

**THE IMPACT OF POACHING ON KENYA'S NATIONAL  
SECURITY: 2006- 2019**


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**A Research Project Submitted in Partial Fulfillment of the Requirements for the Award  
of Master of Arts Degree in Strategic and Security Studies of the Department of  
Political Science and Public Administration, University of Nairobi**

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## Declarations

The research project is my own original work and has not been presented or submitted to any other university or examination body.

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C50/83585/2015

### Declaration by the Supervisor

The research project has been duly submitted with my approval as the University of Nairobi Supervisor.

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## **Dedication**

This research is dedicated to my beautiful daughters Elizabeth Rukia, Gabriella Godfrit and larger Maua's family, who remain my inspiration. Many times was their prodding to move on and complete the project.

## **Acknowledgement**

I thank God who has remained my beautifier all the time. He has seen me from onset to completion of my research project; I admit it has not been easy. I acknowledge the support I received from my family, my daughters Elizabeth Rukia and Gabriella Godfrit and siblings who had to bear my absence from key family events. I am especially indebted to my supervisor, Dr. Richard Bosire, who not only taught me research methods but also guided me from the research proposal to project completion. I also acknowledge and recognize the encouragement and support I received from my classmates who have formed my second best family. I also acknowledge my lecturers in the Department of Political Science and Public Administration, University of Nairobi, who shared their wealth of knowledge with passion and they remain key motivators in this journey. May our good Lord richly bless each one of you.

## Abstract

Poaching is one of the leading organized crimes that threaten security in the global arena, regional as well as at national levels. Poaching has evolved itself from a non-political environmental issue into a multi-billion-dollar criminal enterprise that has been ranked fifth topmost organized crime globally after drug-trafficking, weapons proliferation, counterfeit goods and human trafficking. The objective of this research study was to assess the impact of poaching on Kenya's national security between 2006 and 2019 during which time; incidences of wildlife poaching were widespread. The specific objectives of the research study were to ascertain or establish the impact of poaching on Kenya's economic sector and to determine how the nexus between proliferation of small arms and light weapons and poaching in Kenya. This study was guided by Barry Buzan's securitization theory which explains how different political actors and elites in the world declare a given issue to be an existential threat to legitimize different practices that are necessary in combating an emergent risk to national security. This study employed both descriptive and survey designs. The study targeted 216 respondents, where 200 questionnaires were returned and interviews on 16 participants who were identified through a simple random purposive and stratified sampling technique. In purposive, only identified departments with relevant sought information were considered in the study. Primary data collection was done using structured and semi-structured questionnaires, interview schedules and observations checklists. Secondary data included scholarly review of published and unpublished literature, scholarly discourses as well as relevant reports from the government and NGOs. Descriptive statistics were used for quantitative data, using the computer Package-Statistical Package for Social Sciences (SPSS version 23.0) and the Microsoft excel program was used to obtain measures of central tendency while ranking was done and the charts were used in presentation of data. Presentation of descriptive statistics was through the use of both frequencies as well as percentages. Qualitative data was then analyzed using Nvivo version 12. The study found out that poachers are criminals who breach national laws on protection and conservation of wildlife. The study established or ascertained that there is significant relationship between both poaching and economic sector emanating from tourism and, poaching and proliferation of both small arms and light weapons. Poaching has evolved from an ordinary community practice to a meticulously organized criminal enterprise undertaken by coordinated and well-resourced individuals. Inadequacy of resources, corruption, lack of skills and weapons and porous borders are challenges hindering anti-poaching initiatives by the government. There is protection of the criminals as well as aiding in commission of the crime. To mitigate proliferation of small arms as well as light weapons, this study recommends marking and tracing of weapons which are later used in wildlife poaching activities. There is a need for further research to be conducted on the impact of corruption-enabled poaching on national security. This will determine and provide empirical quantification of corruption as a key factor enabling poaching and subsequent effect on security of the country.

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## **LIST OF ABBREVIATIONS**

**AU** – Africa Union

**CAR**- Central Africa Republic

**CITES**- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

**DRC**- Democratic Republic of Congo

**EAL** –Elephant Action League

**ESAAMLG** –Eastern and Southern Africa Anti Money Laundering Group

**KWS**- Kenya Wildlife Service

**LRA**- Lord’s Resistance Army

**OCS** – Officer Commanding Police Station

**SALW**- Small Arms and Light Weapons

**SDG** – Sustainable Development Goals

**TRAFFIC** – Trade Record Analysis of Flora and Fauna in Commerce

**UN**- United Nations

**UNODC**- United Nations Office on Drugs and Crime

**UNSC**- United Nations Security Council

**UNWTO** – United Nations World Tourism Organization

**WCMA** - Wildlife Conservation and Management Act 2013

**WTO**- World Tourism Organization

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background to the study**

According to the Kenya's Wildlife Conservation and Management Act 2013 (WCMA, 2013) poaching is defined as "illegal hunting, capturing and harvesting of any wildlife that does not include the control of wildlife species regarded as pests or vermin". Poaching is a serious criminal activity which in the short term destroys wildlife population and endangers lives of rangers and visitors in conservation areas. In the long-term, poaching erodes away some wildlife resources. Poachers need weapons to poach and in the process, create demand for weapons, encouraging proliferations of small arms and light weapons, some which are used in commission of other crimes. Poaching also creates or uses existing criminal networks used by other organized criminal groups and transnational organized criminals. All these factors have both direct and indirect impact on the national security.

Poaching crisis is no longer an ordinary wildlife conservation problem alone but it also affects other sectors of the state (Anderson and Jooste, 2014, Opongo, 2016 and Kideghesho, 2016). The impact of poaching cuts across all sectors of state, demonstrating the nexus between poaching and national security. For example, a country like Kenya whose economy largely depends on income from tourism may fail to meet its projected economic obligations if there is a drop in the numbers of tourist arrivals.

Poaching has gradually developed from a non-political issue into a multi-billion-dollar criminal enterprise; ranked fifth topmost organized crime globally after drug-trafficking, weapons proliferation, counterfeit goods and human trafficking (Schlickeisen, 2015 and Vines and Lawson, 2014). Poaching entails illegal entry into wildlife conservation areas with an aim to target, kill, harvest trophies, source for markets and the entire process of trafficking illicit wildlife trophies from the parks to consumers. The magnitude of poaching is manifested in poachers' use of organized criminal networks to move trophies from range states to consumers, poachers' involvement in commission of other organized crimes and poachers' access to illicit small arms and light weapons used to poach.

Security concept has been widened from the traditional focus on the military and state as referent objects surviving in an anarchic environment to encompass political, economic, societal and environmental sectors (Trombetta, 2008). Buzan (1991) notes that operations of the five security sectors (military, political, economic, social and environment) are interwoven into a strong web whereby an upset in one sector affects others. For instance, a decline in economic sector affects the military, political and environmental operations, arising from limited finances to undertake desired projects. Security is the survival of a given referent objects and includes use of available measures to handle any issue presenting a perceived threat. Buzan (1991) further argues that, security threat results from an inter-subjective social construction of labeling an act as a security threat and this includes conditions of existence and how individuals and states tag various phenomena as threats.

Security of a nation implies to the ability of the state or government to preserve its physical territorial integrity, maintain global economic relations on reasonable or viable terms, protect its institutions, nature, and governance from outside disruption as well as control its borders (Watson, 2008). Lippmann (1943) describes national security in terms of a nation's ability to avoid or win war without sacrificing its core values. Hence, national security includes measures put in place to grant survival of the wholistic state in terms of political, economic, military, environmental and social security. Further, it is the responsibility of any government to grant national security to its people. In this study, national security is demonstrated in a state's optimal earnings from tourism and curbing of proliferation of small arms and light weapons. Hence, national security is dependant on magnitude of poaching of wildlife.

Nicimbikije (2020) classifies inability of the state or government in controlling illegal environment's overexploitation as a security concern. The recognition of poaching as a threat to national security is an evolving phenomenon traced to the poaching wave from around 2005. The 2014 United Nations World Tourism Organization (UNWTO) report traces the onset of steady wave in poaching from 2005. This period also coincides with the 2006 China's declaration of ivory carvings as an 'intangible cultural heritage' which legalized ivory trade in China (Lau et. al, 2017). This stimulated elephant poaching in Kenya and Africa at large. According to Smith and Haenlein (2016), it was noted that the timeframe was actually marked through environmental securitizing actors who

equate poaching to security threat manifested in form of terrorism financing and revenue source for organised criminal groups. This realization prompted securitizing actors to initiate campaigns to sensitize, establish and justify use of out of ordinary measures to curb poaching.

183 states or nations are indeed signatories to Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES), the main body mandated to protect wildlife species from human exploitation (Hutchens, 2014). CITES is proactive with global wildlife conservation and security issues. For example CITES Secretary General in 2013 argue that poaching affects ‘peoples livelihoods, national economies, and national and regional security’. CITES also supports various decisions on security made by international bodies like the United Nations Security Council (UNSC) decision to investigate links between poaching and financing of Uganda’s Lords Resistance Army (LRA) and condemnation of poaching as a driver of crisis in Central Africa Republic- CAR (CITES website).

Africa is alarmed by poaching and its consequent impacts on multiple sectors of the state. To mitigate the threat posed by poaching, many of the African states are signatories to various continental wildlife conservation declarations (Kideghesho, 2016). The 2014 African Union (AU) Commission notes that unsustainable and illegal harvesting of wildlife among other practices posed a threat on wildlife resources in Africa, hence directs member states need to enact laws and policies to curb wildlife crimes and related criminal activities like organized crimes. The 2015 ‘Kasane-Botswana statement which highlights the impact of wildlife crimes on economic, security, social, and environmental sectors and recommends among others; to eradicate trophy markets, develop effective legal frameworks and laws. The 2015 Brazzaville - Congo conference which prevails upon African Union to petition member states in complying with their international obligations and amend their laws to criminalize poaching as serious crime within the United Nation convention framework against transnational organized crime.

Kenya is a range state with its wildlife falling victim to poaching as well as its ports being used to import and subsequently export wildlife trophies (Kabete, 2016). Wildlife as a natural resource is for a collective good to a state, its people and a common heritage to future generations. Extreme artificial removal of some species from season interferes

with the ecosystem where some animals provide food for others and vice versa. Karanja (2012) observes that poaching in Kenya is dynamic and poses several challenges. It denies the country to optimally earn revenue from tourism sector. Poachers use varied poaching gears ranging from primitive weapons like poisoned spears to sophisticated modern weapons like darts. Poaching creates demand for poaching weapons which are further used in commission of other crimes in and out of the country.

## **1.2 Statement of the Research Problem**

Wildlife poaching is not an entirely new problem in the African, however its steady increase from the period around 2005 and subsequent implications on national security propelled poaching into a major international topic (Anderson and Jooste, 2014). Incidences of wildlife poaching, physical threats to civilians and rangers, seizures of wildlife trophies at various entry and exit points in Kenya and abroad with proof that these trophies were exported through Kenya amidst poaching being criminalized in the country are suggestive of Kenya being a victim of poaching crisis.

Criminalization of poaching in Kenya has been through a gradual process starting with restrictions on initially accepted community hunting practices through regulating and introduction of sport hunting permits, declaration of elephant hunting as illegal in 1973 and complete ban of all wildlife hunting without permits in 1977 (IWB report, 2015). The process was also prompted by activities at global scene necessitated by broadened view of national security from military and state as referent objects to its application to all sectors of the state. In Environmental sector, the referent objects include among others; threats to survival of specific wildlife species which is viewed as a security concern (Buzan, et al., 1998).

Emergence of high scale commercial poaching has revolutionized poaching as poachers as poachers now use more sophisticated weapons. Poachers access to illicit small arms and light weapons presents dangers to rangers and civilians, increased criminality and violence arising from anti-poaching process (Carlson et. al (2015). Poachers need weapons to commit poaching fast, shorten their presence in wildlife conservation areas and minimize the risks of being caught or arrested by security forces. However, these weapons pose a threat to animals, rangers and neighbouring communities (Hutchens, 2014 and Weru, 2016). The demand for weapons aggravates infiltration of small arms

and light weapons into the country. Obour (2016) observed that an increase in arrests of poachers and seizure of illicit firearms from poachers led to decrease in poaching and increase in number of wildlife.

Poachers use organized criminal networks in commission of crimes. Maguire (2018) notes that poaching in Kenya is loosely organized and need to be viewed as a phenomenon within wider violence and criminality where varied players along poaching chain make profits, use it for personal benefits as well as commit other criminal activities. Maguire and Haenlein (2015) aver that poachers use organized criminal networks in undertaking poaching activities like corrupting government employees to providing logistics and safe passages for poachers and wildlife trophies.

The narrations by securitizing actors of poaching as a threat to national security lack empirical evidences and this makes them appear as myths (Haenlein and Smith, 2016). Kabete (2016) argues that there are linkages in poachers, military weapons and terrorists since among the weapons recovered from poachers are those only found from military sources. Maguire (2018) observes that poachers operating in Kenya are enabled by among other factors corruption and presence of illicit small arms and light weapons. Corruption and presence of illicit weapons in the country compromises safety of people in and outside wildlife conservation areas. Kabete (2016) notes that hundreds of rangers have been killed from contacts with poachers, depriving their families a livelihood. However, Maguire (2018) notes that despite the fact that poachers use illicit small arms and light weapons, they are not motivated by subverting the state authority, hence expensive militarized operations in curbing poaching is unnecessary.

Poaching has been linked to Al Shabaab activities. Crosta and Sutherland (2016) notes that Al Shabaab's role in poaching is opportunistic, with Al Shabaab mainly aiding in trafficking poached wildlife trophies from neighbouring countries enroute to consumer countries. Opongo (2016) and Kabete (2016) link proceeds from poaching to funding of Al Shabaab's terrorist-related activities, citing purchase of military weapons. Haenlein and Maguire (2015) and the Eastern and Southern Africa Anti Money Laundering Group (2016) report doubt accuracy of quantified monthly figures as proceeds from poaching towards financing of Al Shabaab terrorist activities. Crosta and Sutherland (2016) (2016) clarified that figures were estimates based on taxation rates on both legal and illegal goods through parts of Somalia under control of Al-Shabaab.



The dimension of poaching and national security is still evolving. Nevertheless, it has attracted wide studies with focus on political, intelligence and security related dimension in regard to poaching. Baral (2013), Vines and Lawson (2014) and the ESAAMLG report (2016) concur that poaching provokes revenue loss to the state. The revenue being attributed to is the collection from the tourism sector and funds directed at curbing poaching. Vines and Lawson (2014) analyzed global or international impacts of the illegal trade in wildlife, investigated links or association between “illicit trade in wildlife products and the erosion of national institutions in affected countries, national and transnational security threats” as well as the role of the armed non-state actors or stakeholders in civil conflicts. They recommend areas for further studies, one being to analyze long-term “political and security implications of wildlife trade” on specifically state institutions, development and security.

Haenlein and Smith (2016) observe that some of the narratives on the relationship between poaching and national security are not founded on documented empirical evidence. For example, Crosta and Sutherland (2016) (2016) arrived at quantified magnitude of Al Shabaab’s involvement in poaching through estimates from prevailing factors. Similarly, securitization of poaching as a crime that needs military-like intervention in addressing dangers posed by armed poachers to rangers and the public or the country to address poaching as part of general criminality is contentious (Maguire, 2018). These scenarios could mislead the focus of the policy makers, hence need for evidence to support narratives used in the securitization process of poaching.

This inconsistency between the narratives and reality encourages the need for research to establish the nexus between poaching and national security. Based on the realization of the effects arising from the process of poaching, that is on the wildlife population, physical threats and curbing demand for illicit small arms and light weapons, there was a need to specifically gather data on how poaching impacts on security in Kenya. The research study thus sought to ascertain or determine the impact of poaching which was an independent variable on national security, a dependent variable and collect evidence to show the relationship between poaching and Kenya’s national security. This was to fill the knowledge gap identified by Vines and Lawson (2014) in their study “Global Impacts of the Illegal Wildlife Trade; the Costs of Crime, Insecurity and institutional Erosion” even in which they recommend for further research on long term political and

security implication of wildlife trade. The study sought to respond to the recommendation by Haenlein and Maguire (2015) for studies to be undertaken to provide empirical evidence to affirm the relationship between poaching and security.

The relationship of poaching and Kenya's national security was determined from characteristics of poaching as an organized crime and transnational organized crime, its effect on wildlife, rangers and civilians and the relationship between poaching and the proliferation of small arms and light weapons where a cyclic relationship exists. Poaching creates demand for weapons as well as availability of weapons enables poachers to commit crimes. Poaching hurts tourism sector and mitigating poaching puts a financial burden on government. The government has to secure wildlife, train and equip rangers, earn less from tourism and fight insecurity and criminality caused by presence of illicit small arms and light weapons. This study therefore sought to assess the impact of poaching on Kenya's national security for the period starting from 2006 to 2019.

