



International Journal of Development and Sustainability

ISSN: 2186-8662 – www.isdsnet.com/ijds

Volume 6 Number 11 (2017): Pages 1865-1890

ISDS Article ID: IJDS17102203



Patterns, trends, and issues of illicit wildlife hunting and trade: Analysis based on African environmental ethics

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Abstract

The creation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1973 has significantly altered the dynamics of trade in fauna and flora. Despite this effort, curbing of criminal trade in endangered species of wild fauna and flora has remained a key challenge for some countries. The objective of this study was to identify and establish the trafficking routes of illegal wildlife and forest products, analyzing the patterns and trends of wildlife and forest crime including their drivers, actors and modus operandi, and assessing the criminal justice response including the legislative, enforcement, prosecutorial and judicial systems. The analysis was based on the methodologies and principles embedded in African environmental ethics. It was concluded that African ethics allows for 'sustainable poaching' under the framework of Eco-Afrocentricism; but condemns poaching done for trafficking purposes. Five canons of sustainability were developed to guide 'sustainable poaching'. African capitalism thesis was used to support the analysis from political and economic perspectives.

Keywords: CITES; Wildlife Crime; African Capitalism; Trafficking; Environmental Ethics

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Cite this article as: Ibanga, D.A. (2017), "Patterns, trends, and issues of illicit wildlife hunting and trade: analysis based on African environmental ethics", *International Journal of Development and Sustainability*, Vol. 6 No. 11, pp. 1865-1890.

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1. Introduction

The trafficking of forest resources has remained a key challenge for some countries. A study indicated that between 1970 and 1989 about 700,000 African elephants, estimated to be half of the continent's *loxodonta* resources, were killed, perhaps to supply the international ivory market (Blake *et al*, 2007). The study above is one of many others which represent the trends of the deterioration of forest and wildlife resources world over. Environmentalists have continued to raise alarm that many fauna and flora species are continuously driven closer to extinction on daily basis. Despite this, many developing economies are based on exporting forestry products. However, some of the governments lack the capacity to regulate the exploitation of this fragile asset. The regulatory failures therefore engender misappropriation and trafficking of the environmental resources which in turn can become cause of bad governance, corruption and violent conflict.

Wildlife and forest crime has become serious global problem. As an important form of transnational and organized crime, it has become source and cause of bad governance, corruption and violent conflict. Wildlife and forest crime has also become source of terrorism financing. Terrorism, itself, has remained a fundamental threat to global peace and human existence. Moreover, wildlife and forest crime has pose serious threat to ecological balance, thereby exposing the global community to the dangers of climate change, ecological degradation and other forms of environmental hazards with their attendant health, economic and moral consequences.

In the light of this, environmentalists from all over the world came together in 1973 under the umbrella of the United Nations, to establish the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The Convention was established to provide strategic legal and diplomatic frameworks to coordinate international effort in the reduction of wildlife and forest crime, therefore, checking the attendant impacts and the dimensions it bring to bear on ecological and social communities around the world. The Convention aids researchers, criminologists and law enforcement administration to recognize, therefore, identify, wildlife and forest crime as an important form of transactional crime; and further provide a multisectoral framework to address it. In spite of this, the trafficking of environmental resources has remained a key global challenge. Mara Zimmermam (cited in UNODC, 2012) and many other researchers have suggested that wildlife and forest offences are one of the most profitable forms of organized crime, only after illegal drugs and trafficking in firearms and ammunitions. This study aims to analyze this problem against the backdrop of CITES so as to identify the challenges and proffer solutions accordingly.

2. Definition of operational terms

The following concepts and terms below have been defined in order to tailor our understanding to their usage as employed in this study.

- *Wildlife and Forest Crime*: This refers to the taking, trading (supplying, selling or trafficking), importing, exporting, processing, possessing, obtaining and consumption of wild fauna and flora,

including animals, birds and fishes, as well as timber and non-timber forest products, in contravention of national or international law (UNODC, 2012).

- *Fauna and Flora*: This refers to all wildlife and forestry products including animals, birds and fishes as well as timber and non-timber forest products.
- *Destination country*: This refers to the country or territory where illegal fauna and flora are sold and exported, or imported and bought, for processing, possessing and consumption, in contravention of national or international law.
- *Transit Country*: This refers to the country or territory where illegal fauna and flora are trafficked, supplied, sold, exported, or sent, for processing and re-exporting to destination country, in contravention of national or international law.
- *Sources Country*: This refers to the country or territory where illegal fauna and flora are originally obtained, processed and exported, for the benefits of transit and destination countries, in contravention of national or international law.
- *Route*: This refers to places, territories, and countries where trafficked fauna and flora pass through from source country to destination country, including the actors.
- *Trafficking*: This refers to the act or process of buying and selling, as well as importing, possessing, processing and exporting, of illicit fauna and flora, in contravention of national or international law.
- *Pattern*: This refers to two or more incidences that are unique because they share at least one commonality in incidents type, behaviour of the actors, characteristics of actors, or the location of occurrence. The shared commonalities make the set of incidences notable and distinct from other incidences occurring within the same space and time. The activity and characteristic that surround the incident is typically of limited duration, ranging from weeks to months in length (IACA, 2011).
- *Trend*: This refers to a persistent, long-term rise or fall in temporally-based data. It is a directional indicator which highlights increases and decreases in levels of activity, covering lengthy period of time ranging from years to decades. However, a trend is not tailored to examine shared commonalities of specific incidents. (IACA, 2011).
- *African Environmental Ethics*: This is defined as the fundamental governing principles that defines human-animal-plant-inanimate-posterity nexus based on African worldviews, analyzing the basic concepts such as human and nonhumans, animate and inanimate, and examines the processes by which they (ought to) relate, for the purpose of facilitating an understanding of the ontology of man within the context of an environment it shares with nonhumans.

3. Wildlife trafficking: Patterns and trends

This section indicates global distribution patter of illicit wildlife across source, transit and destination countries for major species and products, especially those originating in Africa. However, by no means do the details below are exhaustive.

Table 3.1. Destination Countries

CITES Category	Specie/product	Territory
Appendix II	Pangolin	China
Appendix I	Tiger Skin	China
Appendix I	Elephant Ivory	Japan, China, Singapore, Malaysia, Korea
Appendix I	Rhino Horn	Yemen, China, Viet Nam, Thailand, Singapore, Japan , Korea, Malaysia

Table 3.2. Transit Countries

CITES Category	Specie/ Product	Territory
Appendix II	Pangolin	Myanmar, Thailand, Viet Nam, Indonesia
Appendix I	Elephant Ivory	Malawi, Nigeria, Thailand, Vietnam,
Appendix I	Tiger Skin	Myanmar, Nepal
Appendix I	Rhino Horn	Singapore, Thailand, Viet Nam, Myanmar

Table 3.3. Source Countries

CITES Category	Specie/ Product	Territory
Appendix II	Pangolin	Myanmar, Thailand, Viet Nam, Indonesia, Zimbabwe,
Appendix I	Elephant Ivory	Central Africa Rep., Congo, Ghana, Kenya, Uganda, Zambia, Burundi, Ethiopia, Rwanda, Tanzania, Mozambique, Gabon, Cameroon
Appendix I	Tiger Skin	India, Central and East Africa
Appendix I	Rhino Horn	Zimbabwe, South Africa, India, Nepal

4. Detailed analysis of the patterns and trends

4.1. Illegal wildlife market

The wildlife market is a big market. There is balance of opinions among scholars and researchers that wildlife constitutes the third largest illicit trade globally, only second to illicit drugs and firearms. Jeremy Haken (2011)

cites sources supported by the United States State Department that annual illicit trade in wildlife is estimated to value about 10 billion dollars. This makes wildlife one of the most lucrative criminal financial sources. The illicit wildlife market is a global phenomenon. It includes network of territories and countries across all the continents of the world. There is no country that is immune to illicit trade in wildlife. From Asia, Europe, America, and Africa, transactions involving illicit wildlife products have been served. However, studies commissioned by the United Nations indicate that China remains the single largest consumer of wildlife, both licit and illicit (UNODC, 2012). Most studies, for example those cited in this study, indicate that China is the single most important driver of trade in illicit wildlife. Studies by Esmond Martin and Lucy Vigne (2013) also confirm the conclusion. Haken (2011), however, notes that apart from China, the United States and the European Union are broadly accepted as largest consumers of illegal wildlife. Moreover, Yemen has been noted for primary demand of illicit rhino horn.

