Lasting Implications of the Elephants' Demise in Kenya and Tanzania

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Abstract

The purpose of this study was to determine the effects of elephant deaths on the livelihoods of the people living in Kenya and Tanzania. The trade of ivory and conservation resistance were examined as the key factors for the death of an elephant. The study determined that poaching through the ivory trade, and elephants being killed in and around conservation parks because of conservation resistance, is detrimental to human livelihoods. The thesis recommends that the ivory trade must stop in order for elephant populations numbers in Kenya and Tanzania to positively affect the ecosystem and livelihoods, and conservation parks must be managed by local people.

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Chapter 1
Introduction

Elephants are a keystone species and are, therefore, needed for the sustainability of life in East Africa. A keystone species is, "a plant or animal that plays a unique and crucial role in the way an ecosystem functions. Without keystone species, the ecosystem would be dramatically different or cease to exist altogether," (*National Geographic Society,* 2011). The poaching of elephants in East Africa for ivory is dwindling the population numbers, and the ecological regions in which elephants no longer reside have negatively been affected because of this change. The illicit trade in ivory, mainly to Southeast Asia, occurs because of illegal networks that have burgeoned on the African continent, as well as the demand for ivory in Southeast Asia. Activists have spoken out around the world against the sale and trade of ivory, as well as for conservation of elephants in Africa, but only when demand of ivory is curbed in Southeast Asia, will illicit networks begin to decrease in influence. Although the ecosystems of regions heavily poached are negatively affected by the loss of elephants, local people are often monetarily enriched in this informal market economy in ways that are not available in the formal market economy. It is important to note that poaching continues because of a demand in Southeast Asia, and because of the monetary benefits from the sale of ivory at the local level in Kenya and Tanzania.

The purpose of this study was to better understand how the death of elephants in Kenya and Tanzania affects the livelihoods of people in these countries. A majority of the illicit ivory that leaves the African continent is from Kenya and Tanzania. Differing conservation practices in these two countries, when compared to the rest of Africa, create a need for research concerning the ivory trade and conservation resistance in these countries. Because ivory from Kenya and

Tanzania is mainly traded to Southeast Asian countries, there is a need for this trade trail to be discussed. For example, in Wasser's (2007) research, all 12 of the seizures they analyzed had been destined for Southeast Asian countries before being seized.

Although Kenya and Tanzania are the only countries discussed in this research, there are many other Sub-Saharan African countries that deal with elephant poaching. South Africa and Zimbabwe are two countries with large elephant populations in which poaching does occur (Cruise, 2015; Radmeyer, 2016), although their elephant and human dynamics within and around conservation areas are different from East African dynamics. Conservation areas tend to have overpopulation of species in Southern Africa, while in East Africa this is not the case.

It is important to study the effects of declining elephant population numbers on the local people of Kenya and Tanzania, because their livelihoods and living standards, as well as the ecosystem around them, are being affected by this decrease in numbers. The thesis underscores that negative ecological happenings emanating from the demise of elephants affect the entire world, although they might originate in East Africa. The thesis notes that many farmers in Kenya and Tanzania are affected by the death of elephants, because elephants are a keystone species, but these farmers also need to responsibly manage the recent human encroachment on elephants' territories and migration patterns. This encroachment has occurred because of many factors, which have led to the increase of elephant and human interactions and conflicts.

Conducting the Research

The topic for my thesis was developed through different courses that exposed me to varying elements of the ivory trade and elephants in East Africa. This information ended up forming my thesis question and scope of the research. In my undergraduate years at Northwest

Missouri State University, my advisor, Dr. Brian Hesse, had much experience and desire for the African continent. Many of my classes with him were international studies based, with a focus on varying parts of Africa. One of his favorite topics to lecture on was elephants in East Africa. I gained much knowledge about elephant behavior and language, as well as the effects of poaching on elephant populations, throughout my time at Northwest Missouri State University. I did not learn as much about the effects of elephant poaching for the ivory trade on human populations, however. I realized there was much to be read and examined concerning this angle of the story of elephants in East Africa.

Upon coming to the University of Kansas and taking a class focused on the exploitation of natural resources around the world, I decided to delve deeper into the world of elephants, and specifically the trade of ivory. In the last year and a half, the burning of existing stockpiles of ivory has occurred more consistently around the world, although there had been some burnings in decades prior. These burnings have led to renewed discussion concerning the ivory trade. Other countries have recently banned the import and export of this resource as another means of curbing the trade. In the past, discussions concerning the ivory trade have increased and waned depending on how many elephant numbers were recorded during different studies. When researchers stated that elephant population numbers were down, international organizations such as the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) would often produce new legislation to try and increase elephants' protection, while when elephant numbers were up, CITES did not pay as much attention. I decided to research this trade for a class with Dr. Ebenezer Obadare. This bloomed into a written research concerning wildlife conservation parks in East Africa for a class with Dr. Abel Chikanda as well. During my research, I came across many articles documenting elephants being killed as a resistance to

conservation efforts brought to the continent during colonialism, and which continued in the post-colonial period. I realized that there was more to declining elephant population numbers in East Africa than simply the illicit trade of ivory. While many East Africans want the wildlife of their continent to thrive, the governments do not aid the people's efforts to live amongst the animals peacefully and still produce a livelihood. This creates resistance to conservation efforts, which often leads to the demise of elephants.

Because of these reasons, I chose to focus my research on how the livelihoods of people in Kenya and Tanzania have been affected by the death of elephants living around them. Whether through poaching ventures, conservation resistance, or a frustration stemming from destroyed livelihoods, people in these regions are killing elephants. This affects the elephant groups, the environment of Kenya and Tanzania, and the livelihoods of people living there. The discourse and literature surrounding these groups was analyzed to determine how the death of elephants is affecting the people of these two countries. Although much discourse and literature revolves around how the international community is dealing with the death of elephants in East Africa, or what they think about the issue, there is minimal focus on how the local people of East Africa are being foremost affected by elephant deaths. The thesis underscores that whomever lives with the wildlife needs to be the voice for those communities, and yet these voices are often stifled in current discourses by Western researchers and East African legislative bodies. This thesis hopes to give some tiny voice to the issue of elephant numbers decreasing in Kenya and Tanzania, and how this decrease is affecting the livelihoods of those living with and around this keystone species.

Elephants continue to be killed in Kenya and Tanzania at alarming rates. Russo (2014) estimates that 100,000 elephants were killed in Sub-Saharan African between 2010 and 2012.

The World Elephant Day (2016) organization also states that elephant population numbers have dropped by 62% in the last decade. Many experts believe the global demand for ivory is the main driver of elephant population decreases, but there is also a tie to conservation resistance that is shrinking the numbers in and around game parks and conservation areas. This study focuses on Kenya and Tanzania, and discusses the positives and negatives of the mass amount of elephant deaths by human hands. The fulcrum and central argument of the thesis is, "What impacts has the killing of elephants in Kenya and Tanzania had on the livelihoods of the people and communities in this area?" The thesis examines various impacts that the death of elephants has on the livelihoods of the people and communities in Kenya and Tanzania. It discusses poaching for ivory, along with the effects of conservation areas on elephant and human populations.

The data for this research was collected through secondary sources, which include magazine articles, journal articles, activist websites, printed books, and lectures. African scholars were utilized for the facts and data of the study, although other scholars were consulted in order to bring and analyze multiple perspectives from the West and from the African continent. I analyzed these secondary sources through critical discourse analysis (CDA). CDA is interested in studying a complex social phenomenon, which requires a multi-method and multidisciplinary research analysis (Wodak, 2009). The rationale for using critical discourse analysis as the methodology for the analysis of my research, was because the language used by researchers and Western media outlets when talking about the illicit trade of ivory and conservation resistance does not focus on the solutions to the root problems, but instead they focus on flashy topics that the general public finds intriguing.

Research on the effects of declining elephant populations on the human beings of these areas was difficult to find. When research is conducted that addresses the people being affected,

it is usually to state how an NGO is trying to keep elephants away from humans and their livelihoods, or how the NGO is helping the local people survive amongst elephants. Although many of the organizations are helping the people, there is little qualitative research describing how East African people are positively or negatively being affected by the deaths of elephants in their communities. Making sure that Western societies are intrigued by issues, however, is not enough to change dire situations or alter environmental landscapes of the affected regions. By critically analyzing the discourse around the illicit trade of ivory, informal markets in Kenya and Tanzania involved in this trade, markets in Southeast Asia that consume ivory, activist campaigns for the stopping or altering of the trade, reasons for conservation resistance by local people, and the livelihoods affected by decreasing elephant numbers, there can be changes in the discourse concerning the ivory trade and conservation resistance.

The discourse surrounding resistance efforts in and around conservation parks often presents the resistors as perpetrators. Goldman (2011), Mariki (2014), and Raxter (2015), are three scholars that include evidence in their research of Western media and organizations making claims that East Africans do not care about the wildlife around them. Promoting this rhetoric allows for Western methods of conservation to continue in Kenya and Tanzania, instead of conservation practices being placed in the hands of local people. Although the governments of Kenya and Tanzania are the ultimate decision makers when it comes to conservation parks, they have often continued to use colonial conservation methods, which exclude local people from participating in the process. As there is exclusion of local people, however, resistance occurs against the animals in the park, causing Western media to continue their rhetoric that East Africans do not care about the wildlife around them. It is important to note that this Western discourse leaves out the colonial legacy that conservation parks have. Resistance to the parks

does not mean that local people want the wildlife gone, but that they are not happy with the

current legislation and control of the parks. In order to hear everyone's voice, this thesis

examines the research surrounding the topic. By critically analyzing the current discourse and

literature on the topic, I am able to present multiple perspectives, instead of only one, and to

provide varied, in-depth ways of analyzing the ivory trade and conservation resistance in Kenya

and Tanzania. Through a critical analysis of research and media coverage on the topic, the

advantages and pitfalls of the depletion of elephants in these two countries is seen.

Gaps in the Literature and Research Limitations

Many aspects of my current research show effects of the ivory trade from one perspective

– the perspective that an elephant being killed in Kenya or Tanzania always results in only

negative consequences. Upon further research, however, I came across other perspectives giving

opposite findings or opinions, or no discourse at all. For example, many discussions state that

terrorists are funded by the ivory trade, therefore, the trade should be stopped so that terrorism

halts as well. Authors of these narratives include Bryan Christy (2012, 2015), Christina Sterbenz

(2015), Jeremy Bender (2015). Other discussions state, however, that terrorist groups are only

minimally funded by the ivory trade, but are much more funded by the illegal trade of certain

foods, animals, and even human trafficking. Authors of these discourses include Tristan

McConnell (2015), Tom Maguire (2015), Cathy Haenlein (2015), and Keith Somerville (2016).

It is important to note that much of the literature on this topic gives little voice to the

farmers or local people who interact with the elephants the most. Many of the reasons poaching

has increased is because of lack of jobs in the formal economy and because resistance to

conservation efforts has continued by local communities. This resistance is because many of the

current conservation policies still mirror colonial conservation policies, which mainly exclude local people from involvement with conservation parks. Although the exact colonial policies of conservation parks are no longer followed, there have been few changes to the legislation until recent years. Scott Wasser and his colleagues have the most on-the-ground research concerning where elephants are poached the most, which include Central and East African countries, and have been doing research since 2006 in these areas. Although their research is extensive and precise, the information is centered around elephant groups and confiscated ivory, and not on the effects the trade of ivory has on local communities. Wasser (2015) has genetically tested elephant herds from Uganda, Kenya, Zambia, Democratic Republic of Congo, Togo, Cameroon, Nigeria, Tanzania, and Mozambique. Because of the amount of confiscated ivory between August 2005 and August 2006 in East Africa, Wasser (2015) estimates that 234,610 kg of ivory actually went through the international market.

Poaching is tied to the continued use of informal markets, although I do believe that the growth of informal markets could mean effective ways out of poverty for many people in this area of the world. People in East Africa participate in informal markets more than they do formal markets. Informal markets can be defined as a sector of the economy that is not formally taxed by the government, and, therefore, is not included in gross domestic product (GDP) calculations. On the other hand, formal markets are sectors of the economy that are taxed by the government, and are included in GDP calculations. Many East Africans participate in informal markets, selling things such as fruits on busy highways, chicken eggs out of one's home, and buying mass quantities of used clothing that has been shipped from Western countries, and then reselling them in open markets. Employment in formal markets might include being a game ranger for a conservation park, working in a music recording studio in Nairobi, or driving a city bus.

Formal markets tend to be associated with more urban lifestyles, although this is not always the case, as informal markets have grown in urban areas as a result of the implementation of Structural Adjustment Programs (SAPs) in the 1980s. Formal markets also tend to make more money, but are harder to obtain. Because of this, poaching is an informal career in the informal economy in which people are able to make much money quickly. It is also a career that carries many risks, however, including jail time, heavy fines, or even being killed if suspected of poaching in a park (Nkala, 2016).

Although I think informal markets for East Africans are paths to independence and financial stability, I also know that prospering informal markets mean that illicit substances are more likely to be traded as well. Observing how legal and illegal products or services are traded through the informal markets in Kenya and Tanzania is examined in the thesis. It is important to note that there are few studies concerning these illicit or informal markets in these countries. Assumptions can be made through articles concerning informal markets in other parts of the continent, but the direct tie between the illicit trade of ivory and informal market economies in Kenya and Tanzania has been less examined. Further, expanding this to look at the benefits and drawbacks of informal economies, such as selling food on the side of the street or poaching for tusks, is also explored in the thesis. Trying to link how the illicit trade of ivory is connected to the thriving informal markets in Kenya and Tanzania is one of the main discussions in this thesis.

