery.com/animals/endangered-species/poachers-killed-more-than-100000-elephants-in-3-years-140819.htm>.

⁴¹ Gettleman, "Elephants Dying in Epic Frenzy."

⁴² INTERPOL, "Environmental Security Sub-Directorate, Elephant Poaching and Ivory Trafficking in East Africa: assessment for an Effective Law Enforcement Response" (report, Environmental Security Sub-Directorate, February 2014), 2.

A major factor in species resiliency is reproduction rates. The average lifespan of the African elephant is 60 years, reaching fertility at 13 with a five-year birth interval.⁴³ With a maximum population growth rate of only six percent in a well-balanced elephant population, the future of the Africa elephant is not optimistic.⁴⁴ Poaching in 2011 surpassed reproduction at 8 percent of the total African elephant population. Without intervention, it is biologically impossible for the African elephant to grow or maintain current population levels to compensate for poaching rates. A sustained high level of poaching activity has led researchers to conclude that extinction is imminent within 100 years.⁴⁵

The combination of a high economic payoff for poachers and low birthrate does not bode well for the future of the African elephant. Poachers are not only destroying a species. They are destabilizing fragile economies, encouraging conflict and corruption, and disrupting economic growth. To save the African elephant from extinction, the global community should acknowledge the negative impact the extinction of the African elephant will have on the environment and national security.

⁴³ Timothy Swanson, *Global Action for Biodiversity: An International Framework for Implementing the Convention on Biological Diversity* (Abington: Routledge, 1997), 36.

⁴⁴ Ibid.

⁴⁵ Wittemyer, "Illegal Killing for Ivory Drives Global Decline in African Elephants."

CHAPTER 2

THE CHANGING FACE OF THE IVORY TRADE

Over the past few years wildlife trafficking has become more organized, more lucrative, more widespread, and more dangerous than ever before.

–Secretary Hillary Clinton, 2012

While its exact position as a top global crime may vary, there is little disagreement that modern illegal ivory poaching adversely impacts national security worldwide. Illegal crime inherently weakens the rule of law and makes the local, regional, and global economy more vulnerable. Decades ago, international ivory trade networks were dominated by militaries that had access to the infrastructure and transportation needed to gather and transport ivory throughout the African continent and to other regions of the world.¹ Today, poaching has “gone professional.”² Complex and professional criminal networks control much of the trade. Increased global growth, investment in infrastructure, and widely available, affordable technology has nurtured a new leader -- organized crime. The increased militarization of poaching activities cultivates conflict and destabilizes governance structures. Most small scale subsistence and artisanal poachers have been absorbed or eliminated by global commercial networks monopolized by criminal networks

¹ Varun Vira and Thomas Ewing, “Ivory’s Curse: The Militarization & Professionalization of Poaching in Africa,” *Born Free* (April 2014): 10.

² Walker, “Rethinking Ivory,” 98.

and terrorist organizations.³ Similar to the small arms and drug trades, local syndicates filter supplies to a network of regional middlemen who serve as the connection to international markets. African ivory trade has developed complex systems of international trafficking networks and sophisticated weaponry.⁴ Ivory supply network structures include the “landlord method” which is a vertical network with a leader, often a well-connected businessman or politician, who dictates the hunting and equipment distribution and the “distributor model” which is distinguished by a broad, network-based structure in which orders and equipment are passed through various layers of local communities and villages.⁵ The distributor model was utilized in the 2013 cyanide killing of over 300 elephants in Zimbabwe. Cyanide was distributed to small villages where the chemical was used at the village elder’s discretion to poison local elephant populations.⁶ The locals were then compensated by the criminal networks for their involvement in the process. The utilization of the distributor model resulted in the indiscriminate killing of elephants, other wildlife and the contamination of many watering holes. Local subsistence hunters have become contract poachers who sell the ivory to a larger criminal network. Instead of cash payment, many are granted permission to

³ Vira and Ewing, “Ivory’s Curse,” 10.

⁴ Ibid., 16.

⁵ Ibid.

⁶ Martin Geissler, “Poachers killing elephants by poisoning water holes with cyanide,” *NBC Nightly News*, aired September 25, 2013, accessed September 6, 2014, <http://www.nbcnews.com/video/nightly-news/53105729#53105729>.

sell the bushmeat for profit or are given military-grade weapons for future hunts.⁷ Increased professionalization and organization have morphed what was once a low-level criminal activity into a highly motivated and armed international criminal network. U.S. Director of National Intelligence, General James Clapper, underscored international organized crime as a threat to economic and national security worldwide as “criminals can play a significant role in weakening stability and undermining the rule of law.”⁸ This shift to highly complex networks makes it more difficult to address the growing crime, especially in developing countries with limited government capacity.

Along with increasing professionalization, illegal ivory trade has now evolved to incorporate an elevated level of weaponization. As militarization of trade increases, so grows the sophistication of the equipment used and the scale of violent incidents. Poachers are using complex equipment such as night-vision and thermal goggles, rocket launchers, sniper equipment, GPS locators, heat-detecting devices and helicopters.⁹ The ivory trade’s connection to other illicit trades creates additional instability for nations. Many of these weapons are military grade equipment sold and purchased in global illegal arms trade networks. Gounden finds

⁷ Vira and Ewing, “Ivory’s Curse,” 17.

⁸ James Clapper, “Worldwide Threat Assessment of the US Intelligence Community” (testimony, Senate Select Committee on Intelligence, January 29, 2014), accessed June 8, 2014, http://www.dni.gov/files/documents/Intelligence%20Reports/2014%20WWTA%20%20SFR_SSCI_29_Jan.pdf.

⁹Saskia Rotshuizen and MLR Smith, “Of Warriors, Poachers and Peacekeepers: Protecting wildlife after conflict,” *Cooperation and Conflict* 48, no. 4 (December 2013): 505.; Walker, “Rethinking Ivory,” 93.

that “arms trafficking is inextricably linked to poaching in Africa.”¹⁰ The combination of the illegal wildlife trade and the largely unregulated small arms trade creates a well-armed and well-funded criminal poaching network with non-state actors.¹¹ Often, armed non-state actors who are active in illegal poaching syndicates move ivory in exchange for arms and use existing arms smuggling networks to facilitate the movement of illicit ivory.¹² In addition to small arms trade, the European Union’s EUROPOL found an emerging breed of global “poly-criminal organized crime groups” that are trafficking in drugs as well as endangered species to Europe and Asian markets.¹³ Pre-existing global drug networks are used to transport illegal wildlife, expanding the complex web of suppliers and customers.

The ivory trade and its related criminal networks provide a clear argument as to why all nations involved should address the illegal trade in order to increase national security. While natural resources are rarely the sole cause of conflict, they are often cited as a motivating factor for conflict in regions of weak institutions.¹⁴

The illegal ivory trade encourages conflict by undermining the rule of law and

¹⁰ Johan Bergenas, Rachel Stohl, and Alexander Geogief, “The Other Side of Drones: Saving Wildlife in African and Managing Global Crime,” *Conflict Trends*, no. 3 (March 2013): 7.

¹¹ Lawson and Vines, “Global Impact on Wildlife Trade,” x.

¹² James Clapper, “Wildlife Poaching Threatens Economic, Security Priorities in Africa,” (report, National Intelligence Council, September 6, 2013), 2, accessed June 8, 2014, http://www.dni.gov/files/documents/Wildlife_Poaching_White_Paper_2013.pdf.

¹³ European Police Office, “EU Organized Crime Threat Assessment” (report, EUROPOL, 2011), 41, accessed July 27, 2014, <https://www.europol.europa.eu/sites/default/files/publications/octa2011.pdf>.

¹⁴ Leo R. Douglas and Kelvin Alie, “High-Value Natural Resources: Linking Wildlife Conservation to International Conflict, Insecurity, and Development Concerns,” *Biological Conservation* 171 (March 2014): 271.

funding militias and terrorist networks. As outlined by the Director of National Intelligence Clapper during Senate Select Committee on Intelligence hearing, “illicit trade in wildlife. . . endangers the environment, threatens the rules of law and border security in fragile regions, and destabilizes communities that depend on wildlife for biodiversity and ecotourism.”¹⁵ The trade preys on both the need of local communities and individuals to produce income and the greed of sophisticated crime syndicates with widespread global networks to profit from pillaging environmental resources. With increased participation of the Janjaweed militia, the Lord’s Resistance Army, Sudan People’s Liberation Army, and Somalia’s al-Shabab, controlling the ivory trade will only grow more difficult. The growing involvement of militant groups had led some to equate elephant poaching to conservation’s War on Drugs: very expensive and dangerous with little hope for success.¹⁶

Terrorism

While there are many challenges to combating the illegal ivory trade, African nations have begun to acknowledge the connection poaching has with organized crime and terrorism. During his State of the East African Countries address, President Kenyatta of Kenya stated “the money gained from the callous business is usually directed into funding terrorism, which means now the war against poaching

¹⁵ Ibid.

¹⁶ Walker, “Rethinking Ivory,” 93.

should be treated as a doubled-edged sword, which decimates two evils at once.”¹⁷ He went on to declare, “terrorism is a serious threat to our community; the racket costs lives, scares investments, fuels cases of poverty and unrest among our people.” Unlike other extractive resources, ivory is seen as a flexible currency. Commodities such as coltan, tin and gold demand control or defense of a static location while elephant ivory poaching does not.¹⁸ The ability for criminal networks to remain mobile is appealing to terrorist groups.¹⁹ In Africa, the illegal trade has been found to finance the Lord’s Resistance Army (LRA), al-Shabab and the Janjaweed.²⁰ While not exhaustive, these cases illustrate the cost poaching can have on the security of a nation.

The Democratic Republic of Congo (DRC) has become a base of illegal wildlife trade due to its underperforming central government. In addition to being a weak state with significant governance issues and porous borders, the DRC is also home to large expanses of undeveloped wildlife areas. All five of DRC’s UNESCO World Heritage Parks are listed as “Sites in Danger” due to conflict and desecration of the

¹⁷ Marc Nkwame, “Uhuru: Poaching, Terror Linked,” *Tanzania Daily News*, March 26, 2014, accessed April 1, 2014, <http://dailynews.co.tz/index.php/local-news/29596-uhuru-poaching-terror-linked>.

¹⁸ Columbite-tantalite, or Coltan, is a metal ore found in Africa that is formed into a heat-resistant metallic powder that can hold an electric charge. It is used in many electronic elements including cell phones and laptops.

¹⁹ Vira and Ewing, “Ivory’s Curse,” 17.

²⁰ Gettleman, “Elephants Dying in Epic Frenzy.”

environment.²¹ Among these areas is the Garamba National Park. During the conflict from 1995 to 2006, the Garamba became a refugee location for those fleeing Sudan and later housed poachers from the Sudan People's Liberation Army, the militant FARDC, and LRA members.²² The unfettered access to wildlife encouraged poaching amongst the militia and refugees. During its war with Northern Sudan, the Sudan People's Liberation Army was also suspected of poaching elephants with grenades and rocket-propelled guns in what is now South Sudan.²³ Militants that have escaped the LRA have reported ivory trades between the militia and Arab businessmen and officers in the Sudanese military. In return for ivory, the LRA is receiving cash, food, weapons, and medical supplies.²⁴

Today, park rangers only maintain consistent control of the southern third of the Garamba National Park and at a maximum, control 50 percent of the park area. The LRA controls the rest of the park allowing unabated access to elephant populations in the area. The United Nations Security Council has called attention to the connection between ivory poaching and funding of armed groups, including the LRA. In its 2013 report on Central African activities, the United Nations representative noted concern from authorities and stakeholders about the increased

²¹ "List of World Heritage in Danger," United Nations Educational, Scientific and Cultural Organization, last modified 2014, accessed July 12, 2014, <http://whc.unesco.org/en/danger/>.

²² Lawson and Vines, "Global Impact on Wildlife Trade," 5.

²³ Tom Cardamone, "Ivory and Insecurity: The Global Implications of Poaching in Africa" (testimony, U.S. Senate Committee on Foreign Affairs, March 24, 2012), accessed July 12, 2014, <http://www.gpo.gov/fdsys/pkg/CHRG-112shrg76689/pdf/CHRG-112shrg76689.pdf>.

²⁴ Anderson and Jooste, "Wildlife Poaching," 2.

militarization and sophistication of poaching activities.²⁵ During the time the LRA has used the park as an operational base, the elephant population has dramatically fallen. The Garamba was once home to over 20,000 elephants. The latest aerial survey by UNESCO in 2012 estimated the elephant population to be 1,600.²⁶ The same year of the survey, 2012, 22 elephants were found dead in the park.²⁷ The elephants were shot with precision, the tusks removed, all bushmeat discarded, with no tracks in or out of the kill zone. During a survey of the kill zone, park officers noted a Ugandan military helicopter flying a low altitude, unauthorized flight in the park. After detection, the helicopter immediately left the area. Park officials, scientists, and Congo officials now believe the Ugandan military was responsible for the illegal ivory poaching carnage that was estimated to be valued at \$1 million. In that same year, two park rangers of the Garamba came under fire from poachers, later identified as LRA members. The rangers armed with antiquated belt-fed machine guns could not compete with the PKM machine guns, AK-47s, and G-3 battle rifles with which the poachers were armed.²⁸ While the rangers were able to escape unharmed, there were 190 ranger deaths from 1995 to

²⁵ United Nations Security Council, *Report of the Secretary-General on the activities of the United Nations Regional Office for Central Africa and on the Lord's Resistance Army-affected areas*, S/2014/319 (New York: Security Council Mission to Africa, May 6, 2014), accessed July 12, 2014, http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2014/319.