### **1.3 Research Questions**

The overall question for this study is: What is the impact of poaching on Kenya's national security? Specific research question include:

- i. How does poaching affect Kenya's economic sector?
- ii. Does poaching influence proliferation of small arms and light weapons in Kenya?

### **1.4 Study Objectives**

The overall objective of this study is to find out the impact of poaching on Kenya's national security. Specific objectives include:

- i. To establish the impact of poaching on Kenya's economic sector
- ii. To evaluate how poaching influences proliferation of small arms and light weapons in Kenya.

### **1.5 Justification of Study**

General necessity for global, regional and local sustainable wildlife conservation through regulated consumption and curbing of illegal depletion of natural resources among them wildlife species is one of the key pillars guiding Kenya in its projections to achieve sustainable economic development and Vision 2030.

### **1.5.1 Policy Justification**

The study will be significant to the Kenyan policy makers as the findings will guide in development of poaching securitization narratives, allocation of resources towards wildlife conservation and protection, and development of strategies in curbing poaching so as to improve national security. Sustained consumption of natural resources is key to Kenya's achievement of sustainable economic development and Vision 2030 development agenda.

The study will also be significant to wildlife conservation and protection stakeholders to sustain efficient discharge of their mandate to enhance national security. The study, will also foster the inter-agency coordination on policy framework to address the problem of wildlife poaching and trafficking in Kenya and beyond borders.

### **1.5.2 Academic Justification**

The study will significantly contribute towards the body of existing or prevailing knowledge on the linkage between poaching and national security. These findings will also provide empirical evidence to either support or dispute narrations by securitizing agents on the relationship between poaching and national security.

### **1.6 The Scope and Limitations of the Study**

The scope of the study was on impact poaching has on Kenya's national security from the period starting 2006 to 2019. Poaching was determined by a decline in the revenue streams from tourism, increased government's expenditure on conservation and protection of wildlife, proliferation of small arms and light weapons, poachers' use of transnational organized criminal networks and threats to rangers, tourists and people from wildlife neighboring communities. The national security was reflected in robust wildlife tourism, increased revenue collection from wildlife tourism, government spending less towards wildlife conservation and protection, curbing proliferation of small arms and light weapons, curbing organized crime and criminal networks and absence of existential threats to wildlife, rangers and civilians.

Limitation of resources in terms of time, finances and personnel made it impossible to conduct comprehensive study on the entire population which merit to participate in the study. Further, generalizability of the findings as a true reflection of impact of poaching on national security was limiting given the fact that facts collected on poaching were

from limited population with sample drawn from Nairobi National Park, KWS Headquarters, neighboring communities, police stations and tour firms in Nairobi. To mitigate the above limitations, the respondents were sampled using purposive and stratified methods to increase reliability of the results.

Reliance on interview guide and semi-structured questionnaires as tools to collect both primary and secondary data from respondents had further limitations. On interview guide, participants were expected to give their professional views which may have been biased. For questionnaires, the respondents were required to fill in by themselves and the danger of them distorting findings to reflect their perspective posed a challenge. Another limitation was failure of some respondents to fully understand the questions resulting to irrelevant and incorrect answers. To mitigate this limitation, the researcher administered the questionnaire personally and clarified the questions to ensure accurate response.

## 1.7 Definition of Key concepts

**National Security:** In this study security is all about survival it is when an urgent issue, presented as posing an existential threat to a designated referent object, justifies the use of extraordinary measures beyond rules that would otherwise bind to handle the issue". The above scholars widened the concept of security horizontally from military focus to include other sectors of economic, political, societal and ecological. The concept was also widened vertically from state focus to include individual, social groups and humanity as a whole. It follows that national security is focus on state in respect to wellbeing of all horizontal security sectors. In this study, national security refers to safety of wildlife, civilians, rangers and revenue of the state from threat posed by poachers whereby necessary emergency measures have been adopted through criminalizing poaching and international cooperation to curb poaching.

**Organized crime:** Organized crime is termed as criminal activities, criminal structures and use of illegal governance. In this study organized start refers to unlawful activities of the members of a highly organized, disciplined association engaged in supplying illegal goods and services..." In this study, organized crime is commission of activities deemed illegal by the state such as killing of wildlife species. It involves the supply of illegal goods in form of wildlife trophies, illegal services like protection of poachers and there is element of organization from poachers to ultimate consumer.

**Poaching:** Poaching in this study is defined as a game law violation, unlawful taking of wildlife from a landlord's property or taking of a game animal out of season or through illegal means. However, in this study, poaching refers to entire process from killing of wildlife using illicit small arms and light weapons and subsequent movement of illicit wildlife trophies from range states to consumers

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

The chapter is organized into two parts. The first part discusses why poaching affects economic sector with particular focus on the segment of wildlife tourism, a source of Kenya's revenue from natural resources. It also highlights characteristics of poaching as an organized crime. The second section look at why poaching exacerbate proliferation of small arms and light weapons in Kenya. Poaching presents demand for small arms and light weapons which are used in poaching. It further discusses manifestations of organized crime in acquisition of poaching weapons. The discussions in each section highlight how poaching affects national security viewed in the lens of earning from tourism and proliferation of small arms and light weapons.

#### 2.1 Poaching and Economic Sector of the Country

Environmental security is maintenance of both local and planetary biospheres to support systems on which human enterprises depend (Buzan, et al., 1998). Security has been expanded from referring to threats that only endanger states through territorial invasion to include among others issues like degradation of the environment (Nicimbikije, 2020). Poaching has been securitized by the environmental securitizing actors into a global, regional and national security issue. This securitization is based on threats posed by poaching to the economy, wildlife ecosystems and poaching associations to commission of other forms of organized crime. Weru (2016), Bolton (2015), Vines and Lawson (2014) and the UNODC (2016) report affirm that poaching pose economic, environmental and social consequences, threaten peace and security in states where organised crime, insurgency and terrorism are prevalent.

The WCMA (2013) criminalizes poaching as a threat to wildlife. Destruction of wildlife through poaching threatens revenues raised from tourists attracted by the natural resources and undermines sustainable development (Bolton, 2015). Wildlife based tourism is key to achieving sustainable economic development for developing countries, attract tourists and foreign aid (Baral, 2013 and Kooten, 2005). Sobania (2003) and Anderson, and Jooste (2014) describe safari and tourism as a critical economic security to Kenya, a principal foreign currency earner to the country with

estimated turnover of over \$ one billion annually. The World Fact book (2017) notes that tourism is significant to Kenya's economy and further states that in the year 2016, tourist arrivals to Kenya grew by 17% translating to 37% of revenues from tourism sector. Kenya's Vision 2030 also envisions tourism sector to deliver an annual growth rate of 10% by 2030 (Weru, 2016). The Taskforce on Wildlife Security report, (2014) observe that poaching lead to reduced revenue stream from tourism and this pose challenges to conservation and protection of wildlife.

Removal of iconic wildlife species which attracts tourists to visit specific sites denies the neighboring community potential livelihood (Duffy and Humphreys, 2016). Vines and Lawson (2014) observe that poaching aggravates economic losses resulting from limiting employment opportunities in the form of fee collected and services offered to visiting tourists. Haenlein and Maguire (2015) observe that poaching in East Africa damages livelihoods and sustainable development in the communities neighboring wildlife conservation areas. The United States office report (2013) indicate that poaching undermines the microeconomic and fiscal stability of a country besides occurring hand in hand with commission of other crimes. Poaching presents economic resource problem manifested in expenditure in recruitment, training of rangers, procuring equipment and enhancing wildlife security (Hutchens, 2014).

The poachers have also become more militarized and sophisticated in their operations. Labour, equipment and ease of finding and killing the wildlife are some of key factors in calculating the cost of poaching expeditions (Poudyal, 2005). Contemporary poachers have abandoned use of bows, arrows and old hunting rifles for military weapons like AK-47 and G3 assault rifles, tranquilizer guns and veterinary drugs (Sobania, 2003 and the ESAAMLG report, 2016). Kabete (2016) note that weapons recovered from poaching scenes comprise western military weapons among them M-16s and G3s.

The utilization of some wildlife species has evolved from an accepted practice into being criminalized. Haenlein and Maguire (2015) note that, in the beginning man was generally a hunter and gatherer, hence hunting of wildlife was not a crime. Hunting was one of the oldest components of Kenya's economy until the period around 1977 when it was criminalized (Sabonia, 2003). For instance, the 2015 Brazzaville Congo conference classifies poaching "as serious crimes within the framework of the United

Nations Convention against transnational organized crime” (Kideghesho, 2016). Organized crime is a “threat to human security, human rights, economic, social, cultural, political and civil development of states” (the UNODC report, 2017). Poaching is perpetual in nature, it entails provision of illegal goods and services by criminal means and is also governed by secrecy as players are only known to other players they transact with in provision of illegal goods and services (Mallory, 2012).

The elements of demand, high returns and low risks spur the predatory behavior of organized crime group of seeking higher profits to engage in poaching (Anderson and Jooste, 2014). Poudyal (2005) argues that middlemen, dealers and international traders benefit most from the illicit trophy trade. The UNODC report of 2017 notes that besides profit seeking, the seriousness of the crime which has implications in more than one state qualifies an illegal act to be a transnational organized crime. The UNODC report of 2016 clarifies that a crime qualifies to be an organized crime when its commission is driven by the element of ‘material gain’. Poachers are also known to make use of corruption in compromising security and arrests as they transact in illegal deeds as well as run global trophies which are moved between various countries to the final consumer markets across the world (Mallory, 2012).

Poaching is known to be a major income source for organized crime networks across East Africa as well as beyond the world (Haenlein and Maguire, 2015). The fact that there is an interlinked chain of crimes committed by poachers on the ground to recipients in consumer markets point to fact of poaching in East Africa being fueled by highly networked organized crime group, brokers and corrupt government officials (Kabete, 2016). Sheikh and Wyler (2013) report note existence of circuitous routes, corruption, complex players along the transnational supply chain of illicit wildlife trophies. Maguire, (2018) argue that organize crime groups acquire wildlife products through either hiring individuals from wildlife conservation local communities, or ad hoc purchase from independent poachers who pay their gangs to go and poach.

Kabete (2016) observes that in Kenya, poachers are not opportunistic killers reacting to human wildlife conflicts but are members of organized groups owing to mass killings of wildlife and large shipments made to supply wildlife products to consumers. The UNODC report (2017), notes that criminal networks create bonds across national



borders to ensure successful commission of common crimes and this is similar to activities by poachers.

Poaching is also linked to other organized criminal networks and globalization has stimulated it into a global organized crime. Obour, (2016) argue that intergrations in the global economy presented opportunity for illicit wildlife trade to flourish. Kabete (2016) note that globalization was key to operations of poachers who need access to global connection for all actors in the poaching chain. Maguire (2018) classifies poachers as non-state actors who display guerrilla like tactic; ambushing their target when unaware and violent harassment.

Poaching is loosely organized with multiple levels of criminal gangs and corrupt players who either personally benefit from the trade or finance other criminal activities (Maguire, 2018). The ESAAMLG report (2016), indicates that poaching compromise border security of affected states. The complex poaching process of getting wildlife trophies from source states, concealing and shipping them to consumers across nations and resources involved cannot be successful without corruption and complicity in the disgruntled individuals in the government (Duffy and Humphreys, 2016) This complexity in poaching transactions confirms the involvement of transnational organized crime (Raxter, 2015).

According to narratives presented by global and national environmental elites on poaching proceeds funding Al Shabaab activities were hypothesized on historical factors in different jurisdictions in the region and upon further interrogation, the findings were contrary (Haenlein and Maguire, 2015 and the ESAAMLG, 2016). For example, argument that 40 percent of Al Shabaab's budget were financed by proceeds from ivory (Opongo 2016). This argument is difficult to quantify the actual budget of a group whose activities are clandestine as well as how and from where these funds are remitted. Weru (2016) notes lack of conclusive evidence to support narratives of poaching funding Al Shabaab activities apart from the fact that Somalia, operating base of Al Shabaab shares borders with Kenya's Tsavo national park which recorded increased poaching in 2013, a period when the Port of Kismayu was under control by the rebels.

Poachers are driven by monetary gains with some laundered in legal financial systems while others used to finance material gadgets like phones and vehicles (Duffy and Humphreys, 2016). The ESAAMLG report (2016), argue that some of the proceeds from wildlife crimes estimated to be between approximately 7.8 billion and 10 billion USD annually are laundered in Eastern and Southern Africa region. Haenlein and Maguire (2015) observe that poaching exacerbates corruption. Kideghesho (2016) illustrates corruption as a function of weak institutional, legal, regulatory systems and government officials' lack of moral sense of right and wrong. Sobania (2003) notes that most Kenyans acknowledge corruption as one of the major problems in the country. Bribes giving, graft, and corruption have been awarded euphemistic terms in Kenya like 'take something small'.

## **2.2 Poaching and Proliferation of Small Arms and light weapons**

The Environmental Investigation Agency (EIA) link poaching crisis to criminality, corruption, proliferation of firearms and weak judicial system (Kideghesho, 2016 and Vines and Lawson, 2014). Kabete (2016) attributes increase in demand for illicit wildlife trophies as an aspect that contributes to proliferation of small arms and light weapons in countries where wildlife is poached. Hutchens (2014), Koech (2017) and Obour, (2016) observe that modern commercial poachers are well equipped with military firearms like M16s, night vision goggles, use veterinary medicine, rocket launchers, helicopters and darts.

Anderson and Jooste (2014) add that poaching has increasingly been militarized, sophisticated and deadly besides fueling corruption in ports of export, customs and among security forces in Africa. Bolton (2015) argues that poaching fans proliferation of weapons in areas that need less conflicts, provides money for corruption and oils engines of crime. Kyando (2014) attributes upsurge in poaching to influx of high calibre automatic weapons into Africa. Wyler and Sheikh (2013) note that poachers generally employ sophisticated hardware and use military grade weaponry poaching.

Reported militarization of poaching in Kenya has attracted dissenting views. Maguire (2018) argues that whereas poachers in Kenya have access to small arms and light weapons, their methods of poaching have not been uniformly militarised; citing the 2012-2014 KWS annual reports with recorded observation of concurrent use of both

sophisticated weapons and traditional methods as arrows, poison and traps so as to evade easy detection by the security. Subsequent militarized approaches by the country to curb poaching has not been the solution to the causal factors of poaching leading to perpetual poaching and a vicious cycle of arming of both law enforcers and poachers (Duffy, 2014).

Opongo (2016) reports that there are 650,000 of illicit small arms and light weapons in circulation in Kenya and same small arms and light weapons were used in about 53% of the total elephants poached in Kenya between the year 2000 and 2010'. This period witnessed a steady increase in wildlife poaching in Kenya. Further findings ruled out significant relation between poaching and insecurity with the report concluding that the "availability of illicit small arms and light weapons" enhances commercial scale of poaching. Armed poachers with superior firepower are dangerous to both wildlife and rangers (ESAAMLG report, 2016). Similarly, the small arms and light weapons used to commit poaching are also used in commission of other crimes (Kabete, 2016).

Weru (2016) avers that the problem of poaching in Kenya has greatly been worsened by presence of widespread proliferation of small arms and light weapons. The presence of small arms as well as light weapons facilitates insecurity incidences, endangering the lives of wildlife, communities around wildlife conservation areas and law enforcers (Kabete, 2016). For example, in 2012, the armed exchange between both poachers and rangers led to the loss of lives for 6 rangers and 30 poachers in Kenya (Hutchens, 2014). The Kenyan pastoralist communities have increased the threat of wildlife poaching where they access firearms with the aim to protect themselves against cattle rustlers (Kabete, 2016). Maguire (2018) argues that proliferation of small arms and light weapons was not exclusively for poaching purposes but the firearms are also used in commission of other crimes.

Analysis of weapons and bullet cases recovered from wildlife conservation areas indicate that most of them bear the label "British manufactured munitions", an indicator that they are from the British military training bases located in Kenya as well as local security forces (Weru, 2016). Kabete (2016) stresses the danger of proliferation of weapons in areas near wildlife conservation areas, giving an example of 2009 recovery of over 100,000 rounds of ammunition from the residence of a suspect in Narok, neighboring wildlife conservation area.

Weru (2016) further notes that the threat of poaching in Kenya is heightened by presence of light weaponry with enter the country from conflict stricken countries neighboring Kenya by among others individuals from communities neighboring wildlife areas.