Vietnam, Myanmar and Thailand have also experienced largest inflow of illegal wildlife; however, this trio is largely transit countries for products passing to China and Japan. There are many countries and territories involve in the illicit wildlife trade network but most of them are located in the Far East and stretch toward Eastern Europe. Asian illicit wildlife market typically receives her supplies from East, Central and Southern Africa. On the other hand, Europe and United States illicit wildlife market typically receives her supplies from South America, Eastern Europe, Middle East and North Africa. Central America and West Africa are mainly transit territories for illegal wildlife passing from South America and China to United States and European Union. Tables 3.1, 3.2 and 3.3 summarize the global flow of illegal wildlife.

4.2. The actors

There are many layers of actors involve in illicit trade in wildlife. These range from tourists, hunters, foresters, government agents to professional traffickers, militants and terrorists. The United Nations Office for Drug and Crime (UNODC, 2012) notes that not all those involved in illicit trade in wildlife were professional poachers rather some were informal participants. It notes further that these small players (informal participants) play a role in trafficking wildlife internationally. Studies by Eniang *et al* (2008) and Bassett (2005) confirms the significant role small players play in global wildlife trafficking. Tourists also play significant role in wildlife trafficking especially from South America and Africa. For example, studies by Martin and Vigne (2013) reveals the role of tourists in international illicit wildlife trafficking. Another study indicates that Thailand's status as wildlife trafficking hub is due partly to the role of tourism (UNODC, 2012). Tourists in African also traffic illegal wildlife commodities in their luggage (UNODC, 2012). Forest guards and National Parks administrators are also involved in international wildlife trafficking. The UNODC (2012) indicates that thousands of cases of poaching are reported annually by administrators of National Parks of Africa and Asia. Studies from Ijeomah *et al* (2013) indicate that forest officers under pressure from poor pay and unpaid wages do compromise the law by collaborating with poachers to secure access to parks where there is concentration of endangered species.

Another set of actors involved in wildlife poaching and trafficking are militants, terrorist and professional poachers. On the one hand, the involvement of militant and terrorist comes in the form of poaching and taxing

of traffickers. Militants and terrorists are reported to use proceeds from wildlife trafficking to fund their operations. Haken (2011) reports that since 2003 hundreds of elephants in neighbouring Chad's Zakouma National Park have been poached by Sudan's Janjaweed militia, who use the money from the traffic to purchase arms for use in the killing fields of Darfur. Haken (2011) further cited Interpol and U.S. State Department reports, which implicated two Islamic terrorist groups, Harakat ul-Jihad-I-Islami-Bangladesh (HUJI-B) and Jamaatul Mujahedin Bangladesh (JMB) as well as Somali Warlords, in sponsoring illegal elephants and rhino poaching operations. UNODC (2012) also reports that at the traffic route near the border between India and Myanmar, insurgents groups derived funds for their military operations by taxing the trade.

On the other hand, poaching and trafficking of wildlife are usually coordinated by professional poachers and traffickers who operate either as corporate individuals with networks of contacts across several countries or as organized criminal gangs dedicated for illegal wildlife. Because of the illicit nature of their trade and their attempts to cover up their tracks, professional poachers and traffickers make use of network of middle men, and also involve in money laundering activities. The UNODC (2012) notes that the traffickers are not necessarily the poachers rather, in many cases, traffickers are those who act as brokers with contacts in both source and destination countries. In other words, there are professionals who are dedicated to brokering of transaction between the poachers, traffickers and the retailers in the consumer countries. These brokers are most likely found in transit countries, and also help the poachers to launders back their funds. That is to say, traffickers are not necessarily poachers and poachers are not necessarily well-organized. For example, the UNODC (2012) reports that the group harvesting wildlife on DRC are not well organized. It also notes that traffickers may approach hunters and local poachers to buy the wildlife product they desire.

However, the UNODC (2012) further notes that there exist integrated and well-organized groups of professional poachers, "some of whom will source specific wildlife on order." It is also important to point out that poaching does not necessarily involve nationals; there are transactional criminals and gangs that involve in poaching and trafficking of illegal wildlife across many territories and countries. UNODC (2012) reports that there was evidence of commercial scale illegal ivory operations in 22 African elephant range states that involved Chinese nationals; in addition to Vietnamese nationals who were active middlemen in rhino poaching in South Africa.

4.3. Modus operandi

The modus operandi of poaching and trafficking of illegal wildlife is important in understanding the illicit industry. The first step in the trafficking chain is poaching, and the last step is final consumption. The modus operandi often suggests whether a given poaching activity was carried out by well organized group, militant group or uncoordinated poachers. For example, if the poaching is a serial killing of specific animals over a given period and place or if the poachers used a technique less likely to attract the attention than a gun shot, including the use of veterinary drugs, poison and cross bows, it suggest that the poachers may be a professional well-organized group. The UNODC (2012) reports that the modus operandi here is what well-organized poachers use to poach rhino in South African parks due to the fact that majority of African rhinos resides in well protected parks.

It is equally crucial to understand dynamics that play out between poaching and final consumption. The UNODC (2012) notes that the poached specie may be butchered for particular parts, or the whole carcass transported for further processing whereas some other species are captured and trafficked alive. It further reports that some trafficked wildlife products are laundered in legitimate air cargo, shipment of plastic waste, dried fish, stone statues. For example, in 2009, Kenyan authorities seized 300kg of ivory packed into coffins on a flight that originated in Mozambique and destined for Lao People Democratic Republic.

Martin and Vigne (2013) report that some of illicit wildlife are poached and processed further in Africa for retailers and enshipped abroad. Haken (2011) reports that some trafficked wildlife involve smuggling from source country and into transit or destination country. In the process they sometimes make use of smuggling routes of contraband goods and illegal drugs. For example, the UNODC (2012) reports that ivory poached in Zambia and Mozambique was smuggled to Malawi by road, and in Malawi some of the ivory was processed in a factory and stored in warehouses for buyers and onward enshipments to China, Hong Kong, Japan and Singapore. Some of the ivory are processed in Africa and offered for sales in retail shops, where individual layers from Asia transport them home in their luggage. This is the practice in Nigeria, described, by Martin and Vigne (2013), as the biggest ivory object market in Africa.