²⁶ United Nations Education, Scientific and Cultural Organization, *Convention Concerning the Protection of the World Cultural and Natural Heritage* (Paris: General Conference 17th Session, November 16, 2014), accessed July 17, 2014, <http://whc.unesco.org/archive/convention-en.pdf>.

²⁷ Gettleman, "Elephants Dying in Epic Frenzy."

²⁸ *Ibid.*

2007 in nearby Virunga National Park.²⁹ Similar to Garamba, various government and non-government entities control the Virunga Park. Until very recently, M23 rebels controlled much of the land along with the FDLR Hutu militia group, and ADF-NALU militia groups often connected with al-Shabab in Somalia. Of the 14 elephants killed in a two-week period in 2008, four were killed by FDLR rebels, five by the Congolese army, three by the local tribes thought to be in self-defense, and two by local poachers.³⁰

Similar to the Garamba Park, Chad's Zakouma National Park is a biodiversity hotspot with 66 mammal species and Africa's oldest park.³¹ The Sudanese Janjaweed militia has killed hundreds of elephants in Zakouma National Park since 2003.³² In 2007, 30 Janjaweed on horseback killed over 100 elephants in a single assault. The funds from poaching were used to purchase AK-47s, the same weapon primarily used to kill civilians in Darfur.³³ More recently in 2012, the Sudanese militants are suspected of killing five park rangers in Zakouma National Park during a poaching-related clash.³⁴ In 2013, Janjaweed poachers killed 86 elephants in

²⁹ Rotshuizen and Smith, "Of Warriors, Poachers and Peacekeepers."

³⁰ Vira and Ewing, "Ivory's Curse," 36.

³¹ "Zakouma National Park, Chad," African Parks, last modified 2014, accessed March 26, 2014, http://www.african-parks.org/Park_6_43_Fauna+++Flora.html.

³² Jeremy Haken, "Transnational Crime in the Developing World" (report, Global Financial Integrity, February 2011), accessed July 12, 2014, http://www.gfintegrity.org/storage/gfip/documents/reports/transcrime/gfi_transnational_crime_web.pdf.

³³ Ibid.

³⁴ Vira and Ewing, "Ivory's Curse," 24.

Sudan and Chad in an industrial fashion.³⁵ The Janjaweed are known to openly shoot grazing herds with high-powered automated weapons instead of targeting adult elephants. As a result, many elephants without tusks, such as juveniles, are killed.³⁶ The Global Impact on Wildlife Trade report concludes, “poaching on such a scale is not driven by opportunism or subsistence imperatives, but by armed non-state actors and organized groups with wider links.”³⁷ Most ivory from the Janjaweed militia is easily transported through the ports of Khartoum and Omdurman because of the absence of central government control in much of Somalia. This ivory is then shipped to Asia for sale.

Concerns regarding illegal wildlife trade’s connection with the global terrorist network al-Shabab have increased in recent years. Director of National Intelligence Clapper identified Somalia as a country of growing instability in 2014, citing al-Shabab’s continued attacks against the fledgling government of Somalia and its ability to exploit the country’s “ill-equipped government institutions, and pervasive technical, political, and administrative shortfalls.”³⁸ Al-Shabab used the illegal ivory trade to fuel their activities around the region. The Elephant Action League found during an 18-month study that illegal ivory trade could account for up to 40 percent of the funds al-Shabab needs to operate, between \$200,000 and

³⁵ Lawson and Vines, “Global Impact on Wildlife Trade,” 6.

³⁶ Gossman, “Tusks and Trinkets,” 55.

³⁷ Lawson and Vines, “Global Impact on Wildlife Trade,” 6.

³⁸ Clapper, “Worldwide Threat Assessment of the US Intelligence Community.”

\$600,000 monthly.³⁹ While this number is difficult to confirm, other sources estimate that al-Shabab is able to derive at least 13 to 40 percent of its operating funds from ivory and rhino horn sales.⁴⁰ With a profit margin of over \$400 per pound in 2012 driven by Asian demand, the sale of ivory could easily cover a new terrorist recruit's salary of \$300 per year, considered generous for the region.⁴¹ For comparison, state police officers often are only paid \$100 per year with a high level of irregularity.⁴² By leveraging an unstable government in Somalia with underground financial support from the ivory trade, al-Shabab poses a threat well beyond Somalia's borders.

To counter the increasingly sophisticated body of poachers, African nations seek to creatively address and maximize limited resources with advanced technology. Google has recently partnered with the World Wildlife Foundation to deploy drones in Africa to create a more comprehensive surveillance system.⁴³ Drones are relatively cheap and have the capability of covering more challenging terrain and distances than park rangers. A 2013 program supported by the University of Maryland tracked a family of rhinoceros in South Africa over a week

³⁹Nir Kalron, "Africa's White Gold of Jihad: al-Shabaab and Conflict Ivory" (report, Elephant Action League, 2011-2012), accessed June 8, 2014, <http://elephantleague.org/project/africas-white-gold-of-jihad-al-shabaab-and-conflict-ivory/>.

⁴⁰ Bergen, Stohl, and Geogheff, "The Other Side of Drones," 5.

⁴¹ Ibid.

⁴² Gettleman, "Elephants Dying in Epic Frenzy."

⁴³ Bergen, Stohl, and Geogheff, "The Other Side of Drones," 7.

long testing phase. During this week, the drone was able to find, track, and identify nearby poachers resulting in zero rhino casualties in the Kruger National Park.⁴⁴ Similar to the African elephant, the black and white rhino of sub-Saharan Africa is facing extinction. While projects using drones have experienced support and success, the use of drones brings its own host of ethical and legal concerns that are beyond the scope of this paper.

Another technological and scientific approach to thwart poachers is the use of DNA forensics to determine from where the elephants have been removed.⁴⁵ This can direct authorities to poaching hot spots and narrow the range of rampant illegal activity. While DNA assignment analyses have had limits in the past, new methods have been developed to better locate the areas of large volume ivory theft. The March 2013 CITES Conference of Parties in Bangkok approved the implementation of this testing as a way forward. DNA testing has also been suggested as a method to determine the difference between legally and illegally sourced ivory based on age and location.

Countries must prioritize investment in anti-poaching technology to be successful against organized crime networks that utilize sophisticated technology. Investment in new technology helps combat the growing illicit trade and also creates the opportunity for economic growth in novel industries. By illustrating the need and demand for advanced technology, technology-based poaching programs

⁴⁴ Ibid.

⁴⁵ Samuel Wasser, "Combating the Illegal Trade in African Elephant Ivory with DNA Forensics," *Conservation Biology* 22, no. 4 (August 2008): 1069.

can help to influence a new wave of investors looking to Africa as a market. As the World Bank argues, positioning a state to better accommodate international business investment has unlimited opportunity to lift countries out of poverty. By promoting economic growth, foreign direct investment helps shelter countries from economic shocks, improves governance, expands the tax base to provide national safety net programs, and thus helps to foster improved environmental standards.⁴⁶

African nations have an opportunity to address ivory poaching and better the outcome of their country's future by reducing conflict, supporting peace, and creating an environment that supports economic growth and development. In addition to creating an environment that discourages conflict re-occurrence, establishing conservation programs can help alleviate the underlying causes of conflict before it begins. As outlined by the International Institute for International Development, conservation programs can help to curb unemployment by creating park ranger and guard positions, combat corruption by encouraging accountability and transparency, reduce organized crime by interrupting international criminal networks, create lasting economies by promoting sustainable livelihoods, and promote cooperation by encouraging a sense of shared responsibilities for common goals.⁴⁷ By establishing an economic solution to ivory poaching, states can use anti-

⁴⁶ Michael Klein, Carl Aaron, and Bitá Haddjimichael, "Foreign Direct Investment and Poverty Reduction" (report, World Bank, Mexico City, November 26-27, 2001), 2, accessed July 17, 2014, <http://www.oecd.org/daf/inv/investmentstatisticsandanalysis/2422017.pdf>.

⁴⁷ Oli Brown and Alec Crawford, *Conservation and Peacebuilding in Sierra Leone* (Winnipeg: International Institute for Sustainable Development, January 2012), 21, accessed July 17, 2014, http://www.iisd.org/pdf/2012/iisd_conservation_in_Sierra_Leone.pdf.

poaching programs to complement policies to alleviate poverty, produce revenue, and bolster national security.

CHAPTER 3:

INTERNATIONAL ENVIRONMENTAL LAW

Wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come.

–CITES Convention Preamble

Numerous international agreements have been established to protect the environment. The first international environmental agreement was signed in 1889 to protect salmon populations in the Rhine River. Since then, various groups within the international community have adopted a patchwork of environmental protection measures. According to the International Environmental Agreement Database, there are over 1,190 multilateral environmental agreements, over 1,500 bilateral environmental agreements, and over 250 other types of environmental agreements.¹

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is the world largest, voluntary international conservation agreement with 180 member countries focused on the long-term sustainability of wildlife.² The Convention includes restrictions on trade of endangered and threatened wildlife and offers the greatest species-specific protection to the African

¹ “International Environmental Agreements Database Project,” University of Oregon, last modified July 2013, accessed July 20, 2014, http://iea.uoregon.edu/page.php?query=base_agreement_list&where=start&InclusionEQ=MEA&SubjectIN=Weapons/Environment/Nuclear.

² “What is CITES?” Convention on International Trade in Endangered Species of Wild Fauna and Flora, last modified 2014, accessed March 17, 2014, <http://www.cites.org/eng/disc/what.php>.

elephant. The concept on which CITES is founded was first discussed in the 1960s over concerns about the long term survival of vulnerable species. CITES was formally established in March 1973 and became effective in July 1975 with African elephant range states such as Nigeria, South Africa, Niger, Ghana, and the DRC among the first nations to join. CITES puts forth guidance, recommendations, and limitations on international wildlife trade. However, in order to garner broad international support and quell sovereignty concerns, to be discussed in Chapter 4, the laws implementing CITES agreements must be created and enforced at the national level.

Wildlife trade covers a wide variety of live plants and animals, pelts, animal products such as leather, hides, and ivory and plant products such as timber, carvings, and medicines. CITES provides varying levels of protection to 35,000 species of plants and animals, including elephant ivory. African elephants and ivory were originally listed under Appendix II of CITES in 1977.³ Appendix II restricts the export, but not the import of listed species. An export permit must be granted by the appointed management authority of the state and certified that the export will not lead to the detriment of the species. After growing concerns regarding continued population decline in the 1980s, the African elephant was elevated to Appendix I in 1989 as a species that is considered threatened with extinction.⁴ This category includes species that must be accompanied by appropriate CITES

³ Liana Sun Wyler, "International Illegal Trade in Wildlife," *Congressional Research Service*, July 23, 2013: 5.

⁴ Ibid.

documentation prior to import and export. Appendix I products require import and export certification from both the originating state and the receiving state with scientific justification that the trade will not endanger the species. This request must be submitted and approved by CITES. In essence, the reclassification led to the prohibition of international ivory sales.

Since the 1989 ban, two sales have been legally permitted by CITES outside of the agreement. Over 158 tons of ivory were sold from African nations to Japan in 1999 and to China and Japan in 2008.⁵ The first permit allowed the sale of 4,446 tusks from Botswana, Namibia, and Zimbabwe grossing \$5 million.⁶ The second sale represented 102 tons of ivory with an average sale price of \$157 per kilogram.⁷ While \$15.4 million in revenue collected by Botswana, Namibia, South Africa, and Zimbabwe was slated to benefit elephant conservation and local communities, the impact and wisdom of these actions are highly debated. Global conservation non-profits including the World Wildlife Fund supported the ban in 2008, but have since reconsidered the policy. During the consideration of an additional ivory stockpile sale from Zambia and Tanzania in 2010, WWF opposed the proposal stating that “it is not yet completely clear whether the last legal ivory sale in 2008 stimulated

⁵ John Walker, “Rethinking Ivory: Why Trade in Tusks Won’t Go Away,” *World Policy Journal* 30 (June 2013): 93.

⁶ Christina Russo, “Can Elephants Survive a Legal Ivory Trade? Debate is Shifting Against it,” *National Geographic*, August 29, 2014, accessed September 8, 2014, <http://news.nationalgeographic.com/news/2014/08/140829-elephants-trophy-hunting-poaching-ivory-ban-cities/>.