Understanding how livelihoods in general are affected by the killing of elephants is also central to this work. Sometimes, livelihoods are positively affected by the killing of an elephant. Either people make money off the sale of ivory, or people no longer have to worry about their crops being destroyed because of a rowdy, local elephant visiting their vegetables. Many times, both of these benefits of the death of an elephant are received by whomever kills the animal.

There are negative consequences to elephants dying too, such as ecological processes changing, and money made from tourism ventures declining. The money from tourism currently made is around 10.5% of Kenya's foreign exchange earnings, and 25% of Tanzania's foreign exchange earnings, each year, making the monetary opportunities vast (Oxford Business Group, 2016; TanzaniaInvest, 2015). Although money can be made from elephants being alive or dead, ecological benefits can only come from elephants still roaming the land and conservation areas.

The study had several limitations. The study relied on English-language sources only, although using Kiswahili sources would have provided additional data on the topic. Different voices through Kiswahili sources would have enriched the discussion and provided new insights, although the conclusions of my study would not have changed. Second, there was little data throughout my secondary resources that was collected from the local people in Kenya and Tanzania concerning the ivory trade. More sources with voices from the local people concerning conservation parks were able to be accessed through secondary sources, although additional sources would have been beneficial. Collecting data or interviews from the local people in the regions discussed would have been beneficial for the research as well. Time and limited funds prevented this from occurring. Third, there was a lack of secondary sources that articulated both the positive and negative consequences of the death of elephants for Kenyan and Tanzanian people, hence the purpose of this study.

Organization of the Study

The thesis is organized into five chapters. Chapter 1 is an introduction of the research, along with an overview of how the research was conducted. A discussion concerning where the literature currently stands on the topic is also discussed.

Chapter 2 addresses how the financial gains of poaching create vast informal and illicit economies, which monetarily benefit many African people who have not been able to participate in formal markets. Transnational networks through which ivory travels are also discussed.

Chapter 3 discusses ivory's tie to terrorism, informal markets and their link to the ivory trade, and worldwide activism that has sprung up to curb the trade of ivory.

Chapter 4, addresses how conservation areas were brought to the African continent by colonialists. These colonial ties to conservation have sometimes made the local people bitter and resistant. In addition, the chapter also discusses how conservation areas can provide large formal market monetary opportunities through tourism, if they are run by local people.

Chapter 5 is the concluding section. It summarizes all other sections in the thesis, as well as makes suggestions on how to curb the demise of elephants in Kenya and Tanzania.

Chapter 2
Trails of the Ivory Trade

Drug, human, arms, and wildlife trafficking are only four of the top illegally traded substances in the world (Vardi, 2010). Although there are many legally traded natural resources that exploit the environment or people when extracted from the earth, illegally traded natural resources carry different implications. Although the environment and people around the extraction sites of illegally traded substances are still exploited, it is more difficult for national or world organizations to help fix the problem, because the transfer of illegal goods can never be accurately documented. When state officials cannot pinpoint where an illegal substance came from, they can only confiscate it once it goes through customs or enters other hands further down the line. Confiscation at a customs department is not a sign of the collapse of an illegal trade network, however, it is a sign that the network is still thriving (Levin, 2013). When customs' officials estimate that only 10% of contraband is intercepted by them, this leaves 90% of illegally traded resources still floating around the world market (Wasser, 2007).

The illegal trade of elephant ivory from East Africa to Southeast Asia is jeopardizing the sustainability of elephant and human populations, through its effects on the ecosystem of the region and through the criminal networks that receive funding from the trade of ivory. Although criminal networks and terrorists are more recently believed to be the main beneficiaries of ivory export money, this is inaccurate. I believe that there have also been signs that the illegal trade of ivory creates positive economic opportunities for many Kenyan and Tanzanian livelihoods, although the trade's negative effects on Kenyan and Tanzanian ecosystems outweigh the monetary benefits for the local people.

In order to shed light on the effects of the illegal ivory trade on the animals themselves and the ecosystems they live in, this chapter begins with an introduction concerning elephant herd dynamics. The chapter also analyzes some statistics about poaching, and traces the transnational networks that illicit ivory travels through.

Elephant Herd Dynamics and Behaviors

With dynamic herd structures and infrasonic languages, elephants are labeled by ecologists as a keystone species of the African savannahs and forests (Somerville, 2016). Elephants have specific migration patterns that they follow each year, and if elephants do not follow these paths, the entire ecosystem of the African continent will be altered. This is because of the specific brush they trample down, seeds they disperse through dung, and watering holes they dig up with their tusks. Because of this keystone role in the ecosystem that elephants play, it is imperative that elephant populations stop declining to detrimental levels, so that the elephants, other animals, and humans of Africa can live sustainable lives.

African savannah elephants are the main focus of this thesis, because of their increased likelihood of being poached. Forest elephants in Sub-Saharan African and in Southeast Asia are harder to find and poach, because of the terrain and vegetation in which they live, and African elephants' ivory is more easily carved than Asian elephants' ivory. Also, both bull and cow African savannah elephants end up growing tucks in their lives, while only bull Asian elephants grow tusks (Save the Elephants).

African elephant herds are matriarchal in nature, and usually are made up of the matriarch, three or four of her offspring, and their young. Bulls usually mull the savannahs solitarily after leaving the herd around age twelve to fifteen, but do not end up mating until age

twenty or older, after they have moved up in the social hierarchy of their region (Janssen, 2006).

Both genders have an average lifespan of 60 to 70 years, as well as a grand long-term memory

capacity. The matriarchs of herds are the oldest members, and store everything from warning

signals, migration patterns, watering holes, food sources, and how to cope with natural disasters,

in their memory (Gobush, 2009). They also often have the largest tusks, considering that tusks

grow with age, and grow longer and thicker as an elephant matures. Each elephant in a herd has a

dominant tusk that he or she uses as a tool, therefore, one tusk tends to wear down more quickly

than the other over time. The quality of matriarchs' tusks makes them the most vulnerable

members of herds to be poached, but can also cause the most damage to a herd's social structure.

Generations of history can be lost by killing a matriarch before she has passed on all of her

knowledge to the next herd leader. Bulls are also known for having large tusks and for living

alone. This makes them vulnerable members for poaching as well, further disrupting the bull to

cow population ratios. The flourishing ivory market that facilitates a poaching environment in

Kenya and Tanzania targets the cornerstone of this keystone species.

Elephant social structures are destabilized no matter how many members of a herd are

killed in a poaching raid. Imperative survival information is lost with every elephant that does

not die from natural causes, but information loss is not the only negative impact poaching has on

elephant herds. Elephants speak to one another through infrasonic tones, with most sounds at a

pitch too low for humans to hear. Katy Payne (1998) was one of the first researchers to discover,

record, and analyze the low tones of elephant speech. After observing elephants at a zoo for

research she was working on, Payne felt deep vibrations coming from the elephants, similar to

what one feels while at a concert when the bass is heavy. After recording elephants for a number

of years, she discovered that there are many signals that elephants make every day to one another

through infrasonic speech that humans did not know about before (Fouts, 1998). From sounds to defend their boundaries, to warn others of danger, to coordinate group movement, to reconcile differences, to attract mates, to reinforce family bonds, and to announce needs and desires, elephants constantly speak to one another infrasonically (*Nature,* 2008). Research is even beginning to suggest that elephants in different regions of Africa have different dialects and languages that are not mutually intelligible (Hesse, 2013). Therefore, when elephants are put together in zoos, circuses, rehabilitation programs, or even conservation areas within the African continent, they might not be able to understand one another, causing other social structure complexities. If the goal of East African countries is to rebound the elephant populations in this region, because of the recent decrease in numbers due to increased poaching for ivory, it must be done smartly. One cannot expect mutually unintelligible elephants to get along and reproduce in rehabilitation centers or conservations parks.

In a study done by Kathleen Gobush (2009), one of the largest, and most heavily poached elephant populations in the world was observed. The herd was in the Mikumi-Selous ecosystem in Tanzania, and was made up of mostly unrelated kin, meaning it was a group of elephants coexisting together, but not from the same "mother" group. Groups of unrelated kin do not use the same signals to communicate or warn for danger (Gobush, 2009). This grouping of unrelated kin is very rare for elephant herds. The study found that, as small herds or solitary females interacted with one another in the Mikumi-Selous ecosystem, they seemed to form a larger herd for social and fitness reasons. In this study, Gobush noted that the bonds between the members were weak, because the members were from different mother groups. The herd also lacked an older matriarch, and stress levels were very high within the group. Other scholars have also

noticed that increased stress levels are known to decrease reproduction numbers, adding one more link in the chain of despair when considering dwindling elephant population numbers.

Currently, there are several efforts in Kenya and Tanzania to curb the illegal poaching of elephants by farmers, although there are not many efforts to curb park rangers from doing so. Because park rangers are in conservation areas so much for their work, there are often instances where corruption occurs with elephant poaching being done by the rangers. There have even been instances where park rangers are found to be stealing the ivory from stockpiles they are supposed to be guarding (Christy, 2015). One organization aiding farmers and rangers in multiple ways is Save the Elephants. Partnering with the World Wildlife Fund, Game Rangers International, WildAid, and Kenya Wildlife Service, as well as many other continental and international groups, Save the Elephants' missions is to develop a tolerant relationship between humans and elephants. One program that they have launched is to train former poachers to be protective game rangers. The initial stages of the ivory trade do not earn poachers much money for the high risks of their ventures, although the amount of money earned is often more than any other means of livelihood in Kenya and Tanzania. Although 6,000 Kenyan shillings, or 130,000 Tanzanian shillings, (around $58 USD) could be obtained through the sale of one elephant tusk, the risk of being caught and sent to jail for two or more years, and not having any means of making money for one's family, is a very high risk. It is in the third and fourth hands that ivory travels through where the higher money-making opportunities come into play. Because of this, many community members stop poaching in order to make more money in more profitable ways, and Save the Elephants is attempting to give well-paid jobs as game rangers to these former poachers. These game rangers are often more knowledgeable about where elephants are within

parks, and where poachers will be as well, because of their previous experience (Save the Elephants).

As will be discussed later, however, what is listed as poaching by many Western organizations is really a resistance to conservation parks by local peoples because of land or resource rights complaints and disputes. There is also resistance because many of the current conservation policies still reflect colonial policies. Some Kenyan and Tanzanians that poach believe that their actions are a right to them, because of the ancestral land on which the elephant is killed. Although most local people who hunt elephants are doing so for pure economic gains through the sale of ivory obtained, others do not consider what they are doing as anything other than resistance to past colonial conservation park initiatives that purged them from their ancestral land in order for white Westerners to observe flora and fauna in artificial habitats. The habitats would be natural if the people of Kenya and Tanzania were allowed to live in and work in the conservation park boundaries, but because they are excluded, the habitats have become dioramas of what Westerners believe Africa to be.

Save the Elephants' main initiatives work with farmers to help deter elephants from destroying crops. Planting certain border crops or "fences" around existing fields is vital in deterring elephants from eating farmers' livelihoods. Cotton and chili peppers are the main border crops that organizations such as Save the Elephants have suggested to farmers to plant. Cotton is not something elephants want to eat, and chili peppers burn elephants' eyes and tongues when touched, thus, deterring them from destroying other crops inside the border crop "fences". The newest initiative by Save the Elephants is to place bee hive wires around crops. Save the Elephants has been sponsoring bee hive wire projects and installations, in which bee hive boxes are connected to wires that are then hung around agricultural crops. When the wires

are disturbed, the bees are disturbed, and come out of their hives to investigate what has caused the disturbance. If elephants hear the bees or are stung by them, they are then deterred from helping themselves to a hearty meal of a farmer's hard work, because they do not like being stung in their trunks and around their eyes. As of 2016, bee hive wires had reduced crop raidings by 80% in the six countries Save the Elephants had conducted projects in. These countries included Botswana, Mozambique, Tanzania, Uganda, Kenya, and Sri Lanka. Not only do these crop initiatives help farmers from losing their main crops to hungry elephants, they also give farmers another source of income to supplement their existing livelihood (Save the Elephants).

Although these initiatives do help in addressing some of the poaching problems pertaining to elephants in East Africa, most of the declines in population numbers are due to illegal poaching for ivory. Although encroachment on land used by humans and destruction of crops are some of the reasons elephants are being killed, the demand for ivory in Southeast Asia is the main cause of the decrease in population numbers. The networks by which ivory travels from Kenya and Tanzania to Asia are complex, as will be seen in the last section of this chapter. It is important to note that any illicit trade is always difficult to measure, and the illicit ivory trade is no different.