### **2.3 Theoretical Framework**

This study employed securitization theory developed by the Copenhagen School scholars namely Ol Waever, Barry Buzan and Jaap De Wilde who emphasized that security concern is an existence of threat to a referent object. Above scholars state that securitization implies to a rule of “governed practice” through the ‘act of speech’ by relevant securitization actors and audiences who accept the securitized phenomenon irrespective of existing physical threat. Buzan, et al., (1998) note that existential threats manifests across different sectors of the state namely economic, environmental, cultural, political and military. The scholars propose expansion of the traditional focus on military security to include other four components of political, economic, social and environmental that consist respective security actors and referent objects (Floyd, 2010).

Vladimir (2010) explains that securitization of issues is a political process of framing issues as either special or above established political rules and its done by institutionally legitimate individuals representing interests of a particular political community. Williams, et. al (2008) note that securitization process involves identification of a survival-threatening issue that requires urgent response outside the ‘normal’. The identified issues are initially non-political and do not feature in public debates, the issues are securitized through being removed from normal democratic political procedures and placed under panic political agenda, necessitating tailored extraordinary action to neutralize the threat (Vladimir 2010). These issues are gradually politicized as political systems put in place mechanisms to manage them. The issues could remain political or securitizing actors may frame them as security issues (Browning and Matt MacDonald 2013).

Buzan et al. (1998) defined “environmental sector” as the relationship between human activities and the “planetary biosphere” and, the sector consists many referent objects in securitization among them; survival of specific species, habitants and activities of

human beings to nature that they may have considered as normal during the process of civilization. Duffy (2014) examines creation of poaching as illegal behavior and responding measures to combat it from poaching's historical, economic and political lens.

Balzacq (2005) acknowledges that the issue of security is both a "self-referential activity and intersubjective process" and successful securitization is audience centered, context dependent and power laden from the political agency which is the structuring force. The three factors work together. Duffy (2014) note cases where poaching was linked to security issues in Africa among them financing conflicts in Sub Sahara region, criminalizing poaching, labeling poachers as individuals threatening wildlife and subsequent use of militarized responses in addressing poaching.

Narratives used in securitization of poaching has been spearheaded by recognized wildlife conservation bodies among them CITES. For example, in 1989, CITES imposed a ban in international ivory trade which led to a drop in poaching however its subsequent grants to one-off ivory sales of existing stockpiles in 1999 and 2008 to Japan and China respectively prompted increase in poaching (Schlickeisen, 2015). Politicians from the Core like the former "US Secretary of State Hillary Clinton" and former US President Barrack Obama securitized poaching as a threat to security. For example, the former US Secretary of State Hillary Clinton labelled poaching as a national security, a public health as well as economic security issue. Wildlife international campaigners have developed narratives on legitimate war towards saving critically endangered wildlife species between wildlife conservation agencies and non governmental organization on one hand against highly motivated and armed organized criminal poachers (Duffy R. 2014). The linkages between poaching, trans-national organized crime, corruption and involvement of non-state actors are factors that have constituted to poaching securitization narratives (Maguire 2018).

Poaching as a threat was successfully securitized by relevant actors and it remains widely acceptable to the audience. However, with time, successful wildlife conservation and constricted conservation areas, need to cull and retain sustainable numbers of wildlife in the ecosystem may arise, hence de-securitization of the same phenomenon. Kooten (2005) and Messer (2000) give an example of South Africa where the elephant population stretched normal ecosystem capacity, the state accumulated

large stockpile of ivory through culling hence South Africa spearheaded campaigns for legal disposal of wildlife trophies to raise funds for sustainable conservation efforts.

The securitizing actors of poaching gradually brought on board the consumer states to realization that consumption of wildlife trophies fanned poaching which then impacted on security. For example, following sustained global pressure, China agreed to gradually close down its auction markets by 2017 but was silent on the management of unsold ivory stocks after December 2017 dateline (Lau et. al, 2017). Similarly, for states with surplus wildlife beyond the capacity of their ecosystems does not view poaching as a major threat. For example, Botswana, Namibia, Zimbabwe and South Africa have great numbers of elephants and CITES granted them a one-off sale of stockpiles to raise proceeds to further wildlife conservation (Vines and Lawson, 2014 and Messer, 2000).

Securitization theory in determining parameters securitized by any state lacks universality since most of parameters are largely borrowed from western world, hence were alien to other continents among them Africa. Initially, hunting was not a crime in Africa, people co-existed peacefully with the wildlife and later hunting gained the status of poaching with the influence of colonialism. The colonialists wanted to preserve wildlife for safari and sport hunting. This led to confining wildlife in specific areas purely for wildlife conservation and protection and also encourages private ranchers. The move of colonialists to ban poaching was informed with the danger of some wildlife being wiped away. For instance, Baral (2013) observes that the species of javan rhinoceroses in Vietnam and water buffalo in Nepal are extinct due to poaching. Kyando (2014) attributes the extinction of elephants in North Africa to Roman Empire's appetite for ivory.

Securitization is a tool used by the elites to construct threats and dominate the audience. This gives the elites a loophole whereby their personal biases can lead them to securitize insignificant issues. Some of the securitized phenomena are imposed on reluctant audience. For instance, initially the issue of poaching could not make cultural sense to communities surrounding wildlife conservation areas, who were naturally hunters of same wildlife being protected now. The colonialists' initiation of wildlife enclosures and revocation of hunting rights to natives impoverished Africans (Rosaleen and Freya, 2013). Rosaleen and Freya also argue that this imposition is

responsible for resistance by some African communities who still believe that they have the rights of using wildlife as they have always done so for generations. According to the Oromo culture, individuals are expected to kill and harvest ears, tails and ivory of the elephants as a rite of passage.

Securitization is sometimes harmful to referent objects as well as democratic values of the audience. Buzan et al (1998) note that security should not be assumed as always an ideal thing and offers a solution of de-securitization of some issues through shifting the response from emergency mode to normal political bargaining process. Securitization is also criticized for being conservative with relevant actors securitizing a given phenomenon as being a threat. For instance, securitization of poaching is easily acceptable to individuals who do not consume targeted wildlife trophies unlike the consumers in Asian countries who would risk and pay highly for these trophies on black market. For countries in Africa and West, it naturally makes sense to conserve wildlife for future generations and tourist attraction sites respectively while Asian consumers are prevailed upon to abandon their values.

In regard to securitization of poaching as funding terrorism activities notably spearheaded by the elites from the US and few African states emerged doubtful when subsequent findings indicated contrary. For example, the Former US Secretary of State Hillary Clinton declared in 2012 that there are “good reasons for believing that rebel militias are indeed significant players in a worldwide ivory markets that are worth millions and millions of shillings or dollars yearly”. Haenlein and Maguire (2015), also doubt the reported estimates of Al Shabaab’s trade in illicit wildlife products in the region. This illustrates the danger of securitization actors using narratives lacking empirical support and can lead to wrongly securitizing a phenomenon.

Successful securitization is dependent on the prevailing context where the actor and audience are operating in. In Africa, there was normal hunting of wildlife with by-products used by people. In this early context, poaching did not exist, the rate of human population consuming wildlife species was low and there were a variety of wildlife, hence there was no imminent danger. Colonization of African states infused in alien cultures which brought forth restriction, management and utilization of some wildlife. This led to differentiation between poaching and hunting. Some states had processes which were clearly spelt out regarding how one can legitimately harvest wildlife

through applying for permits as well as sport hunting in various designated blocks. At this point in time, poaching was not criminalized beyond state perceptions. However, this was purely a “contravention of environmental laws” as well as other crimes such as being in possession of firearms without permit or licenses. Later, some wildlife species were decimated through poaching and this prompted need to protect other species facing similar predicament.

Poaching in present times involve sophistication of poaching techniques, poaching is commercialized, poachers are armed with modern weapons where they harm wildlife, rangers and wildlife neighboring communities and, poachers are driven by profit making. Poaching makes tourists shy away from visiting, hence denying states of revenues collected from tourism visas, park entries and consumption of goods and services when visiting. This reduces the revenue that a state draws from tourism, affecting the economic sector of the state. Subsequently, a weak economic sector makes the state unable to meet its obligations in running other security sectors, hence a threat to national security.

Prior to securitization of poaching, this issue attracted the attention of global, regional and states leaders, non state actors and wildlife conservationists who based their arguments on potential of poaching to either harm a state, international systems or subsystems. For Kenya, concerns are based on the fact that poaching depletes the natural resources which in turn destroys heritage of future generations. Presence of armed poachers inside wildlife conservancies poses danger to not only the wildlife but also the rangers who take care of the wildlife. Transaction of wildlife trade on the other side creates and thrives criminal networks in the country. This led to the elevation of poaching by the political elites, lobbyists and governments into a security threat requiring emergence measures to curb poaching at community, national and global levels.



**Diagram 1.1: Conceptual Framework on Poaching and National Security**

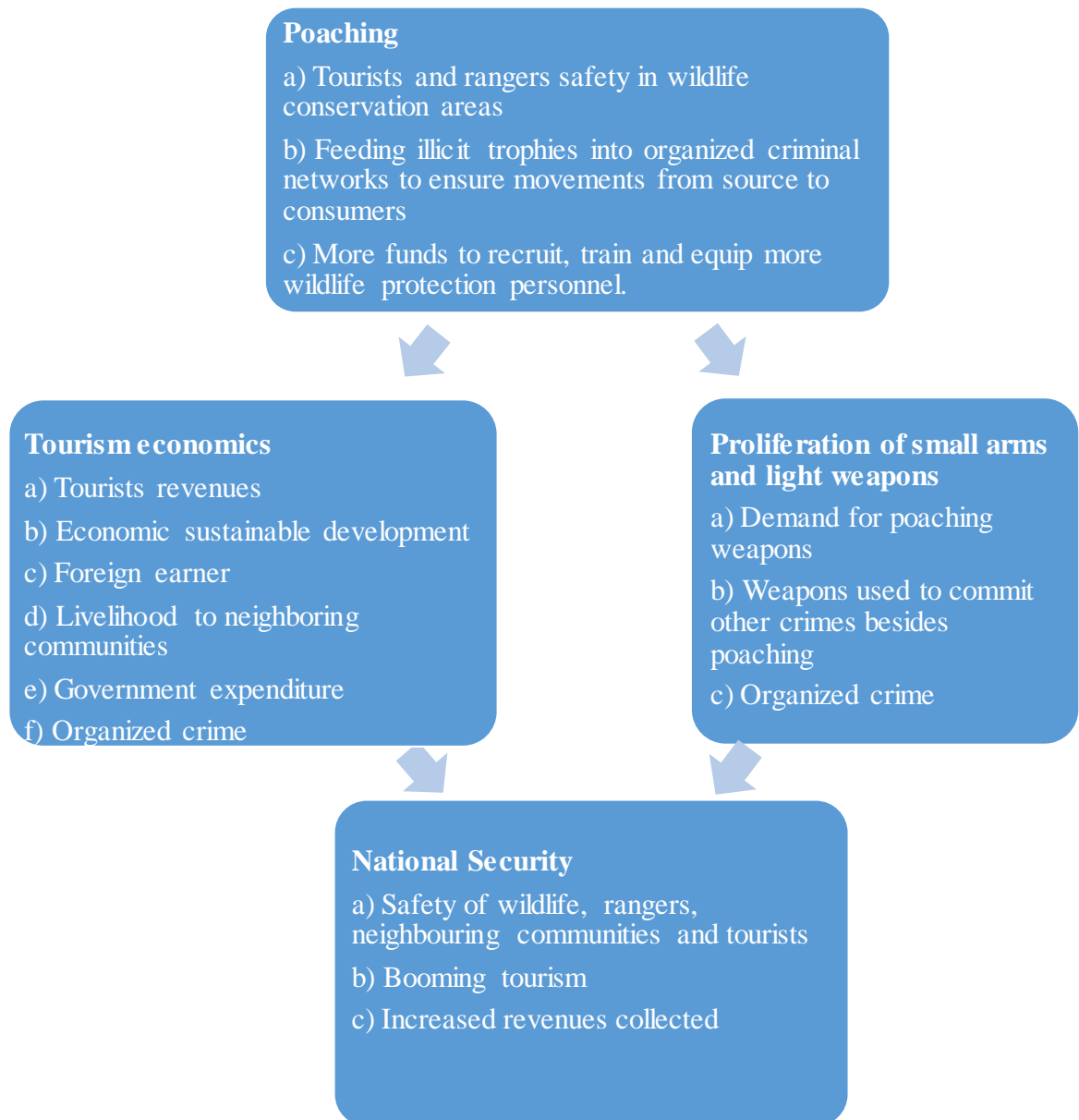


Diagram 1.1 demonstrates how the variable poaching interacts with national security manifested in levels of revenue from tourism, absence or low levels of organised crime and controlled proliferation of small arms and light weapons. Further, there is mutual relationship between presence of small arms and light weapons and commission of organised crime while both organised crime and proliferation of small arms and light weapons impacts on tourism and levels of poaching.

## **2.4 Research Hypothesis**

**H<sub>01</sub>:** There was no relationship between poaching and Kenya's economic sector

**H<sub>02</sub>:** There is no relationship between poaching and proliferation of small arms and light weapons in Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

The major aim of this study was to determine the influence of poaching on national security manifested in impact on Kenya's economic sector and proliferation of small arms and light weapons using both qualitative and quantitative methodologies. This section discusses the statistical techniques that were employed to determine the influence of poaching which is the independent variable and national security which is the dependent variable. The section consists of the research design, study area and population, sample design and sampling techniques, data collection procedures and data analysis and presentation.

#### **3.1 Research Design**

This study utilized mixed research design. This is where both quantitative and qualitative strands, in a sequential explanatory model are used. Use of a mixed methods approach presents a detailed and rich database to the study; this was useful for further investigation and writing. The researcher used a cross-sectional survey to gather quantitative data. This was followed by in-depth interviews which yielded qualitative data. Mixing of the results was done during the interpretation and discussion phase of the study.

#### **3.2 Population and Study Area**

In survey, the population was drawn from the Kenya Wildlife Headquarters, Nairobi National Park, Langata Police Station, Athi River Police station which are the government institutions mandated with direct protection and management of wildlife as well as monitoring and policy formulation in as far as the parks and conservancies are concerned. Kenya Tourism Board was also part of population owing to the fact that it is a government body with access to information in regard to tourists visiting Kenya. Athi River and Ongata Rongai residents represented population of the local community of wildlife conservation areas while tour firms were included as private stakeholders in the wildlife conservation and protection services through their interactions with visiting tourists.

### 3.3 Sample Design

The survey adopted a simple purposive and stratified sampling technique. In purposive, only identified departments with relevant information being sought were considered in the study. These were the KWS Headquarters, Nairobi national park, police stations, neighboring community, tour service providers and Kenya Tourism Board. The sample was stratified so that each member of the population has an equal chance of being selected into the sample. The KWS headquarters staff were further stratified into departments of Security and Devolution and Community Service while Nairobi National park fell under the main department of Parks and Reserves. Tour firms were purposively selected from those with headquarters in Nairobi.

**Table 1:1 Sample size**

<b>Institution</b>	<b>Target population</b>	<b>No of interviewees</b>	<b>No of questionnaires</b>
Kenya Wildlife Services-Hqs		6	40
Nairobi National Park	245	2	100
Langata Police Station	OCS & DCIO	1	Nil
Athi River Police Station	OCS & DCIO	1	Nil
Rongai Residents	-	1 (chief)	25
Athi River Residents	-	1 (chief)	25
Kenya Tourism Board		1	
Tour operators		3	10
<b>Total</b>		<b>16</b>	<b>200</b>

**Source: Researcher, 2019.**

The table above illustrates study sample size, the sector of population respondents were drawn from and how information gathering tools were applied.

### **3.4 Methods of Data Collection**

The researcher used both primary and secondary data sources. The use of Primary data was obtained through use of questionnaires and interviewing of participants. A questionnaire is an electronic list comprising of questions that are distributed or given to a predetermined person who completed and return it finally to the researcher (Lusthaus 1995). This study considered a questionnaire as an appropriate tool for this study because Kothari (2004) observes that the respondents are allowed or permitted to think over items and are thus ultimately saved from the anxiety involved in the “face-to-face encounter” or interactions with researcher. Questionnaires also are found to guard participants from giving ambiguous responses and thus regarding it as a highly efficient for routine data collection with a large number of respondents as was the case for this particular study. The data that was collected through the use of questionnaires were analyzed quantitatively by permitting the use of descriptive and inferential statistics as well giving opportunity for individual comments and perspectives by the respondents.

