

**CONFLICT AND ENVIRONMENTAL SECURITY AMONG THE  
PASTORAL COMMUNITIES IN NORTHERN KENYA: THE  
CASE STUDY OF TURKANA**

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Master of Arts in International Relations**

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## STUDENT'S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University-Africa in Nairobi for academic credit.

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## **DEDICATION**

This thesis is dedicated to my siblings.

## **ABSTRACT**

This study explores the link between conflict and environmental security among pastoral communities in Kenya and in particular, the Turkana community. It further investigates the theoretical linkages between conflict and environmental safety. Besides, it interrogates the nature of the relationships among these variables and the effect on pastoralists' livelihoods. It also establishes the significance of institutional and normative frameworks on the prevention, management and the resolution of conflicts, and environmental insecurity within the context of governance deficit.

It is anchored within the Thomas Homer-Dixon environmental scarcity theory. The theory is expressed in terms of reduction in the availability of natural resources and captures the issues under investigation. The customization of the theory within the pastoral setting allows for the analysis of the supply, demand and structural factors which are crucial to conflicts and environmental security among the pastoral communities in Kenya. The study employs the use of secondary data and concludes that there is a link between conflicts and environmental security, against the backdrop of governance deficit. The gap is established in forms of historical neglect, weak and limited state presence.

Notably, the study problematizes these factors within the context of the pastoral setting and identifies very specific conflict causing factors and environmental insecurity generating factors. It also refutes the idea that conflicts among the pastoralists are mainly as a result of the scarcity of resources and environmental scarcity. Instead, it acknowledges a combination of various factors behind instability in pastoral areas, which drive the conflicts. Further, the study affirms the theoretical propositions to the environmental conflict discourse and scarcity-driven accounts of conflict promoted by environmental conditions. Moreover, it notes that conventional and

traditional institutional and legislative frameworks for conflict prevention and management resolution which are related to natural resources play a significant role. The solution to the persistent conflicts and environmental insecurity lies mainly in the promotion of good governance.

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## **LIST OF ABBREVIATIONS**

ASALs	Arid and Semi-Arid Lands
ADR	Alternative Dispute Resolution
AU	African Union
CAP	Chapter
CEWARN	Conflict Early Warning and Response Mechanism
CEWERU	Conflict Early Warning and Early Response Units
EAC	East African Community
ELC	Environmental and Land Court
EKLR	Electronic Kenya Law Report
GoK	Government of Kenya
IGAD	Inter-Governmental Authority on Development
KETRACO	Kenya Electricity Transmission Company Limited
NEPAD	New Partnership for African Development
NFD	Northern Frontier District
OECD	Organization for Economic Co-operation and Development
RoK	Republic of Kenya
SALWs	Small Arms and Light Weapons
UN	United Nations
UNDP	United Nations Development Program

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# **CHAPTER 1: INTRODUCTION**

## **1.1 General Introduction**

Northern Kenya is a marginalized and an underdeveloped region in Kenya. It is isolated by its topography and poor infrastructure, compounded by ineffective security provision. The vast majority of the region comprises of arid lands with little rainfall and high temperatures throughout the year. Furthermore, the access of people to control over critical livelihood natural resources such as water and land is poor. The dominant system of subsistence in the region is pastoralism. The pastoralists' system of production is characterized by livestock mobility and public management of resources. Similarly, it is synonymous with the area once known as the Northern Frontier District (NFD) and the concept of 'Northern Kenya.' Pastoralist communities have been largely marginalized from political and economic resources in the recent decades. This marginalization is as a result of redundant state institutions in the area (CDC, IISD & Saferworld Report, 2009).

Notably, the northern Kenya is classified as an Arid and Semi-Arid Lands of Kenya (ASALs). Its classification as an ASAL is due to the little rainfall it receives and drought which is a major challenge for pastoralists. The dwindling livelihoods lead to various mitigation measures, while competition for scarce natural resources deepens. Pastoralists have developed traditional ways to cope with the climatic conditions and to utilize the available limited natural resources efficiently. Due to the inevitable conflicts over the scarce natural resources, institutions for conflict prevention, management, and resolution mechanisms have been developed and shaped overtime to reduce and avert resource conflicts between ethnic groups (Schilling & Remling, 2011).

The ASALs make up 89% of the country whereby the arid counties cover 70% and are home to 36% of the population. Aridity is the defining feature of the ASALs. Rainfall ranges

between 150mm and 550 mm per annum in the arid areas and 550mm to 850mm per annum in the semi-arid areas (RoK, 2008). Moreover, temperatures in the ASALs are high throughout the year, and they increase the rates of evapotranspiration. The Northern Kenya region displays characteristics of a remote rural area caught in chronic poverty traps, that faces multiple and interlocking forms of disadvantage. Insecurity, isolation and challenging natural environment produce high levels of risk and vulnerability to the residents of the region (Opiyo et al, 2011).

Northern Kenya is home to several pastoral groups, and it is therefore thought to be a battleground for violent conflicts. Competition over commonly shared natural resources is a predominant type of conflict among the pastoral communities in Kenya. These conflicts occur sporadically amongst the Turkana and Pokot, the Turkana and the Karamojong, and Turkana and the Rendile and Boran. The conflicts are in part fuelled by the cultural practice of livestock raiding among these communities (Ndiku, 2013).

The pastoral communities are characterized by their dependence on livestock and the sharing of communal rangeland natural resources. The rangelands are influenced by erratic rainfall that varies between and within years. In the arid pastoral areas, production potential of the livestock and rangeland resources is low due to the rainfall patterns. Livestock significantly contributes to pastoral production and herd size affects pastoral human welfare. Hence, restocking is stated to be a major cause of pastoral conflicts and raids during drought seasons. Reduced access to the natural resources, in particular water and land, has increasingly put pastoralists under immense pressure (Hanley, 2012).

The pastoral regions are harsh environments prone to conflicts. The key drought coping strategy in the region is livestock mobility that the pastoralists employ in effort to manage their ever changing environment. Per capita livestock wealth of pastoral households has continued to

dwindle over the years. As a result, pastoralists rank high in terms of poverty levels and frequently face food security problems and inter-ethnic conflicts that are attributed to competition over the scarce key natural resources and ecological stress. Increased competition over natural resources and resource degradation has resulted into deadly conflict in Northern Kenya. Environmental scarcity lead to factors that trigger conflict such as migration, heightened sense of marginalization, ethnic tensions, deepening poverty and decline in agricultural production. Attendant to these factors is the inadequate capacity of state institutions to respond environmental scarcity, which results in focus on survival as opposed to innovative technologies that will respond to environmental crisis (Adan & Pkalya, 2006). Thus, the pastoralists increasingly find themselves fighting for their survival.

Furthermore, physical boundaries cutting across migratory routes and wars in the neighbouring war torn countries continually increase problems in accessing grazing resources. Northern Kenya has been plagued by proliferation of small arms with the problem worsening significantly in recent times. Small arms and light weapons (SALWs) are smuggled across the country's porous borders with Somalia, Ethiopia, South Sudan and the towns of El Waq, Mandera and Moyale being the primary transit points of arms smuggling (IRIN, 2012). The proliferation of SALWs, particularly among the pastoralists, is a major factor in fuelling conflict in northern Kenya. A study by Small Arms Survey concluded that northern Kenya is confronted by multiple challenges of inter-ethnic resource based conflicts, underdevelopment and proximity to war prone neighboring countries. The study also contends that northern Kenya has developed a 'gun culture' that has been reinforced by chronic insecurity and leads to a security dilemma (Wapundi et al, 2012).