Poaching

The illegal means of obtaining ivory began in the 1600s and continued through the 1900s, as the demand for ivory increased dramatically. From billiard balls, to combs, to piano keys, ivory was desired by Americans and Europeans starting in the late 1700s. Ivory's importance to consumers around the world encouraged the expansion into the interior of Africa by colonialists. The ivory trade is also intricately tied to the slave trade, as Arab communities from North Africa

and the Middle East would buy and use slaves to carry ivory that was poached in the interior of the continent to the coastlines for trade elsewhere (Moore, 1931). As ivory traders continued tearing into the interior of the continent, there were more communities to raid for slaves as well (Somerville, 2016). In December 1894, the *Gazette of Zanziban and East Africa* estimated that 65,000 elephants were being killed annually by Europeans, Americans, and other "professional" hunters, to meet global demand for the resource. The late 1800s was a period in which hunting permits had to be bought in order for an elephant to be killed legally, and were mostly sold to Europeans (Somerville, 2016). An estimated 26 million elephants roamed in Africa before this time, but in the 1900s, those numbers dropped to around 10 million. Safari hunting by white Westerners also increased in the 1900s, further depleting elephant populations. Colonial endeavors were the main reason for decreasing elephant population numbers during this period. One example that affirms this is in the case of today's Cote d'Ivoire (Ivory Coast), where elephant population numbers used to flourish in the early 1900s. Hundreds of thousands of elephants are estimated to have roamed this region before colonial times, but a high estimate of 360 elephants was recorded in the 1990s (Chappaz, 2006).

Before independence in Kenya and Tanzania, elephants were poached by white hunters, but the rhetoric stated that they were legally hunting the animals. Since it was not legal for local people to hunt the animals, they were labeled as poachers, but they were not the main perpetrators depleting elephant population numbers. Once independence was obtained, the disorder and conflict that came from new government institutions created an opportunity for poaching by locals to increase, but it was not the cause of the poaching to begin with. The reason poaching began was because there was a continued demand for ivory (Somerville, 2016).

From 1970-1972, drought in Kenya caused people to look for alternative sources of income. Poaching for ivory then increased, because of several factors. First, many elephants had died naturally during the drought, causing more ivory to enter the market to begin with. Anti-poaching forces were also down, and the Kenyan government began allowing those who had been a part of the Mau Mau to legally kill elephants for ivory as a means of compensation for their efforts. Somerville (2016) states that the Kenyatta family was well known for their involvement in the ivory trade during this time, and when poaching is normalized by the leaders of a country, it becomes normalized for the locals as well.

In Tanzania, poaching increased in the 1970s as well, but for different reasons. In the late 1970s, the border between Kenya and Tanzania was closed. Because many tourists would fly into Nairobi, and then cross the border to enjoy tourism ventures in Tanzania, there was great monetary loss from tourism in Tanzania after the border closed. As this money was lost, anti-poaching patrols were reduced, and poaching for ivory began to increase (Somerville, 2016).

Elephant population numbers in Sub-Saharan Africa continued declining until they hit 600,000 in the 1980s. The rapid decline in population numbers caused CITES to issue a ban on the sale and trade of ivory in 1989. From 1989 to 1998, the population rebounded to around 1 million elephants. After a decision made in 2008 by CITES for a one-time auction and sale of stockpiled ivory from East African countries to Southeast Asian countries, however, the population numbers have once again plummeted (Larson, 2013). With legal ivory in the market, and bolstered East Asian economies, the illegal trade has been spurred once again.

Over the last decade, elephant numbers in Sub-Saharan Africa have dropped dramatically because of illegal poaching for ivory tusks. Russo (2014) estimates that 100,000 elephants were killed throughout Africa from 2010 to 2012. With a 2007 report overestimating the number of

elephants left in the whole of Africa to be between 472,000 and 690,000, a more accurate

number has been recorded as low as 250,000 (Russo, 2014). As Hannah Britton (2016) stated in

her lecture entitled "Human Trafficking in the Heartland," when looking at illicit trade numbers,

one can never be certain how much illicit trade is occurring. Any number estimates are only

guesses based on the available information, which is far less than the amount of illicit trade that

occurs. Within the last five years, an estimated half of Tanzania's elephants have been illegally

poached for their ivory tusks (*Al Jazeera English,* 2014). Another source estimates that elephant

numbers have dropped by 62% in the last decade, which is not hard to fathom considering that

ivory prices in China tripled between 2010 and 2014, from an average of $750 per kilogram to

$2,100 per kilogram (*World Elephant Day,* 2016; *Guardian*, 2014).

Since 2006, S. K. Wasser and his colleagues have worked to genetically test confiscated

ivory in African countries in order to determine the major hotspots within the continent where

poaching is occurring. Their initial results in 2006 found that most poached ivory was coming

from an area centered around Zambia (Wasser, 2007). Sudan is another country where elephants

are poached frequently according to Christy (2015). With continued research from 2006 until

2014, Wasser discovered that most ivory shipped to the Philippines was from elephants in and

around regions that surrounded the Democratic Republic of Congo (Uganda, Kenya, and

Zambia), while most ivory shipped to Singapore, a common entry port for ivory headed to China,

was from elephants in the region surrounding Zambia (Wasser, 2015). Zambia and Sudan,

however, are not countries on CITES' watch list, because CITES looks at countries that ivory is

confiscated in, more often than where ivory is originally poached. This is common protocol for

legislative units and organizations, because legislation is what large national and international

organizations are most comfortable with. Prosecution, not prevention, is what they most

frequently focus on (Britton, 2016). This is because activists want to see justice done to poachers, therefore major international organizations focus on this. Understanding the complex networks that ivory travels through on its way to China and other East Asian countries, however, can help CITES and other international organizations to better see the root regions of the illegal ivory trade, and help end the trade, as will be seen in the following section.

Transnational Networks for the Sale of Ivory

Killing elephants for ivory is illegal in all countries in the world, according to CITES. CITES mandates are supposed to be followed by all countries that have signed up to be a part of this international group, although state laws are also supposed to be adhered to first. This can create discrepancies in how and when the CITES ban in the trade of ivory is enforced (Somerville, 2016). Although there is limited elephant hunting in certain parts of Kenya and Tanzania, it is mostly for trophy hunts, and the people hunting these elephants usually keep the ivory for themselves. This is reminiscent of colonial policy in which black Africans were labeled as "poachers," and were unable to hunt elephants in traditional manners or for subsistence, and where whites were labeled as "hunters," and given great access to hunting elephants, then selling the ivory in international markets (Somerville, 2016). Hunting for elephants was legal for the local people only when they bought a permit. Once a permit was obtained, the government was able to keep track of whether or not the ivory was turned in to them. The profits from ivory were used to partially fund colonial efforts, so any practice that did not allow for the ivory to enter colonial hands was made illegal.

Because of state laws, the trade of ivory is legal in certain countries, although the ivory traded is supposed to come from elephants that have died naturally, or that were killed before

CITES issued a ban on the trade of ivory in 1989 (Christy, 2012). After poachers kill elephants for their tusks, local Kenyans and Tanzanians averagely sell a pound of ivory to middlemen for $66 to $397 United States dollars. The middlemen sell this pound for $220 to $496 to consolidation hubs. The pound then moves to export centers at the cost of $606 to $882, and is then received by the buyers in Eastern Asia. After the carving or manufacturing of the ivory in East Asia, a pound of ivory product can hit Asian consumer markets at the cost of $946 to $4630 per pound, depending on the elegance of the carving and the seller's asking price (*National Geographic,* 2015).

Even though the sale of ivory does not seem to make much money for poachers, it is often enough to buy normal food supplies and send one's child to school in some rural areas. For some park rangers, their pay is menial or inconsistent, causing them to poach as a side income. The risk associated with poaching, as stated early, is high, however. For example, in Botswana, park rangers have a shoot-to-kill policy. When suspected poachers are spotted, Botswana rangers are allowed to shoot-to-kill the poachers without the poachers first being investigated or tried in a court (Nkala, 2016). In Kenya and Tanzania, jail time can be two or more years, leaving families with little to no source of income if the providers of the family are jailed (Messenger, 2014; United Republic of Tanzania, 2013).

Although there are many other countries around the world that participate in transnational networks for the illicit sale of ivory, the Philippines, China, and Thailand are currently three of the highest import countries for illegal ivory in the world. Although the value of the black market for ivory cannot be certain, an estimate can be made based on the number of seizures each year, and the weight of each of those seizures. For example, customs officials in Africa intercepted 23,461 kg of ivory between August 2005 and August 2006 that was shipped to

East Asia (Wasser, 2007). With an estimate of only ten percent of all contraband being intercepted each year, that means an estimated 234,610 kg of ivory was actually harvested within this time frame. With every two kilograms of ivory being worth roughly $700 USD when leaving African illicit markets, this illicit market between August 2005 and August 2006 could have been worth $362 million dollars. This is a conservative estimate, however, considering that every two kilograms of ivory can be worth up to $4500 USD when entering the Asian consumer markets.

The main consumers in the Philippines of ivory are idol worshipers (Christy, 2012). Many Catholics in the country believe that the amount of money one spends on ivory religious products is symbolic of the amount and kinds of blessings one will receive in return, either while still on earth, or in the afterlife. Many tourists and religious zealots buy ivory trinkets from street vendors and think nothing of the probable illicit trail of that small, ivory piece. The main religious icon in the Philippines is Santo Nino, an ivory carving of Jesus Christ that the people believe was brought to the island of Cebu by Ferdinand Magellan. When Catholics go to worship on the island it is very common to buy an ivory medallion or small statue of the Santo Nino, causing the Philippine Islands to be one of the biggest markets for the illegal trade of ivory (Christy, 2012).

Most of the ivory trade in the Philippines is illegal, because buying legally imported ivory is often very expensive, and there is not much of it. The ivory that is legally imported is supposed to be from elephants that have died naturally, and usually comes from African elephants, not Asian elephants, because of the quality of the ivory coming from African elephants. Asian elephants *are* poached to a degree, but tusks from these elephants are much shorter, and are harder to carve into elaborate designs. The ivory is also more brittle, therefore,

more difficult to carve, and it tends to yellow with age, unlike the ivory that comes from African elephants (Harris, 2014).

China is the world's largest consumer of ivory, but most people who buy ivory in China are not inherently religious. This is different from those who consume ivory in the Philippines, causing the solution to curbing the illegal ivory trade to be different depending on the country consuming it. In China, owning elegantly carved ivory is a status symbol. The carving of ivory is also considered to be one of China's five greatest art forms, and is supported by the government. Because ivory carvers in China pass down their knowledge to their children, they are ultimately investing their knowledge in their own bloodlines. The ivory carving industry in China is poised for growth, as China opens more carving factories, ivory retail outlets, and ivory carving schools each year. Many carvers report only buying ivory from the government of China, one of the world's largest stockpilers of ivory. Since the only ivory that is supposed to be traded is from elephants that have died naturally, many carvers do not think twice about the illegal poaching and trading that occurs in the initial stages when they buy supposedly legally traded ivory once it enters China (Christy 2012). The amount of corruption that occurs within the Chinese government with regard to the ivory trade is astounding, with many Tanzanian government officials reporting that illegal ivory mainly leaves the country on Chinese state transportation, either by plane or by boat (*Al Jazeera English,* 2014). Another estimate states that approximately 90% of the ivory sold in China each year is from illegal sources (Levin, 2013).

Ivory is mostly consumed in China by wealthy people wanting to have a carved object in their homes or offices as a means of showing their wealth to others. Some people, however, buy small statues of different gods or goddesses that are supposed to promise conception of male children, a great desire by many families because of China's one-child policy that lasted from

1979 to 2015. Many Chinese consumers continue buying ivory because of its price, which is artificially high because of the rate that the Chinese government has chosen to put it into the market for. As long as the price of ivory stays high in China, having carved ivory items in one's home or office will continue to be a status symbol for wealthy people (Christy, 2012). The number of wealthy Chinese has increased dramatically since the early 2000s, because of the economic boom, which has also aided the continuation of the ivory trade to this country.

It is important to note that Chinese and Filipino people are not the only ones who worship or desire religious icons made from ivory. In Thailand, Buddhist monks use ivory to remove bad spirits. They give ivory amulets away to people who make donations to the monks, and use ivory prayer beads. Some Muslims around the world also use prayer beads made out of ivory. The significance of ivory being used in religious ways is because it is a white, easily carved material. White is traditionally a symbolic color of purity, and, when it comes to religious symbols, is a perfect example of purity in many believers' eyes.

Overall, religion, greed, and wealth are the main reasons for high ivory demand in Asia. Education about the animals themselves, or about the people living among them, needs to increase, although challenges might arise when educating people that consume ivory for one of these three reasons. With ivory consumption in China being mainly because of the desire to have a symbol of status, figuring out how to curb the consumption of this may be tricky and complex, because of the many actors and legal interpretations involved in the process.

Illegal and Legal Pathways

The trade of ivory involves many different actors. Beginning with illegal networks, ivory is most often poached by local people or criminal networks in Eastern or Central Africa in order

to sell it for profit. Making money, attempting to stop crop raids, or as an act of resistance to conservation efforts are the main reasons for the initial poaching of elephants for their ivory in East Africa. Once ivory crosses borders within Africa on its way to an export country, Southeast Asian actors step into the scene. The main African ivory export countries are Tanzania for savannah elephant tusks, and Togo, Nigeria, and Cameroon for forest elephant tusks (Wasser, 2015). Although Kenya is not one of the top exporters of illegal ivory, the government is known for stockpiling large quantities of the resource when it is confiscated from illegal networks. Once the ivory is traded from African to Asian hands, there are some legal and illegal actors involved. Asian buyers of ivory may believe they are legally buying ivory from elephants that died naturally, because their governments are not supposed to buy ivory from East African countries unless the elephant had died naturally, or was killed before the 1989 CITES ban. If these Asian buyers are, therefore, purchasing ivory from government entities, this creates a perceived legal actor in the trade. These Asian buyers then continue selling the ivory they bought through legal networks in China or elsewhere, where the ivory is manufactured, and later bought, seemingly legally.