### **3.5 Methods of Data Analysis**

Data collected from the field was cleaned and ultimately coded on the basis of the objectives of the study. This helped in checking on the completeness as well as logic of the answers, consistency and relevance of the responses to the items of the set objectives set. Any errors or omissions in the filled up questionnaires were corrected. In this study descriptive statistics were used for quantitative data, using the computer package Statistical Package for Social Sciences (SPSS) version 23.0). For descriptive statistics, there was use of frequencies and percentages, for inferential statistics the chi-square test was used to test the significance of relationships between variables. Qualitative data was analyzed using Nvivo version 12. The responses obtained from the key informant interviews were coded. This was done by assigning the data to categories and themes, in keeping with similar items or products in questionnaire. Such responses were thereafter interpreted, taking cognizance of the consistency of facts, as well as logical themes.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

#### **4.1 Introduction**

This chapter presents the analysis and interpretation of the data collected and presents findings on the impact of wildlife poaching on Kenya's National security. Among the themes discussed include basic demographic characteristics or features of the respondents, establishing the impact of poaching on tourism sector and demonstrating the relationship between poaching and the proliferation of small arms and light weapons.

In this research, respondents were required to provide basic demographic information like age, length of employment and level of education while participants in the interviews were to provide information on various manifestations of poaching in relation to Kenya's national security. Secondary data was further applied to illustrate and corroborate study findings and provide further insights on how wildlife poaching impacts national security.

#### **4.2 Response Rates**

The study targeted 216 respondents, where 200 were to fill structured questionnaires and interviews on 16 participants serving in strategic positions in wildlife conservation and protection establishments. Out of these 200 questionnaires issued, a total of 182 respondents filled and returned their questionnaires, giving a response rate of 91% and a non-response rate of 9%. Interviews were conducted on 8 key informants out of the targeted 16, hence 50% of the response rate. According to Mugenda and Mugenda (2003), "the statistically significant response rate for analysis should be at least 50%". The rate of response in this study is more than the minimum threshold, therefore the research findings are valid.

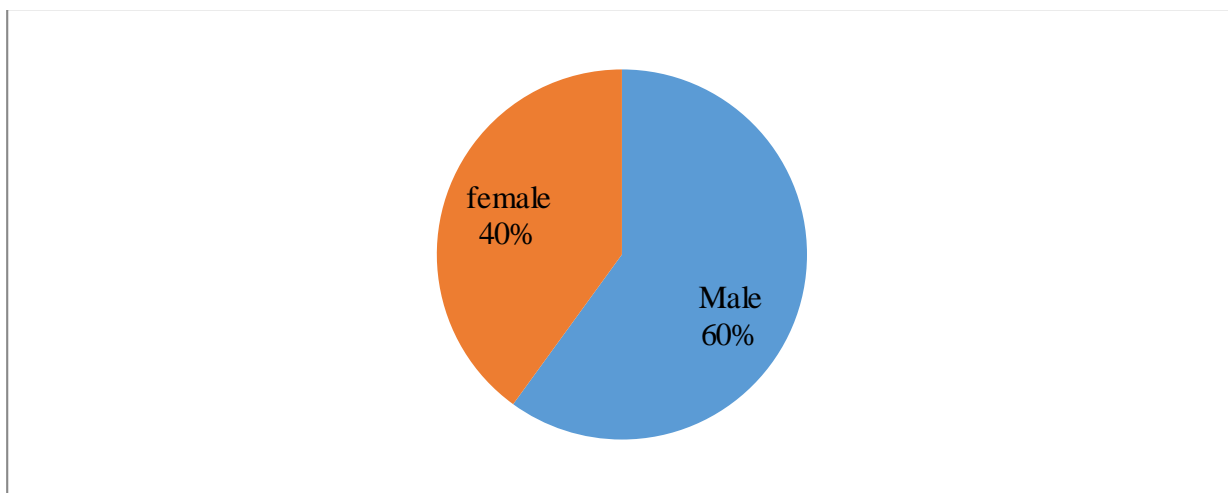
#### **4.3 Background Information**

The section presents demographic details of the respondents that include gender of respondents, age, level of education attained, position held in the work place and length of service in their respective institutions. Background information was important to the

study so as to know the type of respondents the researcher was dealing with and ascertain their access to information being sought. The findings are presented below.

#### 4.3.1 Gender of Respondents

This study sought to establish the gender of the respondents in the study. The findings were presented in Figure 4.1.



**Figure 4.1: Gender of the Respondents (N=182).**

The above figure shows gender of the respondents who participated in this study. Majority of these respondents were males at 60% while 40% were females.

#### 4.3.2 Age of the Respondents

Respondents in the study varied in age with the youngest being above 18 years and the oldest over 48 years as shown in table 4.1 below. The age bracket with the highest percentage (49.5%) was found to be 28-37 years followed by the age bracket of 18-27 years (37.4%). The study also found that percentage (10.4%) were in the age bracket of 38-47 years and a small percentage (2.7 %) fell within age bracket of over 48 years.

**Table 4.1: Age of the Respondents (182)**

Age	Frequency	Percent
18-27 years	68	37.4
28-37 Years	90	49.5
38-47 Years	19	10.4
Over 48 years	5	2.7
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019**

The study reveals that over 80% of the respondents were below 37 years. The findings indicate that majority of the employees in wildlife protection sectors and local

administration were below 37 years, a probable pointer that wildlife protection sector in Kenya had a low aging employee base. Most of the respondents had over 20 years of service in the establishments if they are to work to mandatory retirement age of 60. The respondents were therefore well placed to earnestly take wildlife protection issues serious as wildlife protection sectors are source of their steady income and in case wildlife is destroyed then they could lose employment in a period when chances of finding alternative employment are non-existing.

#### 4.3.3 Level of education

Table 4.2 below presents the distribution of the respondents along various categories of education level.

**Table 4.2: Level of Educational (N=182).**

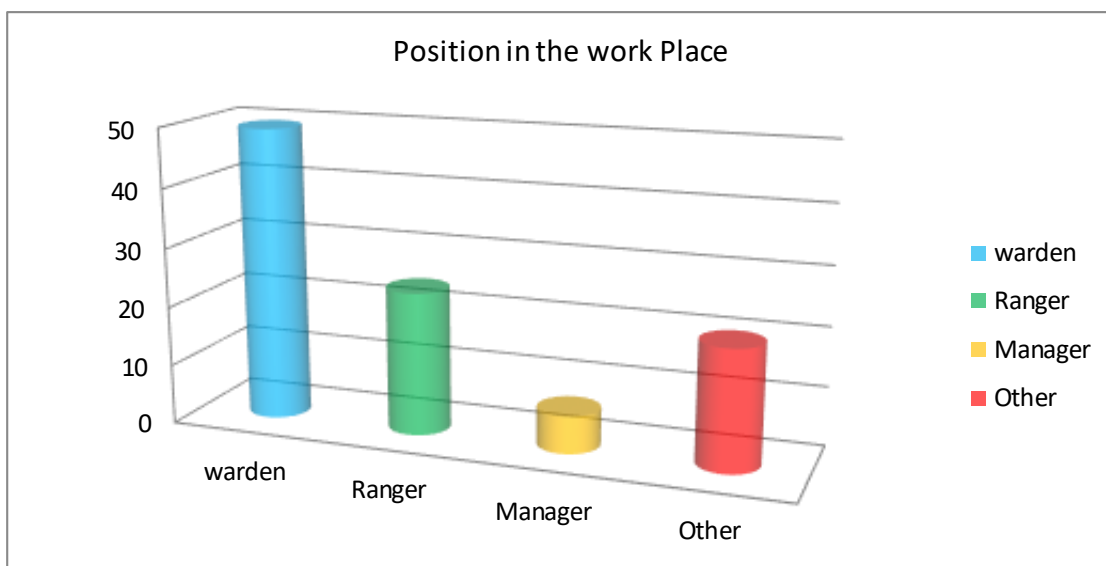
<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Primary	9	4.9
Secondary	84	46.2
Tertiary	31	17.0
University	58	31.9
<b>Total</b>	<b>182</b>	<b>100</b>

The above data shows that the majority of the respondents (46.2%) had secondary school education, followed by 31.9 percent with university education. Those with tertiary level constituted 17 percent while 4.9 percent were primary school leavers. This is an indication that all the respondents had attained a level of education that enabled them to read, understand and respond to the issues that had been raised in the study.

#### 4.3.4 Position in Work Place

The researcher sought to know the position held by the respondents in the various institutions in which they work in. Figure 4.2 below shows the findings on the position of the respondents in their work place.





**Figure 4.2: Position at work place (N=182).**

**Source: Researcher, 2019**

The data from the study show that the majority (49.4%) of the respondents work as game wardens, followed by 24.1% who work as game rangers, 6.3% were managers, while 20.2 percent were in the category of others, which included police officers, local administration officers and those who work and live around Nairobi national park. This shows that the study had many respondents who are involved in the management of wildlife and those who understand wildlife security issues. Majority were game wardens who are tasked with law enforcement and crime investigations followed by rangers who enforce park rules and report park violations for relevant action.

#### **4.3.5 Length of service in employment**

The study sought to establish how long respondents have been working for their respective institutions. The findings are presented on Table 4.3.

**Table 4.3: Number of years Working for the Institution (N=182).**

	<b>Frequency</b>	<b>Percent</b>
Below 5 years	111	61.0
6 - 10 years	59	32.4
Above 11 years	12	6.6
<b>Total</b>	<b>182</b>	<b>100.0</b>

**Source: Researcher, 2019**

Table 4.3 above shows that majority (61.0%) of the respondents were those who have worked in their places of work for the last five years and below followed by 32.4% who have worked for 6-10 years and finally 6.6% have worked for more than 11 years. This indicates that majority of the respondents have not taken too long at their work place but a good percentage had actually worked for at least 6-10 years.

#### **4.4 Impact of Poaching on Kenya’s Economy from Tourism sector**

The study sought to establish the impact of poaching on economy from tourism sector. The respondents who filled the questionnaire were required to confirm if they understood or had knowledge on what poaching of wildlife entailed. The findings are presented on Table 4.4.

**Table 4.4: Knowledge on Poaching of Wildlife (N=182).**

<b>Items</b>	<b>Frequency</b>	<b>Percentages</b>
Yes	150	82.4
No	32	17.6
<b>Total</b>	<b>182</b>	<b>100</b>

From table 4.4, a majority of the respondents (82.4%), understood what poaching entailed while 17.6% did not. The results imply that the respondents were the right respondents to participate in the study since they had either heard of poaching, had information on poaching activities and were competent to discuss poaching and its effects on either their work or public safety. The study further carried out interviews to find out if poaching was a threat to the national security. All 8 interview participants were competent on issues concerning poaching of wildlife. This is discussed below;

##### **4.4.1 Poaching as a Threat to National Security**

8 participants from different sectors in the sample were individually interviewed. All the 8 averred that poaching was a threat to national security. Wildlife is a natural resource which is a source of natural and climate balancing. It is a backbone of the tourism sector; a key pillar of the economy of Kenya, contributing to about 10% of the GDP. It is also a source of livelihood, providing direct and indirect employment to the populace of Kenya. It follows that a threat to wildlife resource translates to a direct threat to the national security. Nicimbikije (2020) argues that failure of a state to have security policy to prevent environmental disasters arising from human errors and curb

overexploitation of the environment pose a threat to the state's economic security hence its national security.

Poachers are criminals who destroy environment and breach national laws on protection and conservation of wildlife. They belong to organized criminal syndicates. The poachers are very secretive in their operations and in some cases even their families are not aware of their indulgence in poaching until when some are arrested. There are many individuals involved for successful poaching and movement of trophies from range states to consumers. Poachers in all levels do not necessarily know other players in the chain. They are motivated by money where poachers in wildlife conservation areas kill to get trophies and be paid, brokers are paid for availing trophies and suppliers are also paid upon supply to dealers who are paid by the consumers.

Poachers are driven by need for food and money. Poachers need weapons to poach and they sometimes use sophisticated weapons to poach. The access and possession of poaching weapons pose danger to safety of employees in the institutions mandated to protect wildlife, individuals visiting wildlife and communities around wildlife conservation areas. Some of the poachers' act as 'criminals for hire', and where there is no demand for wildlife products, poachers turn to commission of other crimes like robbery and murder outside the game parks. Presence of weapons drives poachers to commit crimes. Poachers sometimes use poaching proceeds to purchase more poaching weapons. The possession of poaching weapons is illegal in Kenya as spelled in Penal Code and WCMA, 2013.

Proceeds from poaching in Kenya may not be easily quantified. The ground poachers, whether hired and poaching on order or ad hoc poachers who poach and thereafter seek for market are the least remunerated individuals in the poaching chain. In most cases, they do not set prices for the trophies. They are easily replaceable in the chain and prone to arrests inside wildlife conservation areas. They pose danger to safety of rangers and civilians inside the wildlife areas and neighboring communities. The ground poachers utilize these proceeds towards general subsistence, small scale investments and logistics for further poaching expeditions. Brokers are the price setters for ground poachers, link to couriers and local buyers. Other higher levels in the poaching chain undertake similar transactions making poaching a highly paying criminal enterprise

with some of its proceeds likely to be used to fuel dangerous criminal syndicates, thus threatening national security.

The mitigation measures by the country in curbing crime by these poachers translates to additional expenditure on the country. The country spends resources towards enhancing security to safeguard wildlife by employing more personnel, equipping them, buying security equipment like trackers which are placed on endangered wildlife to monitor their movements, construction of fences to keep away poachers and conduct sensitization exercises and alternative development projects for the neighboring community and key stakeholders.

Kenya's Wildlife Conservation and Management Act 2013 (WCMA, 2013) classifies poaching as a serious criminal activity that destroys wildlife population, endangers lives of rangers and visitors to conservation areas. Poachers need weapons and this encourages infiltration of weapons which are used in commission of other crimes. Further, poaching creates or use existing criminal networks used by other organized criminal groups and transnational organized criminals. Anderson and Jooste (2014); Opongo (2016) and Kideghesho (2016) findings affirmed the above findings on the the issue of the impact of poaching on the economy. It was ascertained that whereby poaching triggered a decline in arrivals of foreign tourists in a country like Kenya whose economy highly depended on income emanating from tourism.

Poachers are part of transnational organized criminals where their activities are achieved through corroborated national and transnational criminal activities. They exploit vulnerabilities among them unsecured wildlife, porous borders and ungainful employment among the communities around the wildlife conservation areas. Poachers exploit porous borders and commit crimes across borders whereby they establish networks in and outside the country. Similar networks are also exploited by the international criminals. Criminal operations across borders by poachers and networks used to commit other organized crimes threatens national security.

Poachers have loosely designated roles depending on their place in poaching chain. Specific roles played by individuals from neighboring communities range from scouting for information on movement and location of wildlife, areas where and when to intrude, means of ferrying wildlife products from conservation areas, movement of

poaching equipment to site of poaching and food if the mission takes long. Poachers on the ground are either hired at a fee to enter into the conservation areas to kill and harvest trophies. Individuals who hire them provide them with necessary equipment and means of escape in case the mission is thwarted or movement of the trophies is intercepted. Other poachers are not hired but act out of their own will. Upon harvesting wildlife trophies, they source and deliver to brokers or buyers. The owners of the trophies link with brokers or either buyers directly, a repeated cycle until it gets to the main buyer who organizes for export to consumers. Players may necessarily not know other poachers in the chain. The poachers on the low level chain receive payments from the brokers or individuals who hire them. They are paid in cash upon delivery, face to face payments, others paid after delivery or upfront for facilitation through local mobile money services.