4.4. Traffic routes

Understanding the traffic routes is equally important in arresting and preventing poaching. Wildlife trafficking routes involves typically three principal milestone/posts which includes source, transit and destination countries. According to UNODC, cited in Haken (2011), Sub-Saharan Africa and South-East Asia are major supply hubs for wide varieties of illicit animal species and products, including elephant ivory, rhino horn, and tiger parts. Haken (2011) further reports that, on the other hand, China, United States and the European Union are the singular largest consumers of illicit wildlife, with demand from China outstripping that of all others. A further break down shows that Africa and South-East Asia are the main suppliers of China illicit wildlife market, whereas South America are the main suppliers of United State and the European Union. It is important to state that one observed factor that facilitates illegal supply markets in Africa and South-East Asia is weak institutional framework and corruption.

Myanmar is a principal transit country. The UNODC (2012) reports that illegal wildlife are smuggled from North-East India and Nepal to China through Myanmar. India is the hub of remaining world tigers. Apart from Myanmar, tigers are also smuggled through Himalayas into China with strategic retail centres in Linxia, Xining, Lhasa, Nagpu, Shigatse and Litang. According to the UNODC, at the peak of the tiger skin trade (1999-2005) the primary demand came from Tibet in China where they are used to make “chupas”; however, this trade has declined significantly since 2006. Today much of the demands come from urban China.

The UNODC (2012) reports that due to the taxing of the trade by militants at the border between India and Myanmar, traffickers have started avoiding the main crossing spot at Moreh/Tamu on the Manipur border and rather transit into Myanmar’s Chin State through Mizoram. The Shiveli River which forms the border between China and Myanmar is also a major smuggling route. A notorious market also exists in the town of Tachilek, on the border with Thailand. Mekong settlement of Keng Lap, an area near the crossing between the Lao People’s

Democratic Republic and Myanmar, across from Xieng Kok, also serve as an important illegal wildlife market. Wildlife from Lao and Cambodia are smuggled to China through Lao Cai province and Hereou Yao Autonomous County, by Vietnamese network (UNODC, 2012).

From South East Asia illicit wildlife are smuggled into China through the provinces of Guangxi and Yunnan, particularly via the autonomous regions bordering Myanmar, Lao People Democratic Republic and Vietnam. The largest volume passes through Guangdong. Wildlife smugglers operating the traffic from Hong Kong to Shenzhen (Guangdong) use “Zhongfei” boats, which are faster than the cutters used by the Coast Guard. The UNODC (2011) reports that routes include the waters near Shenzhen and Shekou of Guangdong province, the Beibu Gulf near Hainan province, the waters near Beihai and Fangchenggang of Guangxi province, the waters near Shantou and Chaoyang of Guangdong province, and the waters near Xiamen of Fujian province.

In African, ivory poached in Zambia and Mozambique are smuggle to Malawi by road, where it is processed and stored in warehouses for buyers from Singapore, Japan, and China. Wildlife products are also smuggled from Tanzania, Ethiopia, and Douala in Cameroon to Asia. From Africa, illegal wildlife takes a number of routes to Asia. Singapore, Thailand, Vietnam have been identified as transit routes from African (UNODC, 2012). Some products are smuggled through the Middle East, particularly Yemen, known for illegal trade in Africa rhino horn. In addition, a number of African countries have been identified as carving sites for ivory. Martin and Vigne (2013) have identified Lekki market in Lagos (Nigeria) as the biggest carving site for ivory. These processed ivories are now retailed and sold to foreigners from China, United States and the European Union. Martins and Vigne (2013) also report that almost all ivory in Nigeria is imported; perhaps smuggled from other African countries. Nigeria, like Malawi, does not ban trade on ivory which makes the country an important ivory market and transit route.

It is important to note that they are a few changes and shift in traffic routes over the years. For example, traffickers abandoned the main crossing spot at Moreh/Tamu on the Manipur border and rather transit through Mizoram into the Myanmar’s Chin states (UNODC, 2012). Also, traffickers gradually abandon Tachilek, on the border with Thailand, a notorious route; and some appears to have moved to the Mekong settlement of Keng Lap, an area near the crossing between Lao People’s Democratic Republic and Myanmar. These shifts, changes and alteration of routes are due to number of factors, including militant taxation, government crackdown, and media exposure. The abandoning of route on the Manipur border is due mainly to militant taxation. The abandoning of Tachilek for Mekong is due mainly to media attention. Recently, there is law enforcement crackdown in the Guangdong province, believed to share large wildlife traffic that pass into China (UNODC, 2012). China is the singular largest exporter of wildlife products to the rest of the world. However, due to high entry refusal by the United States government China have now seem to smuggle its wildlife exports into United States through Nigeria, Ghana, and other third countries.

4.5. Financial flow

Haken (2011), citing several studies, notes that illicit wildlife market is the third largest in the world, only after drugs and firearms. For example, a black bear’s dried gallbladder worth US\$1,000 in 2005 in Asia, more than an ounce of cocaine (Eilperin, 2005). Illegal wildlife in traffic globally is estimated to value at about 10 billion

dollars annually (Haken, 2011). The UNODC (2012) reports about 120 tons of elephant ivory is trafficked every year. And to supply the Asian ivory market, it estimated that between 5,000 and 12,000 African elephants are killed annually. Although the price of ivory varies in the traffic depending on destination markets, there is balance of opinions among researchers that a raw ivory in destination market, values around US\$850 per kilogram. When this is calculated against the annual totals, it is estimated that illicit ivory market value at US\$100 million annually.

Of these totals, Chinese illicit Ivory market values about US \$20 million annually (UNODC, 2012). And East Asia as a whole, following Elephant Trafficking Information System database, account for US\$62 million per year in illicit Ivory. Almost all the elephants seized come from Africa. However, the UNODC enjoins that figures here maybe more reflective of law enforcement action than the real prevalence, especially given the parallel licit market. It is equally important to note that these figures might have excluded the African Ivory retail market, which may value in millions of dollars annually.

The rhino horn is worth more than elephant Ivory per kg. According to the UNODC (2012), the reported wholesale value of Asian rhino horn increased from US\$35/kg in 1972 to US\$9,000/kg in the mid-1980s to US\$20,000/kg – US\$30,000/kg in 2009. It is estimated that about 800kg of illicit rhino horn, from Africa and Asia, enter Asian market per year. Again, this figure is reflective of law enforcement action, and does not capture others that escape law enforcement as well as the African retail market.

Tiger parts value higher, with the skin retailed in 2009 at about US\$20,000 in China, and raw bones valued at US \$1,200/kg. The UNODC (2012) notes that tiger populations are less monitored and seizures of tiger products are less well documented, especially since all parts of tiger is used, it is possible that many are disappearing unrecognized. This makes it difficult to estimate the value of the tiger market. However, it is estimated that, the market worth about US\$5million per year. There are about 1, 411 tiger population globally, and most of them live in India.

There are other wildlife products in traffic that worth's several millions of US dollars every year. For example, Daniel Challender and Lisa Hywood (2012) report that intercontinental illicit trade in pangolins is increasing. There are seizures in both Africa and Asia for pangolin products meant for illicit export into China. There are markets in Africa, Vietnam, Thailand, Philippines, Indonesia and Malaysia. A kilogram of pangolin worths more than US\$100 in the Guangdong province of China (UNODC, 2012). Challender and Hywood (2012) note that the size of pangolin market is difficult to estimate due to its extreme clandestine nature.

Poaching also involves several other wildlife species. For example, there is thriving parrot market in Oban on the borders between Nigeria and Cameroon (Eniang *et al*, 2008). But there are fewer and dwindling studies to determine the nature and extent of the market in illicit terms. There is several exotic species traffic daily from sub-Saharan African, South-East Asia and South America but the traffic has been subjected to neglect by researchers who concentrate on high profile poaching of large protected mammals. The UNODC (2012) observes that while high profile poaching of large protected mammals in Africa receives much media coverage, the wholesale looting of the wild may not be getting the attention it deserves.