At this stage of the process, some manufacturers may condone poaching for religious reasons. Other manufacturers may continue condoning the illegal poaching and trade for money-making ventures, but this does not mean that all motivation by manufacturers is for sole money-making opportunities. For those who value ivory for its religious significance, it could be more difficult to stop the demand, because the buyers value their religions more highly than they value the elephants.

Starting back in African export countries, however, an illegal path could also be taken. Actors in Southeast Asia might knowingly buy illegal ivory from African governments or

criminal groups, and, in turn, sell the ivory illegally once it enters their home countries. The illegal networks then continue until the end consumer receives the ivory product. More often than not, however, there is a mixture of both legal and illegal selling and trading that occurs from when an ivory tusk is taken from an elephant, to the time when the end consumer receives the product.

In the beginning, poaching is the most common means of getting a tusk from an elephant in Africa, causing the very first step of the process of the trade of ivory to be an illegal one. Once it passes the right amount of hands to get to a national system or government agency in Africa, the process can be legal or illegal. For example, in 2008, Namibia, South Africa, and Zimbabwe auctioned off their stockpiles of illegal ivory seizures to China and Japan as part of a one-time trade, negotiated under CITES, to try and flood the market with ivory. This would be considered a legal means of ivory trade from an African country to an Asian country. This one-time trade, according to Christy (2012), ended up backfiring, when the Chinese government bought most of the ivory and then inflated the price to consumers in China, furthering the illegal, cheaper trade. Other scholars, however, state that increased ivory poaching occurred after this one-time trade not because more people wanted their hands on the natural resource, but simply because this was the time when Asian economies began to grow, and drive the market for ivory (Somerville, 2016). Whether the one-time trade would have occurred or not, Keith Somerville states that the market for ivory would have continued to grow during this time because of improving Asian economies. The trade from African hands to Asian hands can be illegal, as shown in the earlier example where Tanzanian officials stated that most of the trade to China was conducted by Chinese state officials.

Once ivory is in China, carving manufacturers can choose either a legal or illegal path to obtain their ivory as well. Because the Chinese government is supposed to only buy legally obtained ivory, manufacturers who buy it from the government often state that they do not feel immoral buying it, because it came from elephants that died naturally anyway. It is vital to note that although many manufacturers of ivory products in China know the corruption within the government, they still continue to buy from this source because there is no shortage of money-making opportunities through the sale of processed ivory products.

Once again, the end buyer might know that the ivory they are buying is legal or illegal depending on the circumstances. In the Philippines, for example, a tourist buying an ivory product from a street vendor probably does not think about the illegal connection the ivory product they are buying has. A wealthy businessman in China might choose to buy a product through the black market, obviously understanding the illegality of his purchase, or he might buy the piece legally, not considering the illegal networks the ivory product went through before reaching the carver's hands. Overall, ivory usually begins as an illegal activity, but can appear as a legally or illegally traded resource at many different points in the process of consumption.

Chapter 3
Ivory's Tie to Terrorism, Informal Markets, and Activism

In August 2015, *National Geographic* published an article entitled "How Killing Elephants Finances Terror in Africa," showing how Joseph Kony's Lord's Resistance Army (LRA) uses the money obtained from ivory trading to finance killings, abductions, and arms trades within the Democratic Republic of Congo and Uganda (Christy, 2015). Many other reputable sources affirm this claim. They state that terrorist groups such as the LRA of the Congo and Uganda, Al-Shabab of Somalia, the Janjaweed militia in the Darfur region of Sudan, and the Seleka militia of the Central Africa Republic are all funded by the illegal poaching and trade of ivory (Sterbenz, 2015). Bryan Christy states that ivory operates as a savings account for the LRA, in which Kony and his soldiers trade it for anything from rocket propelled grenades to sugar. Even the Vatican put out a statement in 2013 further supporting this claim. It stated that poaching in Africa is often by militant rebel groups seeking to support themselves through the sale of ivory (Payne, 2013).

Scholars such as Tristan McConnell (2015), Tom Maguire (2015), Cathy Haenlein (2015), and Keith Somerville (2016), however, observe that claims of the ivory trade financing terrorism or terrorists are incorrect. They argue that although some criminal networks and rebel groups obtain some of their funding from the illegal trade of ivory, terrorist groups do not. Al-Shabab is the only group mentioned by these authors that is considered a terrorist group, because of its ties to Al-Qaeda. All other groups mentioned are simply militia groups or criminal networks. McConnell states that global terrorism and the illegal ivory trade are two distinct problems that need to be handled and discussed separately so that the appropriate amount of attention and effort is assigned to addressing and solving each issue. Maguire and Haenlein note

that weak legislation encourages poaching to continue, and that the ivory trade is only one of the many ways militant or criminal groups obtain financing. Ivory trafficking, in most cases, overlaps with drug, arms, and human trafficking. Poorly paid national officials, along with poorly paid park rangers, also contribute to the continuation of the illegal ivory trade (Russo, 2014). These authors argue that posing the ivory trade as something perpetuated by only terrorist groups distracts law enforcement and policy makers from the real issue — that the illicit sale and trade of ivory occurs within complex networks, and that the demand for this illegal resource is what causes elephant poaching to continue.

Keith Somerville expands his argument further, by noting that Western media's desire to form a tie between the ivory trade and terrorism has roots in colonial history. He argues that during colonial times in Kenya and Tanzania, indigenous hunting was criminalized and labelled as "poaching", while white "hunting" was encouraged, with the issuance of the right permit. This rhetoric formed because colonial governments needed funds to support their foreign reigns, therefore, when white hunters obtained ivory, the money made could be utilized to meet various colonial needs. When black Africans obtained ivory, however, the money went into their hands, not the hands of the colonial governments. During the colonial period, Kenyans and Tanzanians were allowed to hunt with a permit, although most people did not have the money to obtain them. This often meant that the ruling colonial power would still make most of the money from the sale of the ivory, because the tusks would have to be inspected and registered by the government, if the ivory had been obtained with the said permit. Due to this continuation of the colonial legacy, Western media does not presently show local people as having historical land rights and resource seizures, but rather they see them as poachers involved in criminal networks (Somerville, 2016).

Somerville observes further that after 9/11, the discourse grew in media sources concerning all ties that anyone, anywhere might have to terrorism. After this event, he notes that a "crime-conflict-terror nexus" began being used in media to describe the trade of ivory. The topic of the ivory trade then entered media outlets with renewed vigor, and Westerners began feeling an ownership with regard to controlling the trade. This of course meant increased efforts to stop poachers, which meant local people were targeted instead of those purchasing the ivory. With the international illicit trade of ivory being posed as a security threat to Western countries, the reader of Western media became the victim, rather than the local people of Kenya and Tanzania who had been forcibly removed from their land and livelihoods in the early 1900s, and were sometimes looking to poaching as a means of survival.

Importance of Informal Markets in East Africa

Informal markets play a huge role in Sub-Saharan African economies, and while some governments believe any form of informal profit-making is illicit, other governments are beginning to see the importance of these economic markets for the empowerment of local people. Informal markets in Kenya and Tanzania range from selling fruits on the side of roads, to selling ivory through underground networks.

During the years of SAPs, from the early 1980s to the early 1990s, informal markets in Sub-Saharan Africa began to thrive again. SAPs wanted to limit the role of the government in the economy, and promote private sector operations instead. New trade policies were often formulated at the expense of the poor, causing wages to decrease and working conditions to worsen. During this period, the informal sector was forced to expand, especially in regards to women. At times, informal jobs paid better than formal ones, causing the market to grow

(Tsikata, 1995). As the informal market has continued to grow over the years, some African governments have extended social policies and urban services to informal market players. As informal market participants begin to take advantage of these government services, there is a risk of exploitation by bigger players in the federal government, but there are also increased opportunities for the state to be held accountable for its actions. The informal markets of Kenya and Tanzania do not seem to be dissolving into formal market ventures anytime soon, which has created increased vigor by these governments to try and harness the empowerment that can come from informal market players (Meagher, 2013).

Because informal markets are imbedded in Kenyan and Tanzanian societies, the informal trade of ivory continues. In most instances, ivory is traded through underground, illicit networks, and the strong informal economies in Kenya and Tanzania provide a sufficient platform for this type of trade. This trade also continues because the world market for ivory is still stable, and because rural Kenyans and Tanzanians can provide well for their families and communities through the trade. Informal markets play a role in how the trade continues so easily at times in Kenya and Tanzania, and allows the reader to further understand the drivers of the economic market for ivory.

Activist Thoughts and Reactions to the Illicit Ivory Trade

There are two main schools of thought constructed by activists when considering what the ivory trade might look like in the future. The first school of thought states that by allowing a set amount of legal ivory to enter China and other Asian countries each year, illegal poaching and trade would decrease. Activists behind this theory believe that the black market for the trade of ivory is so extensive that shutting off the system would not affect the trade of ivory at all,

therefore, a limited trade would quench Asians' thirst for ivory without depleting elephant populations through illegal poaching. Considering that China gets 90% of its ivory every year through illegal means, this may be true. The opposing theory, however, states that the conservation of elephants would be ineffective with *any* legal ivory trade. Only by making the trade of ivory illegal everywhere in the world would elephant populations in naturally wild habitats begin to increase again, and the exploitation of the resource decrease (Russo, 2014). Fish and Wildlife officials in the United States agree, stating that since there is no way of determining whether ivory was obtained before the 1989 CITES ban, and ivory that is allowed to enter the marketplace will continue to stimulate consumer demand for the product (Plumer, 2013). Science policy fellow at the American Association for the Advancement of Science, Nitin Sekar, and associate professor of public policy at UC Berkeley, Solomon Hsiang, record that the one-time trade in 2008 by CITES to Southeast Asian countries increased the demand for ivory. Once the Chinese government had obtained the ivory legally, they promoted the product through media sources, which increased desire for ivory by the people of China (Seguya, 2016).

Currently, the trade of pre-ban ivory is legal in most countries where the trade of recently harvested ivory is illegal. The shortcoming of this argument, however, is that there is no way of truly knowing whether the ivory on the market is pre-ban or not. As long as any ivory is allowed to be traded, those in the second school of thought believe that elephant populations will continue to dwindle. Throughout my research, I have come to believe that this second school of thought is the only way forward, if the international community wants elephants to thrive in Kenya and Tanzania. Ivory is not necessary for human health, and demand for it needs to cease.

In the last three years, many countries around the world have taken steps to eradicate the sale and trade of ivory in their countries, or to somehow destroy government stockpiles of ivory.

In 2014, President Barack Obama banned the commercial trade of ivory in the United States (Russo, 2014). Most Southeast Asian countries have begun the eradication process as well, stating that they will halt the sale and trade of ivory within their countries in the next year. In September 2015, Chinese President Xi Jinping stated that commercial trade of ivory in his country would stop, but gave no more details about how this would occur, leaving the international community to wonder if it was more of a publicity stunt to address the negative reputation China was gaining for its massive consumption of ivory every year, rather than an actual attempt to stop the trade (Denyer, 2015). As noted before, another statement on the ivory trade was made in December of 2016 by China, stating that it would completely ban imports and exports of ivory by the end of 2017 (Wong, 2016). Li Zhang (2015) in his article "China Must Act Decisively to Eradicate the Ivory Trade," adds an interesting and ironic dynamic to the Chinese position on banning the trade of ivory into the country. He states that a law in China does not allow certain manufacturers and suppliers that work with a historical art form to close down, therefore, ending the ivory trade in China would be more difficult than simply shutting down ivory carving companies. If Zhang's assertion is correct, in order for all the legal ivory in China's market to be removed, the Chinese government would have to buy back all of the ivory, and then store it or give it to museums in order to continue keeping it out of the market.

Semi-autonomous Hong Kong is one of the largest hubs in the world for the illicit trade of ivory. The country announced in January 2016, that government officials were working on banning the trade of ivory (*The Guardian,* 2016). In a report generated by WildAid, and a study conducted by the University of Hong Kong, 75% of the public respondents in Hong Kong were for an ivory ban (*News,* 2015). Apart from Asian countries, Kenya burned the world's largest stockpile of elephant ivory on April 30, 2016, and invited Hollywood celebrities and state

officials to be a part of the celebration (*phys.org,* 2016). President Uhuru Kenyatta stated at the burning ceremony that the killing of elephants was synonymous with the killing of Kenyan cultural heritage (Gettleman, 2016). Leading up to the event, the hashtag #worthmorealive surfaced, with many famous East and Southern African photographers sharing stories and photographs with the world about the burn site, and about the rangers protecting the stockpiles of elephant and rhino ivory. It was the largest burn that has ever occurred in the world, and the amount of ivory burned equaled 6,000-7,000 elephants. Another elephant ivory stockpile in Italy was crushed on March 31, 2016 (O'Regan, 2016; *Elephant Action League,* 2016). Although most countries that decide to crush their stockpiles of ivory do want the illegal trade to stop, crushing the ivory does not necessarily take the ivory out of the market. Ivory powder is often used for medicinal purposes in Southeast Asia, although it has never been proven to cure or help any medical problem. Depending on the level of corruption of a country crushing ivory, the ivory powder could reenter the illegal, international market.