The Turkana region epitomizes the limited and weak governance institutions that continue to attract insecurity in the area as the government struggles to address the problem. As a result, the community lags behind in terms of development and exploitation of natural resources which could release the regions' potential. Consequently, it is one of the armed pastoral communities' with little confidence in the ability of the government's security and administrative institutions to comprehensively address the widespread insecurities and vulnerabilities. This has led to the acquisition of illicit small arms ostensibly for self and community protection and that of their animals. This has in turn, intensified conflicts with grave consequences on environmental security. How the Turkana are able to cope up with the governance deficit, the attendant conflicts coupled with the harsh environment makes the community a compelling case study to examine the issues under investigation. In general, the Turkana community presents a unique case among the pastoralist communities, its historical background, geographical location and livelihood dynamics (Kizito, 2013).

## **1.2 Statement of the Problem**

The problems of conflict and environmental security among the pastoral communities in Kenya are largely an outcome of the inability of the state to extend its legitimate institutions of governance, administration and development programs to marginalized areas. The situation is worsened by biased development policies that have failed to promote the exploitation of natural resources in these marginal areas and attend to special circumstances of the pastoral communities.

Furthermore, a combination of other factors such as the availability of small arms, unfavorable climatic conditions and geographical contiguity to pastoralists across Kenya, South Sudan, Uganda and Ethiopian borders confine the pastoral communities to the lowest levels of

poverty. These factors have led to the shrinking of the available natural resources and provoked persistent inter-communal conflicts with devastating consequences on environmental security.

Though the problem of insecurity among pastoral communities is a consequence of several factors, governance deficit is a major one. It is in this regard that this study aims to fill the existing analytical knowledge gaps on the linkage between conflict and environmental security, including theoretical approaches that have guided past studies. It is also against this background that this study situates the predicament of pastoralists within the broader framework of literature at the intersection of conflict and environmental security in northern Kenya. This is the statement that informs the central problem of this study. Therefore, in order to investigate the problem, the study sets out three objectives and the research questions.

## **1.3 Objectives of the Study**

### **1.3.1 General Objective**

The study examines the relationship between conflict and environmental security and its influence on pastoral livelihoods.

### **1.3.2 Specific Objectives**

1. Interrogates the theoretical linkage between conflict and environmental security among the pastoral communities in Kenya.
2. Evaluates the management structures for addressing conflict and environmental security and their applications to pastoral communities.
3. Examines the implications of the link between conflict and environmental security on the livelihoods of pastoralists in Kenya.

## **1.4 Research Questions**

The central research question that this study investigates relates to the relationship between conflict and environmental security among pastoralists. Specifically;

1. What are the theoretical linkages between environmental security and conflict?
2. How do conflict and environmental security deficit impact on pastoral livelihood in marginal areas?
3. What is the significance of institutional frameworks on the management of conflicts and environmental security among the pastoralists in Kenya?

## **1.5 Study Hypotheses**

The research proceeds with two hypotheses, namely;

1. There is a nexus between conflicts and environmental security among pastoral communities in Kenya.
2. The challenges of conflict and environmental security among the pastoralists in Kenya is as a result of institutional and policy failure.

## **1.6 Scope of the Study**

The focus of this research is northern Kenya and in particular, Turkana County. Turkana County is located in north-western Kenya and borders Marsabit to the east, Samburu to the south east, Baringo and West Pokot to the south west. The County also borders South Sudan to the north, Uganda to the west and Ethiopia to the north-east. According to the 2009 National Census, Turkana County has 855, 399 people (KNBS, 2010). It covers a total area of 71,597.8km. Majority of the population are pastoralists, while a small percentage along Lake Turkana practice fishing and

another small portion practice agro-pastoralism. The County of Turkana is one of the driest in the country. It has a warm and hot climate and unreliable annual rainfall patterns, which range between 300mm and 450mm per annum. In addition, it experiences high temperatures all year round estimated to be 25-35° C. Turkana is classified as a high hazard probability of flood, conflict and drought area. The various triggers of tension in Turkana include cycles of cattle rustling between communities in Turkana and neighboring counties, severe water shortage during dry seasons, the misuse of small arms and light weapons, and ethnic conflicts over natural resources. Further, the county is one of the food insecure places and is currently classified as stressed (KIRA, 2014).

Figure 1: Map of Kenya showing Turkana region



## **1.7 Significance of the Study**

This study has academic justification and significance. Conflict and environmental security are of paramount importance to the field of International Relations and in particular to the area of Peace and Conflict. Further, it adds clarity to the issues of conflict among the pastoral communities in northern Kenya, particularly in the intervention, management, and resolution of natural resource conflicts. The clarification will assist policy makers and leaders in coming up with better conflict resolution mechanisms.

In Kenya, pastoralist communities inhabit environmentally harsh regions, and they are engaged in inter-communal conflicts. However, the link between aspects of conflict and environmental security and governance is poorly understood. The lack of comprehension of the relationship calls for a more systematic comprehensive assessment of the issues. Empirical evidence for a general relationship between resource scarcity and armed conflict is indicative at best, and several questions regarding the assumed causal association remain unanswered. Similarly, several studies suggest that resource scarcity contributes to an outbreak of organized violence, though always in interaction with external conflict-promoting factors.

Further, the endless conflicts and violence over water and pasture among the pastoral communities in northern Kenya, encompass neighboring communities from South Sudan, Ethiopia, Uganda, and Somalia. The inclusion of communities from neighboring countries implies that so far the current regulatory and management frameworks are ineffective in addressing conflicts among pastoralists. Also, the continued rapid degradation of the environment and emerging effects of the climate change necessitates a re-examination of the measures that govern the environment with particular focus on pastoralist.

## **1.8 Limitations and Delimitations of the Study**

This study examines the linkage between conflict and environmental security and explores its effects on pastoral communities in Kenya. There are a number of challenges to consider in this study.

### **1.8.1 Limitations**

The study faces a number of limitations particularly in data collection. The first limitation is the inappropriateness of the data collected. Data that is collected by the researcher, that is primary data, is collected with a concrete idea in mind to answer the research question. Secondary data sources provide a vast amount of information but may be inappropriate.

The second limitation is lack of control over data quality. Government and other official institutions are often a guarantee of quality data, but it is not always the case and thus, the quality of the data may need to be verified.

The third limitation is the lack of reliable and credible statistics as well as information. The secondary data collected may not be accurate or may be old, hence not reliable for a particular research.

### **1.8.2 Delimitations**

The forecast limitations shall be countered by some pre-emptive measures. Firstly, since secondary data saves time especially with the digital era as technology has revolutionized research studies, I will collect data from internet sources. Further, libraries have been digitized hence data collection is easier than before technology.

In addition, I will collect and compare data from government offices and security agencies dealing with conflict and environmental security related issues in the region. I will ensure to get as much adequate and relevant information as possible.

I will contextualize this research into existing discourse. Further, I will be generating new insights from previous studies in the same research area.

With these measures, the study is bound to be successful in its findings.

## **1.9 Operational Definitions**

Pastoralism is the practice of extensive production of livestock in rangeland environments. The practice takes many forms, but its principal features are livestock mobility and communal management of natural resources. Throughout much of its history, its reputation has been poor and its practitioners marginalized (WISP, 2008).

Environmental security is a condition in which a region, through sound governance, competent management, and sustainable utilization of its natural resources. Environment security takes productive stages towards social, economic and political stability and ensuring the welfare of its population. Environmental security is, therefore, a multi-disciplinary field that encompasses security concerns from individuals to the state level. It is also essential to understand how the environment affects local populations and vice versa. Environmental security entails proper management of resources and issues such as development, the economy, and governance. ‘Resources curse’ is an example of how poor governance and poor resource management can devastate both the natural and human capital of a country (FESS, 2009).