5. The role of African bushmeat market

The impact of bushmeat market on illegal wildlife hunting and the declining population of endangered species cannot be overstated. Thomas Bassett (2005) avers that it is the commercial hunters, whose livelihood depends entirely on wildlife sales that have the greatest impact on declining wildlife populations, especially vulnerable and rare species. Bassett (2005) further states that rural hunters are inter-web with urban-based merchants in a well-organized illicit trade in wildlife. Cowlshaw *et al* (2004) state that there is urban demand for bushmeat and the sustain pressure from it has led to extinction of some local species.

Many people in West and Central Africa traditionally consider bushmeat as nutritious and delicious, and demand for it outstrips breed animals. John Swensson (2005) notes, that during the past decades bushmeat hunting and trade has become widespread commercial activity, especially as income opportunities shrink many people turn to bushmeat as source of income. As a result, exploitation of the wild is not only unsustainable but indiscriminate – all animals are hunted whether they are endangered or not, especially because many rural hunters are uneducated about CITES categorization of species. In fact, Swensson notes that studies have suggested that as a result of extinction of most large mammals, smaller mammals are now frequently sold in West Africa bushmeat markets.

Bushmeat trade is particularly a big market in West Africa. In 1998, Ghana bushmeat harvests stood at 385,000 tons at estimated value of US \$350 million annually (Ntiamoah – Baidu, 1998). Caspary (cited in Swensson, 2005) notes that in 1996, bushmeat contributed 1.4% to the Gross Domestic Product (GDP) of Cote d'Ivoire, which was higher than the GDP contribution of beef production (0.9%), tropical wood export (1.3%), and bananas and pineapples combine (1.3%). In Oban Town of Cross River State in Nigeria, parrot trade has been going on there for decades. A parrot goes for about N2,000 - N5,000 in town, but in cities like Port Harcourt, where traders take them, a parrot goes for about N8000 (Eniang *et al*, 2008). Trade in bushmeat and pet, especially in endangered species, is not only prevalent in West and central African but also in South America (Shanee, 2012).

The linkage between bushmeat trade and illegal wildlife trafficking have already been identified earlier in this study. The UNODC (2012) reports that poachers and traffickers sometimes approach local hunters with an offer to buy the wildlife product they desire. Swensson (2005) reports, that Techiman market in Ghana, renowned for its bushmeat trade, attracts merchants from Mali, Nigeria, Burkina Faso, Togo, and Cote d'Ivoire. Species traded in Techiman are licit and illicit. Studies also reveal that bushmeat hunting and pet trade is indiscriminate, and involves hunting and trading of endangered species (Shanee, 2012; Swensson, 2005; Bassett, 2005). Given the indiscriminate approach to bushmeat and pet hunting and attendant deep variety of the market, it is highly probable that bushmeat and pet market has contributed to drive the traffic in illicit wildlife.

6. Interventions

There are a number of national and international intervention measures taken globally to curb traffic in illicit wildlife. Some of these measures can have considerable impact on wildlife trafficking, if adequately or

sufficiently facilitated. Meanwhile, the most ambitious and fundamental, international measure taken till date is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). However, there are critical roles played by others international law instruments and regional protocols, including the Interpol, World Customs Organization as well as joint border patrol taskforces, etc.

6.1. Convention on international trade on endangered species of wild fauna and flora (CITES)

CITES is an international instrument designed to control and regulate international trade in protected species, and to suppress any illicit trade in wildlife. UNODC (2012) states that CITES is the single most important international instrument of environmental protection because it is the only treaty that requires parties to penalize some aspect of illegal wildlife trade, including confiscation of illegally sourced fauna and flora. Moreover, CITES is widely implemented, with successes in preventing the extinction of particularly endangered species. The CITES contains three separate appendices of species, and sets out control mechanism applicable for each (see Table 6.1.1.).

Table 6.1.1. (see CITES, 2017 – for the detailed list of specific species of fauna and flora affected)

CITES Category	Species	Trade
Appendix I	This category includes those species threaten with extinction and in respect of which commercial trade is not appropriate or sustainable.	Any trade requires prior permits from both the importing and the exporting countries. Certificates are also required for the re-export of species.
Appendix II	This category includes those species not necessarily in danger of extinction but which may become endangered if trade in them is not strictly regulated, as well as those for which trade must be strictly regulated to permit effective controls.	Any trade requires export permit to be presented to the importing State's customs authorities.

Appendix III	This category includes those species that individuals parties choose to make subject to regulation and which requires the cooperation of the others parties in controlling trade.	Trade requires the management authority of the exporting state to issues export permits.
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There are certain factors, however, that subvert the effectiveness of CITES. These factors depend on a number of conditions and circumstances with national and interactional bearings. One of the key challenges facing the CITES is in the areas of national implementation. UNODC (2012) reports that many CITES parties have not enacted specific legislation to implement the convention, rather they rely on general wildlife and forest laws or customs and foreign trade laws to control trade in CITES-listed species; whereas these laws do not fully conform to CITES requirements, especially in cases where they were enacted long before CITES came into existence. This lack of national legislation enabling the implementation of CITES greatly diminishes the effectiveness of the treaty.

Another major problem facing the effective implementation of CITES is the reservation clause. The reservation mechanism effectively allow countries to act as non-parties in relation to specific species (Article XV, paragraph 3, and Article XVI, paragraph 2), and this may be limiting if a State enters reservation with regard to any species included on the three Appendices, as provided for in Article XXIII, paragraph 2 of the convention. Patricia Birnie and Alan Boyle (2002) rightly argue that the reservations allowed under the convention are undermining the purposes and goals, as they open the door for countries to opt out of the protection of some species, thereby catalyzing the commercial exploitation of endangered species.

6.2. United nation convention against transactional organizational crime

In the cause of this study, I have noted with examples that illicit trade in wildlife is principally driven by organized and transnational criminal groups. The United Nations Convention against Transnational Organized Crime is therefore a veritable tool in curbing illicit traffic in wild fauna and flora. The Convention is also known as Palermo Convention. It is the main instrument in the fight against transnational organized crime. It provides basis for international law enforcement cooperation, as well as framework for extradition and mutual legal assistance. The Convention also seeks to standardize and coordinate global effort towards efficient and effective law enforcement measures relating to transnational organized crime.

The Convention specifies set of offences which it applies: participation in an organized criminal group (article 5), money-laundering (article 6), corruption (article 8), and obstruction to justice (article 23) (United Nations, 2001). UNODC (2012) maintains that given the frequent involvement of organized criminal groups in wildlife poaching and the transnational nature of the trafficking, there is therefore considerable potential for involving the Convention against transnational organized crime in a legal response to the cross border aspects of wildlife crime. In fact, the United Nations General Assembly confirmed that the Palermo Convention is “an effective tool and necessary legal framework for international cooperation” towards combating illicit wildlife

trafficking in furtherance of the principles of CITES (United Nations, 2001). The Convention is a broad and flexible, but particularly effective, legal basis and mechanism for extradition and prosecution of members of organized criminal gangs involved in poaching and trafficking of illicit wildlife products.