Sadly, these efforts have not made much impact on the illicit market for ivory. There is a likely overestimation of 400,000 elephants left in their natural habitats, far fewer than when CITES issued their ivory ban in 1989 when population numbers declined to 600,000. Ivory burns and crushes do, however, send a message to the international community that certain governments believe ivory is worthless, even with its steep black market prices. Because I believe the trade of ivory needs to end all together, I believe ivory burns are effective at trying to curb the demand for the substance. Kenyatta stated at Kenya's ivory burn that the only time ivory was worth something to him was when it was still on the elephant (Gettleman, 2016). This leads the reader to believe that Kenyatta wants Kenya's ecosystems to thrive, although it is more likely that this statement was in reference to keeping "traditional looking" elephants in

conservation areas, so that tourism ventures by Westerners can continue bringing profit into the highest levels of Kenya's economy. There have been no similar efforts in Tanzania to crush or burn ivory stockpiles. There was even an instance in 2015 when Tanzania legally stopped Malawi from burning ivory that was confiscated when crossing the Tanzanian/Malawi border. Malawi later went on to burn the ivory, once the legal Tanzanian ban had ended (Chikoko, 2016).

Many countries around the world are beginning to believe that only when ivory is illegal in the formal market will the demand for it slow down. Ivory is currently not a necessary resource to consume, making the decision to stop the legal trade of it seem reasonable. If it continues being a symbol of status in China, and a religious symbol of purity in so many Southeast Asian countries, the black market will persist with hardly any consequences, considering that 90% of the traded and sold ivory in China is already illicit. Currently, ivory as a symbol of status is a social asset that the people of China value. As legislative units in various countries focus on the prosecution phase of the illicit ivory trade, other organizations focus on the beginning stages of the trade — prevention of elephant poaching. There needs to be caution with regard to only focusing on African poachers, however. Beginning to attack white trophy hunting practices is also important to halting the ivory that enters the international markets. Economist Michal 't Sas-Rolfes states that crushing or burning ivory is only going to be effective in the long-term if the demand for the product is also curbed. Poaching continues because destroying ivory stockpiles reduces supply, but not demand (Plumer, 2013). According to Dan Levin (2013) the key to the continuation or halt of the ivory trade is held by the Chinese. This means that the countries where there is a demand for ivory should be where international activist voices are heard most. Although international lobbyists working to end the demand side of the

ivory trade is helpful, it is also important that the Chinese voice is heard, advocating for the the demand in China to end as well. Prevention and prosecution are necessary steps of the trade of illicit goods and resources, but where organizations chose to focus their prevention is the key to cauterizing the wound of the illegal trade of African elephant ivory from Eastern and Central Africa to Southeastern Asia.

Chapter 4
Conservation Parks - Colonial Endeavors or Community Initiatives?

Conservation efforts to protect the wildlife in East Africa are heralded as initiatives with worldwide impacts. From colonial hunting safaris to Maasai ethnic immersions, Westerners have a great desire to see an image of Africa in "real" life that matches what they dream the continent to be - giraffes and elephants drinking together at a watering hole, lions sunning themselves on rocks, red-blanketed and dark-skinned people smiling and dancing around a fire, and sunsets that spread their rays across golden savannas and through acacia trees. Conservation parks in Kenya, Tanzania, and other surrounding countries are indeed magnificent, but there have also been unintended consequences, or seldom cared about issues, that have directly impacted the people surrounding these conservation areas. Conservation parks in Kenya and Tanzania have contributed to growing urbanization trends, increased human-animal conflict, and exacerbated land rights issues. Because of these consequences, many villages surrounding parks have resisted conservation efforts, and some have even contributed to the loss of animal life as a form of resistance to these efforts. The illicit trade of ivory is said to be a major reason for decreasing elephant population numbers in this part of the world, and resistance to conservation efforts will not help to stem this trend. Many animals meant to be protected in these conservation areas are beneficial for the environment and for varying livelihoods of the people living near them. Conservation efforts need to, therefore, continue, but with increased local population control and involvement in the management of these parks, instead of international organizations and state-run enterprises controlling most conservation initiatives.

The Genesis of Colonial Conservation

In the early 1900s, Theodore Roosevelt was the president of the United States, and was keen on creating designated parks for the conservation of biodiversity. During this period, national parks were born, where humans and nature were separated, unless one purposefully entered the park. This model of separating people from nature in order to try and conserve that nature was brought to the African continent during colonialism. Roosevelt had been to Africa, hunted big game to his heart's content, and wanted to preserve the Africa he had witnessed for future Western safaris. The Africa he witnessed, however, was quite different from the Africa that had existed a mere 15 years prior to his hunting trip.

In 1887, an Italian expedition brigade arrived in the Horn of Africa with livestock from Asia. Unbeknownst to the brigade, however, these cattle were carrying rinderpest, a virus spread only to hooved animals. As the virus spread to the cattle and livestock of Eastern Africa, pastoralists and crop producers began dying from starvation and malnutrition. There were no cattle to eat, and no cattle to help plow fields. Between 1888-1892, several million people are thought to have died. With this decrease in cattle to graze the land, grass grew taller, causing a perfect climate for the tsetse fly to flourish. Those who had not been affected by the rinderpest epidemic were soon affected by the increase in tsetse flies and the sleeping sickness that accompanied them. In 1909, when Roosevelt went to the continent in search of wildlife, many of the people and livestock had recently perished, leaving savannas teeming with big game, and relatively devoid of humans and their livelihoods. This was the Africa he saw, the Africa he told the world about, and the image of Africa that still proliferates today (Pearce, 2010).

East Africa was not devoid of humans when Roosevelt visited, however, and it is not devoid of capable minds and bodies today. As national parks and conservation areas were

developed, the local people were rarely consulted. East African human population numbers increased after the rinderpest and tsetse fly epidemics, and were suddenly in conflict with foreign people and their ideas about how humans and nature ought to exist. Land that had once been used to graze livestock and farm crops was no longer legally available for the people in the Serengeti, Maasai Mara, Tsavo, and Selous regions of Kenya and Tanzania to build their livelihoods on. Up until the 1960s, this same narrative concerning the relationship between humans and wildlife was still being expressed by the colonialists. German biologist Bernhard Grzimek in his 1960 book *Serengeti Shall Not Die,* wrote, "A National Park must remain a piece of primordial wilderness to be effective. No men, not even native ones, should live inside its borders. The Serengeti cannot support wild animals and domestic cattle at the same time." (as cited in Pearce, 2010)

In Kenya, the first colonial conservation orders were passed in 1938, and Nairobi National Park was established as the first national park in the country in 1945. By 1950, six more national parks had been established. After the 1963 independence until today, 45 other protected areas have been established (*See Figure 1 below*).

Figure 1. Kenyan Conservation Parks

Conservation Parks in Kenya. (n.d.). Retrieved April 25, 2017, from African Pride UK Tours
    website, http://www.african-pride.co.uk/kenya/.

Were (2005) states that any activity dealing with animals on the fringes of parks that local people

may be involved in, was outlawed until 2005 when he concluded his research. In 2012, the

Ministry of Forestry and Wildlife in Kenya came up with a National Wildlife Conservation and

Management Policy, that underscores the need to include local people in many conservation

efforts. The policy states that the two main problems in Kenyan conservation policy are that

people living near conservation parks are not adequately incentivized to preserve the wildlife,

and that there are limited partnerships with community initiatives. The document highlights the

Kenyan government's plans to promote indigenous methods of conservation, implement a wildlife conservation curriculum, and to equitably share the benefits of wildlife conservation.

Another document put out in 2012, however, by the Kenya Wildlife Service focuses on partnerships with, "NGOs, corporate bodies, and governmental agencies to undertake conservation efforts (Kipng'etich, 2012, pg. 34)." The document states that international organizations and private organizations are key to improving conservation practices. The document put out by the Ministry of Forestry and Wildlife, when compared with the Kenya Wildlife Service document, highlights the need for more local participation conservation efforts. An uncertainty about who will be consulted most when it comes to conservation practices arises, because these contradicting documents are trying to be implemented at the same time.

Colonial conservation policy in Tanzania began in 1896, when German colonialists began setting aside tracts of land for wildlife conservation. By 1930, 11 game reserves had been established, and the first national park was established in 1951, the Serengeti. Since gaining its independence in 1961, 22 more game reserves or national parks have been established (*See Figure 2 below*).
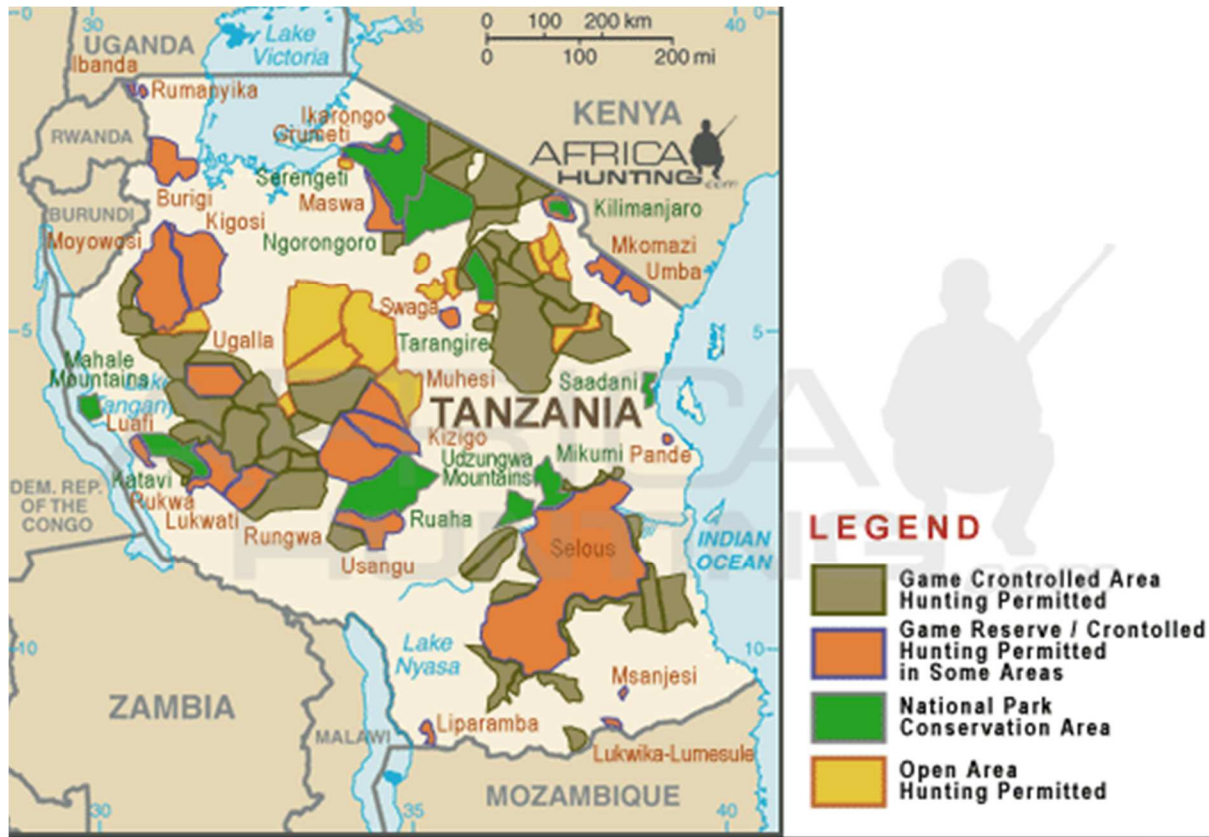
Figure 2. Tanzanian Conservation Parks

Conservation Parks in Tanzania. (n.d.). Retrieved April 25, 2017, from African Hunting, Tanzanian Hunting Information website, https://www.africahunting.com/threads/tanzania-hunting-information.14227/

Much of the colonial conservation policy continued being used by the new government, until a

Wildlife Conservation Act was announced in 1974. This act continued stating that all wildlife

resources belonged to the Tanzanian government. In 1982, a Maasai man, Matei Ole Timan, was

elected to parliament, and some government conservation policy began including local people's

concerns (Mkumbukwa, 2008). It is important to note, however, that it was not until 1998 that a

Wildlife Policy was developed in Tanzania in which community participation was highly

encouraged. This was the first time that economic benefits from tourism within national parks

were seen as something to be shared with these communities as well. By 2007, however, a new

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Wildlife Conservation Act gave majority control over the wildlife and income from national parks in Tanzania back to the central government (Benjaminsen, 2013). In the Tanzanian Wildlife Management Authority Act of 2013, extensive measures are taken to ensure rights of trophy hunters, state paramilitary force objectives in conservation parks, and to lay out restrictions of conservation parks and game reserves, although nothing is stated that hints at local people having a say in these matters (United Republic of Tanzania, 2013).

After independence, Somerville (2016) states that a change of the guard at the gates of conservation parks occurred, but not the empowerment of people at the local level. Controlling key institutions in Kenya and Tanzania was the priority, therefore, parks mainly continued operating as they had before independence. There was also an idealized belief that conservation parks had been effective, organized rationally, and fair before the changing of the guard, so a need for something to change immediately was not recognized or seen as essential.