⁷ “Ivory auction raise 15 million USD for elephant conservation,” *CITES*, November 7, 2008, accessed July 14, 2014, http://www.cites.org/eng/news/pr/2008/081107_ivory.shtml.

further demand.”⁸ At the time of consideration, the sales were condemned by many including Kenyan officials. Immediately after the 2008 sale, five elephants were poached in Kenya’s Tsavo Park, leading the director of the Wildlife Service to claim that bending the ivory sales ban reopened trade and reinvigorated demand.⁹ In 2007, 50 elephants were killed in Kenya; in 2009, this number had escalated to 250 elephant deaths by poaching. The accusation seemed to be supported by Asian consumer demand trends. Many affluent Chinese viewed the sale of legal ivory to indicate that all ivory sales were now legalized.¹⁰ Retail outlets with ivory permits greatly increased in China, but enforcement remained stagnant. The Chinese government supported these notions by using the purchased ivory to compete with the black market instead of depressing ivory prices. By using state-owned ivory retailers, the government used the newly purchased ivory to selectively enter the market and increase prices, therefore increasing the amount of revenue produced for nations and perpetuating the trade. The Environmental Investigation Agency, a lead international agency for illegal ivory trade investigations, protested both the 1999 and 2008 sales, stating “all evidence shows ivory trade is incompatible with the conservation of elephants.”¹¹ Two Environmental Investigation Agency (EIA)

⁸ “Summary of WWF’s Positions for ITES CoP 15,” *World Wildlife Fund*, March 13-25, accessed July 13, 2014, http://d2ouvy59p0dg6k.cloudfront.net/downloads/summary_of_wwf_cites_cop_15_positions_final.pdf.

⁹ Walker, “Rethinking Ivory,” 97.

¹⁰ Wylar, “International Illegal Trade in Wildlife.”

¹¹ Russo, “Can Elephants Survive a Legal Ivory Trade?”

reports released after the first and second sales show an increase in illegal ivory trade after the CITES approved sales. EIA concludes by arguing, “sale of ivory simply provides a means to launder illicit ivory and stimulates the market, resulting in an increase in the poaching of elephants.”¹²

Outside of the two approved sales, the success of CITES has been debated. Lemieux asserts that the CITES ban has been successful in reversing the decline of the African elephant population; however he is careful to note that not all countries witnessed the same level of benefit.¹³ Unregulated domestic markets, allowed under CITES, have left a loophole that perpetuates the ivory market.¹⁴ In March 2013, CITES raised concern over the growing unregulated market trade during the Sixteenth Meeting of the Conference of the Parties. CITES identified countries that were lacking in CITES enforcement and were in need of National Ivory Action Plans. These “Gang of Eight” countries, identified as primary source, transit, or import, included China, Kenya, Malaysia, the Philippines, Thailand, Uganda, Tanzania and Vietnam.¹⁵

¹² Environmental Investigation Agency, “Blood Ivory: Exposing the myth of a regulated market,” March 23, 2012, accessed June 9, 2014, <http://www.eia-international.org/wp-content/uploads/EIA-Blood-Ivory.pdf>.

¹³ Lemieux and Clarke, “The International Ban on Ivory Sales,” 464.

¹⁴ *Ibid.*

¹⁵ “Eight countries submit nation action plans to combat illegal trade in elephant ivory,” *CITES*, May 16, 2013, accessed July 14, 2014, http://www.cites.org/eng/news/pr/2013/20130516_elephant_action_plan.php; Russo, “Can Elephants Survive a Legal Ivory Trade?”

Upon review of these reports in July 2014, CITES confirmed that seven of the eight countries had seen measurable progress, except for Thailand, one of the world's largest unregulated markets. Thai law permits trade from domesticated Asian elephants, but does not provide a functional mechanism to control entry into the domestic market of wild Asian elephants or African elephants.¹⁶ The sale of raw or worked ivory does not require a proof of origin certificate to insure that the ivory was legally sourced. Currently, there is no visual test that can determine the difference between the ivory sources. A report from the non-profit TRAFFIC found that ivory sales had tripled over 18 months from 2013 and 2014. In January 2013, 61 retail outlets were selling ivory in Bangkok and by May 2014 that number had risen to 120.¹⁷ In order to compel Thailand to take serious steps to address the illegal trade, CITES announced that Thailand will face sanctions if it does not show progress.¹⁸ Sanctions could include restriction of other natural items of value that are regulated through CITES, including Thailand's \$80 million regulated international orchid trade.

During this Sixteenth Meeting of the Conference of the Parties, CITES identified two additional groups of countries of concern for their roles in

¹⁶ Naomi Doak, "Polishing off the Ivory: Surveys of Thailand's Ivory Market" (report, TRAFFIC International, Cambridge, 2014), 1, accessed June 8, 2014, <http://assets.worldwildlife.org/publications/686/files/original/Thailand-market-survey-report.pdf?1404310672>.

¹⁷ Ibid.

¹⁸ "Thailand Faces Sanctions if it Failed to Stop Ivory Trade," *World Wildlife Fund*, July 11, 2014, accessed March 17, 2014, <http://www.worldwildlife.org/stories/thailand-faces-sanctions-if-it-fails-to-stop-ivory-trade>.

perpetuating the illegal ivory trade.¹⁹ The first group, consisting of DRC, Mozambique, Uganda, Congo, Gabon, Ethiopia, Nigeria and Egypt, have been identified as countries with a prominent role in illegal ivory trade. Specifically, Nigeria and the DRC had repeatedly failed to address unregulated domestic markets.²⁰ Egypt was the only non-range country included in this group because of its large and unregulated ivory markets.²¹ CITES also identified Egypt as a country in need of a National Ivory Action Plan in order to combat its role in ivory sales and distribution. The second group of Angola, Cambodia, Japan, Laos, Qatar and the United Arab Emirates were also asked to submit clarification of current policies that each country has developed and implemented in order to combat illegal ivory trade.²² While CITES benefits from broad support, enforcement is lacking.

As the world's most comprehensive international, intergovernmental body, the United Nations has taken steps to provide protection for the African elephant. In 1972, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) adopted the Convention Concerning the Protection of the World Cultural

¹⁹ "Eight Countries Submit National Action Plans to Combat Illegal Trade in Elephant Ivory," CITES.

²⁰ "All eyes on countries fueling illegal ivory trade," *World Wildlife Fund*, February 21, 2013, accessed March 17, 2014, <http://en.wwfchina.org/?4741/All-eyes-on-countries-fuelling-illegal-ivory-trade>.

²¹ CITES, "ETIS Report on Traffic," (report, Sixteenth Meeting of the Convention on the Parties, Bangkok, Thailand, March 3-14, 2013), 22, accessed May 23, 2014, <http://www.cites.org/eng/cop/16/doc/E-CoP16-53-02-02.pdf>.

²² "Eight Countries Submit National Action Plans to Combat Illegal Trade in Elephant Ivory," CITES.

and Natural Heritage (World Heritage Convention). The World Heritage Convention set forth a document of agreeable norms and concepts for the preservation of cultural and natural symbols. Included in items of natural heritage are “the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation.”²³ The Convention includes 191 nation-state members including all five permanent members of the United Nations Security Council. The World Heritage Fund was established to provide nations support for protecting and maintaining UNESCO sites.²⁴ In addition, the Rapid Response Facility fund was organized to react to the needs of protected sites in emergency situations.²⁵ The small value grants of up to \$30,000 are leveraged to gather broad support. After the ranger headquarters of the Okapi Wildlife Reserve in the DRC was destroyed by armed rebels in June 2012, the Rapid Response Facility Fund was able to contribute a maximum donation and gather support from Fauna and Flora International to help rebuild the facility.²⁶

The Sangha Trinational region, a UNESCO site, resides in Cameroon, Central African Republic (CAR), and the Congo. In January 2014, the three State Parties released a report detailing concerns with poaching in the region. The report led to

²³ United Nations Educational, Scientific, and Cultural Organization, *Convention Concerning the Protection of the World Cultural and Natural Heritage* (Paris: General Conference, November 6, 1972), 2, accessed July 12, 2014, <http://whc.unesco.org/archive/convention-en.pdf>.

²⁴ Ibid.

²⁵ United Nations Educational, Scientific, and Cultural Organization, “World Heritage Fund,” last modified 2014, accessed July 12, 2014, <http://whc.unesco.org/en/funding/>.

²⁶ “Emergency appeal for Okapi Wildlife Reserve (DRC) following murderous raid by poachers,” UNESCO, July 4, 2014, accessed July 12, 2014, <http://whc.unesco.org/en/news/908>.

the establishment of an inter-ministerial anti-poaching unit in CAR, rapid mobilization battalions in Cameroon and the Congo, and the signing of a tri-state anti-poaching agreement. UNESCO also commented on the regional approach to anti-poaching policies noting that “the problem of poaching in Central Africa, notably elephant poaching for ivory by armed gangs, is beyond the capabilities of the services responsible for the protection of the protected areas and requires a concerted regional approach involving the different services of the States.”²⁷

The report also called attention to poaching concerns in Tanzania. UNESCO identified “an escalation of poaching, particularly for elephants and rhinos, and a corresponding increase in the number of firearms confiscated” as an issue of concern for the Serengeti National Park in Tanzania.²⁸ UNESCO concludes with the recommendation that a “concerted international effort is required to curb this trafficking, without which the outstanding universal value of Serengeti and other World Heritage properties will remain under intense threat.”²⁹ UNESCO upgraded Tanzania’s Selous Game Reserve to the List of World Heritage in danger this year. Selous Game Reserve, originally included as a World Heritage site in 1982, covers 50,000 sq kilometers and is one of Africa’s largest protected areas. Since 1982,

²⁷ United Nations Educational, Scientific, and Cultural Organization, *World Heritage Committee Thirty-Eighth Session* (Doha, Qatar: General Conference WHC-14/38.COM/7B, April 30, 2014), 144, accessed July 12, 2014, <http://whc.unesco.org/archive/2014/whc14-38com-7B-en.pdf>.

²⁸ *Ibid.*, 152.

²⁹ *Ibid.*

United Nations sets an international legal precedence of “soft law” for future decisions.³³

Outside of the United Nations, the African elephant also benefits from ecosystem-specific conservation measures. The 1971 Convention on Wetlands, commonly referred to as the Ramsar Convention for the city in Iran in which the treaty was signed, established an international framework for the protection of wetlands and connected ecology. While the treaty is focused on protecting a type of ecosystem, the African elephant indirectly benefits from habitat protection. For example, the Bangweulu Swamps, Mweru wa Ntipa National Park, and Tanganyika region of Zambia are protected wetlands under the Ramsar Convention and are also habitat and breeding grounds for the African elephant.³⁴ Three of Chad’s Ramsar sites, Lac Fitri, Plaine de Massenya, and one of the largest Ramsar sites worldwide, Plaines d’inondation des Bahr Aouk et Salamat, are home to the African elephant.³⁵ Seven of Gabon’s nine Ramsar sites are elephant habitats: Parc National Pongara, Rapides de Mboundou Badouma et de Doumé, Setté Cama, Bas Ogooué, Monts

³³ United Nations Environmental Programme, *Protecting the Environment during Armed Conflict* (Nairobi: UNEP, November 2009), 10, accessed June 8, 2014, http://postconflict.unep.ch/publications/int_law.pdf.

³⁴ “The Annotated Ramsar List: Zambia,” *Ramsar Convention on Wetlands*, last modified January 25, 2000, accessed June 9, 2014, http://www.ramsar.org/cda/en/ramsar-pubs-notes-annotated-ramsar-15789/main/ramsar/1-30-168%5E15789_4000_0_.

³⁵ The Annotated Ramsar List: Chad,” *Ramsar Convention on Wetlands*, last modified January 25, 2000, accessed June 9, 2014, http://www.ramsar.org/cda/en/ramsar-pubs-notes-anno-chad/main/ramsar/1-30-168%5E16481_4000_0_.

Birougou, and Wongha-Wonghé.³⁶ The core concept of the Ramsar agreement is the philosophy of “wise use.” This state responsibility is defined as “maintenance of [wetlands’] ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.”³⁷ Parks that protect the habitat of the African elephant, including wetlands, offer an additional level of protection due to the presence of rangers and monitors.

Similar to ecosystem protection measures, the African elephant indirectly benefits from treaties that regulate warfare. As described in Chapter 2, poaching breeds conflict; however, conflict also breeds poaching. Wildlife poaching often occurs in regions that have considerable environmental resources and wide ranges of biodiversity apart from the elephant population. Wildlife parks and reserves often protect natural resources outside of wildlife such as mineral wealth in so called “biodiversity hotspots” such as diamond, gold, silver, tin, and coltan.³⁸ As a result, many conflict zones are considered biodiversity hotspots. Mittermeier, et al identified 34 biodiversity hotspots worldwide. These global hotspots, home to 75 percent of the world’s threatened mammals, birds, and amphibian species, represent the sole habitat to more than half of the world’s plant life and 43 percent of bird, mammal, reptile and amphibian species, but only cover 2.3 percent of the

³⁶ “The Annotated Ramsar List: Gabon,” *Ramsar Convention on Wetlands*, last modified January 25, 2000, accessed June 9, 2014, http://www.ramsar.org/cda/en/ramsar-pubs-notes-anno-gabon/main/ramsar/1-30-168%5E16397_4000_0_.

³⁷ “12th Meeting of the Conference of the Parties (COP12),” *Ramsar Convention on Wetlands*, last modified 2014, accessed June 9, 2014, http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1_4000_0_.