6.3. United nations convention against corruption

Studies, which I have noted in this work, observe that corrupt officials charged with the responsibility to supervise effective protection of endangers species had been found to have collaborate with illicit wildlife poachers and traffickers. In this connection, the United Nations Convention against Corruption (UNCC) can provide a crucial legal basis for preventing and combating it. The convention against corruption seeks to promote and facilitate international cooperation and technical assistance to countries to prevent and battle corruption in terms of asset recovery, promotion of integrity, accountability and proper management of public funds and assets (United Nations, 2003). The convention also offers effective mechanism for international law enforcement cooperation, including provision of broad legal basis for extradition and actual legal assistance among member States. The UNODC (2012) notes that the UNCC contains necessary preventive measures that can facilitate integrity, transparency and accountability, therefore forestall corruption, in agencies, such as customs, wildlife and forest departments, prosecutorial and judicial authorities, involved in the combat against illicit trade in wild fauna and flora.

6.4. Other international protocols

In addition to CITES, the Palermo Convention and the Convention against Corruption, there are other treaties that are mechanisms which can assist in reduction of wildlife crime. Some of such treaties are the Convention on Biological Diversity which focuses on habitat protection by leveraging on the principle of sustainable development. Another example of such treaty is the Convention Concerning the Protection of the World Cultural and Natural Heritage, also known as World Heritage Convention, which focuses on the protection of designated cultural and natural sites from destruction, encroachment and exploitation. However, unlike CITES, these two additional Conventions do not focus on protection of specific species of fauna and flora; but taken as a whole, the Conventions set out principles and mechanisms which can be utilized to check wildlife crime.

Apart from that, some countries have made bilateral agreements in the areas of law enforcement co-operations, which could also apply to combating transnational wildlife crime. For example, in the past two decades, the United States and its trading partners have also included in their bilateral free trade agreements the requirement to check trade in illegal wildlife products (UNODC, 2012). The bilateral agreements signed between countries therefore provide opportunity for enhanced mutual legal and law enforcement assistance, as well as information exchange, including areas related to wildlife legislation (UNODC, 2012). However, it is important to note that bilateral agreement can be evaded by transiting products through third countries not affected by the agreement.

6.5. Domestic legal instruments

Apart from trans-border trafficking of illicit wildlife, poaching, possession, processing, sales, supply and consumption of endanger wildlife species can also revolves internally within a given national jurisdiction. We

earlier cited example of pangolin trafficking within Zimbabwe (see Challender and Hywood, 2012). Therefore, effective national legislation is necessary to arrest domestic trend. Effective national legislation is also necessary to prevent endangered wildlife from being sourced, harvested and sold in the first place. It is also necessary for efficient and effective bilateral and multilateral interface. The UNODC (2012) notes that absence of comprehensive international legal norms to deal with wildlife and forest crime means that domestic laws must determine the criminal nature, scope and consequences for the problem; but the absence of comprehensive national laws to regulate wildlife and forest activities makes it difficult to combat the problem at the international level. What this means is that there is interdependency between international and national laws, and that for the interface to be effective, national laws is primarily significant.

In Nigeria, environmental laws are very porous and poor. Eniang *et al* (2008) notes, that for this reason, Nigeria has continued to attract negative appraisals from the global community. The Nigerian Biodiversity Strategy and Action Plan (NBSAP), which was focused at identifying the country's threatened and endangered wildlife species as well as recommended strategies to combat their loss, has achieved very little.

7. Prosecutions

As UNODC (2012) rightly notes, effective wildlife law enforcement requires efficient prosecution service and an independent judiciary to hold offenders accountable for their actions. Functioning court system is an integral part of criminal justice system, and is crucial elements in the effort to prevent and suppress wildlife crime. Even if the capacity to detect and investigate wildlife offence is high, the deterrent effect of prosecution would be nearly non-existent, if the court system is weak. The judiciary therefore has a duty to prevent and suppress wildlife crime, first in relation to the enforcement of relevant legal provisions and secondly in the review of the decisions of the executive/government where it hurts wildlife.

The Traffic International has continued to publish a global selection of seizures and prosecutions annually to indicate progress recorded in the sector. A selection of seizures and prosecutions in 2016 and 2017 shows progress in law enforcement and administration. For example, in Africa there were 4 prosecutions and seizures in 2016, and 16 in 2017; in Asia 9 prosecutions and seizure were recorded in 2016, and 19 in 2017; in Europe 2 prosecution was record in 2016, and 9 in 2017 – there was no data input for the Americas (Traffic International, 2017). This indicates progress as such, on the law enforcement front; and follows a common trend of the decade. However, when the seizures and prosecutions are operationalized on a global scale, it is very negligible, marginal and insignificant as compared to the global flow. It is pertinent to observe that most of the prosecutions in Asia were done in China and countries near China, while the law enforcement in Africa concentrated around the countries in eastern and southern Africa region.

8. The role of Interpol

Wildlife crime involves complex set of offences comprising multitude of criminal elements, and frequently involve incidents crossing national border. So while law enforcement is generally confined to one country,

criminals are not. The illicit trade in wildlife often involves multiple countries. The complex multilateral nature of wildlife crime make effective enforcement challenging. Meanwhile, approaches to law enforcement vary greatly among different jurisdictions. These therefore make domestic and international cooperation among different agencies expedient.

The international community recognizes international cooperation in law enforcement as urgent and necessary, especially when it involves trafficking offences that cross national borders (UNODC, 2012). Many international legal protocols, including the United Nations Convention against Transnational Organized Crime and the United Nations Convention against Corruption, provide legal basis for intelligence sharing and international law enforcement cooperation against trade in illicit wildlife products. INTERPOL play a unique role in facilitating transnational law enforcement and assisting countries in gathering evidence as well as locating offenders and associated assets. INTERPOL has a broad global presence.

The INTERPOL has designed specific tools for combating wildlife crime. In 1976, an INTERPOL resolution was adopted to combating illegal traffic in wild fauna and flora. The Environmental Crime Programme was established in 1992 by INTERPOL, and is designed to enhance capacity of member states in effective enforcement of national and international laws and treaties, in terms of deterrence, apprehension, investigation and prosecution of environmental criminals (UNODC, 2012).

The INTERPOL Wildlife Crime Working Group is particularly focused on carrying out measures to improve the exchange of information on: persons or companies involved in illegal trade in fauna and flora; organizations involved in illegal trade in fauna and flora; and methods of illegal trade in wildlife, including the use of false CITES documents, forgery, means of transport, organized crime, and activities related thereto, such as money-laundering and trafficking in narcotic and associated trends (UNODC, 2012).

In 1990s, the INTERPOL developed a tool called Ecomessage, the standard format for reporting cases related to illicit wildlife trade and related trends, to assist investigators in collecting information from widely scattered sources, to create uniform reporting methods and to assist in identifying which law enforcement agency or agent to contact in other countries (UNODC, 2012). The Ecomessage greatly enhanced intelligence exchange particularly on illicit wildlife trade. In the following ways, the INTERPOL has assisted greatly in coordinating international efforts in preventing, tackling and suppressing trade in illicit wildlife.