From the early 1900s until today, conservation efforts in Africa have been tainted with a colonial odor. Environmental conservation by colonialists was neoliberal in nature. An economic profit was desired before anything else, and Bram Buscher (2012) observes that this is expected of capitalism, because it is "inherently expansionist," wanting to always bring more facets of life into its orbit. He argues that neoliberal conservation efforts can lead to dispossession of local communities, as their land and environment become valuable on the global market, and newly protected areas are marked off as no longer communal (Benjaminsen, 2013). The establishment of national parks meant that the local population that was living in the areas in and around the parks had to move, and they were forcibly removed in most cases (Neumann, 1998).

The forced removal of local people from ancestral or purchased land was, and is still, common in and around conservation parks throughout Sub-Saharan Africa. During the era of

SAPs, Kenyans and Tanzanians were encouraged to produce cash crops so that exportation of goods could stimulate the economies of these countries. The transition from subsistence farming to cash crop farming required massive amounts of water, which meant that people began moving closer to marshes or other water sources. Conservation laws most often prohibited water sources from being used inside conservation parks by human populations, creating even fewer venues for water collection. As humans moved closer to water sources, human and animal conflict increased as well, as animals and humans began using the same water sources, either for drinking or crop irrigation. Competition increased for this natural resource, as a result of structural adjustment initiatives (Campbell, 2000).

As a trend toward urbanization increases in Africa, many people have moved to urban areas. Some leave everything, and move their entire family to the city, hoping for a livelihood that is not destroyed by the wildlife that used to surround their homes. Others, however, move only themselves to the city, and leave family behind to continue trying to subsist off the land. Even if crops or livestock are not able to provide fully for the family, the member in the city has hopes for a career or job in which the rest of the needed expenses are earned. This desire, or, sometimes, need, to move to the city means that conservation efforts have effects on the migration trend to urban areas on the African continent. While some people move their lives from rural to urban settings by choice, many move their lives because of necessity. Conservation continues to affect those in urban areas that still have families in rural areas, because remittances are common. Wages in urban areas are often not as high as expected, which means those living in these areas do not always have a better life than those living in rural environments. If one lives near a conservation area, a livelihood might be hard to attain, and if one lives in an urban area,

but is still supporting those in and around conservation areas, stability might be just as difficult to attain.

Resistance to Conservation Parks by Local Communities

As the state and international investors have taken control of the land of Kenyans and Tanzanians in and around conservation parks, those taken advantage of have become resistant to both foreign initiatives and state conservation policies. Gupta (2001) notes that although poor peasants and agricultural laborers do not have the power to conduct guerilla resistance against the rich, many of them rely on small acts of resistance. Grazing cattle near tourist groups, blocking tourist caravans from entering the parks, and sometimes even killing wildlife that raids crops or livestock, are some of the ways, according to Benjaminsen (2013) and Reid (2012), in which local people living near conservation areas have retaliated for the dispossession of their land and livelihoods over the last 100 years (Scott, 1990).

The impacts of past conservation policies and decisions by colonialists are still affecting the quality, quantity, and availability of plant, soil, and water resources for the people and wildlife of Eastern Africa (Campbell, 2000). Local people often ended up settling directly on the boundaries of these conservation areas, because of the dispossession from the land by colonial powers. As wildlife migrate or look for alternative sources of water or food, they often come outside the set boundaries of national parks. As local people are no longer able to freely move and resettle because of conservation borders and colonial-made state borders, human and animal conflict has increased over the years. This swell in conflict has caused anger in the local communities, and the government's unwillingness to compensate communities for livelihood loss due to crop and livestock raids by wildlife in and around conservation areas, has further

encouraged communities to resist increased conservation efforts. If the governments were more willing to compensate for crop damage, or to provide more rangers to guard crops at night, I believe human and elephant conflict would decrease.

Many quotes taken directly from East African people who have been dispossessed of their land speak to the discontent that comes from their complaints falling on deaf ears. There is a resounding feeling that the governments of Kenya and Tanzania, as well as international organizations, value wildlife more than they value the people of this region. An Engare Nairobi member in an interview conducted through Sayuni Mariki's (2014) research noted that, "They [investors and conservationists] want wildlife to dominate at the expense of the people (pg.25)." Another interviewee stated, "The government clearly shows that it values wildlife more than people. Also, investors value wildlife more than people (pg.26)." These quotes show a feeling of marginalization, and lead to forms of resistance against the conservation efforts by many local communities in Kenya and Tanzania who live close to the national parks. It is important to note that killing the animals meant to be conserved is not often the first means of resistance to conservation efforts by local communities. For instance, in 2009, the Engare Nairobi people petitioned the government of Tanzania multiple times, stating that elephants from Mount Kilimanjaro National Park had been destroying their land and crops. The government never responded to the petitions, however. When the Engare Nairobi people then killed six elephants by driving them off a cliff after the elephants raided their crops, the government was up in arms. International attention was given to the situation, stating that the people of this region had no interest in the conserved wildlife, and, therefore, did not need a hand in determining how conservation efforts were conducted (Mariki, 2014; *See Figure 3*).
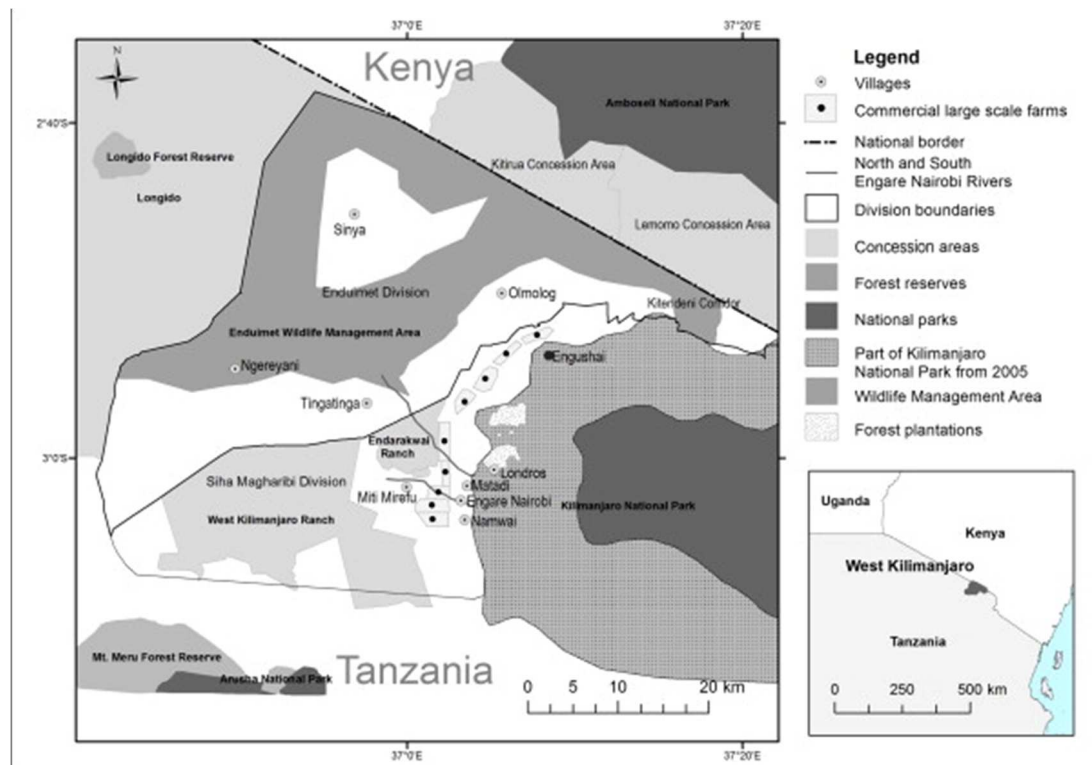
Figure 3. Sayuni Mariki's Research Area

Mariki, Sayuni, Hanne Svarstad, and Tor Benjaminsen. (2014, Dec.). "Elephants over the Cliff:
Explaining Wildlife Killings in Tanzania." *Science Direct*. Land Use Policy, Web.

This scenario is a common one for many ethnic groups living around conservation areas in Kenya and Tanzania. One Maasai elder stated, however, that, "Wildlife [for] tourists [is] not the problem. It is the people who protect the wildlife that are the problem," (Goldman, 2011, p.76). It is clear from this quote that, if the government of Tanzania had been more willing to protect the crops and livestock of the Engare Nairobi people, or compensated them for the damage, they would not have had an issue with the wildlife conservation efforts. It was only when their concerns about crop raids was repeatedly ignored that they became fed-up, and chose to resist conservation efforts, because they felt there was no other way to protect their livelihoods.

Although this is a recent example of resistance to conservation efforts by Tanzanians, patterns of resistance by local communities have occurred against wildlife since the time the colonialists stepped foot on the African continent. The concept of a "national park" was developed in the United States, with Yellowstone National Park exhibiting what nature "should" look like. National parks have been depicted for years as something to be observed, which then gives the observer a sense of ownership and control of the scenery they observe. When this occurred in Kenya and Tanzania, the observers of nature were not the people living in these countries, giving the sense of ownership to outsiders unaware of traditional practices, land rights, and ways of thinking about what nature truly was. As the right to subsist was taken from the local people, resistance began to be used as a way to defend themselves against colonial transgressions. As laws were set up to keep Kenyans and Tanzanians out of designated parks in the mid-1900s, these people continued to graze, collect firewood and water, and tend to bee hives within the park boundaries (Neumann, 1998).

While these direct means of resistance occurred quite often, some people resisted by working for the government as rangers or other park workers. When local people were caught breaking the colonial laws, from poaching elephants for ivory to collecting firewood, these hired rangers more often looked the other way, or dismissed cases where East Africans were in violation of park laws. Fees, in most cases, were reduced or sentences dismissed, as the "hired help" resisted with their neighbors against colonial conservation efforts (Neumann, 1998). It is important to note that this pattern has continued to the present, and explains what many Westerners view as corrupt African conservationism. Western conservation efforts created a system of resistance from local communities, because of the local people's forced removal from their land, and strict laws that were enacted without their involvement, and were against their

traditional conservation practices. As Kenya and Tanzania gained independence, local people resistant to conservation practices refused to adopt the conservation designs of national parks, as there was no sense of nationalism to begin with, and as Western ideals continued to dominate conservation policies.

Patricia Raxter (2015) discusses an alternative perspective to the popular narrative that Kenyan and Tanzanian people simply do not care about the wildlife surrounding them. The governments of these countries and international organizations often say that the people they govern do not care about parks and conservation areas, because they are irrelevant to their daily lives, and that people simply see these areas as another sign that colonialism is still alive on the African continent. By building the rhetoric around the belief that Africans do not care about the land they live on, or the animals that surround them, governing leaders in East African and world organization, along with Western media, can get away with dismissing the African voice with regard to conservation practices. They argue that these voices do not need to be added to the conversation when Africans do not care about the conservation outcomes anyway. Raxter observes that this is a way of keeping Kenyans and Tanzanians out of the processes that directly affect them when it comes to conservation efforts. The narrative that Africans do not care about wildlife, however, is as colonistic as the narrative that conservation parks were set up because no one was living in those areas to begin with.

Much of the discourse surrounding the increased illicit ivory trade is also tied to violence from Kenyan and Tanzanian people against the wildlife in these areas. Mariki (2014) states in his research that he was skeptical of the statistics surrounding elephants being killed for their ivory. He believed that many elephants were actually being killed as a resistance to conservation efforts by local communities, and that ivory then entering the market was simply a byproduct of the

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resistance killings. He writes, however, that, "It is likely that resistance to conservation plays a role in recruiting local community members into networks of ivory poaching (pg. 20)." Affirming Mariki's argument, Gupta (2001) asserts that it is much easier to carry out illegal ivory activities with the collusion of communities when local people are already resistant to government and international initiatives. The feelings of marginalization that these people have lead to alternative forms of moral standing, which, at times, happen to be illegal.

Although the tourism industry could be beneficial for rural Kenyan and Tanzanian livelihoods, it has not been, and is currently not, benefitting the local people to the degree it needs to in order for these people to be enticed to help with conservation efforts. Roderick P. Neumann (1998) states that only when jobs, sustainable access to resources, or revenue from parks is obtained by local people can a case be made that conservation parks are an integral part of rural development and livelihoods. At the time of writing, he stated that tourism offered very little revenue in Arusha National Park in Tanzania, the bulk of profits from tourism went to foreign-owned companies, and that the park policy often prohibited local Meru villagers from being hired, as there was a fear that they would cooperate with local community initiatives of resistance. Somerville (2016) records that Derek Bryceson and his wife Jane Goodall also noted that the only way for Tanzanian people to support conservation was if there was a positive contribution to their livelihoods. Somerville also notes that in the initial days of Tanzanian independence, tourism did not bring in enough money to the local people in order for them to see its positive livelihood benefits. He observes that, currently, rangers are often poorly paid, have poor weapons to defend themselves with, and have poorly working vehicles, causing them to resort to poaching as an additional means of income. Many conservation efforts are funded by outside sources, and many local people do not economically benefit from conservation efforts

(Somerville, 2016). Although the economies of Kenya and Tanzania do benefit greatly from tourism, the local people who reside around conservation parks that have been affected by land seizures and crop destruction have not yet been the main beneficiaries of this tourism income. It is noted that the tourism industry can positively impact local peoples' livelihoods, but it is currently not making an important impact on local livelihoods.