The Oxford dictionary defines marginalization is defined as the treatment of a person, group or concept as peripheral or insignificant (Oxford, 2015). This study uses the term

marginalization to imply the lack of influence on national politics and the lack of adequate representation in the making of policies which affect national issues. Governance deficit is used to refer to poor or unavailable authority.

Governance has been defined to refer to the processes and structures that are designed to ensure accountability, transparency, the rule of law, equity and inclusiveness, and empowerment. The UNDP, (2013) defines governance as the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It involves the mechanisms, processes, and institutions through which citizens and groups exercise their rights, articulate their interests, meet their obligations and mediate their differences. The World Bank (2013) defines governance as the method through which power is exercised in the management of a country's economic, political and social resources for development. Similarly, Fukuyama (2013) defines governance as the government's ability to make and enforce rules and deliver services. Thus, good governance is the process of making and implementing decisions.

Resource scarcity terms a situation where the supply of renewable resources such as water and forests is not adequate to meet demand. According to Homer-Dixon, this concept describes the declining availability of renewable natural resources such as water, soil, and forests. There are three fundamental ways in which such resource scarcity can occur and result in conflict over the scarcity of those resources (Maphosa, 2012).

The Organization for Economic Co-operation and Development (OECD) defines natural resources as physical assets (raw materials) occurring in nature that are used for economic production or consumption. The naturally occurring assets provide benefits through the provision of raw materials and energy used in economic activities and are subject primarily to quantitative depletion through human use. They are categorized as mineral and energy sources, soil resources,

water resources and biological resources (OECD, 2005). The World Bank (2007) defines natural resources as materials that occur in nature and are essential to humans, such as water, air, land, fish, forests, wildlife, topsoil, and minerals. These resources are classified as renewable or nonrenewable. Renewable resources such as forests and water can be replenished over time by natural processes and are indefinitely sustainable if not overused. Non-renewable resources such as minerals and oil are found in limited quantities, and their value increases as supplies diminish. A state's access to natural resources often determines its wealth and status in the world economic system.

Natural resource management (NRM) is the interdisciplinary field of study that considers the biological, physical, economic and social aspects of handling natural resources. It involves putting natural resources to their best use for human purposes besides preserving natural systems. NRM, therefore, refers to the management of natural resources with a focus on how management affects the quality of life for both the present and future generations. It is the sustainable utilization of natural resources which provide the ecosystem services that underpin human life (World Bank, 2007). Sustainable natural resource management, therefore, has the capability to transform economies of resource-rich countries.

## 1.10 Conceptual Framework

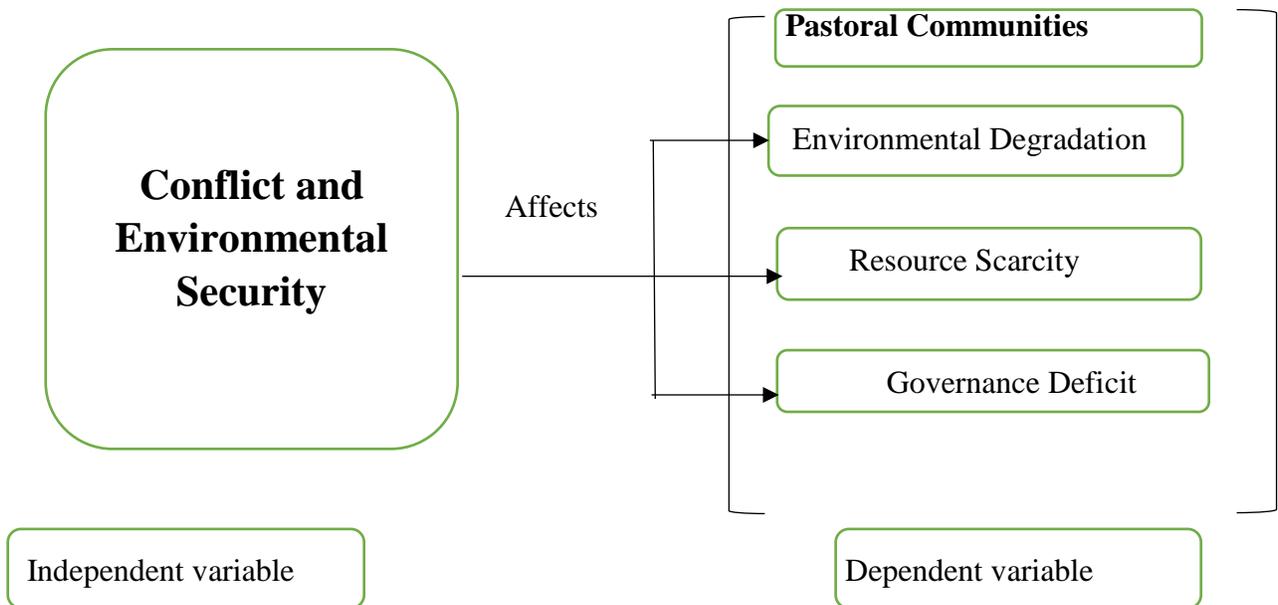


Figure 2: Conceptual Framework

The conceptual framework of this study aims to highlight the relationship between conflict and environmental security among the pastoral livelihoods.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

In this chapter, the study focuses on previous studies conducted by scholars and authorities on the issue of conflict and environmental security in the ASALs and the pastoralist livelihoods. Further, the chapter looks at the theoretical framework and assessment of gaps in the study.

### **2.2 Theoretical Framework**

This study is anchored in the environmental scarcity theory as developed by Thomas Homer-Dixon. Homer-Dixon expressed his theoretical formulation in terms of reduced availability of renewable natural resources. Accordingly, Homer-Dixon holds the view that resource scarcity, through a complex web of social, economic and political process can lead to violent conflicts in the developing world. Theoretically, Homer-Dixon's model uses a conceptual framework that presents social reality in such a way that the casual process linking resource scarcity and violence conflicts falls into three main steps. These include the origin of resource scarcity, its political and socioeconomic consequences and the outbreak of different forms of violent conflicts. In the process, demographic pressure, resource degradation, and distributional inequalities interrelate to create resource scarcity. This creates the socio-economic effects of scarcity, which include constrained agricultural production, marginalization and migration (Kizito, 2013).

The context of each case determines the exact relationship between environmental scarcity and outbreaks of conflict. Contextual factors include the quality and quantity, and vulnerability of environmental resources, nature of state, patterns of social interaction, balance of power and the structure of economic groups among social groups. These factors affect how natural resources are utilized, social impact of environmental scarcities and whether grievances contribute to conflict. The three types of environmental scarcities are; i) supply induced scarcity caused by degradation

and depletion of environmental resource; ii) demand induced scarcity resulting from population increase within a region which heightens demand for the resource; and iii) structural scarcity arising from unequal social distribution of resources that concentrates with few people while the remaining population suffers shortages (Mosselanejad, 2012).