9. Issues, problems, challenges and limitations

There are a number of issues, problems and challenges inherent in the global effort against poaching. These issues and problems constitute real challenges governments, policy-makers and law enforcement administration face when combating illicit trade in wildlife. One of the problems face in the global war against environmental crime is the discrepancies that exist in most countries' network of laws and legislations. The UNODC (2012) notes that one of the reasons many countries do not yet comprehensively criminalize the many activities, involve in illegal wildlife trade is that in some jurisdictions, the criminal law does not adequately capture attempts at committing these offences, and may lack special provisions for corruption and money-laundering in the wildlife sector. In addition, in many countries, criminal offences pertaining to wildlife

activities are not clearly defined. The definition and scope of the illegality may be dependent on government policy framework and administration regulation which are easily changeable by succeeding governments. This means that many unsustainable environmental activities may be legal under existing laws, especially in an effort to maximize short-term revenues. To this end, reforms of the legal and regulatory systems become necessary in combating wildlife crime. And this should include clear definition of the range of legal and illegal practices in the wildlife sector but under environmentally sustainable framework.

Another problem face in the fight against wildlife crime is the demand for illicit wildlife products. This driving factor is complicated by the lack of political will by highest consumption countries to address the demand for illegal wildlife. In other words, wildlife importing countries have made little or no reforms to regulate wildlife consumption. UNODC (2012) notes that although some mechanisms exist to control the trade in CITES-protected species, these measures address only a small proportion of the trade. It notes that generally the consumers of illegal fauna and flora are immune from any penalties, prosecutions and seizures because only few countries prohibit purchase of plant or animal products that come from an illegal source or involve protected species; in addition to the fact that there are generally no penalties for the possession of illegal fauna or flora, except sometimes in the cases of protected species (UNODC, 2012).

In addition to that, the application and enforcement of CITES provisions are necessarily limited to species listed in the CITES Appendices. Most wildlife species are not listed in CITES, nor are they protected by any other international instrument. This means that enforcement mechanisms available in CITES are not available to respond to non-CITES species. CITES provisions do not also apply to non-parties, which means that such non-CITES countries could be used to sabotaged, subvert, and by-pass international scrutiny.

Another obstacle faced in the war on wildlife crime is the complexity of the bushmeat market. Hunting for bushmeat remains a form of livelihood in most Africa and Asia countries. There is increasing number of hunters, and most of the hunters who have engagement with the bushmeat market are driven by declining rural income and sanctioned by cultural institutions (Bassett, 2005). Meanwhile, much of hunting in African remains subsistent, indiscriminate and unregulated. And couple with the ignorance of most hunters regarding species protection or wildlife laws, they hunt indiscriminately even after endangered and protected wildlife species (Bassett, 2005; Swensson, 2005). Generally, studies have indicated that bushmeat markets record all types of species, including the endangered and the protected. To this end, since hunting has become a vital means of survival for some households in Africa and Asia, government and policy makers should devise strategies and mechanism to regulate the sector based on sustainable values.

One other obstacle to the combat against wildlife crime is cultural beliefs. The demand for illicit and licit wildlife products have been known to have been fuelled by some cultural practices. For example, at the peak of trade in trigger skin (CITES I) (1999 – 2005) the primary demand for the skins came from Tibet, where the skins are used to make traditional dress known as ‘chupas’ (UNODC, 2012). Also, in Zimbabwe, Shona culture traditionally believes that offering pangolin (CITES II) to god, midzimu, will bring protection and blessing. There is increasing seizures of pangolin in Zimbabwe recently (Challender and Hywood, 2012). Furthermore, many animals’ species in Peru are considered to have spiritual or medicinal properties. Shanee (2012) reports that in some cultures it is believed that the skin of an anaconda facilitate safe childbirth when wrapped around

a pregnant woman's abdomen, drinking opossum's blood is viewed as medication for asthma, eating of deer legs is believed to help children with walking difficulty, and a toucan's beak is said to induce love.

There are a number of other factors including ethical, philosophical, and economic considerations which are interlaced with traditions in jurisprudence. There are also rights issues and religious beliefs. Each of these issues poses critical challenge to war on illicit poaching and trafficking of wildlife.

10. The dimension of African environmental ethics and values

African environmental ethics and values can broaden our understanding of illicit poaching and trafficking of wildlife in the African context; hence, play a role in the efforts towards its reduction and elimination as such. There are two approaches I have adopted for the afrocentric analysis, namely: one, Munamoto Chemhuru's African ontology-based and teleologically-oriented environmental ethics, and two, Diana-Abasi Ibanga's Eco-Afrocentricism. Apart from clarifying the scope of definition of "illicit poaching" in the African context, these two approaches, together, provide us the context necessary toolkit to develop what I call 'Place-based Intervention' towards reducing and eliminating illicit poaching and trafficking of wildlife. This approach is significant, for as some scholars have noted, European oriented environmental ethics seem to be inappropriate or inadequate to understanding the matrix of human-nonhuman relationship in the African context (Ibanga, 2017a; Ekwealo, 2017; Asuo and Kingsley, 2017; Ogbonnaya, 2016; Francis, 2016; Kelbessa, 2015; Mangena, 2015; Ibanga, 2014; Tangwa, 2004; Ogungbemi, 1994). Let us begin with the definition of poaching. In the African context, there are two distinction of poaching, namely, commercial and subsistence poaching (Chemhuru, 2016a). Commercial poaching is done based on some pure capitalist consideration such as harvesting rhinoceros horn or elephant ivory for purpose of making money and not based on necessity for survival. Subsistence poaching is done with appeal to satisfying vital needs such as food, clothing, shelter, and health; and it is often based on necessity. Subsistence poaching is not normally considered as "illicit" in the African context. Commercial poaching is usually done with consideration of geometric quantification, while subsistence poaching is based on subsistent quantity necessary for survival as such. African socio-political philosophy and environmental ethics rejects commercial poaching outright while it cautiously accepts subsistence poaching based on *five principles* I shall present later in this work.

African ontology-based and teleologically oriented environmental ethics provides certain context under which subsistence poaching is accommodated in African context. It views beings as hierarchically placed in interrelation form beginning with God at the apex to plants and animals at the base (Chemhuru, 2016b). This view places human being higher than the non-human being, and places God and ancestors higher than human beings. From this conception, the teleological orientation of being is derived whereby the higher beings can live-off on the lesser beings since their vitalness is more significant than the others. This view is can be traced to the doctrine of moral elitism in Thaddeus Metz (2012) modal-relational theory of being (that he based on Zulu and Xhosa concept of Ubuntu) which, like Chemhuru's elitist ontology, has vertical ontological structure which grants human beings superior moral status; therefore providing the theoretical basis for humans to live-off, morally, on fauna and flora – on the basis of their moral superiority. However, the elite moral status granted

to human beings comes with moral responsibility; that of caring for the environment (Ifeakor, 2017). This worldview is somewhat prevalent in many African contexts. It is from all these Chemhuru drawn to show that in African context subsistence poaching is justified as that done to promote the vitality of human beings. The implication of this is that anti-poaching and trafficking of wildlife measures in the African place that do not take this view into consideration is doom to fail. This also implies that the notion of hierarchized being prevalent in the African context should be operationalized in the measures designed to curtail illicit poaching and trafficking of wildlife. This means that rhinoceros or pangolin should not be made to appear as having more consequential significance than human being, otherwise such a measure would only lead to the indigenous population wanting to fight-back to win back their place in the scheme of things; and this implies human versus non-human conflict of which the human population will decimate the non-human population anyhow to assert their power and reclaim their place. It is important, as Chemhuru (2016a) enjoins, that policy-makers responsible for fashioning measures against illicit poaching to take this view into consideration, especially as it relates to the African place.