Chapter 5
Conclusion and Suggestions for Curbing the Demise of Elephants

This thesis demonstrates that when an elephant is killed in Kenya or Tanzania, there are both beneficial and harmful consequences to the livelihoods of different people in these countries. It argues that although the ivory trade provides a beneficial element of income, it also has harmful effects on the ecosystem. The findings underscore that the long-term pitfalls of an elephant leaving the ecosystem, outweigh the short-term monetary benefits. The thesis demonstrates that when an elephant leaves the ecosystem, brush needing to be torn down no longer occurs, distribution of seeds specific to elephant patterns is disrupted, and watering pits are no longer available in the environments that elephants roam in. As large herbivores leave ecosystems, seed dispersal decreases and brush fires can increase as tall grasses proliferate (Global Sanctuary for Elephants, 2014). Their keystone role in the environment allows the people and animals of this region to function in ways that are most beneficial to the sustainability of the ecosystem.

When the ecosystem functions properly, animals use traditional migration patterns, tsetse fly populations stay in traditional regions, and small animals are able to drink from water holes dug by elephants, instead of going to bigger water sources which human populations use as well. All of these ecosystem balances allow human and animal conflict to decrease, therefore, helping human life in general. The health of an ecosystem is determined by how many differing specifies of flora and fauna are in the area. A study done by scientists at Georgia Southern University discovered that where elephants had reshaped the land and habitat the most, there were the most insect, amphibian, and reptile species. The richness of the land was increased when elephants were tearing down trees, brush, and other vegetation (Kinver, 2010). Were elephants to leave the

ecosystem, the richness of the soil and vegetation would decrease, which would impact the livelihoods of people in Kenya and Tanzania.

The findings in the thesis also show that the sale of ivory is not essential to the health and basic survival of humans, therefore, ivory leaving the economy would have no long-term consequences on the lives of people in Southeast Asia, except for potential status and spiritual significance. As a trend continues in Southeast Asian to ban imports and exports of ivory, along with the East African trend to burn or crush ivory stockpiles, ivory is already beginning to be seen as a less desirable product. This was clearly seen in April 2016, when President Uhuru Kenyatta of Kenya stated that ivory was worthless, unless it was on the elephant (Gettleman, 2016). This rhetoric by government leaders in Kenya and Tanzania will encourage an international push for an end to the ivory trade. When demand slows down for ivory, elephants will have a better chance of surviving when it comes to poaching.

The thesis discusses at length benefits and harmful consequences of elephant deaths on the local people in both Kenya and Tanzania. It examines the genesis of colonial conservation and resistance efforts by local communities in Kenya and Tanzania. It demonstrates that as people were moved off their traditional lands during the colonial era in order for conservation parks to be erected, they often settled right outside the established borders. This was mainly because the people knew how to plant in these areas, knew where to graze their cattle and other livestock, as well as were familiar with the environment of the regions surrounding the parks. As colonialists designated boundaries for the people, but not for the animals that mainly lived in the conservation parks, crop raids and livestock raids by these animals were common. The governments of Kenya and Tanzania in both colonial and post-colonial periods have been resistant to monetary compensation for crop of livestock damage, thus fueling a resistance

culture from the people affected by their livelihood destruction. The resistance to colonial conservation parks, and continuing policies that reflect colonial conservation legislation, along with a desire for current livelihoods to flourish, has resulted in elephant and human conflict, often resulting in the death of elephants. In this situation, the short-term consequence of an elephant dying is often seen as a benefit to the local people. Crop raids are, in most cases, less likely to occur, and an opportunity for the meat and hide to be sold for additional income is seen as being available. Most local Kenyans and Tanzanians do not favor this option, however, but the government's unresponsiveness to their petitions concerning crop and livestock compensation have created a need for them to kill elephants in order for their livelihoods to thrive or be repaired.

Apart from the discussion concerning the benefits of elephants being in the environment for ecological reasons, elephants being alive in conservation parks allows for monetary income for local people through the tourism industry. The discussions in this thesis show that, currently, local people are excluded from benefiting from the money made through conservation parks in Kenya and Tanzania, although countries in Southern Africa have experimented with giving local groups more control over the nature they live around. In Zimbabwe, for example, CAMPFIRE is a community-based natural resource management program that began in the late 1980s, and was successful until around 2000. The political and economic climate of this time period, along with large outside donor support, allowed for the program to be monetarily beneficial to local communities around national parks and reserves. The program began to dissolve, however, when donor support was no longer there, and as the political and economic climate decreased (Mashinya, 2007). The Zimbabwean example illustrates that if local people are allowed to benefit monetarily from conservation parks, elephants being killed in or around conservation

areas, would negatively affect the livelihoods of these people, creating an incentive to keep the elephants alive. The key to this argument, however, is making sure that the power is truly in the hands of local Kenyans and Tanzanians. This thesis argues that conservation park efforts will only be beneficial in these regions when local people are placed in charge of these parks. As noted throughout the thesis, when the local people are able to benefit more from an elephant being alive than from it being dead, ecosystems and livelihoods will prosper together.

When demand slows down for ivory, elephants will have a better chance of surviving when it comes to poaching. In the future, local people must be given control of conservation parks and the monetary benefits of running them safely and ethically. Livelihoods of local people will benefit when this occurs, creating a value for elephants staying alive. As demand for ivory decreases, and Kenyan and Tanzanians begin to make a livelihood through elephants being alive in conservation parks, the ecosystems of these countries will also begin to repair themselves. Local livelihoods will benefit more in the long-term from elephants being alive than dead, and local people will continue being more and more empowered as increased control and engagement is given to them through various conservation efforts and conservation parks.

In order for elephants to thrive to their full potential in conservation parks, a few things must happen. First, elephants need to be allowed to migrate, and if that means outside of a park boundary, measures need to be taken to reduce human/elephant conflict when this occurs. When elephants are no longer able to migrate to areas where food or water might be available, the resources inside a park dwindle, and the land is continually trampled by elephants. Were elephants to feel safe wandering farther outside the park boundaries than they already do, land in other areas of the country would be enriched, and the land within parks would not be overused (Cooper, 2013). Second, sometimes these patterns of migration do cross national borders.

Countries in which this occurs will need to work together on policies that reduce human and elephant conflict, although elephants being able to meander where they wish is the healthiest option for the land. Elephants migrate when they need a food or water resource that is not currently available. Different groups migrate to different areas in which they have learned will hold what they are lacking. During the dry season, which usually runs between June and November, elephants will migrate to wetter areas, and then return to their traditional areas when the rainy season comes (Seaworld). Third, by increasing education on the importance of elephants to the ecosystem, as well as what to do if one does encounter an elephant, the people of Kenya and Tanzania will be more likely to want to keep elephants alive. Anti-poaching measures are helpful, but safety measures when one comes across an elephant are also important so that fear of the animal, and potential harm done by a spooked elephant, are minimalized. When elephants and humans are mutually beneficial to one another, the species will begin to thrive again in Kenya and Tanzania.

Solutions to Curb the Demise of Elephants

In an article by S. K. Wasser and his team, they state that the main way to stop the trade of ivory is to not have elephants poached in the first place, and to increase the law enforcement efforts within parks and reservations in African countries (Wasser, 2007). Conservation initiatives similar to what Save the Elephants encourages, as discussed earlier in the thesis, are what other researchers, authors, and government officials support. Another interesting conservation effort involves African beer companies, in which these companies give portions of the profits made from certain brands to conservation initiatives across the continent. The Brew Bistro in Nairobi, Kenya, is famous for its Big Five staple brews — the Chui, Nyati, Simba,

Kifaru, and Tembo in Kiswahili, respectively the Leopard, Buffalo, Lion, Rhino, and Elephant in English. All of these mammals are seen as threatened or endangered on the African continent, and The Brew brings attention to these animals through Africa's emerging beer market (Hesse, 2015). Although this restaurant and brewery conservation effort does not halt the illegal trade of ivory by any means, it seeks to bring attention to the historical and modern significance of the elephant to the African people. In addition, it also gives attention to the other four threatened mammals. It also allows for local Kenyans to initiate conservation efforts, and for local livelihoods to benefit.

Although keeping people from wanting to poach elephants in the first place would certainly decrease the trade of ivory, the real area where efforts need to occur is on the side of demand — Southeast Asia. If demand of a product decreases, there is no longer a market, or at least as big of a market, as there was before the decrease. When there is no market for a resource, extracting the resource becomes less profitable, and poaching of elephants in Africa would decrease as well.

Another possible solution that could curb the demand for ivory would be for international organizations to put pressure on China to ban any trade of ivory. In September 2015, China began responding to international pressures of this kind by considering a plan to stop the commercial trade of ivory (Denyer, 2015). In December of 2016, China announced that they would ban all commerce in ivory trade by the end of 2017, but have yet to lay out a definitive plan on how the government plans to accomplish this massive task (Wong 2016).

The final solution that could curb the ivory trade, would be to educate more people about the social dynamics of elephant herds, and the effects of declining elephant population numbers on human livelihoods in Kenya and Tanzania. The translation of ivory in Mandarin is

"elephant's teeth," causing many Chinese to believe that elephants lose their tusks and new ones grow back (Liljas, 2013). Increasing education in countries where demand for ivory is high, could create a better understanding of the natural functions and benefits of elephants roaming the East African savannahs. Increased education concerning elephant herd dynamics and basic pachyderm functions could also help slow the ivory demand for many buyers. Further, helping African park rangers, locals, and villagers to understand that decreasing elephant populations will negatively affect them too, can help in decreasing initial poaching levels. Although many local poachers may need to be reminded of the negative effects of elephants leaving ecosystems, other people do understand the negative consequences, but still kill elephants because their livelihoods are being destroyed by them. When East African governments continue to ignore pleas for land redistribution, livelihood protection, or compensation for raided crops, local people will continue to feel as if they have no other choice but to continue killing the animals that are destroying their livelihoods.

The people originally from the land surrounding conservation parks know how to take care of it best, but are currently not allowed to do so in many parts of Kenya and Tanzania (Goldman, 2011). As the Maasai elder stated earlier, it is the people who are currently protecting the wildlife that are the problem, not the wildlife itself. Only by allowing conservation efforts to be fully integrated and led by the people that actually live in and near these conservation areas will they be successful and beneficial for the people and the wildlife. Handing over conservation practices immediately to the local people without training or skill building, may not be beneficial, however. The transfer of power needs to be slowly exchanged, as local people around conservation areas are educated about how to run conservation parks, skills are built for people to be employed as park rangers, and proper compensation is given to the communities that

require it. Although I do suggest a fairly slow exchange of power, I do not believe these efforts should be delayed. There is urgency in the matter, even as international organizations, NGOs, and state governments come together to partner with the local communities in order to one day give complete control back to the local people. The people need to feel empowered during this switching of hands, so that they feel as if their government trusts them to run the parks well, and to benefit properly from them.

As noted throughout the thesis, the preservation of wildlife has many benefits, both ecologically and monetarily, for the people of Kenya and Tanzania, but the current conservation practices are not benefiting anyone except for state actors and international organizations. Colonial policies are still the order of the day with regard to conservation parks, and although colonialists first brought the idea of a national park to Africa, Africans themselves know how best to combine human and animal activities. I argue in this thesis, that the reigns need to be handed over to the populations most affected by current conservation areas, even if this means working with NGOs and international organizations in the early stages of transfer of power, in order for skills and partnerships to be developed. Only then will the impact of conservation be beneficial to all - humans from Kenya and Tanzania, humans from the international community, and the wildlife meant to be protected.

Bibliography

Al Jazeera English. (2014, Nov. 6). "Report: Africa Ivory Smuggled on China Visit." Al Jazeera, Web. http://www.aljazeera.com/news/asia-pacific/2014/11/report-africa-ivory-smuggled-china-visit-2014116163317314744.html

Benjaminsen, Tor A., Mara J. Goldman, Maya Y. Minwary, and Faustin P. Maganga. (2013). "Wildlife Management in Tanzania: State Control, Rent Seeking and Community Resistance." *Development and Change 44.5*, 1087-109. Wiley Online Library. Web. htt

Britton, Hannah. (2016, Mar. 22). "Human Trafficking in the Heartland." Spooner Hall, Lawrence, Lecture.

Buscher, Bram, and Murat Arsel. (2012). "Introduction: Neoliberal Conservation, Uneven Geographical Development And The Dynamics Of Contemporary Capitalism." Tijdschrift Voor Economische En Sociale Geografie 103.2, 129-35. *Wiley Online Library*, Web.

Campbell, David J., Helen Gichohi, Albert Mwangi, and Lucy Chege. (2000). "Land Use Conflict in Kajiado District, Kenya." *Land Use Policy 17.4*, 337-48. Web.

Chappaz, Nicolas. (2006, May 3). "Elephants Close to Extinction in Ivory Coast." Open Earth Project, Web. http://www.open-earth.org/document/natureR_main.php?natureId=277

Chikoko, Rex. (2016, Mar. 14). "Malawi Burns Ivory amid Tanzania's Protests." *Africa Review*, Web. http://www.africareview.com/news/Malawi-burns-ivory-despite-Tanzania-protests/979180-3116954-b5qmur/index.html

Christy, Bryan. (2012). "Blood Ivory." *National Geographic*, Print.

Christy, Bryan. (2015). "How Killing Elephants Finances Terror in Africa." *National Geographic,* Print.

Conservation Parks in Kenya. (n.d.). Retrieved April 25, 2017, from African Pride UK Tours website, http://www.african-pride.co.uk/kenya/.

Conservation Parks in Tanzania. (n.d.). Retrieved April 25, 2017, from African Hunting, Tanzanian Hunting Information website, https://www.africahunting.com/threads/tanzania-hunting-information.14227/.