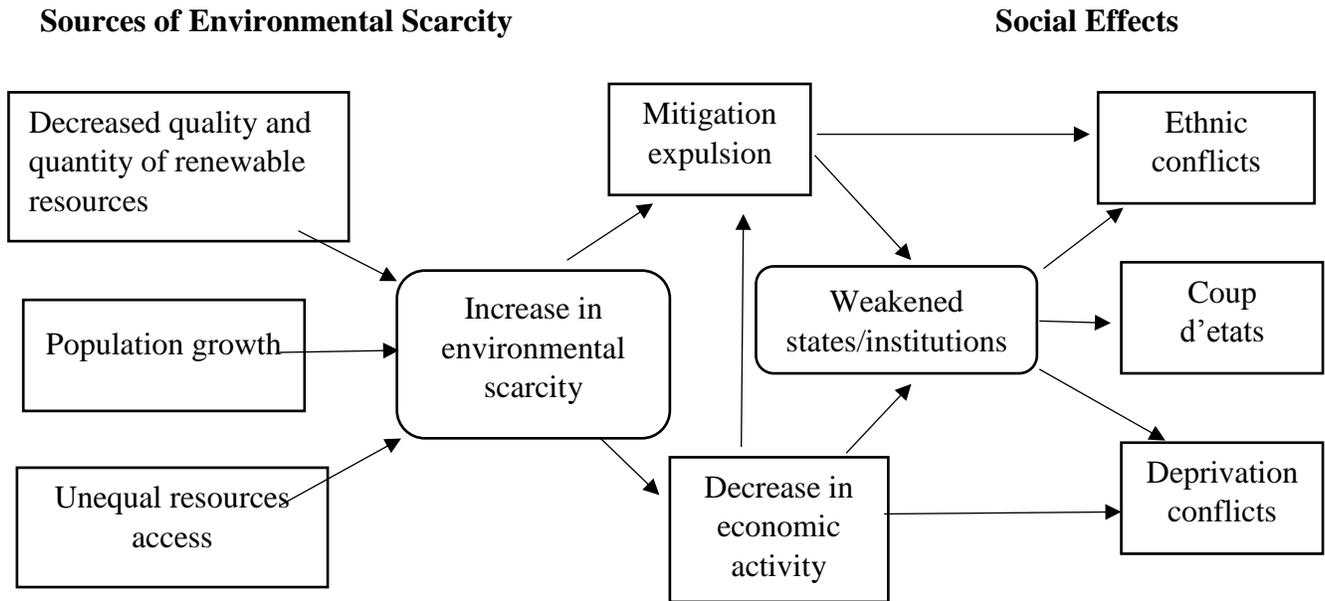
The patterns of interaction among these types of scarcity include resource capture and ecological marginalization. Resource capture occurs where increased consumption of resources combines with degradation. In this case, powerful groups in society anticipating future shortages shift resource distribution in their favour and subjects the remaining population to scarcity. Ecological marginalization occurs where increased consumption of resources combines with structural inequalities in distribution (Mossalanejad, 2012). In this case, when weaker groups are denied access to resources, they migrate to ecologically fragile regions that subsequently degraded.

Within the context of pastoral areas, environmental scarcity explains the intricate nexus that develops between resource scarcity as an element of environmental security and conflict. The model introduces the issue of governance deficit that leads to ineffective institutional frameworks on development, utilization and management of natural resources in pastoral areas. Ethnic conflicts are replaced by conflicts in pastoral areas because the driving force is natural resources. Weakened state replaced by limited presence of state and a new variable, drought and famine is introduced into the model (Kizito, 2013).

Owing to limited presence of the state presence in the marginal areas, pastoralists arm themselves to take care of their own security. In most pastoral areas where frequent prolonged drought, famine, and converging environmental trends lead to the diminishing grazing fields and water points, conflicts are likely to worsen significantly as resource scarcities exacerbate other conflict-related social variables (Kizito, 2013).

### Figure 3: Link between supply, demand and structural driven factors

This figure provides an analysis of the links between supply, demand and structural driven factors in conflict and environmental security.



Source: Druet (2008)

The model shows centrality of governance in the state of human security that obtains among the pastoral communities. With effective governance system, state presence will increase and provide sufficient security. Effective governance will lead to the development of appropriate institutional frameworks to address issues relating to natural resource accessibility, production and utilization. This will also address proper exploitation of resources.

### 2.3 Conceptualizing Environmental Security

The collapse of the Soviet system and the end of cold war produced a new political order and a different system of international relations. In the current global order, new challenges have emerged including international terrorism, climate change, social and economic inequalities within nation states, and competition for a market, and the scarcity of natural resources. The contemporary

concept of security emerged in the context of the cold war. Besides, the notion of environmental security represents an alternative paradigm of ordering and addressing threats in an increasingly interdependent and environmentally degraded post-cold war (Kumssa & Williams, 2011).

Environmental degradation and resource scarcity are threats to the well-being of people and their prosperity, as well as international security. The perception has led to the reconceptualization and evaluation of security, as traditionally understood. The change is due to the growing conflict over scarce and degraded natural resources to include environmental security as an element of human security (Maigua, 2015). Environmental security has two dimensions. One, in placing emphasis upon the environmental dimensions. Environmental safety is the maintenance of an ecological balance to an extent necessary to sustain resource supplies. The other in emphasizing the aspect of security in the traditional sense is the prevention and management of conflicts precipitated by environmental decline.

Environmental security is also the process of peacefully reducing human induced environment degradation by addressing the root causes of environmental degradation and human security (Rita, 2008). The broader conception of environmental security is crucial because security, even in the traditional sense can only be ensured if the environmental aspect is emphasized. Only where ecological balance is maintained, natural resources protected and supplies ensured, will conflict be significantly reduced. Furthermore, focusing on common environmental interests rather than competing interests will promote international cooperation and security (Maigua, 2015).

The Brundtland Commission observed that the notion of security as traditionally understood, with regards to political and military threats to national sovereignty must be expanded to include the growing impacts of environmental stress (Maigua, 2015). There has been a growing linkage between the environment and security as environment deficiencies supply conditions that

may lead to conflict. Environment deficiencies serve to determine the source of conflict, act as multipliers that aggravate the causes of conflict and help to shape the nature of the conflict. Further, they can stimulate the growing use of force to repress disaffection among those who suffer the consequences of environmental decline. As a result, national security is not only about fighting forces and weapons but includes natural resources and climate, rarely considered by military experts and political leaders, but that deserve to be viewed as equally crucial to a nation's security as military prowess (Bromwich, 2008).

## **2.4 Pastoralists and Conflict**

The origin of conflicts is human insecurity which is linked to exclusion and lack of access to resources and power (Kumssa & Williams, 2011). Conflicts have always been part and parcel of the pastoralists' lives, due to the scarcity and competition of available resources. As a result, it is important to review and understand the relationship between environmental insecurity and conflict in light of the predicted effects of climate change for the region (Mkutu, 2008).

Several studies have been conducted focusing on drought and violent conflicts among pastoralist communities living in the ASALs of Kenya (Mkutu, 2008; & Moru, 2010). The findings explain the link between drought and conflict prompted by depletion of natural resources and competition over access and control. While several factors fuel social unrests in pastoral areas, extreme weather compounds the already existing scenario. Drought, therefore, is a factor in resource-based conflicts as a result of increased rainfall unreliability associated with climate change (Opiyo et al., 2012).

Outbreaks of violent conflict in northern Kenya are related to natural resource scarcity. Grazing reserves and water points are abandoned in insecure areas and get degraded if not used over an extended period of time. Shrinkage of these resources due to insecurity causes an over

concentration in safer areas leading to ecological degradation and increasing the threat of new conflicts. Further, loss of traditional livelihoods due to resource conflicts has led to communities taking recourse in cutting down the meagre vegetation for the production of charcoal for sale, in turn escalating desertification and ecological degradation.

The ASALs of northern Kenya are among the poorest in the country and are primarily inhabited by pastoralist communities of various ethnic groups. In the recent years, conflict over access to water and land in the region have escalated. The battles take place among pastoralist clans and also involve the pastoralists and sedentary farmers. The conflicts include armed attacks and cattle raids among the pastoralist groups (Mkutu, 2010). These conflicts have since aggravated due to the increased numbers of small arms which come in a long arms flow routes from the neighboring countries of Ethiopia, Somalia and South Sudan. Further, urban-based actors with commercial interests in livestock contribute to conflict by paying people to raid livestock. This has escalated the conflicts and produced wider effects, including loss of life and property, degradation of natural resources, disruption of socioeconomic activities and cross-border clashes between pastoralist groups (Omolo, 2011). Berger (2003) highlights some drivers of potential pastoral conflict such as natural resource scarcity and competition as well as ethnic polarization.