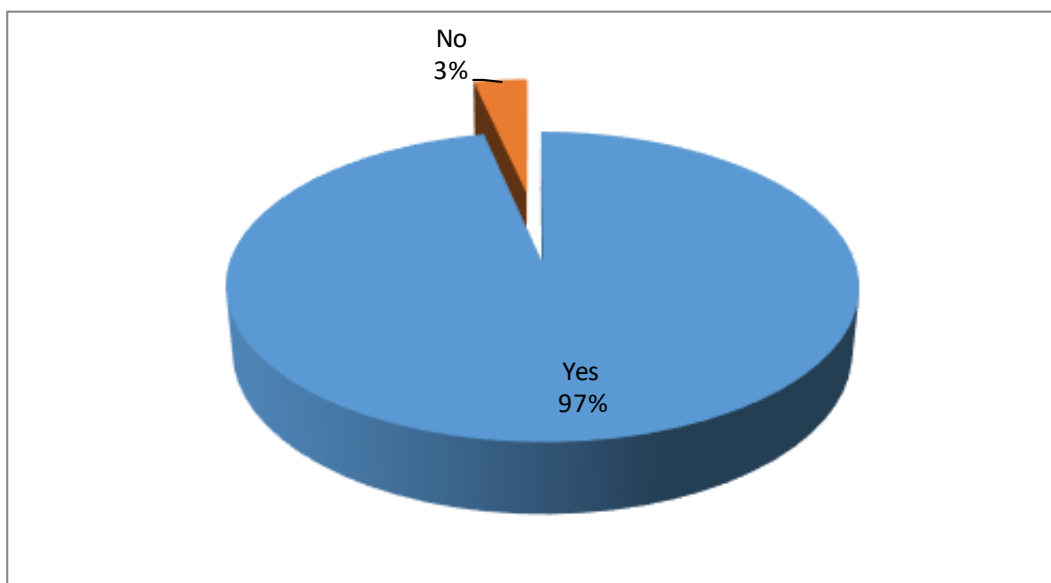
Poachers' possession of illicit weapons like small arms and light weapons is a crime punishable under the Penal Code and WCMA, 2013. Weru (2016) argues that some of the weapons like G3 and AK 47 used in poaching are sourced from neighboring countries that have experienced conflicts like South Sudan, Uganda, Somalia and Ethiopia and these weapons end up in areas like Tana River and Samburu which are neighbors to wildlife conservation areas. Weru (2016) also note a possibility of bullets used by poachers being sourced from local security sources since recovered bullet casings from the scenes of poaching confirm linkages to British manufactured munitions. The activities of poachers' amount to breach of national laws on wildlife conservation and management and illegal possession of firearms. The illegal money from poaching is a recipe for insecurity when some poachers use it to commit other crimes like purchase of poaching weapons.

The findings are similar to argument by Ubwani (2016) who stated that poaching puts national security at risk citing; diminishing wildlife iconic species, failure by government to harness optimum returns from wildlife tourism, crimes arising from presence of small arms and light weapons and poachers using criminal networks to commit other organized crimes. Further, Kidegesho (2016) illustration in his study summarizes implications of elephant poaching on; ecology, political and economic. On ecology, poaching threatens existence of iconic wildlife species and destroys wildlife habitat. Political implications from poaching include erosions of government's

credibility and potential of poaching proceeds being used to trigger political instability. On the economy, Kidegesho (2016) cites reduced revenues from tourism sector and increased budget to cater for conservation and curbing poaching.

#### 4.4.2 Effect of Poaching on Tourism Industry in Kenya

The study sought to establish if poaching affects tourism sector in Kenya. The findings are presented on figure 4.3



**Figure 4.3: Effect of Poaching on tourism sector in Kenya (N=182).**

**Source: Researcher, 2019**

Figure 4.3 above shows that majority of 97% said that poaching affect tourism sector in Kenya while an insignificant number of 3% did not agree that poaching affect tourism sector in Kenya. This shows that there is a relationship between poaching and tourism which affect state security. This was affirmed by the results from the interviews where by 5 out of 8 participants said that poaching affected tourism.

Poaching involves use of firearms which are used to shoot and kill wildlife. The presence of firearms in the hands of criminals in the park pose a threat to safety of people who work or visit the park and this scares away visitors. The shootings inside the park, encounters between poachers and park rangers and patrols around wildlife conservation areas by armed anti-poaching personnel exposes tourists to physical danger. Reduced tourist arrivals affects tourism services provides like tour services and hospitality. The tour firms depend on arrival of tourists mainly from foreign countries and in their absence the tour firms have no work. Poaching creates a bad image for the

country as a tourist destination, as a result fewer tourists visit the county or places affected by poaching. A country's inability to enforce measures to curb high scale poaching and resultant increase in poaching incidents may lead to a country being blacklisted by international wildlife protection and protection bodies.

This is similar with the findings by the Taskforce on Wildlife Security, (2014) which acknowledge that tourism is key to economic growth, poaching affects tourism in Kenya's parks through reduced revenue collected from visiting tourists forcing the National Treasury and Planning to allocate more funds to KWS towards conservation and protection of wildlife.

#### **4.4.3 Decreased revenue as a result of wildlife poaching affects national security.**

The study sought to find out if decreased revenue as a result of wildlife poaching affects national security, Table 4.5 indicates the results;

**Table 4.5: Decreased revenue as a result of wildlife poaching (N=182).**

<b>Poaching</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	156	86
No	26	14
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019**

Table 4.5 above shows that majority of 86% agreed that reduced revenue resulting from poaching of wildlife affects national security while 14% said there is no relationship between the two. The findings imply that wildlife poaching reduces revenue thus affecting national security.

When there are many tourists arriving, the country gains more money in terms of revenue collected from tourists entering the parks, payments to tour firms organizing for their stays, payments to tour guides who take them around tourism scenes, booking hotels, services and goods consumed by visiting tourists, tips to workers interacting with tourists and market of traditional artifacts sold to tourists. The ESAAMLG report of 2016 attributes tourism to being a source of economic activity through provision of employment opportunities and income.

The anti- poaching measures in any country pose a financial burden to keep poachers away. The funds are utilized to erect physical security, mount surveillance on endangered wildlife, employ personnel, and conduct media campaigns and sensitization of wildlife local communities. Some of the revenue collected from visiting tourists is again used to fund these anti-poaching initiatives instead of being used in other developmental projects. When collections by KWS fail to meet the target to undertake projected activities the Treasury is forced to allocate a bigger share (The Taskforce on Wildlife Security, 2014).

Poaching alone does not scare away tourists from visiting. A few respondents (14%) said that there was no relationship between decreases of revenue collected from tourism and poaching of wildlife supported their arguments that park collection is decreasing due to the fact that there is too much over dependence on the international tourists. There are few local tourists in the country who visit the national parks. The locals' embrace culture of going to their rural homes when on vacations and may not have the luxury of spending money to see wildlife which they view as for foreigners hence this does not expand revenue collection base from tourism. Another factor causing the decrease of revenue collection in parks is drought that leads to migration of wildlife and even death of most species of animals in the parks leaving nothing to be seen by tourists.

The numbers of tourists arriving vary from one season to another. Foreign tourists tender to arrive in large numbers during known phenomena like wild beast migration between Kenya and Tanzania and from august to beginning of New Year. Local tourists comprising families and student groupings arrive in large numbers during holidays and when education institutions are in recess. Notable reduction of numbers of tourist arrivals are from end of year and start of new year, heavy rains and periods to and after general elections.

General safety of visitors and locals as well as the political environment triggers decrease in park collections. One of the participant said that volatile political environment makes people to lose confidence in visiting parks like the period after the general elections in 2007 and subsequent disagreement between political factions, the period had less visitors to the parks. The respondent argued that people are willing to tour and spend where they feel safe and expect to enjoy in return of their expenditures.



The Taskforce on Wildlife Security (2014) also noted that to besides decline in number of tourists arriving in the country, there are other factors ailing the tourism sector among them Kenya’s waning price competitive advantage as preferred destination by tourists, insecurity of jobs in tourism sector and inadequate resources towards conservation and wildlife protection.

#### 4.4.4 Tourist Arrivals

The study sought to establish whether poaching deters potential tourists from visiting parks where wildlife is at higher risk of being poached. The findings are presented in table 4.6 below.

**Table 4.6 Poaching deter potential tourists from visiting parks where wildlife is at higher risk of being poached (N=182).**

	Frequency	Percentage
Strongly Agree	108	59
Agree	53	29
Disagree	11	6
Strongly Disagree	7	4
Don’t know	3	2
<b>Total</b>	<b>182</b>	<b>100</b>

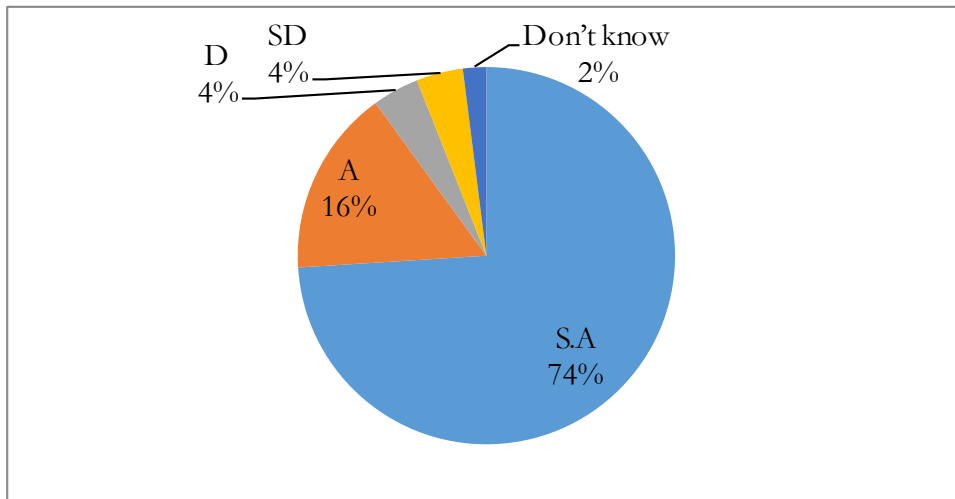
From table 4.6 above majority 59% strongly agreed with statement that poaching deters potential tourists from visiting parks where wildlife is at higher risk of being poached followed by 29% who agreed, 6% disagreed, 4% strongly disagreed and finally 2% did not know. Respondents who strongly agreed that poaching may deter potential arrivals of tourists, some cited that media reports and public knowledge of poaching in a specific park or state informs travel advisory issued by the states of potential tourists, hence tourists can opt for alternative destinations with similar wildlife and tourist sceneries.

Some tourists’ destinations may be influenced and changed depending on how the countries handle poaching issues; if the country fails to care if poaching takes place in its jurisdiction then potential tourists might choose to tour other countries with wildlife and measures in place to protect wildlife. CITES can also intervene and press for some sanctions on member countries which fails to put measures in place to curb poaching.

Another respondent who disagreed said that Poaching activities alone may not make tourists not to visit their preferred destination. Some tourists save and plan in advance to tour specific places and despite negative publicity of prevalent poaching, they may just go ahead to achieve their dreams of visiting that pre-planned place. Hence, tourists may not shun visiting poaching prone wildlife parks. Most of the tourists continue to visit and rarely express fear of danger from poachers. Tourist are normally in wildlife conservation areas during day time for their safety with exception of designated camping sites. They are slim chances for tourists to encounter poachers inside the park as poachers sneak in to conservation areas at isolated times when they cannot be discovered. Nevertheless, some tourists are displeased with poachers when news of them mercilessly killing wildlife.

#### 4.4.5. Poaching threats necessitate recruitment, training and equipping of more rangers

The study sought to establish whether poaching threats necessitate recruitment, training and equipping of more rangers. The findings are presented on figure 4.4 below.



**Figure 4.4 Poaching in relation to recruitment, training and equipping more rangers (N=182).**

From figure 4.4 above the findings shows that majority of 74% strongly agreed (SA) that poaching has led to increase in the recruitment, training and equipping of rangers followed by 16 percent who agreed (A) that poaching has led to increase in the recruitment, training and equipping of rangers, 4 percent for both strongly disagree and agree and 2 percent did not know what is all about. For respondents who strongly agreed that poaching threat leads to enhanced recruitment, training and equipping of more

rangers, some said that states recruit more rangers so as to increase physical security of wildlife by putting poachers at bay, thus increase in poaching calls for increase in number of rangers. Poachers to succeed in their endeavors devise methods to outwit security. To mitigate the threat posed by poachers, the rangers need to be trained to be ahead of poachers. For example, Baral (2013) argues that states need to avail adequate weapons, training, air mobility, surveillance and sensor technology training to wildlife rangers hence an added expense of range states. This leads to states to invest in recruitment and training of rangers to hold relevant skills and knowledge in combating poachers.

#### 4.5 Poaching is an Organized Crime

The study further sought to find out from the respondents if poaching was an organized crime, the results are shown in table 4.7

**Table 4.7: Poaching is an organized crime (N=182).**

<b>Poaching</b>	<b>Frequency</b>	<b>Percent</b>
Yes	154	84.6
No	28	15.4
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019.**

Results from table 4.7 indicate that 84.6% of the respondents said poaching is an organized crime enterprise while only 15.4% said it wasn't an organized crime enterprise. The study found out that majority of the respondents classified poaching in the country as an organized crime because of the professionalism shown in the killing of animals and the coordination exhibited by the poachers in the killing, transportation of the tusks, meat and skins. Poaching in the country or in the parts of the world is an organized crime from the source to the consumer market.

The findings reveal poaching as an organized crime as the crime is done locally and the wildlife by-products are taken to international markets passing through manned road blocks and security check points. The consumer markets are sometimes far away from source countries. Poaching involves several individuals or syndicates as well as individuals of various nationalities or domiciled in different countries. This indicates a

big chain in the poaching sector and posing challenges to a single government successfully curbing poaching. The poached wildlife products are routed in same routes used to smuggle other contrabands with similar destinations. Poaching succeed under organized operations as there is protection to the criminals as well as aiding in commission of the crime. For instance, if the ground poacher is not assured by protection from some insiders as well as fed with intelligence on the timings and whereabouts of the targeted wildlife, he may be killed on the spot as well as he would take longer time in the conservation areas scouting for wildlife hence increasing the chances of being caught.

The finding above has been corroborated by the ESAAMLG Report (2016) which notes that poaching bear similar indicators of organized crime among them; unexplained exchange of products between individuals, lack of clear indication on who is paying for shipment, no logical link between individuals receiving benefit and individual paying, custom officials handling the consignment living beyond their financial means, unceasing arrests, seizures and poaching incidents, and vehicles that prefer crossing the borders a certain times when compromised officials are on duty.

Vines and Lawson (2014) linked poaching to other organized criminal networks. Poachers often commit other range of crimes and poaching is closely related to firearms proliferation, money-laundering and drug-smuggling. Raxter (2015) further confirms the findings above that poaching in an organized crime by the complexity and huge resources involved in poaching, collection of trophies, concealing and shipping from one continent to another confirms involvement of transnational organized criminals. The poachers on the ground pay to access intelligence on whereabouts of wildlife being targeted, safe entry and exit, protection while inside the conservation areas and safe transportation of trophies to dealers. Dealers pay for protection and bribes to have the trophies exported while disguised as legal products.

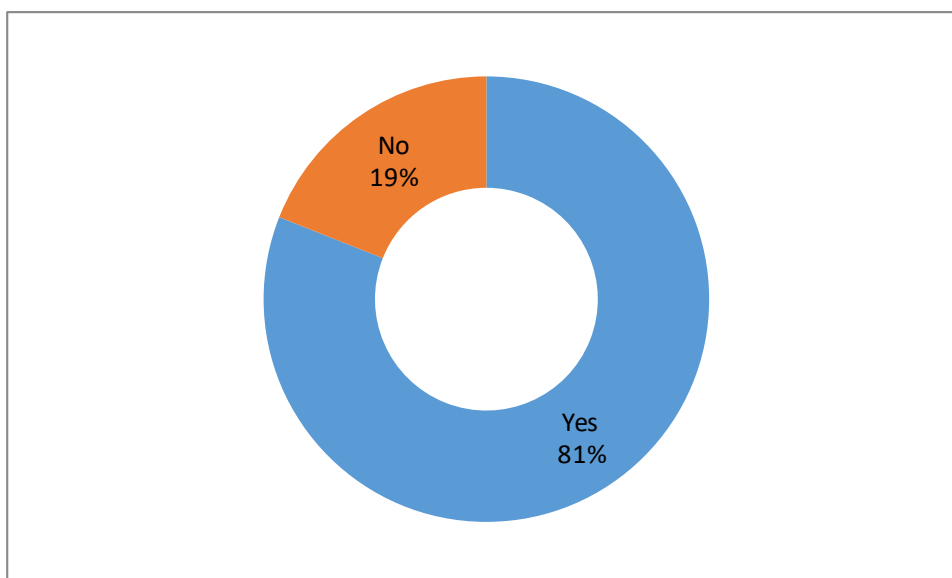
Ubwani (2016) liken poaching to an industry with poachers driven by profits and in other areas fan conflicts. Like any other profit making enterprise, poachers go out of their way to bribe corrupt officials and business people along the illicit trophy supply chain. Although, Ubwani (2016) linked poaching to traditional organized criminal groups like Chinese triads, south Asia drug syndicates and South East Asian wildlife traders, none of the respondents confirmed the allegations apart from indicating that

Asia is the consumer market of poached wildlife trophies. Vines and Lawson (2014) argue that poachers fuel corruption and violence. From the study two respondents stated that they had been approached by proxies of the suspects to bail them out. Kabete (2016) noted that poachers corrupted people in authority in securing their safety and this was manifested through the stages of arrests, investigations, prosecutions and, their subsequent acquittal or lenient sentences by courts. This could indicate presence of willing individuals sponsoring freedom of suspects hence a pointer that they work for some unseen individuals. This depicts a clear manifestation of organized crimes where the element of secrecy is prominent. For the case of suspects arrested in Nairobi National Park, only individuals arrested while in the park or transporting trophies are known to security organs as subsequent interviews do not disclose other players.