Another approach to understanding the trends of poaching and trafficking of wildlife in the African context is what I may call – Eco-Afrocentricism. I developed this explanatory-analytic model in the paper I presented at Stellenbosch University in South Africa to account for the human-animal conflict in Africa and mainly as a theoretical framework to guide environmental/ecological policy development in/for Africa (see Ibanga, 2017a). Generally, it can help us to analyze and critique conservation/preservation policy in Africa as well as understand the dynamics of wildlife crime in the continent. Eco-afrocentricism is a theoretical orientation which holds that environmental issues directly intertwine with Africa's socio-economic configurations, thus, attempts at resolving ecological questions in the African context must be such that simultaneously address socio-economic issues and concerns in Africa. Eco-afrocentricism further holds that the wellbeing of African flora and fauna as well as ecosystems is based on a relationship that includes African people; therefore, the welfare of the environment should be jointly advocated and rationalized with the welfare of the African people particularly those of minority and disadvantaged cultures/communities (Ibanga, 2017a). It reasons that African people share in the same plight and condition as the nonhuman beings in the African ecology. Chigbo Ekwealo (2017) shares in this thinking thus: that futurity concerns with environmental wellbeing cannot be divorced from concern with other structural features that define the wellbeing of humanity. Ada Agada (2015) also shares in the same thinking, as he holds, that both animate and inanimate nature (human and nonhuman), considered individualistically and holistically, is yearning for the same existential consolation of 'joy of being' in terms of seeking wellbeing and perfection. Meanwhile, for Innocent Asouzu (2007), yearning for 'joy of being' implies complementarity of animate and inanimate (human and nonhuman) interests, that is, interpreting 'joy of being' as a common concern of which all interests hold.

Generally, it is impossible to achieve environmental justice in Africa without simultaneously achieving social justice for African people. The 'joy of being' is interpreted by Agada as 'hedonistic considerations', and by Asouzu as 'harmoniousness'; I interpret 'joy of being' to imply 'justice' (inam), that is, live-and-let-live. The social problems of the African person must be given equal significant consideration as those of fauna and flora. African people face same fate as plants and animals when there is environmental pollution, for example, animals and African people loss habitats and means of livelihood the same way. To attend to the needs of plants

and nonhuman animals while neglecting to attend to the needs of the African people is viewed as unjust. Justice implies ventilating the existential concerns of both humans and nonhumans to empower both to achieve 'joy of being' together in complementary sense. On the basis of this I reason that the current climate action and ecological regime in Africa is lamentable. The present ecological action regimes implemented in Africa displaces environmental injuries from animals and plants onto the human beings living in Africa (Ibanga, 2017a). That is to say, it alleviates the pain of environmental injuries for the animal and plant while it increases same for the African man and woman. Eco-afrocentricism maintains that there is intrinsic relation between plants and animals on the one hand and African people on the other hand. Hence, it is improper to discuss African people problem without discussing the African ecology; and it is improper to talk about African environmental ethics without linking it to the African condition. African people are intrinsic part of the ecosystem.

Environmental policy for the African place that does not significantly embed human welfare to the wellbeing of the ecosystem as a whole, merely serve to trigger concern for survival on the part of the human beings and thus brew conflict between human beings and the rest of nature. There is the idea of 'shared-space' embedded in the African thinking. The African person finds it culturally aberrant the practice of setting apart a community (a conservation) exclusively for certain animals and/or plants habitation. The idea of 'shared-space' embedded in African environmental thinking is such that view the ecological space as a place to be jointly lived by humans and non-humans, and of which humans-animals-plants jointly constitute in gestalt sense (Ibanga, 2017a). This does not imply that the African person does not recognize the idea of 'dual community' concept embedded in conservation principles and practice; rather the notion of 'dual community' as it is rationalized in the African place is such that allow for existential interaction between humans and non-human communities and which allows the African person to carry out his/her ontological obligation of caring for the non-human community.

Eco-afrocentricism maintains that humans, animals and plants that make up the ecological space do not constitute the space in individualistic-exclusive terms rather in individualistic-inclusive terms. There is interlinkage, interconnection, interrelation, interdependency and interaction amongst the elements constituting the ecological space. This matrix of relationship to a great extent determines the behaviours of the constituent units in it; and it simulates how an ecological space should be used. Eco-afrocentricism views the ecosystem as a space jointly owned by humans, animals, and plants. To plan for conservation, therefore, should be based on recognition of the joint-ownership principle. The practice of poaching and trafficking is recognize as criminal by the local community proximate to poaching sites, if not for anything but for the effects it brings on the local community. Therefore, to solve such problem is not to build a counter-community based on exclusive dual community concept, which serves to deny humans-animals-plants interactions; rather to empower the local community to keep vigil over their domain (their ecological space) which they jointly share with animals and plants. Creating a 'dual community' that is based on exclusivity principles is to sow seed of discord in such a place. The humans would always fight back to win back the space for the community; and this they do by breaching such exclusive space, mainly to prove their ownership and extension.

11. The five sustainability principles in African environmental ethics and the possible role it can play to guide subsistence poaching

There are some afrocentric values available within the corpus of African environmental ethics that can guide individuals when they decide on subsistence poaching. I have summarize those ought into five principles. These principles can engender what I may call 'sustainable poaching'. (I developed these principles in 2015; and I first presented the principles publicly at STIAS Wallenberg Research Centre, Stellenbosch University, South Africa on the 9th November 2017).

- 1- *Principle of Accommodation*: Act in such a way that nonhuman existents and future people are considered and accommodated in your daily decisions and dealings.
- 2- *Principle of Gratitude*: Act in such a way that reflects your gratitude towards other existents, humans and nonhumans, for contributing to support your beingness or existence.
- 3- *Principle of Restoration*: Always act to restore to Nature the loss you have caused it. For example, re-planting a tree after felling one.
- 4- *Principle of Control*: Act in such a way that you control your action from producing too much negative externalities.
- 5- *Principle of Necessity*: Act on only decisions and actions that are absolutely necessary.

These principles, precepts or injunctions are obligations contingent upon individual human beings as a member of human and nonhuman community. They serve to guide thought and action during one's interaction with humans and nonhumans considered individually and collectively. The principles call for restraint and circumspection in decision-making and action-taking such that one's lifestyle, behaviour and dealings can lead to avoidance of wastage of resources and minimize injuries caused other beings (humans and nonhumans) and their communities (culture, ecosystem, etc). (Detailed interpretations of these five principles are contained in the paper I presented at Stellenbosch University in South Africa – see Ibanga, 2017a).

In deciding to poach for subsistence purposes, the individual or collective, should ask oneself/themselves: Is the planned poaching absolutely necessary for my survival (Principle 5). In other words, it is not just 'necessary' to poach for subsistence purposes; it must be "absolutely necessary" for the survival of the individual or collective. This means that if there is an alternative, then it becomes less necessary (or even unnecessary) to act in such and such manner. If the poaching is absolutely necessary for her survival, the individual or collective should further subject her decision to further consideration, namely: How can I poach in a way that does not produce too much externality (Principle 4). This may be determined in terms of the modus operandi for the poaching; does such method of poaching constitute possible danger to other existents that depends on the target animal? For example, does the deer or buffalo have young dependents, or does its presence within a locality serves certain intrinsic purposes? If it turns out to be necessary I set fire to a part of the forest in order to catch a deer, would such method not affect other existents (plants and micro-animals) that are not directly my target?