In general, northern Kenya and specifically the pastoralist lifestyle is often associated with violent conflict. Disputes over access to water and pasture by pastoralists and farmers have led to increasingly violent conflict. In the same breath, cattle raiding between different pastoralist groups has devastated communities which have been trapped in the cycles of violence. These natural resource disputes are linked to scarcity (Meier et al., 2007).

As already mentioned, the arid region of northwest Kenya is inhabited by various pastoralist communities that share resources under communal tenure. This presents an enormous

potential for persistent conflicts in the absence of strong governance institutions. The Turkana and Pokot pastoral communities form the majority of the inhabitants in the area and have a long history of cattle raids and inter-ethnic conflicts over scarce resources. However, in the recent years, cattle raiding has become more violent and destructive, thereby triggering ethnic violence in northern Kenya (Mkutu, 2007; Omolo, 2010).

The prevalent form of violent conflict among the pastoralists is cattle raiding. Cattle raiding is linked to natural resources since it means restocking herds after periods of drought and is closely tied to pastoralist identity and cultural practices. Cattle raiding has been made more violent by the proliferation of SALWs through porous borders with countries that have experienced violent conflict. The easy availability of SALWs among the pastoralists has led to an intensification of the violent conflict. Once a group acquires more arms, the other scales its armaments to match them in order to protect their livestock and community (Meier et al., 2007). The Conflict Early Warning Network (CEWARN) estimates that between 1996 and 2002, around 300,000 cattle were rustled on the Kenya side of Sudan-Kenya-Somalia triangle, killing an estimated 1200 people (CEWARN, 2008).

According to the World Bank Report (2004), pastoralism and agriculture are the dominant sources of food production and generation in Africa. In the ASALs of Kenya, pastoralism is suited for livelihood and production system is efficient for the limited water and pasture resources (Levine, 2010). Across Africa, pastoralism is viewed as backward and primitive. Such views have resulted into political, economic and social marginalization of the pastoral communities (GoK, 2007). The limitation of pastoral mobility by the government of Kenya and that of the neighboring governments, mainly Ethiopia, Uganda and South Sudan, has decreased the adaptive capability of pastoralists (Schilling et al., 2014).

The limitation is critical as an increase in rainfall variability and higher drought frequency, associated with global climate change, pose severe challenges pastoral communities. However, most detrimental to the resilience of Kenyan pastoralists and their livelihood are the violent conflicts executed to acquire livestock or to gain control of the water points and pasture resources (Schilling et al., 2012). Within Turkana, the conflicts are violent in the south where the Pokot raid the Turkana, and vice versa (Mkutu, 2008). In this conflict-prone, underdeveloped and water scarce area, significant oil reserves have been discovered (Vasquez, 2013).

The underlying cause of conflict in pastoral areas of Kenya is weak governance. Ineffective and deficit management in the peripheries of northern Kenya mean that the state is unable to develop security, control armed groups or promote development (Mkutu, 2008). With the absence of strong local institutions, pastoral groups often compete to maximize their share of limited grazing resources, especially during droughts. This struggle inevitably leads into conflict (Edossa et al., 2005). By triggering scarcity and deprivation, drought may cause conflict and compromise livelihoods (AU, 2010). Thus, resource scarcity has the potential to drive society into a self-reinforcing spiral of violence, institutional dysfunction, and social fragmentation.

The government's standard response to the challenge of SALWs proliferation in northern Kenya has been the launch of coercive disarmament operations which have been relatively ineffective. This has served to highlight weak security provision which contributes to the need for arms in the first place (Mkutu, 2008). With minimal deterrence to prevent attacks and little likelihood of a rapid response when they occur and weak enforcement of the rule of law, conflict actors are able to operate relatively freely with a high degree of impunity.

An incident in Isiolo County in July 2009 illustrates the dynamics of natural resource scarcity and conflict. A violent conflict broke out between the Turkana, Samburu, Borana and

Somali groups when competition over access to water and pasture was not peacefully resolved. This resulted in the killing of thirty-two people, displacement of many others and massive livestock theft. The original problem of natural resource scarcity and competition between the different communities which sparked the violent conflict was exacerbated as displacement put increased pressure on the limited natural resources resulting from a dire humanitarian crisis (IRIN, 2010).

Pastoral conflicts occur mostly during the dry seasons when the critical pastures, water, and pasture, are scarce. Due to insecurity arising from such conflicts, most of the grazing lands in the dry season remain under-utilized, implying that livestock is confined to smaller and drier areas, thus contribute to degradation (Opiyo, et al., 2012). The positive correlation between resource scarcity and natural resource conflict paradigm suggests that unfulfilled needs for scarce water and pasture trigger conflict between the pastoralist communities (Homer-Dixon, 1999).

Cattle raiding in northern Kenya can be attributed to a case where the actors chose to allocate their individual natural resources to appropriation as opposed to production. Witsenburg & Adano (2009) observe that the high correlation between raids and drought challenges the generally accepted assumption that during severe droughts, pasture and water are shared equally. There are two types of cattle raiding which explain the relationship between climatic conditions and conflict. First, raiding to acquire livestock for restocking or for commercial purposes. This kind of attack is conducted during the short and long rains in anticipation of favorable conditions for cattle re-building (Schilling et al., 2011). The compensatory cattle raiding, sanctioned by elders and governed by customary values, is an integral part of the pastoral culture in Africa and is mainly used to acquire animals for restocking after loss due to drought and raids (Kumssa et al., 2009). However, the current attacks are a departure from the traditional one as it has been commercialized

due to improved access to markets because of improved infrastructure close in pastoral areas (UNDP, 2007).

The second type of raiding is used as a means to gain access to and secure control over the critical natural resources, being water and pasture (Mkutu, 2007). This type of raiding is high during the dry season. Thus, cattle raiding is a major source of violent conflicts in the pastoral regions. Schilling et al. (2011) explain the resource abundance-resource scarcity continuum using the concept of 'Resource Abundance-Scarcity' (RAST), which hypothesizes that, in the case where rains fail, a certain threshold of resource scarcity is reached that fuels raids regardless the prevailing unfavorable restocking conditions. In the absence of strong traditional institutions and interference by extreme weather and adverse government policies, violent conflicts over natural resources in the arid regions continue to thrive.

## **2.5 Conflict and Environmental Security**

Research on the link between competition over natural resources and violent conflict (Rustad & Lujala, 2012) focuses mainly on high value extractive resources such as oil and gas, diamonds which are finite. Conflict over non-renewable natural resources is in many respects, a zero sum game. By contrast, renewable natural resources offer more direct opportunities for collective gains through cooperation and collective action. The relationship between resource scarcity, degradation and conflict have been considered, both directly and indirectly the environmental and natural resources conflict. Several studies inspired by the neo-Malthusian thinking argue that resource scarcity and degradation have contributed to insecurity in the form of violent conflict (Wario et al, 2012).

Access to natural resources is vital to the achievement of livelihood security especially among the poor and marginalized communities that often rely directly on natural assets to ensure

daily survival. However, livelihood activities destroy the natural resource base by over-use and degradation, which contributes to deforestation, desertification, soil erosion and declining water tables that in turn affect livelihoods. Often, where resources are limited, lack of alternative results in increased environmental degradation that leads to higher levels of poverty. The resultant impacts are increased household and community conflicts as individuals compete for the declining natural resources.

Several authors (Yasmi et al, 2006; & White et al, 2009) argue that conflict emerges when stakeholders have irreconcilable differences, incompatible interests, values, and goals. Moreover, if unresolved, conflicts are likely to escalate and intensify. Competition for finite environmental natural resources, divergent attitudes and beliefs, and institutional factors trigger and exacerbate environmental conflicts. Generally, scarcity conflicts characterize most environmental contestations and disputes.