The few respondents at 28% do not know how to classify this operation but explains it as a traditional practice where communities used to poach wildlife for their daily livelihoods and other cultural practices. ESAAMLG report (2016) classifies it as a crime associated with low social stigma, enticing proceeds, low risk business, lenient penalties, and quick crime and generally inexpensive. For example, it was a form of rite of passage for maasai young man to kill a lion to graduate into adulthood. Also, Jooste, 2014 gave exceptions of some poaching commission which do not qualify as organized crime enterprise although poached trophies are fed into the criminal networks with brokers' moving the trophies across borders and laundering the proceeds from the sale. More so the high prices attract specialists from the transnational criminal networks. They conceal the shipment to appear like legitimate cargo using front companies; custom officials are also compromised to certify transactions as legitimate. However, today they could not explain how it has international connection and introduction of the sophisticated weapons.

#### **4.5.1 Poaching and Proliferation of Small Arms and light weapons**

The study sought to know if there is any linkage between poaching and proliferation of small arms and light weapons. Figure 4.5 below is the summary of the findings on the questions.



**Figure 4.5: Linkage between poaching and proliferation of small arms and light weapons (N=182)**

**Source: Researcher, 2019**

Figure 4.5 illustrates that majority 81.0% of the respondents agreed that there is a linkage between poaching and proliferation of small arms and light weapons while 19.0% said there is no linkage between poaching and the proliferation of small arms and light weapons. Majority (81%) of the respondents agreed that there is a link between poaching and proliferation of small arms and light weapons because most of these weapons used by the poachers do come from the corrupt game rangers, policemen and licensed gun holders who give their weapons to poachers and expect money after the sale of the products. The weapons are also obtained across the border or black market, for example from unstable countries such as Somalia, South Sudan or even stable states like Uganda. The other source of the weapons used by the poachers is the traditional or home-made crude weapons. These weapons include machetes, bow and arrows, home guns and even traps. The weapons are also owned by some poachers.

This confirms concerns raised by Carlson et. al (2015) that many small arms and light weapons used by poachers are diverted from government stores and that readily available small arms and light weapons complicates anti-poaching efforts as it presents poachers easy access to deadly weapons. Crosta and Sutherland (2016) (2016) stated that in the period from 2011 and 2012, an AK47 was averagely selling at about USD 731 and its ammunition per unit was at USD 0.60 in Somalia. The affordability of such

weapons and accessories highly contributes to militarization of anti-poaching drives which exposes civilians to increased threats from firearms which are in hands of poachers, which they use to poach and protect themselves against whoever tries to keep them away from killing wildlife, in some cases degenerating into shootouts and subsequent fatalities to rangers. Also, Bolton (2015) and Kyando (2014) attribute upsurge in poaching to influx of high caliber automatic weapons into Africa and that poaching leads to proliferation of weapons in areas that has conflicts, provides money for corruption and oils engines of crime.

The weapons are also obtained across the border or black market, for example from unstable countries such as Somalia, South Sudan or even stable states like Uganda. The other source of the weapons used by the poachers is the traditional or home-made crude weapons. These weapons include machetes, bow and arrows, home guns and even traps. They are those owned by the poachers themselves and they are used in the killing of wildlife in the Country.

The finding corroborates the arguments of Bolton (2015) that poaching fans proliferation of small arms and light weapons in areas that need less conflicts, provides money for corruption and oils engines of crime. Kyando (2014) attributes upsurge in poaching to influx of high calibre automatic weapons into Africa and argues that militarized interventions by states often exacerbate the situation whereby as states invests in arming their rangers to counter poachers who have sophisticated weapons, some rangers lose these weapons or sell them to poachers and in the process there is silent arming of both poachers and rangers. Raxter (2015) avers the same, expressing a disturbing development where armed non-state actors like poachers threaten the state by exchanging fire with government agents mandated to protect wildlife.

The weapons are often multipurpose since when not in wildlife conservation areas to poach they are diverted to commission of other crimes like carjacking. Weru (2016) attributes proliferation of small arms and light weapons which act as a driver and enabler of poaching. Poachers exploit unmanned porous borders to smuggle into the country poaching weapons and also easily traffics in and out poached trophies to collection points for onward transmission to consumers.

From the figure 4.5 above only few respondents (19%) did not agree that there is a link between poaching and proliferation of small arms and light weapons. Some of the respondents indicated that there will be poaching even without modern weapons and listed some of the weapons that poachers use in killing wildlife which included poisoning of water points, pasture and snares. Table 4.8 below is the summary of the findings on weapons used by poachers.

**Table 4.8: Weapons used by Poachers (N=182).**

<b>Weapons</b>	<b>Frequency</b>	<b>Percentages</b>
Guns	89	49.0
Crude weapons	49	27.0
Arrows/ bows	34	19.0
Traps	10	5.0
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019**

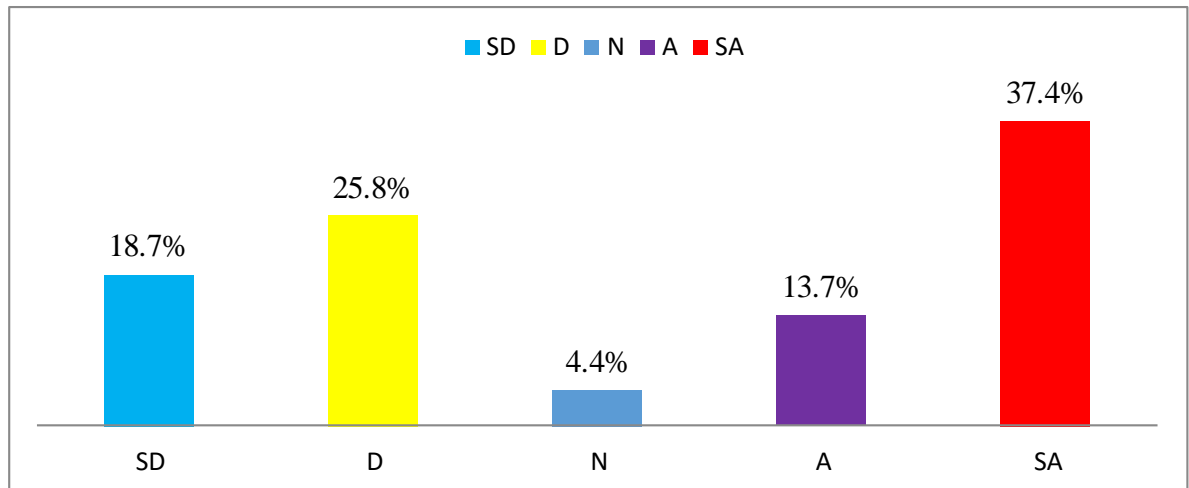
Findings from table 4.8 above reveals that 49% of the respondents indicated that poachers use guns to kill wildlife followed by 27% who said they use crude weapons, 19% use arrows and bows while only 5% use traps to wildlife. From the findings guns are mostly used in poaching. This corroborates finding by Karanja (2012) who attributes proliferation of small arms and light weapons in Kenya to a causal factor of poaching. As the paradox of what comes first between an egg and a hen, it is similar to presence of poaching weapons igniting poaching as well as poaching causing a demand for these weapons. Poudyal (2005) also established that poachers have become more militarized and sophisticated in their operations. Although Karanja (2012) observes that rhino horns and ivory are used as a currency to barter for firearms, the findings of this research did not confirm the fact.

Sobania (2003) and ESAAMLG (2016) also confirms the findings that contemporary poachers no longer use bows and arrows or old hunting rifles, but instead use the AK-47 and G3 assault rifles among other sophisticated weapons like tranquilizer guns, veterinary drugs and high caliber weapons. Some of these weapons are hired and others owned by poaching gangs. Whenever the weapons are not used in poaching, they are sometimes used to commit other crimes like robberies in the wildlife neighboring communities.



#### 4.5.2 Poaching with Traditional Crude Weapons Replaced by Militarized and Organized Crime Groups

The study sought to examine whether Poaching with traditional crude weapons is being replaced by militarized and organized gangs who use sophisticated weapons. The respondents were provided with options of Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A) and Strongly Agree (SA). Figure 4.6 below is the summary of the findings on the poaching.



**Figure 4.6: Poaching with traditional weapons is being replaced with sophisticated weapons (N=182).**

**Source: Researcher, 2019**

On average 37.4% of the respondents as shown in figure 4.6 shows that majority (37.4%) strongly agreed that sophisticated weapons are replacing traditional weapons followed by 25.8% who disagreed, 18.7% strongly disagreed, 13.7% agreed with the statement and 4.4% neutral. The findings may be so because in most modern poaching they use sophisticated weapons due to the demands of the products from the poaching and also the enhanced physical security of the wildlife.

The finding confirms argument by Poudyal (2005) that poachers have become more militarized and sophisticated in their operations. Sobania (2003) and ESAAMLG (2016) also confirm the finding that contemporary poachers no longer use bows and arrows or old hunting rifles, but instead use the AK-47 and G3 assault rifles among other sophisticated weapons like tranquilizer guns, veterinary drugs and high calibre weapon. Biggs, Duan & Courchamp, Franck & Martin, Rowan & Possingham, Hugh. (2013) attribute poachers' use of sophisticated technologies like demobilization darts

to the monetary rewards drawn from the enterprise, stating that in the year 2012, a kg of rhino horn was USD 65,000, which was more than the cost of precious metals. In the process of use of sophisticated weapons, the wildlife conservation agencies also step up their security for personnel manning the wildlife and the wildlife themselves, hence an added cost.

#### 4.6 Challenges affecting anti-poaching initiatives

The study sought to establish challenges affecting anti-poaching initiatives. The findings are presented in Table 4.9.

**Table 4.9 Challenges affecting anti-poaching initiatives (N=182)**

<b>Challenges</b>	<b>Frequency</b>	<b>Percentage</b>
Lack of resources	69	38
Corruption	50	27.5
Lack of skills and weapons	39	21.4
Porous borders	24	13.1
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019**

The findings show that lack of resources, corruption, lack of skills, availability of weapons and porous borders as shown in table 4.9 are the challenges affecting anti-poaching initiatives.

Lack of resources is a key challenge facing anti-poaching efforts. The wildlife animals are in public and private conservancies spread across the country. Kenya Wildlife Service is the key government agency mandated to protect and conserve wildlife in Kenya. To effectively perform their mandate, they are funded by the government. KWS needs resources to enable them deliver on their mandate and the projects KWS does to ensure physical security to wildlife is through putting up fences along the wildlife conservation areas to prevent wildlife from straying from protected areas. Some of endangered wildlife are placed with trackers to monitor their movements inside the conservation areas and help the security agents to respond when they are in distress. KWS also have light planes that help with surveillance of wildlife inside the

conservation areas. KWS has also human resources who undertakes the above projects. Kabete (2016) attributes challenges to anti poaching efforts to lack of sufficient funding to enable KWS undertake necessary infrastructures development.

Corruption where poachers buy safety for their illicit activities while disgruntled officers gets an opportunity for an alternative but illicit source of income. It plays along the entire poaching chain to provide conducive poaching environment for poachers in source, transit and consumer countries. From the conservation areas, some poachers use corrupt government agents to acquire intelligence on the movement of wildlife being targeted. To facilitate intrusion, poaching, transportation, handling by brokers and shipment, poachers rely on corruption as a tool to enable them to circumvent to another level. It is through corruption that poachers illegally acquire, move poaching equipment. Since poaching is treated as a crime against the state and there is no specific person who is wronged, some disgruntled security agents accept the bribes and easily gives safe passage to wildlife trophies.

These results go in hand with Haenlein and Maguire (2015) argue that around 2010 to 2012, corruption among government agents created low-risk operating environment for poachers and this led to Mombasa port to be world leading “wildlife trafficking point”. Further, Weru (2016) notes that corruption among government and private sector enables poachers to exploit security loopholes in order to poach and smuggle wildlife trophies to consumers, emergence of sophisticated poaching gangs with links to organized crime which pose challenges to wildlife as well as individuals managing them and conflicts among northern Kenya communities facilitate proliferation of weapons which is used by poachers.

Porous borders enable poachers along the poaching chain to operate across country borders. Some of Kenya’s conservation areas are at the border and wildlife crosses to neighboring countries. In these wildlife conservation areas at the national borders, some of the poachers use un-officially recognized routes to sneak in to the country to poach and go back to their homes. The poached wildlife trophies are also transported across borders through these un-manned border points for onward shipment to consumer markets. Weru (2016) also attributes porous borders to facilitation of poachers’ movements and transportation of illicit wildlife trophies.

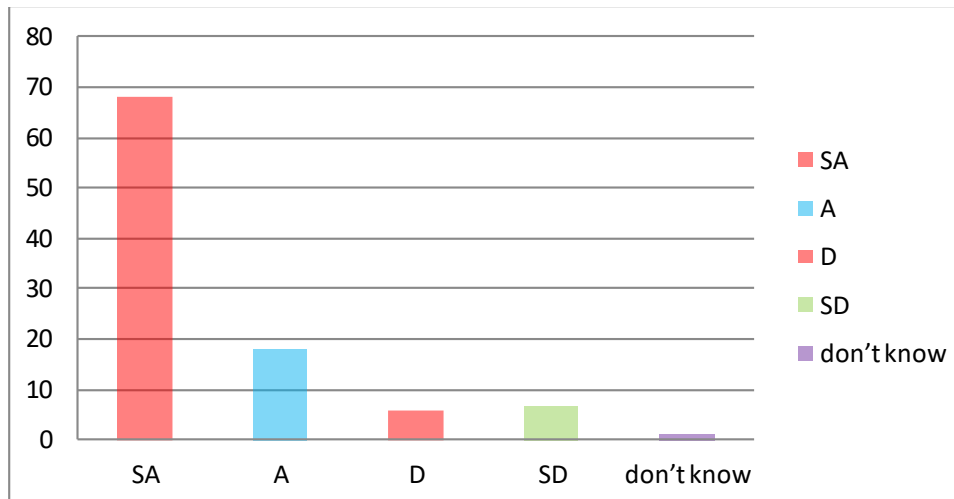
The KWS personnel are trained and officers are professional in discharging their mandate. However, in isolated cases, poachers sometimes outsmart security as they often change techniques of poaching, for example, there was a period that poachers would poison, lay in wait for an animal to die but due to risks from staying long in the wildlife conservation areas, they resorted to use guns where they kill the animals instantly and leave conservation area using motorcycles. Poachers often change technique of operating and sometimes find park security personnel unprepared. This was seen around 2017, when there was enhanced security in wildlife conservation areas, poachers still managed to enter conservation areas and changed to use of arrows which was very difficult for wildlife security personnel to detect them as it was silent unlike guns whose shots produce sound which can alert wildlife security personnel. Koech (2017) affirms that poachers in Lake Nakuru National Park had ditched traditional poaching guns and were using poisoned arrows to poach rhinos in the Park.

Kabete (2016) attributes challenges to anti poaching efforts to insufficient personnel, lack of sufficient training and relevant expertise to counter emerging poaching trends. Introduction of direct flights to countries with ready market for illicit wildlife products also pose a challenge to curbing poaching as it makes it easier for poachers who opt to use air and avoid long process of shipment through the port. Weru (2016) attributes direct flights between Kenya and Eastern Asia being a challenge to curbing poaching, noting that these flights carry passengers with illicit wildlife products in their baggage transiting through the country from Southern African countries.

Lack of good will from local leaders and community around game parks, inadequate training of the rangers, lack of skilled manpower in the industry to educate them in protection measures to take in the event of attack, porous borders and multinational or international poachers who operate across borderlines thus making it hard to curb poaching. Further Rademeyer (2016) argues that some countries lack political will and capacity to effectively investigate, disrupt and prosecute, making it hard to crackdown on global poaching syndicates and also poaching roots for militarization of both the criminals and government regulatory agencies in the process creating demand benefits to the arms and light weapons manufacturers and dealers.

#### 4.7 International intervention to protect wildlife

The study sought to establish if magnitude of poaching of iconic wildlife species attracts international intervention. Figure 4.7 presents the findings;



**Figure 4.7: Magnitude of poaching of iconic wildlife species attracts international intervention (N=182).**

From figure 4.7 majority 68.1% of the respondents strongly agreed that magnitude of poaching of iconic wildlife species attracts international intervention followed by 18.1% who agreed. Another 6.0 percent disagreed, 6.6 percent strongly disagreed and 1.1 percent did not know. 2 of the respondents who strongly agreed cited that when there were heightened poaching and trade in wildlife trophies in Kenya, CITES intervened by listing Kenya among the countries with bad wildlife protection records and the country stepped up wildlife protection measures so as to evade looming sanctions. Also wildlife is a communal heritage and for parks running across country borders, wildlife belongs to both states hence one state has a right to seek intervention if its counterpart is reluctant of fighting poachers from their end.