Cooper, Chloe. (2013, April 18). African Elephants Rediscover Their Routes. *Africa Geographic*. Web. https://africageographic.com/blog/african-elephants-rediscover-their-routes/

Cruise, Adam. (2015, Nov. 13). "Elephant Poachers Take Aim at South Africa's Famed Refuge." *National Geographic*. Web.

www.google.com/amp/relay.nationalgeographic.com/proxy/distribution/public/amp/2015
/11/151113-south-africa-rhinos-poaching-elephants-kruger-national-park-africa-
conservation.

Denyer, Simon. (2015, Oct. 21). "China to Ban Ivory Trade within a Year or so as Pressure
Mounts on Hong Kong." World. *The Washington Post*, Web.
https://www.washingtonpost.com/world/china-to-ban-ivory-trade-within-a-year-or-so-as-
pressure-mounts-on-hong-kong/2015/10/21/4c96c5e4-7683-11e5-a5e2-
40d6b2ad18dd_story.html?utm_term=.8bf13e706ccc

Elephant Action League. (2016, March 3). "The First Ivory Crush in Italy Announced." Web.
https://www.elephantleague.org/the-first-ivory-crush-in-italy-announced/

Fouts, Roger. (1998, Aug. 22). "Learning to Speak Elephant." *The New York Times*, Web.
http://www.nytimes.com/1998/08/23/books/learning-to-speak-elephant.html

Gettleman, Jeffrey. (2016, April 30). "Kenya Burns Elephant Ivory Worth $105 Million to Defy
Poachers." *The New York Times*, Web.
https://www.nytimes.com/2016/05/01/world/africa/kenya-burns-poached-elephant-ivory-
uhuru-kenyatta.html?_r=0

Global Sanctuary for Elephants. (2014, July 18). Impact of Elephants on Land. Web.
http://www.globalelephants.org/impact-elephants-land/

Gobush, Kathleen. (2009). "Effects of Poaching on African Elephants." Center for Conservation
Biology. *University of Washington*, Web. http://conservationbiology.uw.edu/research-
programs/effects-of-poaching-on-african-elephants/

Goldman, Mara J. (2011). "Strangers in Their Own Land: Maasai and Wildlife Conservation in
Northern Tanzania." *Conservation and Society 9.1*, 65. Proquest. Web.

Guardian, The. (2016, Jan. 13). "Hong Kong Bans Import and Export of Ivory." Guardian News
and Media, Web. https://www.theguardian.com/environment/2016/jan/13/hong-kong-
bans-import-and-export-of-ivory

Guardian, The. (2014, July 3). "Price of Ivory in China Triples." Guardian News and Media,
Web. https://www.theguardian.com/environment/2014/jul/03/price-ivory-china-triples-
elephant

Gupta, D. (2001). "Everyday Resistance or Routine Repression? Exaggeration as a Statagem in
Agrarian Conflict." *The Journal of Peasant Studies* 29.1, 89-108. Taylor Francis Online.

Harris, Godfrey. (2014, June 23). "The Difference Between African and Asian Ivory." *Ivory
Education Institute*, Web.

Hesse, Brian. (2013). "An Elephant Funeral?" *The Just Now News*. Print.

Hesse, Brian J. (2015). "Africa's Intoxicating Beer Markets." *African Studies Review* 58.1, 91-111. *ProQuest.* Web.

Janssen, Ellen, and Paul Janssen. (2006). "Elephant Fact File." *Out to Africa*, Web. http://www.outtoafrica.nl/animals/engelephant.html

Kinver, Mark. (2010, Oct. 23). Elephant Ecological Engineering 'Benefits Amphibians.' *BBC News*. Web. http://www.bbc.com/news/science-environment-11607299

Kipng'etich, Julius. (2012). Laying the Foundation for the Conservation of Kenya's Natural Resources in the 21st Century. *The George Wright Society*. Print.

Larson, Elaine. (2013, Feb. 25). "The History of the Ivory Trade." *National Geographic Society*. Web. http://www.nationalgeographic.org/media/history-ivory-trade/

Levin, Dan. (2013, Mar. 10). "From Elephants' Mouths, an Illicit Trail to China." *The New York Times*. *The New York Times*, Web. http://www.nytimes.com/2013/03/02/world/asia/an-illicit-trail-of-african-ivory-tochina.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+C2C-InTheNews+%28Feed+-+Coast+to+Coast+-+In+the+News%29&_r=0

Liljas, Per. (2013, Nov. 1). "The Ivory Trade Is Out Of Control, and China Needs to Do More to Stop It." *Time*, Web. http://world.time.com/2013/11/01/the-ivory-trade-is-out-of-control-and-china-needs-to-do-more-to-stop-it/

Maguire, Tom, and Cathy Haenlein. (2015). "An Illusion of Complicity: Terrorism and the Illegal Ivory Trade in East Africa." *RUSI Publications*, Web.

Mariki, Sayuni, Hanne Svarstad, and Tor Benjaminsen. (2014, Dec.). "Elephants over the Cliff: Explaining Wildlife Killings in Tanzania." *Science Direct*. Land Use Policy, Web.

Mcconnell, Tristan. (2015, Oct. 30). "The Ivory-Funded Terrorism Myth." *The New York Times*, Web. https://www.nytimes.com/2015/10/30/opinion/the-ivory-funded-terrorism-myth.html

Meagher, Kate, and Ilda Lindell. (2013). "ASR Forum: Engaging With African Informal Economies: Social Inclusion Or Adverse Incorporation?" *African Studies Review* 56.03, 57-76. Web.

Messenger, Stephen. (2014, Jan. 15). "Exclusive Interview With An Elephant Poacher." *The Dodo*. Web. https://www.thedodo.com/interview-with-an-elephant-poa-390317914.html

Ministry of Forestry and Wildlife. (2012). *National Wildlife Conservation and Management Policy*. Republic of Kenya.

Mkumbkuwa, A. R. (2008). The evolution of wildlife conservation in Tanzania during the colonial and post-independence periods. *Development Southern Africa, 25 (5*), 589-600.

Moore, E.D. (1931). Ivory, Scourge of Africa. *Harper and Bros*. Print.

National Geographic. (2015, Aug. 12) "Tracking the Illegal Tusk Trade." Web. http://www.nationalgeographic.com/tracking-ivory/map.html

National Geographic Society. (2011). "Keystone Species." *National Geographic*. Web. http://www.nationalgeographic.org/encyclopedia/keystone-species/

Nature. (2008, Oct. 14). "Crack the Code of Elephant Communication." *PBS*, Web. http://www.pbs.org/wnet/nature/unforgettable-elephants-crack-the-code-of-elephant-communication/5885/

Neumann, Roderick P. (1998). Imposing Wilderness: Struggles over Livelihood and Nature Preservation in Africa. *Berkeley: U of California*, Print.

News. (2015, May 26). "Hong Kong Public Supports Ivory Ban." *WildAid*, Web. http://www.wildaid.org/news/hong-kong-government-announces-ivory-ban-legislation

Nkala, Oscar. (2016, April 27). "How Chinese Syndicates Send Zambian Poachers to Their Deaths - The Standard." *The Standard*. Web. https://www.thestandard.co.zw/2016/04/27/chinese-syndicates-send-zambian-poachers-deaths/

O'Regan, Mark. (2016, Mar. 6). "Revenue to Burn Rhino Horns That Are worth €1.5m - Independent.ie." *News: Irish News*. Independent.ie, Web. http://www.independent.ie/irish-news/revenue-to-burn-rhino-horns-that-are-worth-15m-34515035.html

Oxford Business Group. (2016). "Kenya's Tourism Industry Diversifies Amidst Setbacks." Kenya Tourism, Web. https://www.oxfordbusinessgroup.com/overview/changing-tack-sector-setbacks-are-driving-tourism-industry-diversify

Payne, Oliver. (2013). "Vatican Responds to National Geographic's Correspondence about Religious Uses of Ivory." *National Geographic*, Web. http://voices.nationalgeographic.com/2013/01/22/vatican-responds-to-national-geographics-correspondence-about-religious-use-of-ivory/

Pearce, Fred. (2010, Jan. 19). "Why Africa's National Parks Are Failing to Save Wildlife." *Environment 360,* Web. http://e360.yale.edu/features/why_africas_national_parks_are_failing_to_save_wildlife

Phys.org. (2016, Jan. 26). "Kenya to Destroy Largest Ever Ivory Stockpile at Celebrity Burning." Web. https://phys.org/news/2016-01-kenya-largest-ivory-stockpile-celebrity.html

Plumer, Brad. (2013, Nov.6). The Grisly Economics of Elephant Poaching. *The Washington Post.* Web. https://www.washingtonpost.com/news/wonk/wp/2013/11/06/the-grisly-economics-of-elephant-poaching/?utm_term=.13fc87e12829

Radmeyer, Julian. (2016, Aug. 4). "The Role of the 'Secret Police' in Zimbabwe's Deeping Poaching Crisis." *African Arguments*. Web. Africanarguments.org/2016/08/04/the-role-of-the-notorious-central-intelligence-organisation-in-zimbabwes-worsening-wildlife-crisis.

Raxter, Patricia. (2015). Wildlife Crime and Other Challenges to Resource System Resilience. *Diss. Old Dominion U*, Print.

Reid, Robin Spencer. (2012). Savannas of Our Birth: People, Wildlife, and Change in East Africa. *Berkeley: U of California*, Print.

Russo, Christina. (2014, Aug. 30). "Can Elephants Survive a Legal Ivory Trade? Debate Is Shifting Against It." *National Geographic*. National Geographic Society, Web. http://news.nationalgeographic.com/news/2014/08/140829-elephants-trophy-hunting-poaching-ivory-ban-cities/

"Save the Elephants." *Save the Elephants*. Web. http://www.savetheelephants.org

Scott, James. (1990). Domination and the Arts of Resistance. *Yale University Press*. Print.

Seaworld Parks and Entertainment. Elephants: Habitat and Distribution. Web. https://seaworld.org/en/animal-info/animal-infobooks/elephants/habitat-and-distribution

Seguya, Andrew., R.Martin, N. Sekar, S. Hsiang, E. Di Minin, D. MacMillian. (2016, Oct. 1). Would a Legal Ivory Trade Save Elephants of Speed up the Massacre? *The Guardian*. Web. https://www.theguardian.com/environment/2016/oct/01/debate-can-legal-ivory-trade-save-elephants

Somerville, Keith. (2016). Ivory: Power and Poaching in Africa. *Hurst & Co*, Print.

Sterbenz, Christina, and Jeremy Bender. (2015, Sept. 8). "National Geographic Put a GPS Tracker inside a Fake Ivory Tusk — Here's Where It Went." *Military and Defense*. Business Insider, Web. http://www.businessinsider.com/this-detailed-map-shows-how-terrorists-use-elephant-ivory-to-fund-violence-2015-9

TanzaniaInvest. (2015, Dec. 14). "Tanzanian Tourism Sector Report 2015: Record of Arrivals in 2014." Web. http://www.tanzaniainvest.com/tourism/tanzania-tourism-sector-report

Tsikata, Dzodzi. (1995). Effects of Structural Adjustment on… *Global Policy Forum*. Web.
https://www.globalpolicy.org/component/content/article/218/46625.html

United Republic of Tanzania Ministry of Natural Resources and Tourism. (2013, July). The
Tanzania Wildlife Management Authority Act. Principal Legislation.

Vardi, Nathan. (2010, June 4). "The World's Biggest Illicit Industries." *Forbes*. Forbes
Magazine, Web. https://www.forbes.com/2010/06/04/biggest-illegal-businesses-business-
crime.html

Wasser, S. K., C. Mailand, R. Booth, B. Mutayoba, E. Kisamo, B. Clark, and M. Stephens.
(2007). "Using DNA to Track the Origin of the Largest Ivory Seizure since the 1989
Trade Ban." *Proceedings of the National Academy of Sciences* 104.10, 4228-233. Web.

Wasser, S. K., R. Brown, C. Mailand, S. Mondol, W. Clark, C. Laurie, and B. S. Weir. (2015,
July 3). "Genetic Assignment of Large Seizures of Elephant Ivory Reveals Africa's Major
Poaching Hotspots." Genetic Assignment of Large Seizures of Elephant Ivory Reveals
Africa's Major Poaching Hotspots. *Science AAAS*, Web.

Were, E. M. (2005). The domain of authority and sphere of influence of wildlife conservation
and management policy in Kenya. *Journal of Third World Studies, 22(2*), 227-248.

Wodak, Ruth, and Michael Meyer. (2009). "Critical Discourse Analysis: History, Agenda,
Theory, and Methodology." Corwin. Web.

Wong, Edward and Jeffrey Gettleman. (2016, Dec. 30). "China Bans Its Ivory Trade, Moving
Against Elephant Poaching." *The New York Times*, Web.
https://www.nytimes.com/2016/12/30/world/asia/china-ivory-ban-elephants.html

World Elephant Day. (2016, Aug.). "World Elephant Day - About Elephants." Web.
http://worldelephantday.org

Zhang, Livio. (2015, Nov. 11). "China Must Act Decisively to Eradicate the Ivory Trade."
Nature.com. *Nature Publishing Group*, Web. http://www.nature.com/news/china-must-
act-decisively-to-eradicate-the-ivory-trade-1.18763