Homer-Dixon asserts that poor states are start at a disadvantage as many are under-endowed with social institutions that are necessary for ample supply of social and technical solutions to scarcity. Therefore, violence that results from competition over scarce resources is triggered by governance deficit and failures such as unequal access to resources, social exclusion and misuse and overuse of resources. In the scarcity causes violence paradigm, lack of effective governance is responsible for the increasing tension and violent conflicts in developing states (Wario et al, 2012).

Demand-induced scarcity occurs as a result of population growth and increasing per capita resource consumption levels. This arises when the demand for natural resources increases and it cannot be met by the available supply. The population of Africa, for instance, is increasing at a high rate and therefore shrinking the amount of resources available to the average person. This

concept was first described in the 1800s by Thomas Malthus who observed that throughout history, societies have experienced epidemics that reflect the fundamental problem of populations overstressing their resource limits (Maphosa, 2012).

Supply-induced scarcity describes the environmental change resulting from depletion and degradation of a natural resource that occurs faster than it is renewed by natural processes. In some situations, this process causes a resource to become irreversibly and permanently degraded even if human activities that led to the degradation are controlled. As supply of natural resources reduces, options for pursuit of productive livelihood strategies are undermined thus creating competition between livelihoods. Examples include desertification in the pastoral regions, the over-populated, over-grazed and over-cultivated interiors. Violent conflicts have occurred among local communities in competition for such diminishing resources (Maphosa, 2012).

Structural scarcity indicates unequal distribution and access to natural resources in which less powerful groups in the society, relative to other groups, are marginalized from equal access to particular resources. Natural resources concentrated in the hands of a few elite while the rest of the population is subjected to greater scarcity. In many countries in Africa the colonial governments segregated local citizens with divide and rule. This was one of the major causes of violent nationalist movements. Regrettably, many of the postcolonial regimes in Africa have perpetuated some of these structural cleavages, leading to the churning out of discontent and violent protests against corrupt officials (Maphosa, 2012). The possible consequences of scarcity of natural resources include insecurity as livelihoods become less resilient and poverty becomes more entrenched, economic decline and civil unrest. When these tensions interact with stress factors, they can contribute to violence.

Natural resource scarcity, more so water and land constitutes a powerful source of stress on local institutions in the northern Kenya, whose plight is made worse by the effects of climate change (WDR, 2011). Ethnic based competition over the access to natural resources in an environment amounts to resource scarcity in the region. Community competition over access to water sources and rangeland is endemic resulting in a history of armed conflict. Access to wells and pasture is a matter of existential importance to the pastoral population. Competition and contested claims on specific natural resources such as grazing lands create tensions that increase conflict vulnerability. Growing resource scarcity in pastoral regions attributes to population growth, environmental degradation and restricted access to water and pasture and intensified communal tensions (WDR, 2011). Competition for scarce natural resources aggravated by frequent droughts is central to violent conflicts in the pastoral region (Opiyo et al, 2012). The violent conflicts include fighting over access and control of water and grazing pastures as well as cattle raids.

In Kenya, an analysis of rainfall data from the ASALs reveals widespread droughts in 1960/61, 1973/74, 1979, 1980/81, 1983/84, 1991/92, 1995/96, 1999/2000, 2004/06 and 2008/09, 2011 (Huho et al, 2011, Fratkin et al, 2011). The increasing decline in water and pastures in the ASALs have been linked to recurrent and prolonged droughts. Pastoral regions are plagued with various problems including poverty which is associated with livelihood insecurity due to resource scarcity and degradation, accompanied by resource based violent conflicts (Opiyo et al, 2012).

The high rates of evapo-transpiration result in the ASALs having low agricultural potential which accounts for the reliance on pastoralism in the region. The frequency and intensity of drought periods in northern Kenya have been increasing. The region recorded four major droughts in the last decade (GoK, 2010). Meanwhile, food insecurity in the pastoral areas has been on the

increase as a result of climate change, population growth and continued marginalization (ILR, 2009). Increasing settlement in pastoral areas especially around fixed water points and lack of effective natural resource management institutions to manage pastures and livestock in a sustainable way has led to many environmental challenges, including soil degradation, overgrazing and soil erosion.

Natural resources are increasingly subject to strong competition due to several factors including demographic change, market pressures and environmental changes that force people to alter their livelihoods such as droughts. These forces push people to exceed the sustainable harvesting limits of renewable natural resources. In areas where there is high population growth, resources need to be shared among more users with different interests. These users range from pastoralists requiring pasture resources for livestock, farmers seeking access to agricultural land and urban dwellers requiring more products for consumption. Securing access to vital natural resources then becomes a great concern when these resources are scarce (Engel & Korf, 2005). An example is water scarcity in the ASALs. The conditions that influence how access to resources can become contested include the scarcity of a natural resource, the extent to which the supply is shared by two or more groups, the degree of dependence on these resources and the relative power of the groups.

## **2.6 Summary of Gaps to be Filled**

According to the past studies conducted, a lot of history has been covered on past conflicts among the pastoral communities in Africa and particularly in Kenya. However, detailed and more accurate accounts of environmental security and conflict among the pastoral communities has not been adduced. Therefore, this study will assess the relationship between environmental security

and conflict through the three variables of assessment. Governance deficit will be discussed as a key reason to institutional failure in the ASALs.

The decline in rangeland system is compounded by inadequate government support for improving rangeland livelihoods based on adaptive customary management systems. Many of the policies and practices rolled out by the government are in conflict with the needs and interests of pastoral communities because they are not based on their socio-economic realities. Cultural heritage, livestock production as a principal means of livelihood, constant migration, harsh environment and cattle raids define the pastoral socio-economic realities. It is therefore perceived that pastoralism does not contribute toward the national economy and thus the government decisions favour commercial livestock production. This policy is likely to lead to inadequate access to rangeland resources and increased environmental degradation. This study will therefore discuss institutional framework on conflict and environmental security in the pastoral regions.

## **CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY**

### **3.1 Introduction**

This chapter provides an analysis of the research methods used in this study.

### **3.2 Research Design**

This study is based on a methodological assumption that there is no reason to prefer qualitative before quantitative materials and methods or vice versa. Materials and methods are selected depending on what is most suitable for the research. The approach adopted by this study is a combination of both qualitative and quantitative methods, using secondary sources of data.

The materials are classified as secondary sources, and they include a review of relevant legal and policy related documents include legislations, the Kenyan Constitution, resolutions/declarations, treaties/agreements and protocols, and development plans for the ASALs of the Kenya. It also consists of academic research which includes books, articles, journals, strategy and policy documents and statistical information, and internet sources.

The study will adopt a descriptive survey design. This is because it seeks to collect data on the status quo of the situation with regard the effectiveness of conflict management in natural resource conflict resolution in Kenya. Besides, it allows the study to explore the phenomena in both qualitative and quantitative terms. The study also establishes the relationship between these two key variables (Howit, 2010). The variables under study are primarily two; conflict and environmental being the independent variable while pastoral communities are the dependent variable.

Descriptive research method refers to the type of research question, design, and data analysis that will be applied to a given research topic. The research question determines the

approach necessary to complete an accurate assessment of the subject. There are three types of descriptive methods being; case study method, observational method, and survey method (Jackson, 2009).

Therefore, the study will use the case study method, under the descriptive design. Case study involves an in-depth study of an individual or a group of people. Case studies lead to testable hypotheses and allow the researcher to study rare phenomena. However, case studies are not used to determine the cause and effect and have limited use of making accurate predictions. In the same breath, there are challenges with case studies. These are expectancy and atypical individuals. Expectancy effects include the researcher's underlying biases that might affect the actions taken while undertaking the research. These biases often lead to misrepresenting participants' descriptions. Describing atypical individuals or groups leads to poor generalizations and detract from external validity (Jackson, 2009). Therefore, the case study method is best suited for this research.