³⁸ Humphreys and Smith, “War and Wildlife,” 129.

earth's surface.³⁹ To qualify, a region must hold at least 1,500 vascular plants as endemic species and have lost 70 percent or more of its original plant life.⁴⁰ All 34 "hotspots" are considered threatened regions of global biodiversity. Three of Africa's biodiversity hotspots are still home to the African elephant: the Coastal Forests of Eastern Africa from the southern Somali coast to the southern coast of Mozambique; Eastern Afromontane that covers areas in Ethiopia, Kenya, the Albertine Rift from Uganda, Rwanda, Burundi, Tanzania, and Zambia as well as locations in Malawi and Zimbabwe; and the Guinean Forests of West Africa which covers a wide southern coastal portion of Guinea east to Cameroon.⁴¹

Hotspots also see a disproportionate amount of conflict. Hanson, et al. found that 90 percent of all armed conflicts from 1950 to 2000 took place in a country that is considered a biodiversity hotspot.⁴² In addition, 80 percent of the biodiversity hotspots worldwide saw conflict during the same time period.⁴³ By analyzing intra-state conflict, civil disputes, and regional disruption of conflict from neighboring nations, Glew and Hudson discovered that sub-Saharan countries saw an average of

³⁹ "Hotspots Revisited," Conservation International, last modified 2014, accessed June 17, 2014, http://www.conservation.org/publications/Pages/hotspots_revisited.aspx.

⁴⁰ "Hotspots," Conservation International, last modified 2014, accessed June 17, 2014, <http://www.conservation.org/How/Pages/Hotspots.aspx>.

⁴¹ "Africa," Critical Ecosystem Partnership Fund, last modified 2014, accessed June 17, 2014, <http://www.cepf.net/resources/hotspots/africa/Pages/default.aspx>.

⁴² Thor Hanson, et al., "Warfare in Biodiversity Hotspots," *Conservation Biology* 23, no. 3 (March 2008): 580.

⁴³ Jasper Humphreys, "Resource Wars: Searching for a New Definition," *International Affairs* 88, no. 5 (September 2012): 1077.

6.55 years of conflict between 1955 and 2001.⁴⁴ This was significantly more than the global average of 4.75 years making Africa the most conflict-prone continent in the world.⁴⁵ The prevalence of the relationship between conflict and biodiversity should be of interest to environmentalists, peace activists and humanitarians alike. As Dudley, et al. espouses, “wars and civil strife create positive feedback that reinforces and amplifies interactions between and among ecosystem vulnerability, resources availability and violent conflict.”⁴⁶

The Additional Protocol I to the Geneva Conventions (Protocol I) was adopted in 1977. Protocol I included negative and positive provisions to protect victims of international armed conflict. The drafters explicitly included a negative protection through a prohibition on “methods or means of warfare which are intended, or may be expected, to cause widespread, long-term, and severe damage to the natural environment” (Article 35(3)).⁴⁷ Protocol I also added the responsibility of positive protection by states to offer defense for the environment from “widespread, long-term, and severe damage” to the natural environment

⁴⁴ Glew, Louise and Malcolm Hudson. “Gorillas in the midst: the impact of armed conflict on the conservation of protected areas in sub-Saharan Africa.” *Oryx* 41, no. 2 (April 2007): 141.

⁴⁵ Ibid.

⁴⁶ Joseph Dudley, et al, “Effects of War and Civil Strife on Wildlife and Wildlife Habitats,” *Conservation Biology* 16, no. 2 (April 2002): 319.

⁴⁷ “United Nations High Commissioner for Human Rights, “Protocol Additional to the Geneva Conventions of 12 August 1949,” last modified 2014, accessed July 12, 2014, <http://www.ohchr.org/EN/ProfessionalInterest/Pages/ProtocolIII.aspx>.

(Article 55).⁴⁸ Protocol I neglected to include definitions to clarify the scope of “widespread”, “long-term” or “severe” resulting in inconsistent interpretation among signing parties. While Protocol I has not been universally ratified, signing states that have not ratified the agreement such as the United States have adopted the intent in many independent military manuals.⁴⁹

Additional Protocol II was adopted in 1977 and intends to expand the core rules of the law of armed conflicts to internal conflict.⁵⁰ Concerns regarding the provisions’ impact on the ability of a government to maintain domestic order without fear of international intervention led the signatories to adopt less binding language than was originally drafted.⁵¹ In keeping with the notion that resources are within domestic jurisdiction, the Protocol II does not once mention protection for the environment. With civil wars being the most prevalent type of modern conflict, as will be further discussed in Chapter 4, Protocol II of the Geneva Convention does not provide sufficient protection for the African elephant in conflict-prone regions.

In 2010, the International Consortium on Combating Wildlife Crime was created with the sole mission to address the growing illegal wildlife trade. This organization combines the collective knowledge of the Secretariat of CITES,

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Ibid.

INTERPOL, the United Nations Office on Drugs and Crime (UNODC), the World Bank, and the World Customs Organization (WCO). To specifically address elephant poaching, the ICCWC launched Project Wisdom with the goal of creating governance systems and law enforcement capabilities to stop the growing crime.⁵² Since 2008, INTERPOL has organized six operations to target ivory poaching, resulting in over 520 individuals charged with ivory and rhino-horn related offenses, the closure of two ivory factories, and the recovery of more than five tons of raw ivory and several tens of thousands of tons of carved ivory. In addition to illegal wildlife, the raids resulted in the seizure of AK-47s, G3s, M16s and other illegal, military-grade weapons.

While key agreements were outlined here, many more exist that vary from the protection of one species to coordinated global trade and sustainability agreements. The patchwork of agreements demonstrates positive progress toward international recognition of the importance of biodiversity, but the lack of coordination creates confusion, overlap, and contradicting principles. Without addressing the ever-growing amount of environmental agreements, the international community risks “treaty congestion” or “treaty fatigue” as outlined by the United Nations.”⁵³ Over-commitment of nations to treaties taxes the limited

⁵² “Project Wisdom,” INTERPOL, last modified June 24, 2014, accessed July 17, 2014, <http://www.interpol.int/Crime-areas/Environmental-crime/Projects/Project-Wisdom>.

⁵³ Donald Anton, “Treaty Congestion,” in *Routledge Handbook of International Environmental Law*, ed. Shawkat Alam (Oxon: Routledge, 2013), 655.

capacity of developing nations to fully implement the agreements.⁵⁴ Developing nations, in which most diverse biomes reside, do not have the capacity to tackle the numerous environmental protection agreements worldwide.

Table 1: Challenges to Current Frameworks

- The lack of coordination among the patchwork of environmental protection agreements creates confusion, overlap, and contradicting principles.
- International treaties, including the Geneva Convention, do not adequately protect the environment during civil conflict
- Without a global government, current environmental protections are constricted by state sovereignty.
- A strict view of sovereignty creates challenges when addressing issues that traverse borders.

Stiles argues that international environmental laws, specifically the CITES trade ban, does not appear to have the intended impact on reducing ivory markets or demand for ivory products due to the reliance on states for implementation and enforcement.⁵⁵ The uneven application of CITES agreements at the state level highlights the weakness of international environmental law that often relies “solely on the goodwill and cooperation among signatories and lacks the means of enforcing compliance in the face of mounting and complex threats to animals.”⁵⁶ Current global policy regarding environmental protection is founded on state sovereignty. As there is no global government or world congress, regardless of the

⁵⁴ Ibid., 660.

⁵⁵ Daniel Stiles, “The Ivory Trade and Elephant Conservation,” *Environmental Conservation* 31, no. 4 (December 2004): 312.

⁵⁶ Humphreys and Smith, “War and Wildlife,” 126.

number of international laws that are present, the implementation of international policy agreements remains a burden and responsibility of the nation-state.

CHAPTER 4

THE CHALLENGE OF SOVEREIGNTY

The most fundamental pillar of international society is state sovereignty.

–Mark Amstutz, *International Ethics*

The collection of environmental protection marks a growing acceptance by the international community of the importance of the biosphere. Underpinning most international organizations and international agreements is the support for state sovereignty. Under the Westphalia system of states, sovereignty is crucial to the maintenance of global peace and stability.¹ To this end, the United Nations Charter follows the Westphalian view by establishing sovereignty as a cornerstone of maintaining international peace. Article 2.7 of the UN Charter states, “Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction.”² In addition Article 2.4, in the context of the use of force, requires Member states to “respect the territorial integrity or political independence of any state.”³ A strict view of sovereignty creates challenges when addressing international concerns, such as the African elephant poaching crisis.

¹ Mark Amstutz, *International Ethics: Concepts, Theories, and Cases in Global Politics* (Maryland: Rowman & Littlefield Publishers, 2008), 152.

² United Nations, *Charter of the United Nations* (San Francisco: United Nations General Assembly, June 26, 1945).

³ Ibid.

International environmental protection agreements have not yet eclipsed the Westphalian structure of statehood as wildlife is widely understood to be a national resource of a state. CITES relies on nations to create and implement policies at the state level, complicating actions to combat the ivory trade without undermining state sovereignty.⁴ First discussed in the context of economic development and later in the human rights debates, the United Nations codified this stance in the 1962 Resolution on Permanent Sovereignty over Natural Resources. This resolution declares “the right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and the wellbeing of the people of the State concerned.”⁵ Elephants are viewed as a natural resource just like oil, gas, and timber. While inclusion of sovereignty protection language may provide for more comprehensive global consensus, it also allows nations to forfeit responsibility to the environment when politically convenient. Without a global government or world governing body, the implementation of international policy agreements lies with individual states allowing the endangered African elephant to remain vulnerable to the difficulties that plague statehood such as lack of financial resources, competing national priorities, or corruption.

⁴ Humphreys and Smith, “War and Wildlife,” 129.

⁵ United Nations, Resolution 1803, Permanent Sovereignty over Natural Resources, XVII, December 14, 1962, 15, accessed July 23, 2014, <http://www.ilsa.org/jessup/jessup10/basicmats/ga1803.pdf>.

Many of the existing protections against environmental destruction are limited to inter-state disputes that cross international boundaries, not internal action. For example, the World Heritage Convention is careful to include language to clarify that the tenants of the Convention are to be implemented “respecting the sovereignty of the state on whose territory the cultural and natural heritage... is situated” (Article 6(1)). The Rome Statute to the International Criminal Court does not attribute criminality to non-international, environmental actions in order to preserve a sovereign nation’s rights over its resources.⁶ As briefly discussed in Chapter 3, the Geneva conventions are also careful to not disrupt sovereign rights. Protocol I to the Geneva Conventions provides norms and rules for conflict between states, but does not reference domestic action, while Protocol II which dictates conduct during inter-state war does not contain specific environmental protections.⁷ This limitation in international norms is shortsighted as most conflicts are internal civil disputes, not interstate wars. Renner found that 97 of the 103 international armed conflicts cited from 1989 and 1997 were civil wars or internal disputes.⁸ Africa follows this trend. In 2000, 92 percent of conflicts in Sub-Saharan Africa, home of African elephant, were civil conflicts.⁹ Without expanding the

⁶ Glew and Hudson, “Gorillas in the Midst,” 141.

⁷ Jay Austin and Carl Bruch, “Legal Mechanisms for Addressing Wartime Damage to Tropical Forests,” *Journal of Sustainable Forestry* 16, no. 3/4 (2003): 171.

⁸ Michael Renner, “Ending Violent Conflict” (paper, WorldWatch Institute, April 1999), accessed July 15, 2014, <http://www.worldwatch.org/node/844>.

⁹ Glew and Hudson, “Gorillas in the Midst,” 141.

application of environmental protection to domestic actions, African elephant species and protected elephant habitats will be left vulnerable.¹⁰

Gastrow argues that defaulting to protection of sovereignty only serves to hamper the country's ability to respond to international security threats to the benefit of the international criminal networks.¹¹ By prioritizing sovereignty, the international community condemns itself to a future of ivory-fueled conflicts. Sovereignty protections included in underlying international environmental agreements can prevent the international community from intervening to protect vulnerable natural resources. Humphries similarly believes sovereignty is antiquated, but for different reasons. He argues that although the UN Charter dictates the prominence of the sovereign state, developing nations are often operated by a collection of actors including nongovernment organizations and global banks.¹² In addition, Humphries and Smith illustrate the contemporary modern African state as one which does not have a fully functioning sovereign government system. Many nations that lack strong governance structures have significant elephant populations such as the Democratic Republic of Congo.¹³ According to the Failed State Index and aggregate elephant population estimates, over half of the elephant range states are considered failed states, or a state on alert.

¹⁰ Ibid.

¹¹ Peter Gastrow, "Termites at Work: Transnational Organized Crime and State Erosion in Kenya" (report, International Peace Institute, September 2011), 11.

¹² Humphreys, "Resource Wars," 1071.

¹³ Humphreys and Smith, "War and Wildlife," 138.

Over 80 percent of the range states are in the category of “very high warning” for state failure or worse (see Appendix A).¹⁴ This complicates the implementation of programs and policy to combat poaching. In addition to capacity concerns, Amstutz further questions the focus on sovereignty because the reliance on internationally recognized borders “assumes that the existing cartography is morally legitimate.”¹⁵ Sovereignty based upon arbitrary, post-colonial, Western-created boundaries is not a morally legitimate state.

An international approach would expand protection of the African elephant population; however the current role of sovereignty remains a challenge. Barkdull and Harris argue that the once-useful Westphalian system of state-based principles and norms “is inadequate against new threats to human health, to other species’ continued existence, and to the biosphere.”¹⁶ In order to provide adequate environmental protections, the international community must overcome the rigidity of sovereignty and non-intervention principles.¹⁷ This noble argument, however, will have to contend with over 360 years of the prominence of sovereignty. While academics can argue the modernity of the sovereign state, today’s policies must be rooted in the reality that the state is the primary actor in the current world order.