If it turns out that I have taken careful measures to prevent my subsistent poaching from producing too much negative externality, I have to further subject my decision to further scrutiny, namely: If I finally poach a deer, what shall I contribute to the environment/nature in order to restore the loss (Principle 3). For instance, shall I have to feed orphaned animals? If I have in the minimum determined ways of repaying the loss I caused, then I have to subject my decision to still further scrutiny, namely: If I poach a deer to feed my family, shall it not appear as an act of ingratitude for support of deer in general towards my humanity (Principle 2). What does my conscience, emotions and nerves tell me about ingratitude? Does this deer deserve anything at all, based on how it has supported my existence directly and/or indirectly? If I have passed the 'gratitude test' or my conscience has not pricked me, then I should further subject my decision to further scrutiny, namely: Am I accommodative enough to the deer, in terms of showing enough respect to their right to existence, self-worth, and letting them also exist as I do (Principle 1). If I have honestly considered the 'five principles' and found the scrutiny favourable, then I should further subject the entire analysis to 'deep scrutiny' on the basis of Principle 5, namely: Is it truly "absolutely necessary" to poach the deer? Suppose the deer was a human being would I have had acted the same way towards it? In factoring the principles this way, and in attempting to provide answers, the subsistent poacher will ultimately develop ethical thinking, and eventually act sustainably towards other existents in nature.

12. In lieu of conclusion: African capitalism, not African socialism

Ekwealo (2017) has argued that African environmental ethics can only be effective under the banner of African socialism. He based his view on the notion that African socialism is an extension of communal living or it is the political interpretation of communalism. Generally, African socialism is a philosophical envisioning which presents the entire human society, not just merely the African tribe or nation, as one family (Nyerere, 1987). The key feature of African socialism is communal and mutual living among members of the community. African socialism views the society as organic, holistic and unitary whole. African socialism envisioning of the world as a family or brotherhood abhors acquisitiveness which, as Nyerere (1987) notes, naturally result in exploitation of man by man – a tendency he attributes capitalism. Ekwealo (2017) thought that this brotherhood between human beings can be extended to include non-humans as well. He tried to link his eco-philosophical notion of *nwanneness* (universal brotherhood of all existents) to the notion of familyhood emphasized in African socialism. Hence, he saw similarity between ecocentricism and African socialism. As a re-presentation of communal view of the world, it is expected that African socialism provides the basis for human beings to view animals and plants as brothers (*nwanne*). Hence, it would restraint the human individual from poaching a fellow brother (i.e. rhinoceros, pangolin, elephant, tiger, etc). Edwin Etieyibo had also sought to achieve with *Ubuntu* (the cultural basis of African Socialism) the same thing Ekwealo attempted with *nwanneness*. According to him, human brotherhood emphasized in *Ubuntu* is based on spiritual connectivity; therefore the circle of brotherhood can be extended to include nonhumans on the basis of its metaphysics which recognizes the spiritual essence of all beings (Etieyibo, 2011).

Although African socialism appears fitting as a political outstretched hand of the kind of environmental ethics prevalent in the African context (namely, eco-bio-centricism), it does not follow that African socialism has the necessary ecological credentials to offer appropriate socio-political underpinning to African environmental ethics. Communal identity claimed for human beings in African socialism, and extended to non-humans in *nwanneness*, is a certain utopia because it was constructed not to recognize nature as it is but as it is not. All striving in nature (by humans and non-humans) are driven by the aim of the ergo to seek, attain, actualize and objectivise their personal identity. Personal identity is traditionally viewed as those qualities that complementarily define a person as a unique individual distinct from others (Brey, 2008). In other words, identity is the assemblage of attributed qualities by which a person is characterized as unique individual. Although the society play a role in identity formation by providing standard by which the individual defines himself but it does not follow that personal identity can be reduced to communal identity (Brey, 2008). The individual's graving towards personal achievement and initiative is entrenched in nature. From the hunter-gatherer era human nature has been nurtured by objects acquisition. It is through these objects that the human being projects, and seeks to preserve, his identity. It is this that Nyerere describes as "acquisitive attitude" which he links to capitalism (Nyerere, 1987). It is strictly from the graving of humans and non-humans to attain individuality that I derive this political and economic philosophy I may call 'African Capitalism'.

African capitalism is derived from the Igbo cultural concept of *Ikenga*. Harrie Leyten (2015) explains that *Ikenga* objectifies a person's personal autonomy, projects her individuality, recognizes her differential unique interests, and affirms her competitive tendency. Generally, *Ikenga* objects demonstrate competitiveness, individuality, personal autonomy, inclusive-difference, self-interest, and uniqueness of personhood. *Ikenga* presents the individual as 'person-as-others' or 'person-like-others' deriving from the premise 'I am as you are', that is, it recognizes others as existing like her and as having self different from hers, thereby, entrenching the attitude of live and let live (Ibanga, 2017b). (This decentres the premise - 'we are therefore I am' - the ontological framework of African socialism). African capitalism is political and economy philosophy based on inclusive-individuality and recognition of difference between cultures, races, communities, peoples, gender, etc. in terms of their needs (demands) and resources (supplies). It recognizes individual rights to needs, existence and self-worth; and the uniqueness of those rights to the individual strictly. African capitalism holds that individual have rights to determine what they need (demand) and how they satisfy that need, provided the concerns of others in the ecosystem (culture, community, environment, etc) are taken into consideration. African capitalism also holds that every individual has something unique (supply) she can bring to the marketplace in exchange for capital to exchange for her needs (demand). A system or principle of central distribution of resources to individuals equally or unequally contradicts order of nature, and impinges on the unique individuality of beings in terms of their nature and their freedom to determine the demands of the individual nature. On the basis of this, African capitalism recognizes the appropriateness of market economy - whereby demands and supplies by individuals determine production of goods and services. Supply implies that which an individual has exerted her labour, and not what she appropriated from the other (human and non-human) by force or trick. Demand implies that which an individual need, not necessarily her wants or greed. African capitalism places premium on reciprocity, namely: one must offer something to get something. Leyten (2015) notes that *Ikenga* (which serves as the cultural basis of African Capitalism) demonstrates

relationships between persons or beings as based on conditional reciprocity. No one must have any right to sit at the receiving end only, without offering something in exchange for what she receives. African capitalism condemns grant-dependence of many Africans, and urges them to earn their receipts by offering something in exchange. Nothing is free. Aid-dependence mentality clearly contradicts the law of reciprocity found in nature.

In the context of the theme of this paper, when a person set out to poach for subsistence purposes, she should reciprocate the supplies from nature, by offering something back to nature in return. This can be done by operationalizing the five canons of sustainability I develop in this article. Besides, what animal she poached must be based on her own individual unique need, not the need of the community; and what she has to offer in reciprocation must be of comparative value/weight. Sometimes, it may involve the principle of 'a life for a life' – in terms of family-size reduction. That is, paying for the life of a deer you killed for food by reducing the number of children you intended to beget – may be from 10 to 3. One cannot get something from the forest or sea without giving back to it, otherwise the forest or sea inhabitants would come and take it forcefully.

African capitalism also operates based on the law of resource economy. It abhors wastage of resources. This reflects Principle 5 which insists on necessity of/for use. The recognition of individual's uniqueness in terms of her needs and means serves to assure sustainable use of resources by eliminating wastage. Resource wastage is a serious violation of resource economy embedded in nature (Ekwealo, 2017). When people pay for their need (demand) with their means (supply) they tend to observe the law of resource economy, therefore, conserving energy/resources and using it based on necessity/need. This socio-econ-political analysis shows how African political and economic philosophy orients and disorients poaching and trafficking of wildlife.

Undefined Acronyms used in in-text References

UNODC – United Nations Office on Drug and Crime

IACA – International Association of Crime Analysts

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