### **3.3 Location of the Study**

The study will be carried out in Kenya, with emphasis on Turkana County in the Northern region of Kenya. The Turkana region characterizes limited and weak governance institutions that continue to attract insecurity in the pastoral areas as the government struggles to address the issue. As a result, the community tails behind in regards to development and exploitation of natural resources. Furthermore, the community's geographic location in relation to other armed pastoral communities in northern Kenya and in particular the Pokot has influenced the decision to use it as a case study.

### **3.4 Data Collection**

Through qualitative and quantitative content analysis, information will be collected from documented materials relating to the research parameters. Bryan (2009) specifies that qualitative

content analysis proceeds with searching out of underlying themes in the materials to be analyzed. Most of the documents and data will be accessed through the internet. Since the relevant information will be collected through review of documentation by other researchers, its reliability will be assured through proper indicators on the sources while validity will depend on the credibility of the original documents.

### **3.5 Data Sources and Instruments**

The study uses secondary data sources including legislations, internet sources, books, journals, articles and government records. A review of existing records will be carried out. The data will be collected from secondary sources. Notably, the advantages of using secondary data include access to inaccessible subjects. It allows research on issues which the researcher does not have physical access due to reasons such as distance and lack of time. Moreover, it saves time since new technology has revolutionized the world and the process of collecting data has been simplified. Precise information is obtained via search engines as all worth libraries have digitized its collection so that researcher can conduct an advanced research (Ghauri, 2005). Another reason for the use of secondary sources is that they are relatively cheaper than other methods of collecting data. A researcher may use already analyzed larger data sets such as those collected by government surveys with no additional cost. Further, secondary data generates new insights from previous analyses as reanalyzing data can lead to unexpected new discoveries (Saunders et al., 2011).

Therefore, this is the most effective tool suitable considering the nature of the study.

### **3.6 Data Analysis and Presentation**

The data will be analyzed using theoretical considerations outlined from the conflict and environmental security discourse. Data analysis for case studies is to a certain extent unusual in that much of the data collected qualitative. Furthermore, the analysis is often concurrent with the

data collection phase than after it. A theory conscious analysis is expected to provide a comprehensive understanding of the natural resources conflict.

### **3.7 Expected Output**

This research hopes to provide an analysis on the impact of conflict and environmental security deficit on pastoral livelihood in marginal areas. Further, it will provide an analysis of the significance of institutional frameworks on the management of conflicts and environmental security among the pastoralists in Kenya. At the end of the research, it is expected that some solutions be found for the situation that pastoralists in Turkana are grappling with and that recommendations can be given to enable conflict resolution and sound environmental security. In addition, publication of this research will be expected.

## **CHAPTER 4: INSTITUTIONAL FRAMEWORK ON CONFLICT AND ENVIRONMENTAL SECURITY**

This chapter examines the institutional frameworks for conflict prevention, management and resolution and environmental protection, conservation, and management in Kenya.

### **4.1 Conflict Prevention, Management and Resolution Mechanisms in Kenya**

There are various instruments that inform the conflict prevention, management and resolution process in Kenya.

#### **4.1.1 Formal Justice System**

The formal justice system is the most predominant in conflict management methods in Kenya. Courts are endorsed by law to carry out conflict resolution. In instances of conflicts involving communities, formal justice system has some deterrent impact through the criminal justice system. However, formal justice systems have proved to be inadequate in responding to the underlying causes of conflict and facilitating peace building and reconciliation (Maigua, 2012).

##### **4.1.1.1 Judicial Mechanisms and Conflict Management**

National governments and constitutions in most states establish the judiciary with the objective of settling disputes and conflicts. The courts are mandated to entertain disputes and conflicts. The judiciary in Kenya has handled environmental matters and thus, the courts play an important role in achieving sustainable development. The empowerment of the Environmental and Land Court (ELC) to hear and determine applications for redress of denial, violation or infringement of, or threat to, rights or fundamental freedom relating to a clean and healthy environment under Articles 42, 69, and 70 of the constitution. Where applicable, the court is empowered to adopt and implement any other appropriate means of alternative dispute resolution mechanisms, in accordance with Article 159 (2) ( c ) of the constitution. Where alternative dispute resolution

mechanism is a condition precedent to any proceedings before court, the court must set aside the proceedings until such conditions are fulfilled.

The case of *Friends of Lake Turkana Trust versus Attorney General & 2 others (2014)* eKLR demonstrates instances where courts have taken an active role in promoting environmental protection and averting potential natural resource based conflicts. In this matter for instance, the court directed that the government of Kenya, the Kenya Power Company Limited (KP) and the Kenya Electricity Transmission Company Limited (KETRACO), should forthwith take the necessary steps to ensure that the natural resources of Lake Turkana are sustainably managed. Further, it directed that the natural resources should be utilized and conserved in any engagement with, and in any agreements entered to with the government of Ethiopia relating to the purchase of electricity.

#### **4.1.2 Legislative Framework**

Kenya is obligated under international law to ensure the security of its people. Article 33 of the Charter of the United Nations outlines conflict management mechanisms to include mediation, negotiation, conciliation, arbitration, inquiry, judicial settlement or other peaceful means of people's own choice (UN, 1945). National legal systems are grounded on constitutions, legislations and policy statements which include judicial and regulatory frameworks. The use of alternative mechanisms of conflict management aims to incorporate community members and all other members in finding a lasting solution as well as empowering the people to handle any future conflicts through community peace building. The use of informal mechanisms involves customary systems which rely on the traditional belief systems and values of a particular community where the conflict arises.

Regionally, the African Union (AU), New Partnership for Africa's Development (NEPAD), East African Community (EAC) and Intergovernmental Authority on Development (IGAD) have established Peace and Security Initiatives (PSI) whose mandates are to enhance the capacity of member states to address conflicts by promoting collective security, durable peace and stability. Emphasis on early warning and coordinated response such as Conflict Early Warning Response Units (CEWERUs) and National Focal Points on SALWs. IGAD was established in order to attain sustainable economic development for its member states. Recurring and severe droughts and other natural disasters caused ecological degradation, famine and economic hardships in the Eastern Africa region. The magnitude of the problem compelled for a regional approach to supplement national efforts. Hence, IGAD member states, including Kenya established Conflict Early Warning and Response Mechanism (CEWARN) in order to utilize early warning and respond to prevent violent conflict. The CEWARN also develops response options on cross-border pastoral conflicts among pastoral groups and communities (CEWARN, 2016). However, the challenge lies in ensuring coordination of the activities of the different agencies.

The regulatory regime at the national level for conflict management comprises of laws that establish formal adjudicatory processes that seek to administer justice, empower security forces to respond to a crisis caused by conflicts. The relevant laws are contained in the Constitution. Related provisions impacting on conflict are set out in the Penal Code, Criminal Procedure Code, and Evidence Act. Sectoral laws such as the Forest Act, Water Act, Environmental Management and Coordination Act, and the Wildlife Act contain provisions that address conflict to the extent that conflict affects those sectors. Therefore, dispute resolution processes have been provided under sectoral laws for their sectors independent of other existing mechanisms.

#### **4.1.2.1 National Legal Mechanisms and Conflict Management**

National legal systems governing natural resources are based on legislation and policy statements that are administered through judicial and regulatory institutions. The decisions are based on state legal norms applied in a standardized manner (Maigua, 2012). Thus, the parties in conflict have limited control over the process and outcome of conflict management.