¹⁴ “Failed State Index, 2013,” *Foreign Policy*, last modified 2014, accessed September 6, 2014, http://www.foreignpolicy.com/articles/2013/06/24/2013_failed_states_interactive_map.

¹⁵ Amstutz, *International Ethics*, 158.

¹⁶ John Barkdull and Paul Harris, “The Land Ethic: A New Philosophy for International Relations,” *Ethics and International Affairs* 12, no. 1 (March 1998): 160.

¹⁷ *Ibid.*, 165.

Therefore, to spur action, conservationists must analyze ivory poaching from the perspective of the nation and address the negative cost the illicit trade brings.

CHAPTER 5

ENVIRONMENTAL ETHICS

The whole point of environmental ethics is to propose for us a radically different way of living.

–Sahotra Sarkar, *Environmental Philosophy*

Policy and ethics tend to create conflicting paradigms in the area of environmental concerns. Morals and values are developed by society and religion while policy is established through judicial proceedings and legislative debate. Ethics is typically normative, while policy is predominantly legal. These differences lead to divergent perspectives regarding the rights and obligations of humans and wildlife. Environmental policy at the nation-state level is customarily discussed in instrumental and consequential terms which, by its function, emphasizes human self-interest.¹ Discussing the future of the endangered African elephant from an exclusive legal perspective would largely omit the broader argument as to what ought to be done, rather than what practically can be implemented in the current international political landscape. Environmentalists argue that a narrow nation-based perspective undermines any potential movement toward an ethical view of biocentrism, or nature-focused, while realists often view anthropocentrism as a requirement for human progress.

¹ Clive Spash, "Ethics and Environmental Attitudes With Implications for Economic Valuation," *Journal of Environmental Management* 50, no. 4 (February 1997): 405.

Anthropocentrism, or human-focused ethos, dominates most international environmental laws. The prominent role of sovereignty helps to perpetuate this perspective since power is consolidated with politicians at the state level. An extreme form of anthropocentrism, instrumentalism, views nature as void of moral standing and solely as an object for human use and benefit. The environment does not hold any independent value or rights. An elephant does not hold the right to life nor does a tree have a right “to be.” They are simply objects. Many founding theoretical thinkers adopted an anthropocentric view of human needs as the primary and often sole concern for the validity and morality of actions. Aristotle argued that “nature has made all things specifically for the sake of man.”² He espoused that all living beings were arranged by nature in a hierarchy of sophistication with non-sentient creatures at the bottom and the fully rational and spiritual human at the top. Anthropocentrism often points to characteristics held by humans in order to defend an increased sense of moral superiority. Characteristics include developing family ties, solving social problems, expressing emotions, starting conflict, using language, thinking abstractly, reasoning, compassionate decision making, and ability to rationalize.³ Today scientific discovery has widely overcome this perspective. It is now understood that most of the characteristics once reserved for humans are not unique to one species. Features seen as morally

² Aristotle, *Politics* (London: Penguin, 1992).

³ Robert Goodin, Carole Pateman, and Roy Pateman, “Simian Sovereignty,” *Political Theory* 25, no. 6 (December 1997): 831.

superior appear to exist in non-human animals, including the great apes and the African elephant. For example, elephants live in complex family networks, show a range of emotion and can show compassion and empathy. Elephants grieve for lost family members, often holding vigil for days, have sibling responsibility based on age, often adopt lost non-family calves, collectively protect the vulnerable family members when under threat, and have social relationships with other elephant family groups.⁴ The superiority of humans based on a limited characteristic is widely dismissed as antiquated.

Many environmental policies and international agreements have moved from a perspective that nature is absent of value to a conservation ethical perspective, including UNESCO, Ramsar, and the Geneva Protocols discussed in Chapter 3. Conservation ethical theory acknowledges the value of nature in terms of its utility to humans. For example, the African elephant holds value as a source of human entertainment, beauty, income, or nourishment that should be preserved. While the environment is secondary to the immediate needs of humans, the impact of the environmental on human life is elevated as a concern. Because of the borderless nature of environmental concerns, Bronkhorst argues that states have a responsibility to their citizenry as well as other nations in the world order even under the current concept of sovereignty. While states maintain a right to utilize

⁴ Martin Meredith, *Elephant Destiny* (New York: Public Affairs, 2001), 148-154.

natural resources within their boundaries as they see fit, states also have the responsibility to not cause harm to other sovereign nations.⁵

A broadened sense of responsibility would combat the tragedy of the commons. Hardin argues that the tragedy of the common occurs when “the individual benefits as an individual from his ability to deny the truth even though society as a whole, of which he is a part, suffers.”⁶ By maintaining an individualistic view, society as a whole is harmed. This is often the case with endangered species and subsistence hunters. While the hunter assumes that individual hunting does not impact the elephant population, the combined impact of the collective hunting community is significant when the elephant population is depressed. To combat this effect, Van Vugt argues for increased scientific research and education, as “environmental uncertainty tends to promote overuse because more users are optimistic about the future and underestimate the damage they are doing to the environment.”⁷

In addition to Western thought, an analysis of African indigenous religion reveals that traditional perspectives view the world in a clan-based, anthropocentric

⁵ Serge Bronkhorst, “The Virunga Volcanoes and the Bwindi Impenetrable National Park” (legal analysis, Institute for Environmental Security, The Hague, Brussels, October 2005), 4.

⁶ Garrett Hardin, “The Tragedy of the Commons,” *Science* 162, no. 3859 (December 1968): 1244.

⁷ Mark Van Vugt, “Averting the Tragedy of the Commons,” *Current Directions in Psychological Science* 18, no. 3 (June 2009): 170.

perspective.⁸ Conservation policies should integrate traditional African environmental ethics in order to foster local support and embrace previously established beliefs. While Kelbessa notes that African holistic views see humans as interrelated to the surrounding ecosystem, human concerns are fundamental. African environmental ethics prioritize collective environmental protection leading many African cultures to develop structures that “underscore the indelible responsibility of each citizen for the group as well as the individual and common responsibility for the environment and the prerequisite for life in general.”⁹ There is an indelible connection between all living components of the world from plants to humans. Nature is considered a critical resource to the community as a whole, not as the property of one individual.¹⁰ The African worldview of community often incorporates ancestors, those currently living, and those yet to be born. Therefore humans have a responsibility to future generations to protect the limited resource. All stages of life are connected through the natural world, which should be protected to shelter the clan. Hans Jonas, a German philosopher, follows this view arguing that current populations have the ability to compromise the biosphere and therefore have a responsibility to protect its future.¹¹ Contemporary communities should

⁸ Workineh Kelbessa, “Can African Environmental Ethics Contribute to Environmental Policy in Africa?” *Environmental Ethics* 36 (Spring 2014): 39.

⁹ *Ibid.*, 55.

¹⁰ *Ibid.*, 41.

¹¹ Ph. Bourdeau, “The Man-Nature Relationship and Environmental Ethics,” *Journal of Environmental Radioactivity* 71 (2004): 12.

protect the African elephant in order to ensure that future generations have the same access to nature's resources from which current communities benefit.

While most modern policies developed by sovereign nations are based on human need, there is a promising belief that environmental protections should preserve the independent intrinsic value of nature, called biocentrism. This shift in perspective can be seen in environmental agreements and treaties at the international and national level. The United Kingdom's Strategy for Sustainable Development incorporates independent natural value into a dual ethical foundation. The framework acknowledges that the environment's intrinsic value "outweighs its value as a leisure asset" and also denotes an instrumental application by prescribing that current societal actions should not negatively impact the "quality of life of future generations."¹² The inclusion of intrinsic values shows a national movement from a traditional anthropocentric notion. The 1992 International Convention on Biological Diversity incorporates the intrinsic value of biological diversity at a global level. The treaty distinctly states that "all biodiversity has intrinsic value: grasslands, forests, flora and fauna do not exist only to serve human interests."¹³ While the shift is important, it is still a minor component of legal agreements and treaties.

¹² Secretary of State for Environment, Food and Rural Affairs, *The UK Government Sustainable Development Strategy* (paper, HM Government, March 2005), 16, accessed September 6, 2014, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69412/pb10589-securing-the-future-050307.pdf.

¹³ United Nations, *Convention on Biological Diversity* (Nairobi: United Nations Environmental Programme, December 29, 1993), accessed July 16, 2014, <https://www.cbd.int/doc/world/cl/cl-nbsap-01-en.doc>.

Maintaining a solely economic focus, Barkdull and Harris argue, narrowly views the world as a “storehouse of resources” which can be expended for profit.¹⁴ Instead, a holistic approach that prioritizes the value of natural surroundings, nature’s impact on the community, and the value of natural beauty will elevate the value of the collective biotic. Neumann argues that national policies establishing protected areas, such as national park designations, are based upon a biocentric ethic. As he espouses, “national parks are, by definition, bounded spaces where the rights of wild nature have priority over human interests.”¹⁵ While the environment does not have an inherent moral right, it holds an intrinsic value as a component of the collective community and therefore should be protected by humans.¹⁶ In this view, nature has value independent of its utility to humans. While now viewed as antiquated, fortress conservation was used to establish many parks around the world. Locals were forcibly removed from protected areas in order to adopt the concept of “wild nature” conservation. Wilderness preservation sought to prevent human-nature interaction.¹⁷ The removal of local communities is now discouraged and wild nature theory contested, but the concept of protected areas with restricted use for limited hunting, camping or tourism is widely practiced in Africa. However,

¹⁴ Barkdull and Harris, “The Land Ethic,” 165.

¹⁵ Roderick Neumann, “Moral and Discursive Geographies in the War for Biodiversity in Africa,” *Political Geography* 23, no. 7 (September 2004): 834.

¹⁶ Neumann, “Moral and Discursive Geographies,” 819.

¹⁷ Sahotra Sakar, *Environmental Philosophy: From Theory to Practice* (West Sussex: John Wiley & Sons, Inc., 2012), 29.

today local communities are often encouraged to participate in park maintenance and management.

A controversial application of biocentrism is shoot-on-sight policies as a method of poaching deterrence. During the 1960s and 1970s, Kenya's elephant population was reduced from 167,000 to 17,000.¹⁸ In the face of potential African elephant extinction, the government began to take far-reaching steps to combat poaching. Richard Leakey, a Kenyan archeologist-politician, created a progressive conservation program as the director of the Wildlife Service in the 1980s garnering \$300 million from foreign donors for conservation campaigns.¹⁹ However, Leakey's biocentric tactics were considered drastic by many. In keeping with fortress conservation, he believed the only way to protect wildlife was to remove humans, including subsistence hunters, from elephant range areas. Building from previous colonial conservation tradition, Leakey created parks and conservation areas without concern for those who lived and worked on the land.²⁰ Instead, the intrinsic value of nature was viewed as more important than the use of the environment as a resource for the local people. With humans removed, Leakey implemented shoot-on-sight policies for suspected poachers. Opponents of Leakey's controversial policy argued that the policy placed the life of an elephant above the life of a poacher and

¹⁸ Kent Messer, "Protecting Endangered Species: When are shoot-on-sight policies the only viable option to stop poaching?" *Ecological Economics* 69, no. 12 (October 2010): 2335.

¹⁹ Jeff Haynes, "Power, Politics, and Environmental Movements in the Third World," *Environmental Movements: Local, National, Global* 8, no. 1 (1999): 231.

²⁰ *Ibid.*

deprived them of the right to a trial. While the policy was arguably effective, Leakey alienated many local communities over fears of lost land rights and diminished judicial rights. Championed by the Masai, tribal groups attempted a collective ouster of Leakey due to his overbearing policies and the shooting of over 100 poachers in April of 1989.²¹ Although the government lost local support for the programs, by the 1990s, tourists were spending \$50 million annually on ecotourism and the elephant population grew to 26,000 by the end of the decade.²²

Economic studies have shown that shoot-on-sight policies may be an effective tool when certain conditions are present. Messer's model illustrates that "the only effective anti-poaching policy in situations where nonpoaching wages are low and the economic benefits of poaching are high may be to institute extreme enforcement measures—specifically to be willing to shoot poachers on sight."²³ The willingness to poach is a calculation of risk and reward. While fines and imprisonment, if enforced, are an important component of the calculus of cost, there reaches a point at which increasing fines becomes ineffective because of the inability of poachers to pay in excess of a certain amount. The impact of imposing a fine is a direct correlate of prevailing wages, creating an environment wherein the ability to pay a \$100,000 fine may be just as unrealistic as paying a \$100 million fine. Messer argues that the threat of death can narrow the risk gap that remains. Shoot-

²¹ Ibid.

²² Ibid.

²³ Messer, *Protecting Endangered Species*, 2335.

on-sight policies can increase the risk or cost of poaching to a degree that an individual is no longer willing to commit time and effort to the endeavor. Messer also acknowledges that shoot-on-sight policies do not have to result in large-scale killings to be effective. As long as the risk of being caught is ten percent or greater, human instinct weighs the situation negatively resulting in change of action.²⁴

The establishment of shoot-on-sight policies has been revived in recent years. Following indications of large scale poaching in the Kidepo Valley National Park, Uganda's President Yoweri Museveni directed the People's Army and the Wildlife Authority to shoot any poacher found on sight in March 2014. The President emphasized concern with poaching's negative impact on the tourism industry which raises \$1.3 billion in revenue with an estimated 1.5 million visitors.²⁵ Biocentric policies, such as shoot-on-sight, elevate the debate of placing non-humans' life – or in Uganda's case a state's economic livelihood – over the life of a poacher. Under the principle of proportionality, it can be argued that killing a person who is suspected or caught in the act of killing an animal is not an appropriate response. While this may be true in cases of subsistence hunting, the current ivory poaching epidemic is highly organized and weaponized. Humphries and Smith equate the growing militarization of poaching activities to war and conclude that "in war, unfortunately, hard power solutions are usually the only truly

²⁴ Ibid.