#### 4.8 Poaching is unlikely to recede to the profit

The study sought to examine whether poaching is unlikely to recede owing to the fact that it is a high profit-low risk venture. The respondents were provided with options of strongly disagree, disagree, neutral, agree and strongly agree. Table 4.10 below is the summary of the findings on the poaching.

**Table 4.10: Poaching is unlikely to recede to Profit**

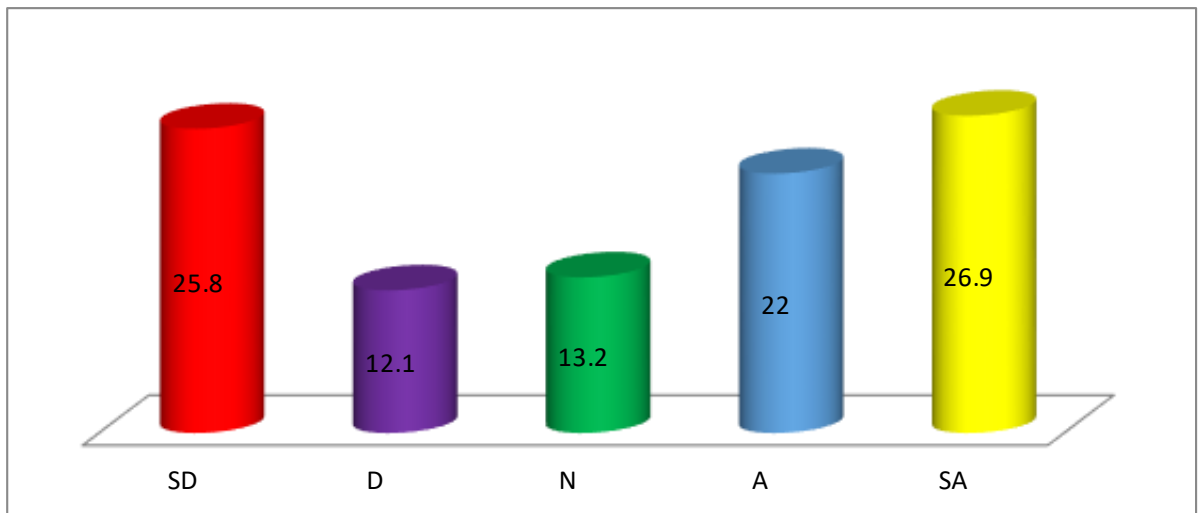
<b>Poaching</b>	<b>Frequency</b>	<b>Percentage</b>
Strongly Disagree	70	38.5
Disagree	21	11.5
Neutral	44	24.2
Agree	12	6.6
Strongly agree	35	19.2
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019**

Table 4.10 shows that 38.5% of the respondents strongly disagreed with statement that poaching is unlikely to recede owing to the fact that it is a high profit low risk venture followed by 24.2% who were neutral about it. Another 19.2% of the respondents strongly agreed with the statement, 11.5% disagreed with statement and 6.6% agreed with statement. There was mixed response across the study, probably due to the fact that the statement asked had two points. The first point is the high profit and the low risk venture. In reality poaching is high profit making business but also very risky and in most cases attracts harsh sentences.

#### **4.9 Implementation of systematic ballistic checks on recovered weapons from poachers curbing proliferation of small arms and light weapons**

The study sought to examine whether implementation of systematic ballistic checks on recovered weapons from poachers would curb continued proliferation of small arms and light weapons. The respondents were provided with options of Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A) and Strongly Agree (SA). Figure 4.8 indicates the summary of the findings.



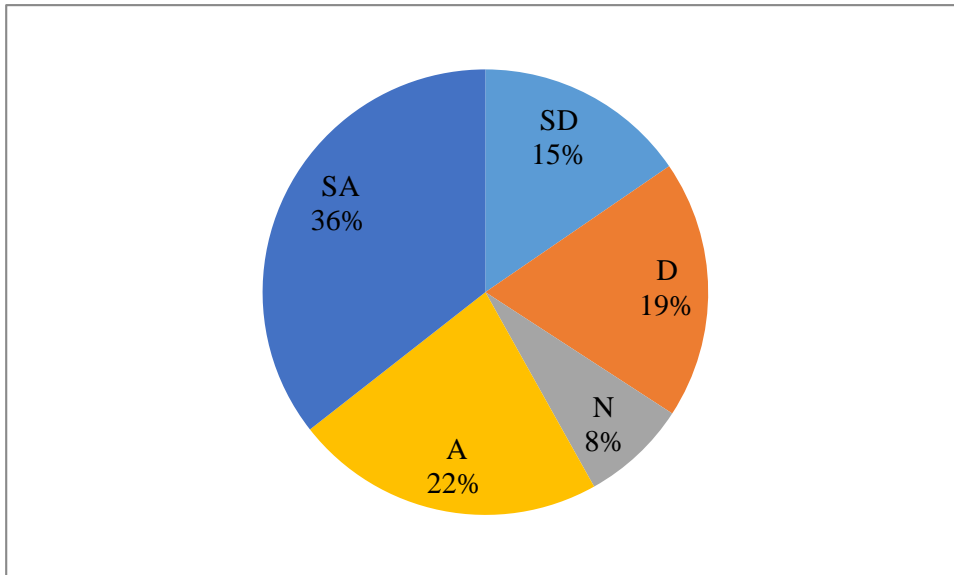
**Figure 4.8: Implementation of systematic ballistic checks on recovered weapons from poachers curbing proliferation of small arms and light weapons (N=182).**

**Source: Researcher, 2019**

From figure 4.8 it is seen that 26.9% of the respondents strongly agreed that implementation of systematic ballistic checks on recovered weapons from poachers would curb continued proliferation of small arms and light weapons, 25.8% strongly disagreed, 22% agreed, 13.2% were neutral while only 12.1% disagreed. Results shows that averagely implementation of systematic ballistic checks on recovered weapons from poachers may curb proliferation of small arms and light weapons.

#### **4.10 Level of Local Community’s Awareness and the Magnitudes of Poaching**

The study sought to examine whether Level of local community’s awareness on wildlife conservation determines the magnitudes of poaching. The respondents were provided with options of Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A) and Strongly Agree (SA). Figure 4.9 below is the summary of the findings on the poaching.



**Figure 4.9: Level of community's awareness on wildlife conservation (N=182)**

**Source: Researcher, 2019**

It is indicated from figure 4.9 that 36% of the respondents strongly agreed that level of community's awareness on wildlife conservation determines poaching magnitudes, 22% agreed, 19% disagreed, 15% strongly agreed while 8% were neutral. When the community near the wildlife conservation areas is aware of dangers posed by poachers on their wellbeing, they are actively engaged in policing whereby they are likely to volunteer information to relevant authority on poaching plans. The community partners with the wildlife conservation and protection agencies to keep poachers aware and make it hard for poachers to operate from the community. This makes it harder for foreign poachers to come and poach, hence decreases the incidents of poaching. 3 of interview participants stated initiatives being used by wildlife conservation agencies in enhancing wildlife conservation awareness. Both KWS and local administration encourage local wildlife communities' participation in wildlife conservation. All the 3 noted that the local communities are receptive and cooperative in conserving and protecting wildlife.

The wildlife protection stakeholders run programs aimed at changing perception and attitude of local communities towards conserving and protecting wildlife. KWS, County and community administration work together to achieve this objective. KWS has put in place mechanisms to enhance co-existence between wildlife neighboring communities and wildlife to reduce conflict between local communities and wildlife. These mechanisms include indirectly providing alternative live hood for youth from



neighboring communities through employing community scouts. The scouts are paid while they are trained and tasked to protect wildlife in their areas. The communities as shareholders are also engaged by KWS and village administration through consultative meetings and education to create awareness of the benefits of conserving wildlife. KWS also builds some projects for the community like digging of boreholes so that the community does not intrude into conservation areas to look for water and pasture. KWS also has comprehensive compensation mechanism for community in instances where wildlife stray and causes destruction in the community so as to avoid locals attacking wildlife.

Fynn and Kolawole (2020) note that wildlife protection efforts may be futile in arrangement where the cost benefit ratio is skewed to benefit more international conservation fraternity and tourism companies may disfranchise the local community. When the local community see foreigners benefiting more from resources domiciled in their areas while they suffer from wildlife human conflicts over shared resources and diseases their stocks contract from wildlife may lead to resistance and cooperation with poachers. The local community know their area well and are part of local social networks and it is not a win over the side of conservation efforts then they can outwit the security whose personnel are new in conservation areas, have poor social networking and scarcity of funds to enhance their presence in conservation areas.

#### **4.11 Enforcement of the Wildlife Conservation and Management Act 2013 (WCMA, 2013).**

The study sought to examine whether enforcement of the wildlife conservation and management Act 2013 (WCMA, 2013) has led to decreased poaching incidents. The respondents were provided with options of Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A) and Strongly Agree (SA). Table 4.11 below is the summary of the findings on the poaching.

**Table 4.11: Enforcement of wildlife conservation and management Act 2013 (N=182)**

<b>Enforcement</b>	<b>Frequency</b>	<b>Percentages</b>
Strongly disagree	25	13.7
Disagree	28	15.3
Neutral	20	11.0
Agree	69	38.0
Strongly	40	22.0
<b>Total</b>	<b>182</b>	<b>100</b>

**Source: Researcher, 2019**

The findings from the table 4.11 shows that 38% of the respondents agreed that enforcement of the wildlife conservation and management Act 2013 has led to the decreased poaching incidents in Kenya followed by (22%) strongly agreed with the same statement. Thirteen point seven percent strongly disagreed with statement, 15.3% disagreed and 11% were neutral on the statement. On those who strongly agreed, five respondents said that severity of the spelt punishment of wildlife offenders make the risk to be higher than benefits considering that in the supply chain, individuals who source, conceal and carry wildlife by-products draw minimal monetary benefits. (Biggs, Duan & Courchamp, Franck & Martin, Rowan & Possingham, Hugh 2013) put the cost of a kg of rhino horn on black market in consumer countries at USD 65,000 in 2012 whereas poachers in source countries like Kenya sold at less than that amount.

#### **4.12 Measures to curb Poaching**

The study sought proposals on measures that the government could put in place to curtail poaching of wildlife. All the 8 participants stated measures which included the following;

Disarmament of communities/individuals who have illicit small arms and light weapons. The government should disarm members of communities who have illicit firearms. The government had conducted similar exercises before with some success. This will make individuals to return the illicit arms to government officers and the mop will reduce the source of weapons to poachers. The mop exercises will also bring to

books the cartels of poaching in the country because some of them are known to the public.

The government need to put in place strict and punitive measures to those found culpable of poaching. The individuals arrested with illicit wildlife products are often poachers at lower poaching chain, couriers and collectors. This category of players is easily replaceable, whenever they are arrested, key poachers approach other individuals and poaching continues unstopped. The buyers, brokers and logistic facilitators are rarely found in possession or near the illicit wildlife products. This makes it impossible to link key poachers who are mostly linked to organized criminal networks and the ultimate consumers.

The government or state has to ensure that they curb issues of corruption in the nation or country. Poaching just like any other criminal activities is catalyzed by corruption. Poachers across the poaching chain exploit corruption to poach. Allocation of more funds and resources to not only equip, recruit, train and conduct the issue of wildlife protection sensitization campaigns is important. Maguire (2018) classifies measures to curb poaching into targeted interventions through equipping front line poaching with skills and knowledge to protect wildlife and the mode of interventions through instilling skills and knowledge like training, techniques, resources and values. Maguire also noted linkage among poaching, transnational organized crime, corruption and involvement of non-state actors.

Employing community conservation programs and actively engaging the local community in the wildlife conservation efforts. Conservation efforts will be boosted by the strong local social networks of the local community who will flush out poachers from their community. Recruiting more personnel, equipping and enhancing surveillance of wildlife alone may be an exercise in futility and cash draining on the state (Fynn and Kolawole 2020). The local community provide intelligence on unusual activities in the locality and this information guides the wildlife conservation personnel in subsequent investigations.

#### 4.13 Relationship between poaching and Kenya's economic sector

**Table 4.12. Relationship between poaching and Kenya's economic sector**

Economic activities	Chi-square		
	Value X <sup>2</sup>	df	Asymp. Sig. (2-sided)
Tourism (production)	8.318(a)	4	.006
Government allocation of resources(consumption)	10.848(a)	4	.001
Security (capital formation)	28.931(a)	4	.000
Investment	11.030(a)	3	.002

The findings indicated that the p value for all economic activities was less than 0.05 ( $p < 0.05$ ) showing a relationship between poaching and economic activities of a country. From these findings it is depicted that poaching affects the environment where by local communities suffer by losing the monetary advantage they would have gained from tourism to the natural habitations of the wildlife; disapprovingly threatened species which are repeatedly targeted in poaching activities face extinction and also the ecology stops to be at balance when some species are eradicated this creates a tension on the food chain and a subsequent bad effect on other defendant species. Apart from the effects to the environment, where Kenya stands to lose its biodiversity through extinction of some species, poaching and wildlife trafficking also has a debilitating effect on the tourism industry, Kenya's leading foreign exchange earner where the wildlife is facing increased threat, considering the country takes pride in the same.

#### 4.14 Chi Square Test on the Relationship Between poaching and proliferation of small arms and light weapons.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.117 <sup>a</sup>	3	.038
Likelihood Ratio	14.136	3	.0008
Linear-by-Linear Association	5.064	1	.000
<b>N of Valid Cases</b>	<b>50</b>		

Table 4.12 presents measures of association and measures of statistical significance in regard to the hypothesized relationship between poaching and proliferation of small arms and light weapons. The chi-square value was found to be significant ( $X^2(3) = 53.117$ ,  $P = .038$ ). This shows a relationship between two variables poaching and

proliferation of small arms and light weapons. Organized criminals easy access to small arms and light weapons in Kenya is an issue behind the plunder of the country's wildlife by poachers and traffickers. Factors that lead to possession for small arms and light weapons are due to inter-communal conflicts.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This section presents the summary of the findings, conclusions and recommendations of the study.

#### 5.1 Summary of Findings

Poaching of wildlife is a threat to Kenya's national security. This is derived from effects of reduced revenue collected from the tourism sector and creation of demand for poaching weapons spurring proliferation of small arms and light weapons. On the revenue from tourism activities, the reduction leads to Treasury to allocate KWS more funds towards conservation of wildlife. Reduced arrival of tourists affects service providers in tourism industry and hospitality, aggravating unemployment problem. Poachers use lethal weapons and this threaten safety of visitors to the wildlife conservation places. Need of poaching weapons creates demand for supply and this leads to proliferation of small arms and light weapons in the country. Movement of both wildlife trophies and poaching weapons is enabled through organized criminal networks.

In summary, it was found that poaching is an illicit activity and poachers are criminals who breach national laws on protection and conservation of wildlife. Poaching negatives impacts revenue stream from tourism, tourists opt for alternative destinations perceived to be safer and the country allocates more funds to meet the deficit in projected collections from tourism towards wildlife conservation and protection. Poaching has become a multibillionaire dollar industry, though proceeds in the country cannot be quantified. The proceeds from this crime has the potential to fuel dangerous criminal syndicates leading to national insecurity. It is also noted that poachers use weapons which creates demand for illicit weapons and this leads to smuggling in the country of illicit weapons that may be used to commit other crimes. Some of poachers also act as 'criminals for hire whereby if there is no demand for wildlife products they are used to commit other crimes.

The illegal money from poaching acts as a recipe for insecurity whereby some poachers use it to commit other crimes like purchase of poaching weapons. Mostly poaching activity entails use of weapons and drive for food and money which force poachers to purchase sophisticated weapons which can be used to commit crimes like robbery and murder outside the game parks. There is lucrative business in poaching and this leads to smuggling of small arms and light weapons for the purpose of poaching. Consequently, the powerful and sophisticated crime syndicates that emerge threaten stability and national security. However, it's worth noting that poachers in Kenya, despite having possession of illicit small arms and light weapons and money from poaching, they are not motivated to subvert the state authority.

The declined revenue collections resulting from reduced arrival of tourists, leads the government to divert resources which may be used for other development projects to fund anti-poaching initiatives among them; recruiting, training and equipping more rangers and wardens, beefing security around wildlife protection areas and creating community awareness on their partnership in fighting poaching. The stakeholders in tourism sectors among them investors in hospitality facilities, tour firms, local entrepreneurs to wildlife areas like suppliers of goods and services also suffers from decreased revenue from visiting tourists. The government may be forced to use more resources to market and create confidence in potential tourists who shuns Kenya as a destination following bad wildlife protection records.