²⁵ Paul Tentena, "Shoot Poacher on Sight – Museveni," *East African Business Week*, March 3, 2014, accessed March 19, 2014, <http://www.busiweek.com/index1.php?Ctp=2&pI=678&pLv=3&srI=%2057&spI=&cI=19>.

effective ones.”²⁶ While shoot-on-sight policies should not be viewed as a panacea to reduce ivory poaching, such policies are moral if they are a policy of last resort.

While a biocentric ethical foundation can provide a framework for what communities ought to do to protect the environment and ensure the continuation of a species, it does not take into account what can realistically be achieved at the nation-state level. As Humphries and Smith conclude, “the conservation agenda places heavy demands upon altruism which ultimately clash with established notions of sovereignty and self-interest.”²⁷ Instead of a strict biocentric policy, a combination of ethically based principles and sound policy must be established for sustainable change. This new approach, biocentric conservationism, combines the economic value of natural resources with the intrinsic value of the environment and captures two audiences, national decision-makers and conservationists.

While this perspective may not satisfy the demands of biocentric libertarians, it is also not intended to. Analyses of the need for large-scale ethical shifts or changes in international devolution of power have a place in this debate; however, the realistic timeframe needed for changes of this magnitude is too long to save the African elephant population from extinction. By the time the worldview shifts from an anthropocentric, sovereignty-based system to an intrinsic natural value structure of laws and true global governance, the African elephant will no longer be roaming Sub-Saharan Africa. As Sakar concludes, “no matter what ethical norms we choose

²⁶ Humphries and Smith, “War and Wildlife,” 137.

²⁷ *Ibid.*, 141.

to embrace, if we want to be of practical help in solving or even ameliorating environmental problems, we must find a way to translate those norms into policy.”²⁸ Therefore, a novel economic structure based upon a biocentric conservation environmental ethics can better address environmental and state concerns concurrently.

²⁸ Sarkar, *Environmental Philosophy*, 65.

CHAPTER 6

ECONOMICS OF THE IVORY TRADE

Scarcity is reality.

–Jason Shogren, “Why Economics Matter”

Efforts to save the African elephant are often limited to the conservation discipline.¹ Limiting this complex debate to one perspective would result in the “Blind Men and the Elephant” dilemma. Conservationists have, and will continue to have, a beneficial impact on reducing ivory poaching. However, at its core, the poaching crisis is an economic phenomenon of supply, demand, cost and benefit. To ignore the economic complexities of ivory poaching is to condemn the species to extinction. A strict biocentric view of allowing animals to remain wild, free, and unrestricted by human intervention may seem like a laudable goal; however the realities of expanding human populations and continued human development render this view utopian. Shogren, et al conclude that “the consistent exclusion of economic behaviors in the calculus of endangered species protection has led to ineffective and, in some instances, counterproductive conservation policy.”²

Environmentalists who adhere to a strict biocentric perspective often ignore the political realities when advocating for conservation policies. Dickson argues that environmental ethics do not have a role in environmental policy because market

¹ Examples include the World Wildlife Fund, Save the Elephants, and World Conservation Society.

² Jason Shogren, et al, “Why Economics Matters for Endangered Species Protection,” *Conservation Biology* 13, no. 6 (December 1999): 1258.

economy pressures prevent individuals from addressing environmental problems.³ When environmental ethical concerns compete with market economy drivers, often the economic drivers prevail. Economic pressures can influence individuals, communities and nations to pursue environmental policies to preserve biodiversity and also drive economic growth.

Nations are not primarily driven by morals, but instead focus on national security and economic growth. Relying only on morality may generate public outrage, but opinion surveys indicate that the outrage does not translate into political support. While the public remains concerned with ivory poaching, constituents favor other government priorities such as healthcare, education, and economic wellbeing for future national investments.⁴ By providing an economic value to the environment, conservationists do not have to solely rely on the ethical and societal shift from human focused to non-human focused value.⁵ Instead of advocating for environmental protection based on esoteric and altruistic grounds, conservationists should garner support by taking into consideration long-term economic interests of those involved in tourism to conserve nature as a resource.⁶ A compelling economic framework can provide increased national security, new sources of revenue, and the political will and support needed for action.

³ Barnabas Dickson, "The Ethicists Conception of Environmental Problems," *Environmental Values* 9, no. 2 (May 2000): 149.

⁴ Ibid.

⁵ Holden, "In need of a new environmental ethics for tourism?" 105.

⁶ Ibid.

Economic Value

In order to compel nations to act to combat poaching, an economic solution should be established. At the Clinton Global Initiative in New York in 2013, Hillary Clinton characterized the illegal ivory trade as not only “an ecological disaster but also a threat to political and economic stability throughout Africa.”⁷ The Global Financial Integrity report on Transnational Crime in the Developing World similarly points out that the “ecological damage [of the illicit wildlife trade], while tragic and morally reprehensible, is trumped by the economic and structural damage imposed on already weak developing states.”⁸ By nurturing organized crime, terrorism and conflict, the illegal ivory trade promotes poverty and undermines national security. The World Development Report of 2011 finds violence to be the leading driver of poverty around the world. The report argues that many poverty-laden countries may not be caught in a “poverty trap” but instead caught in a “violence trap” where peaceful countries are finding a way to escape from poverty but conflict-prone countries are seeing stagnation in poverty alleviation and economic growth.⁹ While individual citizens may see short-term economic gains from poaching, participating in the illegal ivory trade reflects the Tragedy of the Commons. By diminishing

⁷ Svati Kirsten Narula, “Crush and Burn: A History of the Global Crackdown on Ivory,” *The Atlantic*, January 27, 2014, accessed April 1, 2014, <http://www.theatlantic.com/international/archive/2014/01/crush-and-burn-a-history-of-the-global-crackdown-on-ivory/283310/>.

⁸ Haken, “Transnational Crime in the Developing World.”

⁹ *World Development Report* (Washington, DC: World Bank, 2011), accessed July 10, 2014, http://siteresources.worldbank.org/INTWDRS/Resources/WDR2011_Full_Text.pdf.

future economic prosperity for the country and the region through economic development, such as ecotourism, poaching promotes criminal activity and conflict.¹⁰ Illegal ivory trade weakens economic and fiscal stability, deters investment, and undermines the significant tourism income. It is the nation's responsibility to prioritize the elimination, or at the very least the reduction, of the illegal ivory trade as a component of national policy aimed at escaping from poverty, developing a viable economic future, and bolstering national security.

The environment is a vital component of African economies. In Sub-Saharan Africa, nearly 70 percent of the human population depends on living wildlife resources for a substantial component of living needs.¹¹ The citizens of the DRC receive 75 percent of their animal protein intake from wild sources. In Botswana 40 percent of animal protein is produced by wild sources and firewood and dung provide 90 percent of the energy in Tanzania, Nepal, and Malawi.¹² The conservation of the African elephant has a variety of economic benefits. For example, elephant poaching in Tanzania's Naranhire National Park led to an increase of woody plants and tsetse flies resulting in an increase in livestock deaths. Increasing elephant numbers would reduce this harmful side effect to the nation's agriculture industry.

¹⁰ Vira and Ewing, "Ivory's Curse," 10.

¹¹ Charles Perrings and Jon Lovett, "Policies for Biodiversity Conservation: The case of Sub-Saharan Africa," *International Affairs* 75, no. 2 (December 1999): 289.

¹² Adrian Phillips, Economic Value of Protected Areas (report, Task Force on Economic Benefit of Protected Areas of the World Commission on Protected Areas, International Union for Conservation of Nature), x, accessed July 15, 2014, <https://portals.iucn.org/library/efiles/documents/PAG-002.pdf>.

In order for nations to quantify the many economic benefits that the African elephant brings, an economic impact assessment should be used to guide revenue and cost for protection measures. Total Economic Value (TEV) is an economic assessment that applies to the use and non-use values of a region, usually protected areas such as Ramsar sites, national parks and World Heritage UNESCO site discussed in Chapter 3.¹³ The TEV system provides an anthropocentric conservation ethic by addressing value the environment brings to human needs. Direct-use values are derived from market and non-market human use of the areas in the form of non-market activities of recreation, tourism, research, and natural resources harvesting. Indirect use values include ecological benefits the area provides in terms of migratory animal sanctuaries, breeding grounds, and climate stabilization. New figures illustrate that a live elephant is 76 times more valuable than the ivory of a dead elephant.¹⁴ Based upon averages of two tusks of 5 kilograms each, it is estimated that the average dead elephant is worth \$21,000 in ivory. However, the lifetime economic value of that same elephant based upon tourism expenditures is over \$1.6 million. Each elephant contributes a total of \$22,966 to the economy annually.¹⁵ By assessing the African elephant in this light, a sustainable program of conservation can be established.

¹³ Ibid., 11.

¹⁴ Rob Branford, "Dead or Alive? Valuing an Elephant" (report, David Sheldrick Wildlife Trust, Surrey, UK, October 2014).

¹⁵ Ibid.

While the intrinsic value of biodiversity is not included in the TEV, the protection of the African Elephant will support the ecosystem as a whole. Elephants are considered a “keystone” species that are integral in maintaining the health of an ecosystem. For example, the African grasslands could cease to exist without elephant grazing. It is estimated that 30 percent of the tree species may depend on elephants for seed dispersal and germination, while the growth of other plants such as the acacia tree is controlled by elephant grazing.¹⁶ The disappearance of the grasslands or plant species would then result in the disappearance of the animals that depend on the ecosystem.

A large obstacle to addressing ivory poaching is the limited financial resources available to range states. International environmental conventions and programs alone are not sufficient to maintain financial support for conservation programs.¹⁷ The current scale of response needed to combat ivory poaching is vast. Elephants can cover a habitat range up to 6,000 square miles¹⁸ including crossing into, and out of, a number of national parks and countries.¹⁹ In addition to its vastness, the habitat composition of elephants in Africa hinders the ability to

¹⁶ “African Elephant,” World Wildlife Fund, last modified 2014, accessed August 15, 2014, <http://www.worldwildlife.org/species/african-elephant>.; “Keystone Species,” National Geographic, last modified 2014, accessed September 8, 2014, http://education.nationalgeographic.com/education/encyclopedia/keystone-species/?ar_a=1.

¹⁷ Phillips, *Economic Value of Protected Areas*, 6.

¹⁸ “2013 Provisional African Elephant Status Report,” *African Elephant database Specialist Group, IUCN*, last modified, 2014, accessed September 6, 2014, http://www.elephantdatabase.org/preview_report/2013_africa/Loxodonta_africana/2012/Africa.

¹⁹ Walker, “Rethinking Ivory,” 93.

properly patrol. African elephants traverse dense-foliage regions, jungle, bush, and semi-desert regions.²⁰ With limited financial and personnel resources, the African elephant rangeland is far too vast and difficult for complete coverage. A considerable investment would have to be made to establish absolute saturation by park rangers and conservation personnel. For example, the recently established Kenya Inter-Security Agency Anti-Poaching Unit has 121 officers.²¹ Kenya Wildlife Services are hoping to hire a record 1,000 rangers this year to manage over 46,000 square kilometers of protected areas in 23 National Parks, 28 National Reserves, four marine National Parks, six marine National Reserves and four national sanctuaries.²² This only represents a fraction of the needed protection as 57 percent of Kenya's wildlife is found outside of protected areas.²³ Tourism can help grow existing economies and establish secondary economies to provide funding for additional and sustained conservation programs. The challenge is daunting, which underscores the need for an economically viable solution to conservation programs. Tourism mechanisms to raise revenue and support economic development are vital to success.

²⁰ Ibid.

²¹ Kenya Wildlife Service, *Annual Report 2013*, 9, accessed July 15, 2014, http://www.kws.org/export/sites/kws/info/publications/annual_reports/KWS_Ann_Rep_2013.pdf.

²² "Parks and Reserves," Kenya Wildlife Service, last modified 2014, accessed July 15, 2014, <http://www.kws.org/parks/index.html>.

²³ Kenya Wildlife Service, *Annual Report 2013*, 10.

Legalizing Hunting

The most prevalent economic solution to the poaching crisis is the reestablishment of legal hunting and trading of ivory. However, this view is misinformed and misplaced in current debate. Proponents argue that a value must be placed on elephant products in order to create a legal market and lower black market prices. By reestablishing a legal form of ivory trade, advocates argue that the high sales price that drives poaching will be mitigated by market forces and the sales hunting licenses would create revenue for the state that could be used for conservation programs.²⁴ Prohibiting legal sales of ivory trade removes large amounts of ivory from the market and increases black market prices because of scarcity.²⁵ The knowledge that nations are holding ivory stockpiles from large-scale government seizures and destroying large quantities of ivory in public burning events only serves to drive the price of black market ivory higher. However, this argument does not follow true economic market theory because the confiscated ivory in government stockpiles was never on the open market. Without being active on the market, its removal cannot increase scarcity since it was not originally accounted for in market pricing. In addition, a legalized trade ignores the sustained decline in elephant population numbers. While ivory prices may initially be reduced

²⁴ See Doug Bandow, "When You Ban the Sale of Ivory, You Ban Elephants," *Forbes*, January 21, 2014, accessed September 9, 2014, <http://www.forbes.com/sites/dougbandow/2013/01/21/when-you-ban-the-sale-of-ivory-you-ban-elephants/>.

²⁵ Walker, "Rethinking Ivory," 94.

when legally sourced ivory is added to the market, prices will soon rise again as the elephant population nears extinction and ivory become more rare.

Others argue for a middle ground to allow for the marketing and sale of legally sourced ivory which initially provides a more appealing approach than fully legalized hunting. Walker advocates for the creation of a framework that would distinguish between “blood ivory,” that attained by poaching, and “conservation ivory,” that attained by natural deaths or population control. This distinction would allow legally sourced ivory to be sold, create a revenue source from legal ivory for nations that have elephant overpopulation concerns, and would compete with the black market and reduce prices.²⁶ While establishing a source distinction for ivory may offer the benefit of higher moral authority for the marketing of ivory, there is little to show that it will eliminate the illegal trade and should not be considered a conservation solution. Similar attempts have been made in the diamond business under the Kimberly Process to eliminate ‘conflict’ diamonds from entering the trade by establishing a certification system that verifies the legal and humane sourcing of the diamonds. The shortcomings of the Kimberly Process led a founding organization, Global Witness, to leave the coalition in 2011 because it failed to stop the illegal diamond trade.²⁷ Some studies indicate that the illicit diamond trade is worsening under the Kimberly Process by creating a legal certification system to

²⁶ Ibid.

²⁷ Theo Leggett, “Global Witness Leaves Kimberly Process diamond scheme,” *BBC News*, December 5, 2011, accessed March 23, 2014, <http://www.bbc.co.uk/news/business-16027011>.

launder illegally-sources diamonds and legitimizing the sale.²⁸ While both are considered highly lootable resources, ivory is more complex than a static national resource, such as diamonds, because of the migratory nature of elephants.

Future hunting should not be immediately dismissed, but it is hasty at this stage of elephant population reductions to consider it as a long-term solution. It would be premature to re-establish a legal ivory trade while population levels are at historic lows and a considerable number of poaching networks are run by organized criminal and terrorist networks. Instability created by increased terrorist activity, such as al-Shabab and the LRA, dissuades international investors from considering the region as a development opportunity. By creating legal markets, terrorists and organized crime networks will be emboldened by the availability of legal pathways to buyers. As Stiles notes, African range states will have a problem providing the level of supply needed for increasing demand without detriment to elephant population numbers.²⁹ The result of legalizing the market without limiting supply would be unnecessary “cropping” and increased illegal poaching in order to satisfy demand.³⁰ Without addressing the economic drivers of the ivory trade, providing a legal framework will only increase the ease with which terrorist groups receive and transfer funding and seal the fate of the African elephant. Similar to the Kimberly Process, a legal market would be created allowing terrorist groups to easily launder

²⁸ Gossman, “Tusks and Trinkets,” 64.

²⁹ Daniel Stiles, “The Ivory Trade and Elephant Conservation,” *Environmental Conservation* 31, no. 4 (December 2004): 318.

³⁰ *Ibid.*

illegally sourced ivory. African conservationist Iain Douglas-Hamilton does not dismiss the notion of a future legal trade, but instead advocates for an indefinite postponement until the species can repopulate.³¹ Until then, he argues, a legal ivory trade would be “utopian and unrealistic.”³² Therefore, hunting of any sort should not be reestablished until elephant populations have reached a healthy and increasing population level.

Human-Elephant Conflict

Proponents of illegal wildlife trade, including those in local communities, often point to the natural human-elephant conflict that exists in human settlement expansion in elephant rangeland as a reason to support poaching. Today, 29 percent of rangeland is classified as heavily impacted by human development.³³ This level is expected to reach 63 percent in the next 40 years. By labeling elephants as an agricultural “nuisance,” advocates hope to mitigate the negative connotation of elephant hunting. This is a misguided argument. While elephant-human conflict is widespread in all regions where both cohabit, elephants are relatively low on the list of agriculture pests according to agricultural damage.³⁴ There are many deterrents varying in cost and complexity that can be used to mitigate the human-

³¹ Walker, “Rethinking Ivory,” 100.

³² Ibid.

³³ Christian Nellemann, “Elephants in the Dust: The African Elephant Crisis” (rapid response assessment, United Nations Environment Programme, 2014) accessed May 12, 2014, http://www.cites.org/common/resources/pub/Elephants_in_the_dust.pdf.

³⁴ Richard Hoare, “African Elephants and Humans in Conflict: the outlook for co-existence,” *Oryx* 34, no. 1 (January 2000): 35.

elephant conflict. For example, noise-producing sensors, fencing, repellent sprays, alarm calls, translocation efforts, and land zonation have been effectively implemented.³⁵ Other deterrents include the planting of noxious plants, such as Mauritius thorns, thunder flashes, and the establishment of local sanctuaries.³⁶ In addition, new research has shown that elephants have an aversion to bees. By constructing a simple, inexpensive, and effective “fence” of connected, elevated bee hives, a farmer can deter elephants from land as well as reap the economic benefits of honey production.³⁷

Ecotourism

While illegal ivory trade creates significant challenges to national security, Africa’s biodiversity plays a significant role in potential development opportunities. By establishing strong economic policies, African states can combat poaching’s impact on loss of future economic profit from development and ecotourism.³⁸ The potential for ecotourism revenue is immense and should be a cornerstone to conservation programs to save the African elephant.³⁹ Tourism is responsible for 8.8 percent of jobs worldwide, over \$6 trillion in global gross domestic product

³⁵ Ibid.

³⁶ Lemieux and Clarke, “The International Ban on Ivory Sales,” 466.

³⁷ “Elephants and Bees Project,” *Save the Elephants*, last modified 2014, accessed March 17, 2014, <http://elephantsandbees.com/bee-hive-fence/>.

³⁸ Gail Rosen and Katherine Smith, “Summarizing the Evidence on the International Trade in Illegal Wildlife,” *EcoHealth* 7, no. 1 (August 2010): 25.

³⁹ Oliver Kruger, “The Role of Ecotourism in Conservation: Panacea or Pandora’s box?” *Biodiversity and Conservation* 14, no. 3 (March 2005): 580.

(GDP), 5.8 percent of global exports, and \$652 million in global investments.⁴⁰ In 2013, travel and tourism contributed a total of \$95 billion in direct and indirect investment in Sub-Saharan Africa.⁴¹ It is estimated that 3.8 million jobs connected to tourism could be created in Sub-Saharan Africa in the next decade.⁴² Tourism revenues represented approximately \$5 billion in total economic contribution or 12.1 percent of GDP for Kenya, \$2 billion in revenue or 7.9 percent of GDP for Uganda, and \$4 billion in revenue or 12.9 percent of GDP for Tanzania, all elephant range states.⁴³

Tourism has a catalytic effect on the economy by encouraging development and investment in multiple sectors. From construction to accommodation, transportation, and food, the indirect revenue can amount to double that which is spent directly on tourism activities.⁴⁴ In 1990, tourism in Sub-Sahara Africa brought 6.7 million visitors to the region.⁴⁵ By 2012, this level increased in 33.8 million visitors with a direct revenue impact of \$36 billion, or 2.8 percent of total gross

⁴⁰ *Travel and Tourism: Economic Impact 2014, Sub-Saharan Africa* (London: World Travel and Tourism Council, 2014), 1.

⁴¹ Ibid.

⁴² Ibid.

⁴³ *Travel and Tourism: Economic Impact 2014, Kenya* (London: World Travel and Tourism Council, 2014); *Travel and Tourism: Economic Impact 2014, Uganda* (London: World Travel and Tourism Council, 2014); *Travel and Tourism: Economic Impact 2014, Tanzania* (London: World Travel and Tourism Council, 2014).

⁴⁴ *Travel and Tourism: Economic Impact 2014, Sub-Saharan Africa*, 1.

⁴⁵ Ibid., 3.

domestic product.⁴⁶ After accommodating for indirect revenue, the total economic impact tourism has on Sub-Saharan African increases to 7.3 percent of total gross domestic product.⁴⁷ This type of economic liberalization alleviates poverty by creating new opportunities and lessens pressure placed on scarce natural resources that are easily abused.⁴⁸ Instead of valuing the dead elephant at the price of ivory, range states should value the elephant based on ecotourism income potential. Based upon ivory seizure data, elephant killings in 2014 have robbed African nations of over \$44.5 million in revenue.⁴⁹ However, this figure is an underestimate since ivory seizure rates only represent about 10 percent of ivory on the market. The real impact in lost tourism revenue is closer to \$445,548,444.⁵⁰ This size of potential tourism revenue would provide nations ample cause to prioritize African elephant conservation programs.

According to Kruger's historical study, ecotourism based upon the African elephant has the ability to succeed. The 'willingness to pay' in terms of tourism and opportunity cost of locals is elevated when protecting a flagship species. Flagship species are charismatic species that are popular and can leverage more support for conservation. Elephants are considered a "world-wide" flagship species, which hold

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Perrings and Lovett, "Policies for Biodiversity Conservation," 292.

⁴⁹ Brandford, "Dead or Alive?"

⁵⁰ Ibid.

the highest level of global support.⁵¹ The presence of a flagship species positively impacts the longevity and sustainability of conservation programs. While this finding does not bode well for all protected areas or endangered species, it illustrates the potential for consistent success in a minority of situations in which worldwide flagship species, such as the African elephant, are present. In addition to a flagship species, Kruger is quick to note that the involvement of local communities is also critical for sustainability.⁵² States should prioritize ecotourism policies that will concurrently create revenue and weaken the shadow economic of terrorist organization and terrorist networks.

Local Involvement

When establishing ecotourism policies, it is essential for governments to take into account the local communities' needs and concerns in order to establish lasting conservation programs. The positive and negative economic impacts of conservation should be addressed if local entities are expected to support global efforts. Without addressing concerns, locals will not offer support to parks or protected areas that establish the foundation for an ecotourism economy. As Perrings and Lovett note, local communities can often realize more immediate benefits by exploiting natural resources rather than conserving them. An economic solution must include financial incentives to realize the benefits of combating the illegal ivory trade at the state and local level. As Stiles argues, local governments

⁵¹ Kruger, "The Role of Ecotourism in Conservation," 583.

⁵² *Ibid.*, 596.

have little incentive to prioritize elephant conservation programs. While communities technically 'own' the elephant population as a natural resource, they do not see many direct benefits of conservation.⁵³ Improperly constructed and managed ecotourism programs can primarily benefit the wealthy and elite within a nation, with only secondary indirect benefits of increased bio-diversity shared by the rest of the population.⁵⁴ As Scheyvens concludes, "when business is the main driving force behind ecotourism, it is not surprising that the ventures which emerge may serve to alienate, rather than benefit, local communities."⁵⁵ Local communities often witness the negative impacts of conservation such as a reduction in land available for agriculture, while not reaping any financial benefits. As a result, poor rural workers often subsidize the benefits of the elite in the form of restricted land use, grazing controls, and restrained livelihoods.⁵⁶ Because of the discrepancy between those that give versus those that receive, a leading reason for the failure of ecotourism programs is the refusal to incorporate local communities.⁵⁷

Local and regional policies such as revenue sharing agreements can be established to ensure that the economic profits from ecotourism benefit local communities, agricultural communities, and central government alike. For example,

⁵³ Stiles, "The Ivory Trade and Elephant Conservation," 319.

⁵⁴ Lemieux and Clarke, "The International Ban on Ivory Sales," 465.

⁵⁵ Regina Scheyvens, "Ecotourism and the Empowerment of Local Communities, *Tourism Management* 20 (February 1999): 245.

⁵⁶ Lemieux and Clarke, "The International Ban on Ivory Sales," 466.

⁵⁷ Kruger, "The role of ecotourism in conservation," 593.

the Narok County Council, which manages the Masai Mara National Reserve in Kenya, established a trust fund financed by ecotourism revenue and park fees in 1999 that benefited local schools, agriculture projects, and health services.⁵⁸ In addition, local leaders in Namibia realized the threat poaching posed to their regional biodiversity leading to the creation of community conservancies. Networks of respected and trusted game guards and community members are trained to monitor animal populations, coordinate with nearby communities, and identify poachers.⁵⁹ Over a fifth of Namibia's land is operated in this manner resulting in a tripling of the elephant population. A survey of local communities near Kruger National Park in Kenya highlighted the importance of including locals in anti-poaching initiatives. Sixteen percent of those surveyed knew of poachers living in the community and 68 percent would be willing to identify poachers if protection against retaliation was offered.⁶⁰ By establishing strong local commitment through conservation partnership and revenue-sharing agreements, local communities can reap the benefits of their lost opportunity costs.

The profits seen by locals involved in poaching can also be countered by conservation and ecotourism benefits. While ivory poaching profits can be high, they are not evenly distributed along the supply chain. The risk and reward model used by organized crime syndicates and terrorist networks benefits from the high

⁵⁸ Scheyvens, "Ecotourism and the Empowerment of Local Communities," 245.