Availability of illicit arms and light weapons in the hands of criminals threatens personal safety of wildlife protection officers, tourists visiting the parks and neighboring communities where such weapons could be used to commit other crimes. Given the findings in the study where arming of security personnel in parks leads to poachers' use of sophisticated weapons to fight back or swiftly poach undetected, such illicit small arms and light weapons pose threats to lives and property hence need for extra security from the government. Use of common networks for commission of organized crimes in and across country borders qualifies poaching an international organized crime that needs cooperation across borders in fighting it. On tourism and poaching majority of the respondents 97% noted that poaching affect tourism sector in Kenya. Poaching has threatened security in Kenya, because of shootings in parks, encounters with poachers and armed anti-poaching patrols make tourists unsafe thus

moving away. It is seen that anti- poaching measures in any country possess as a big financial threat for protected area and a country in general, poaching therefore leads to lower numbers of tourists, and this reduces tourism receipts thus affecting long term sustainability of tourism.

Poaching creates a bad image for the country as a tourist destination therefore few people would visit the country. There is a decrease in tourists turn out due to fear of their security and lack of enough wildlife to watch. Further, increase in poaching incidents may lead to a country being blacklisted and some tourists would love to visit countries of good repute. There is a relationship between country revenue collected and tourism. There are few local tourists in the country who visit the national parks. The locals' embrace culture of going to their rural homes when on vacations and may not have the luxury of spending money to see wildlife which they view as for foreigners hence this does not expand revenue collection base from tourism. Another factor causing the decrease of revenue collection in parks is drought that leads to migration of animals and even death of most species of animals in the parks leaving nothing to be seen by tourists.

The findings show that lack of resources, corruption, lack of skills and weapons and porous borders are Another challenge is that poachers sometimes outsmart security as they often change techniques of poaching, for example, there was a period that poachers would poison, lay in wait for an animal to die but due to risks from staying long in the wildlife conservation areas, they resorted to use guns where they killed the animals instantly and leave conservation area using motorcycles. Poachers change techniques of operating and sometimes find park security personnel unprepared.

Another challenge found was corruption, it affects anti- poaching initiatives in Kenya. Political instability, lack of political good will from local leaders and community around game parks, inadequate training of the rangers, lack of skilled manpower in the industry to educate them in protection measures to take in the event of attack, porous borders and multinational or international poachers who operate across borderlines thus making it hard to curb poaching. It is through corruption that poachers illegally acquire, move poaching equipment and generally provide conducive operating environment for all poachers along the poaching chain.



Majority (81%) of the respondents agreed that there is a link between poaching and proliferation of small arms and light weapons because most of these weapons used by the poachers do come from the corrupt game rangers, policemen and licensed gun holders who give their weapons to poachers and expect money after the sale of the products. The weapons are also obtained across the border or black market, for example from unstable countries such as Somalia, South Sudan or even stable states like Uganda. The other source of the weapons used by the poachers is the traditional or home-made crude weapons. These weapons include pangas, bow and arrows, home guns and even traps. The weapons are also owned by some poachers.

The study found out that majority of the respondents classified poaching in the country as an organized crime because of the professionalism shown in the killing of animals and the coordination exhibited by the poachers in the killing, transportation of the tusks, meat and skins. Poaching in the country or in the parts of the world is an organized crime from the point of the market where it is done locally and the products are taken to international markets passing through all the road blocks and the security check points.

The findings reveal poaching as an organized crime as the crime is done locally and the wildlife by-products are taken to international markets passing through manned road blocks and security check points. This indicates a big chain in the poaching sector and posing challenges to a single government successfully curbing poaching. Poaching succeed under organized operations as there is protection to the criminals as well as aiding in commission of the crime. For instance, if the ground poacher is not assured by protection from some insiders as well as fed with intelligence on the timings and whereabouts of the targeted wildlife, he may be killed on the spot as well as he would take longer time in the conservation areas scouting for wildlife hence increasing the chances of being caught.

The study established that there is a strong relationship between poaching and proliferation of small arms and light weapons. This relationship is reciprocal since poaching donates to production of illicit small arms and light weapons and vice versa. Thus, the stopping and controlling of the poaching goes hand in hand. For a state to thrive in steering out poaching and stopping the proliferation of small arms and light

weapons a strong political will should come in against the main financiers and organizers of poaching doings and proliferation of illicit small arms and light weapons.

## **5.2 Conclusions**

In conclusion, poaching has negative impact on national security. Poaching evolved from an ordinary community practice to a meticulous organized criminal enterprise undertaken and coordinated by well-resourced individuals, whose illicit activities impact on all states along poaching chains. There is a direct relation between poaching and economic activities from wildlife tourism. Poaching indirectly reduces potential gains from tourism where revenue from tourism activities reduces. For the government to ensure safety of wildlife, tourists, wildlife officers and public, it uses more resources to keep poachers away. The threat also affects the investment environment in tourism where employment opportunities are missed and local communities fail to benefit from the wildlife resources.

There is a relationship between poaching and proliferation of small arms and light weapons. Poaching creates demand for weapons and boosts commission of other organized crimes. The availability of illicit small arms and light weapons resulting from inter-communal conflicts makes it easy for poachers to access these weapons which are used in commission of other crimes inside and beyond national borders. Kenya's porous borders is exploited by poachers to move poachers, poaching weapons and poached wildlife to consumers.

Growth of poaching to a security threat justified for out of ordinary measures in addressing it. The measures cut across range states facing similar challenges in protecting and ensuring sustainable consumption of their wildlife. Securitization of poaching was made by governments and local and international wildlife conservation activists. This led to introduction and domestication of different laws on protection of wildlife against poachers. This was the transition from accepted consumption of wildlife to protected wildlife and poaching became a criminal enterprise. Kenya has in place the Penal Code and WCMA, 2013 national laws that are used in prosecuting poachers. The two laws are in use however they have failed to serve as a deterrent on the entire poaching chain since most of poaching suspects arrested and prosecuted are

at the bottom of the poaching chain and they are easily replaceable hence the dilemma on the effectiveness of current laws acting as a deterrent.

Failure to fully involve wide range of stakeholders in wildlife conservation efforts causes challenges in effectively protecting wildlife against poachers. In securitization of poaching as a threat, most of the neighboring communities were not fully engaged in development of successful securitization narratives hence they were detached from the process. This made such communities not to value criminalization of poaching and its indirect effects on their livelihoods and national security.

### **5.3 Recommendations of the Study**

Poaching has been experienced in Kenya for decades and from the study's findings, poaching negatively impacts on national security. To ensure that there is minimized poaching which will improve wildlife, revenue collected from tourist and reduce organized crime, this study recommends the following measures:

- i. The government to cooperate with other wildlife range states and engage consumer countries on the effects of poaching to both wildlife population and security. This will create a common understanding and improve effectiveness of the war on poaching of wildlife. Poaching is a crime that transcends national borders and a state cannot combat it alone without cooperation with other states. The cooperation of consumer states will weed out demand hence poaching will lack market for wildlife trophies.
- ii. The government to sensitize all citizen and visitors in the country through both mainstream media and social media on poaching as a crime punishable under the laws of the country. This will improve the awareness among the public on poaching as a punishable crime and enhance public cooperation and participation in curbing poaching hence deter poachers from operating with ease.
- iii. Sustained nurturing, engagement, sensitization and empowering wildlife conservation local communities. This will provide alternative livelihood to the neighboring communities and increase their realization and appreciation of indirect benefits from the wildlife resources.

- iv. Increase collaboration among law enforcement Agencies, respective county governments in sensitization and engagement of wildlife neighboring communities in wildlife conservation and protection. This will actively engage the public who will own the efforts made in wildlife conservation.
- v. Need to increased and sustained financial, technical and political support by the national government and recognition of wildlife sector as a key component of Kenya's economy and include wildlife crime in the category of economic crimes. This will improve the capacity and capability of law enforcement Agencies leading to enhanced wildlife protection hence making wildlife crime to be risky business.
- vi. The government need to market and promote domestic tourism so as to attract more locals and reduce dependency on foreigners. This will make Kenyans especially in diaspora to be effective ambassadors of Kenya as tourism destination.
- vii. Heighten physical security of wildlife through quality and targeted patrols, enhance intelligence gathering, analysis and investigation, training to improve law enforcement and science/research led wildlife conservation and management. The government also need to increase its vigilance at porous border points
- viii. The government need to enhance and sustain its efforts towards combating corruption, organized crime and reduce impunity. Corruption is one of the major enablers of poaching and commission of organized crime in general.
- ix. Policy makers to put in place mechanisms to have legal firearms properly marked. The marking will make it possible to trace the weapons used in poaching and this will deter the vice
- x. The policy makers to put in place mechanisms to have legal firearms properly marked. The marking will make it possible to trace the weapons used in poaching and this will deter licensed gun holders and users from lending their weapons to criminals.
- xi. The government to continually review the laws on poaching of wildlife so as to make them stringent and deter further poaching activities

#### **5.4 Recommendation for Further Research**

There is a need for a study on impact of corruption enabled poaching on national security to be conducted. This will determine and provide empirical quantification on corruption as a key factor enabling poaching and subsequent effect on security of states. Another area for future research is to identify how funds that aid poaching and wildlife trophy trafficking are channeled and laundered into legal financial systems and subsequent impact on national security.

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## **Appendices**

### **Appendix 1: Cover Letter**

Dear Respondent,

I am Christine Manyonge, a Master of Arts student at University of Nairobi, School of Political Sciences. I am conducting a research on how poaching of wildlife impacts Kenya's national security.

You have been selected to participate in this study by virtue of the critical role that you play in provision of security to the wildlife in the country. Wildlife is a natural heritage with benefits to nations while poaching puts the future of wildlife at stake, hence the relevance of the research.

The information that you will provide will be solely for academic purpose and your identity will be treated with utmost confidentiality. You are kindly requested to answer the questions herein to enable the research to reflect the facts at play.

Thank you in advance.

Christine Manyonge.

**Appendix II: Request for permission to go and collect data**

CHRISTINE MANYONGE,  
REG. NO. C50/83585/2015,  
19<sup>th</sup> MARCH 2018.

TO THE CHAIRMAN,  
DEPARTMENT OF POLITICAL SCIENCES & PUBLIC ADMINISTRATION,  
UNIVERSITY OF NAIROBI.

THROUGH,  
DR. RICHARD BOSIRE.

**RE: REQUEST FOR PERMISSION TO PROCEED TO THE FIELD**

I hereby request for the Department's authority to proceed to the field to collect data.  
I successfully defended my proposal titled 'Poaching and Kenya's National Security; 2006 – 2015' on 13<sup>th</sup> October 2017. I have done all the corrections as directed by the defence panel.

Yours faithfully,

Christine Manyonge.  
C50/83585/2015.

## **Appendix III: Interview Guide**

### **The Impact of Wildlife Poaching on Kenya's National Security**

This study is seeking to establish the impact of wildlife poaching on Kenya's national security. Please answer the questions and outline reasons for your answers. The answers to questions below would help determine if and how poaching impacts national security.

#### **Section 1: Poaching and wildlife tourism**

1. Are the numbers of tourists arriving at your destination on increase/decrease? What do you attribute the increase/decrease in arrivals to?
2. Is there a distinct pattern of behavior/reaction amongst tourists in a period following poaching incidents in the parks being visited? What are these reactions?
3. Do tourists visiting your conservation areas raise concerns on dangers posed by poachers? What are the concerns frequently raised?
4. Does your department encourage local communities' participation in wildlife conservation efforts? How are the locals involved in the conservation of the wildlife?
5. Does the local community have specific roles in curbing poaching? Specify the roles.
6. What is your opinion on how to improve earnings from the tourism sector and where should it be directed to optimally benefit the country?

#### **Section 2: Poaching and Organized Crime**

7. Do poachers who operate in your conservation originate from the surrounding wildlife conservation community?
8. Are there specific roles in the chain of poaching reserved for individuals from neighboring communities? Specify these roles.
9. Is there a distinct behavior pattern in suspected poachers prior and after poaching? Explain these patterns.
10. Are poachers organized in groups? Specify if they have hierarchy in leadership, code of conduct, secrecy and punishment to individuals leaving the group. Explain how.
11. Explain how poachers transact to dispose trophies to brokers/dealers up in the chain? How does the criminals export trophies across the country's borders? How are the poachers on the ground paid by the organized criminals?
12. Are suspected poachers involved in other criminal activities? If yes, highlight common crimes poachers are likely to commit.

13. From your experience how do you view poaching action in terms of organization, commission and transactions

**Section 3: Poaching and proliferation of small arms and light weapons**

14. Which weapons are mostly used to poach in your conservation area?
15. Where are these weapons sourced from by the poachers?
16. Is there any pattern between poaching rate and quantity and nature of recovered poaching gear?
17. Are the seized weapons owned or rented by the poachers? If rented are they from the local communities?
18. Are the poaching weapons used in commission of other types of crimes? If yes, specify the type of crimes.
19. In your opinion, does the presence of weapons increase the probable rate of poaching? If yes, how does it relate with poaching.
20. Which measures could curb the problem of poaching
21. How has social media and technology impacted poaching

Thank you for your cooperation.



**Appendix IV: QUESTIONNAIRE**

**The Impact of Wildlife Poaching on Kenya’s National Security**

Please answer every question to the best of your knowledge.

**Part A: Demographic Data (Please tick where appropriate)**

- 1. What is your gender?                      Male (    )                      Female (    )
- 2. Please indicate your age.  
    18-27 years (    ) 28-37years (    ) 38- 47 years (    ) over 48 years (    )
- 3. Level of education  
    Primary (    ) Secondary (    ) tertiary (    ) University (    )
- 4. What position do you hold at your workplace? .....
- 5. How long have you been working for this institution?  
    Below 5 years (    ) 6 – 10 years (    ) above 11 years (    )

**Part B: Poaching and economic sector of the state**

- 1. Do you understand what poaching of wildlife entails? Yes/No
  - a) If yes, how is poaching a threat to the national security-----  
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  - b) In what areas do you think poaching undermines national security?-----  
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  - c) If no, why is government deploying huge resources to curb poaching -----  
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- 2. Do poaching affect tourism in Kenya? Yes/No
  - a) If yes, what are some of the challenges affecting anti - poaching initiatives?-----  
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b) If no, why do you think poaching remains a challenge in the tourism sector?---

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3. Do you think poaching of wildlife in local parks affects hotel occupancy in tourist destinations? Yes/No

a) If yes, explain how it affects hospitality industry?-----

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b) If no, why do you think hospitality industry has remained consistently vibrant?-

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4. Do you think decreased revenue as a result of wildlife poaching affects national security? Yes/No

a) If yes, explain how poaching affects tourist arrivals/ destinations?-----

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b) If no, explain other probable factors causing decrease in park collections-----

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Fill in the table below by choosing from the options: SA (Strongly Agree), A (Agree), N (Neutral), D (Disagree) and SD (Strongly Disagree)

	Statement	SA	A	N	D	SD
5	Poaching threat necessitates recruitment, training and equipping of more rangers					
6	Poaching deter potential tourists from visiting parks where wildlife are at higher risk of being poached					

7	Magnitude of poaching of iconic wildlife species attracts international intervention					
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**Part C: Poaching and Safety**

8. Is there any linkage between poaching and proliferation of small arms and light weapons? Yes/No

a) If yes, what is the source of the weapons?-----  
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b) If no, which weapons do poachers use?-----  
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9. Is poaching an organized crime enterprise? Yes/No

a) If yes, what are some of the evidence that poaching is an organized crime?-----  
 -----  
 -----

b) If no, where do you classify poaching?-----  
 -----  
 -----

c) Why? -----  
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 -----

Fill in the table below by choosing from the options: SD (Strongly Disagree) D (Disagree), N (Neutral), A (Agree) and SA (Strongly Agree)

		SD	D	N	A	SA
10	Poaching is unlikely to recede owing to the fact that it is a high profit - low risk venture					
11	Poaching with traditional crude weapons is being replaced by militarized and organised crime groups who use sophisticated					

12	Implementation of systematic ballistic checks on recovered weapons from poachers would curb continued proliferation of small arms and light weapons					
13	Levels of local community's awareness on wildlife conservation determine the magnitude of poaching					
14	The enforcement of the Wildlife Conservation and Management Act 2013 (WCMA, 2013) has led to decreased poaching incidents					

15. What do you think the government can do to curtail poaching of wildlife?-----

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**Thank for your kind cooperation.**