⁵⁹ Anderson and Jooste, *Wildlife Poaching*, 6.

⁶⁰ *Ibid.*, 3.

value of ivory in Asian markets, but the local revenue from ivory is often much lower. Local farmers and hunters who have been absorbed into larger criminal networks are compensated at a fraction of the market value. Large criminal networks seek poor local subsistence farmers to hunt for as little as \$30 per kilogram or 1.6 to 3.3 percent of the sales price of ivory.⁶¹ In relation to the broad negative economic impact of poaching, local communities do not see long-term benefits from supporting the illegal trade. Creating incentive for local communities to reject poaching represents a less expensive solution than incentivizing actors higher on the supply chain.⁶² Only by first establishing a secondary economy with local support to develop the value of a live elephant can the conversation of legalizing the ivory trade be considered without condemning the future of the species.

⁶¹ Vira and Ewing, "Ivory's Curse," 10, 17.

⁶² *Ibid.*, 17.

CHAPTER 7

NECESSARY, NOT SUFFICIENT

The damage being done to African elephants from poaching is very real, but so is the damage being done to African societies.

-Varna Vira and Thomas Ewing, "Ivory's Curse"

Economic mechanisms such as TEV and ecotourism are a necessary, but not sufficient component of the long-term existence of the African elephant. As Rotschhuizen and Smith highlight, one must also recognize the significant limitation of an economic-based solution – a willing and capable government.¹ A comprehensive, long-term solution should partner ecotourism development with civil society and judicial reform and the enforcement of local and regional laws.

Lemieux found that corruption and civil war were related to declines in elephant populations by creating conditions amenable to continued poaching.² These conditions include access to unregulated markets found in countries with underperforming governments that facilitate illegal ivory trade.³ Illegal ivory trade undermines national security by undermining the rule of law by exploiting and encouraging corruption. As Haken notes, "criminal networks, which function most easily where there is a certain level of underdevelopment and state weakness, have

¹ Rotshuizen and Smith, "Of Warriors, Poachers and Peacekeepers," 509.

² Lemieux and Clarke, "The International Ban on Ivory Sales," 453.

³ Ibid., 463.

very little incentive to bolster the legitimate economy where they operate.”⁴ Add the ability and willingness to bribe corrupt officials to the organized crime and terrorism activities and the spiral of undermining the limited amount of controls in existence begins.⁵

Corruption is often associated with weak governance and unstable states. Hayes notes that ivory exploitation is simply an example of a “wide pattern of elite domination with ramifications for environmental protection.”⁶ Senior state officials including politicians and military personnel often profit from the ivory trade and are economically tied to the health of the ivory supply.⁷ The founder of Kenya Wildlife’s Services (KWS) has accused high profiled individuals of colluding with KWS officials. In a review of 750 criminal wildlife cases that took place in Kenya between 2008 and 2013, files were either misplaced or lost in 70 percent of the cases, due to gross mismanagement and corruption.⁸ Officials of Tanzania’s Military of Natural Resources and Tourism have been fired. Hayes notes that ivory exploitation is simply an example of a “wide pattern of elite domination with ramifications for environmental protection.”⁹ Kenya and Zambia only agreed to ivory trade bans when elephant stock was in sharp decline and officials’ personal benefits were being

⁴ Haken, “Transnational Crime in the Developing World.”

⁵ Walker, “Rethinking Ivory,” 93.

⁶ Haynes, “Power, Politics, and Environmental Movements,” 224.

⁷ Ibid.

⁸ Anderson and Jooste, *Wildlife Poaching*, 4.

⁹ Haynes, “Power, Politics, and Environmental Movements,” 224.

reduced.¹⁰ Therefore, protections to repopulate the elephant community were in direct relationship to reestablishing the senior officials' ivory production source when population levels increased.¹¹

Criminal poaching networks take advantage of lax law enforcement and security measures to expand profits.¹² Criminals, and now militias and terrorist groups, view elephant ivory poaching as a low-risk, high-reward source of funding because of the lack of enforcement or severe punishment for the crime.¹³ While drug trafficking offenders can be sentenced to years in prison, poachers are often assessed only a simple nominal fine. Very few seizures result in successful criminal prosecution such as investigations, arrests or convictions.¹⁴ For example, a Chinese smuggler was caught with 439 pieces of worked ivory in Kenya. He was fined less than \$1 per piece and released without a trial.¹⁵ The reliance on uninterrupted and unmonitored supply chains can be illustrated in the price depressions that occurred after large-scale seizures of ivory stocks from Uganda and the DRC. In 2013, two large seizures occurred along the Arua/Ariwara-Kampala-Mombasa value chain,

¹⁰ Ibid.

¹¹ Ibid.

¹² Liana Sun Wyler, "International Illegal Trade in Wildlife," *Congressional Research Service*, July 23, 2013: 5.

¹³ Lawson and Vines, "Global Impact on Wildlife Trade," 7.

¹⁴ *Criminal Nature: The Global Security Implications of the Illegal Wildlife Trade* (Washington, DC: International Fund for Animal Welfare, June 2013), 8, accessed July 10, 2014, http://www.ifaw.org/sites/default/files/ifaw-criminal-nature-2013-low-res_0.pdf.

¹⁵ Ibid.

one totaling 2.3 tons of ivory, that caused a price shock in the economy of a 60 percent price drop.¹⁶ The seizures occurred in the latter stages of trade, containerization in Kampala, Uganda and shipment in Mombasa, Kenya; however the price shock impacted the principal markets in Arua and Ariwara on the DRC/Uganda border. Instead of traditional price spikes when supply is constricted, the DRC-Kenya supply chain experienced price depression because the value of a low-risk, high-reward commodity was lessened. When the vulnerability of the trading network reveals the true cost to participants when caught, value of the commodity is reduced. For this reason, Anderson and Jooste argue that fines should, at the minimum, exceed the value of wildlife products seized from the offenders.¹⁷ If the risk and cost of punishment does not exceed the value of the ivory, poaching will continue to be a profitable business. In addition to creating ecotourism policies that support conservation, states must increase punishment and enforcement to change the risk calculus of poachers.

¹⁶ Vira and Ewing, "Ivory's Curse," 21-22.

¹⁷ Anderson and Jooste, "African Poaching," 6.

CONCLUSION

MORAL.

So, oft in theologic wars
The disputants, I ween,
Rail on in utter ignorance
Of what each other mean,
And prate about an Elephant
Not one of them has seen!

– John Godfrey Saxe, *The Blind Men and the Elephant*

As the moral of Saxe's poem espouses, to limit oneself to a narrow perspective would be to demonstrate ignorance, not a command of the complex issues at hand. To save the African elephant from extinction, current conservation approaches must be modernized. Long past is the day that a narrow perspective can result in a global call to action. Blinders must be removed and realities understood. Ivory poaching is a complex problem, rooted in historic norms with an adapting portfolio of actors. For millennia, ivory has been utilized as an icon of wealth and status. The combination of a growing Asian middle class and increased globalization has perpetuated and expanded the illicit trade.

The sobering fact is that without a shift in how poaching is viewed to include its negative impacts on human economic prosperity and national security, history is against any meaningful long-term success. The daunting realities of extreme poverty in Africa, corruption of officials, fragile government, and the involvement of regional and transnational crime better lend themselves as fodder for continued conflict and the quasi-extinction of African elephants. In the end, the solution will

lie with a carefully orchestrated economic policy that highlights the value of a live elephant, increases the risk to poachers, and prioritizes wildlife conservation policies within local and state government by highlighting the negative impact elephant poaching has on national security.

While many international agreements and treaties have attempted to diminish the illegal ivory trade and establish environmental protections, most have fallen short. Implementation left to individual nations has created an uneven enforcement, easily manipulated by the growing criminal syndicates involved in elephant poaching. Because of its high market value and low risk, ivory has become a currency of evil. Terrorist networks have taken advantage of this eroding control to finance their global conflicts. From the Lord's Resistance Army (LRA), al-Shabab and the Janjaweed, terrorist networks have leveraged fragile governments of developing nations along with the high profits of the black ivory market to fuel their missions all over the world. Nations no longer view poaching as simply an environmental issue and the world no longer views illegal ivory sales as a problem of the African bush. It is now a global concern that strengthens terrorism and criminal networks worldwide. The increased use of ivory as a revenue source for terrorists and organized crime and the response of outrage from the international community may provide the impetus needed to finally address this problem globally.

However, conservation programs and international environmental agreements are not rooted in economic realities. Today, nations have too many

competing priorities for an argument of intrinsic value or beauty to be able to save the African elephant. While those arguments are valid, they are simply not enough. Countries with high levels of biodiversity are often developing nations prone to conflict. With limited resources and unlimited demands, developing nations must prioritize the issue that will benefit its citizens. Until now, benefits have been narrowly discussed in conservation terms. By encouraging responsible economic growth combined with local engagement and sustainability, conservation programs to reestablish the African elephant can succeed. The African elephant is uniquely situated to benefit from the economic value that is placed on a flagship species.

Collectively, the findings in this paper suggest that by encouraging responsible economic development through ecotourism, founded upon a conservation ethic, African elephant conservation can succeed in a world of restricted resources. The path to save the African elephant will undoubtedly be an uphill battle. The size and scope of this illegal trade is daunting, but it is a winnable war. Unlike other highly trafficked resources, ivory is a vanity item. There is no perceived health benefit to overcome as is the case with rhino horn, no technology application like coltan, and no secondary utility like timber. Ivory is used for decorations, jewelry, or status symbols. Simply put, “nobody *needs* ivory, they just *want* ivory.”¹ The loss of a keystone species has broad and lasting impact to the ecosystem as a whole. Humans have an ethical responsibility to protect the future of a species that it has helped drive to near extinction. Humans are only one element

¹ Gossman, “Tusks and Trinkets,” 65.

in a complex network of natural symbiotic relationships. Without natural balance, the ecosystem will begin to shift resulting in negative impacts for humans, animals, and plants alike. Losing keystone species can result in additional extinctions, climate shifts, and reductions in food and water availability. Not only do humans have a responsibility to save a species they have driven towards extinction, but they also have a responsibility to the community, both present and future, to ensure the continued existence of the vibrant biodiversity Earth has to offer. The correct combination of economically sound tourism policies founded on conservation ethics can achieve this goal, bolster national security, increase economic growth, and save the African elephant from extinction.

APPENDIX

Appendix A: African Elephant Range States Statistics

	Failed State Index (of 178)	2013 GDP in USD billions	GDP Rank (of 191)	CITES in force	Elephant Population		
					Definite	Add'l Estimate	Range (sq. km.)
Somalia	1	n/a	n/a	1986	0	70	4,525
DRC	2	\$30.6	96	1976	1,708	11,966	276,209
South Sudan	4	\$13.8	123	n/a	1,172	11,764	309,897
Chad	5	\$13.4	124	1989	454	2,550	149,443
CAR	9	\$1.5	170	1980	1,019	1,266	81,041
Zimbabwe	10	\$12.8	126	1981	47,366	52,925	76,930
Cote d'Ivoire	12	\$30.9	95	1995	211	926	33,986
Guinea	14	\$6.2	147	1981	0	158	1,524
Guinea-Bissau	15	\$0.859	177	1990	0	20	1,346
Nigeria	16	\$522.6	23	1975	0	775	22,968
Kenya	17	\$44.1	86	1978	26,365	9,895	111,423
Niger	18	\$7.5	144	1975	85	17	2,683
Ethiopia	19	\$46.9	83	1989	628	1,132	38,417
Uganda	22	\$21.5	106	1991	2,223	2,319	15,228
Liberia	23	\$1.9	165	1981	25	1,561	15,977
Eritrea	25	\$3.4	159	1995	96	8	5,275
Cameroon	27	\$29.3	99	1981	775	13,274	120,510
Sierra Leone	33	\$4.9	151	1995	0	215	1,804
Burkina Faso	35	\$11.6	129	1990	4,477	840	19,874
Congo	36	\$14.1	122	1983	7,198	42,050	141,302
Mali	38	\$10.9	133	1994	344	0	31,881
Rwanda	38	\$7.5	143	1981	11	71	1,014
Malawi	40	\$3.7	158	1982	865	1,479	7,539
Togo	42	\$4.3	153	1978	4	61	5,032
Angola	43	\$121.7	60	2013	818	1,712	406,003
Zambia	45	\$22.4	105	1981	14,961	6,628	201,246
Equatorial Guinea	47	\$15.6	114	1992	0	1,330	15,023
Mozambique	59	\$15.3	115	1981	17,753	9,020	342,727
Senegal	64	\$15.2	118	1977	1	9	1,090
Tanzania	65	\$33.2	93	1980	95,351	22,105	387,538
Benin	78	\$8.3	140	1984	916	236	13,672
Gabon	99	\$19.3	108	1989	4,996	72,256	221,706
Namibia	108	\$12.6	127	1991	16,054	8,964	146,904
Ghana	110	\$47.9	81	1976	857	533	23,715
South Africa	113	\$350.6	33	1975	22,889	0	30,651
Botswana	121	\$14.8	119	1978	133,088	42,366	100,253

Source: Author's table including data from Failed State Index, World Bank, CITES, and the Elephant Database.

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