The Constitution of Kenya is crucial in enhancing access to justice including environmental justice. It provides a more participatory conflict management approach in the regulation of natural resource management. In addition, it offers hope in the realization of environmental justice in respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

The constitution also provides provisions in Articles 69 to 71 relating to the environment and natural resources and directing how they should be managed. Similarly, the state is charged with the obligation to ensure sustainable exploitation, utilization and management of natural resources and ensuring equitable sharing of accruing benefits. It works to achieve and maintain a tree cover of at least ten percent of the land area in the country and to encourage public participation in the management and protection of the environment. Furthermore, the protection of genetic resources and biological diversity, and the establishment of systems of environmental impact assessment are mandates of the state (Maigua, 2012). Finally, the elimination of activities and processes that are likely to endanger the environment and utilization of the environment and natural resources for the benefit of the people are roles of the government.

There are various legal instruments which govern the access, use, control and management of natural resources in Kenya (Land Act, 2012). Administrative conflict management mechanisms, arbitration, and litigation are the main strategies for addressing conflicts over natural resources

under the Laws of Kenya. They often overlap, resulting in different legal bodies which can be complementary or clashing. Some of the laws provide for arbitral tribunals that are tasked with the resolution of natural resource conflicts that arise under the particular laws. The legal instruments set up reporting mechanisms that are mandated to handle disputes over the use, access, and participation in the management of natural resources, as an attempt to forestall any potential conflict.

#### **4.1.3 Alternative Dispute Resolution (ADR) and Conflict Management**

ADR mechanisms refer to the decision making processes other than litigation. These include mediation, inquiry, negotiation, arbitration, and adjudication. ADR mechanisms are also used in the management of a wide range of natural resource-based conflict and are not exclusive in any particular conflict, but can be applied successively or in any modified combination with other adjudicative methods of managing conflicts (Maigua, 2013). The use of ADR mechanisms in the resolution of conflicts is envisaged in the constitution of Kenya.

Conflicts being issues about values which are non-negotiable, the choice of conflict management must, therefore, be informed by the desire to address the underlying problems. ADR mechanisms are therefore better placed to manage conflicts as they aim to come up with mutually satisfying outcomes. When faced with conflict, some people tend to avoid each other initially. The parties in conflict act in ways that prevent a conflict from becoming public acknowledgement (Maigua, 2013). Avoidance may have a strategic element as the parties may wait for the right moment to act in a more direct manner.

#### **4.1.3.1 Negotiation and Conflict Management**

Negotiation is the most widely used mechanism for dispute resolution. It is also a process that involves parties discussing and identifying the issues at hand so as to arrive at a mutually acceptable solution without the assistance of a third party. It includes two or more parties, which have either equal or unequal power. The parties meet to discuss shared or opposed interests in relation to a particular issue of concern. The parties attempt to settle their differences using a range of techniques including concession, compromise, and confrontation. Thus, negotiation allows party autonomy in the process and outcome (Maigua, 2013).

Negotiations focus on the shared interests of the parties, and the goal is to create options that satisfy both mutual and individual interests. The parties in negotiation rely upon their perceptions of distributive and procedural fairness in making demands and offers and deciding on whether to reach an agreement or end the negotiations. Negotiation has been argued as the most efficient conflict management mechanism in terms of time management, costs, and preservation of relationships. They can either be interest based, power based or rights based and can result in different outcomes. Interest-based negotiation shifts focus of the discussion from position to interests, based on a range of possibilities and options, for the parties to arrive at an agreement that satisfies the needs and interests of the parties (Maigua, 2013).

Population growth and the dwindling of global resources have necessitated interest based negotiations over the sharing of natural resources. Such negotiations constitute conflict resolution because they deal with sensitive environmental and resource issues. They are typically inter-cultural negotiations which deal with various parties and stakeholders. However, natural resource negotiations pose challenges because they are over limited and vital resources.

#### **4.1.3.2 Arbitration and Conflict Management**

Arbitration is a process whereby a neutral mutually agreeable third party known as an arbitrator is appointed by the parties in conflict or an appointing authority to determine a conflict and give a final binding award. It is also described as a consensual process where the parties to a conflict agree to present their grievances to a third party for resolution (Khan, 2007). While it may not be costly and more accessible than trial, the arbitration process has some defined disadvantages. These disadvantages include the risk of losing, formal rules of the procedure and evidence and the potential loss of control over the decision after the transfer by the parties of decision making authority to the arbitrator. Furthermore, parties in arbitration are confined by the traditional legal remedies that do not encompass innovative solutions.

In Kenya, arbitration is regulated under the arbitration Act CAP 49 (Laws of Kenya, 1995). The Act defines it as an agreement by the parties to submit to arbitration in all or certain disputes that arise between them in respect of a specified legal relationship whether contractual or not. The various conflict management options vary in terms of the legal recognition of process and outcome; the specialization required of the third party that can assist in conflict management; the role and authority of any third party that might be involved; the amount of coercion that is exercised by or on the conflicting parties; and the privacy of the approach (Moore, 2003). The advantages of arbitration are that it is cost-effective, speedy and the result is binding.

#### **4.1.3.3 Mediation and Conflict Management**

Mediation is a voluntary collaborative process whereby a neutral and impartial third party assists the parties in a conflict. It is carried out with the consent of the third party to prevent, manage or resolve a conflict by helping them to develop mutually acceptable agreements. A mediator helps the parties in identifying and articulating their own interests, priorities, and needs

to each other. Besides, it takes place in a wide range of contexts, conflict and culture dynamics, and procedural settings (Mwagiru, 2006). The two options for selecting mediators for natural resources conflicts involve appointing a mediator with limited knowledge in natural resource conflicts while relying on a technical support team of natural resource experts. The other option entails the selection of a mediator with a solid technical expertise on natural resource conflicts. Complex natural resource conflicts include three sets of supporting actors being, mentors, conveners, and sponsors. Guides launch the mediation initiative and appoint a convener. A convener invites the participants to the mediation table and brings legitimacy and enables the parties to own the process. On the other hand, sponsors finance the process. This particular conflict management system has been used informally to resolve conflicts in Northern Kenya among the pastoralist communities (Maigua, 2013). It is often successful because it offers the parties an opportunity to express their own interests relevant to the conflict.

Peace committees have been used in the North Rift and Western regions of the country by the National Council of Churches of Kenya (NCCCK). The committees led to the development of Village Peace and Development Communities (VPDCs). Similarly, Peace Communities borrowing from the NCCCK model were formed by the Pokot, Karamojong, Turkana and Sabiny (POKATUSA), a World Vision's cross-border peacebuilding project (Adan & Pkyala, 2006). Local peace dialogues and reconciliation meetings often result into peace and harmonious co-existence.

Both arbitration and mediation promote the same ideals such as access to justice, prompt hearing, fair outcomes and reduced court congestions. However, mediation is a voluntary and a non-binding process.

#### **4.1.4 Traditional Justice System and Conflict Management**

In Kenya, communities have varied traditional methods of dealing with conflict that complement the formal methods that deal with violence. Traditional societies have a council of elders which is the principle institution charged with conflict management and resolution. The primary role of the council is to maintain harmony and peaceful coexistence. Further, pastoralist communities have resource management agreements on how to manage their scarce natural resources. However, the primary indigenous conflict resolution is through the council of elders.

Kenyan communities have always engaged in informal negotiations and mediation in the management of conflicts. Mediation, as practiced in the traditional African communities, was informal, voluntary, flexible and expeditious, aiming at fostering relationships and peaceful coexistence. Besides, inter-tribal conflicts were mediated and negotiated in informal settings presided by a council of elders who acted as arbitrators and mediators (Maigua, 2012). Among the Marakwet and Pokot for instance, the council of elders referred to as Kokwo, is the highest institution of conflict management. The council is composed of respected, wise old men who are knowledgeable of the community's affairs and history (Kameri-Mbote, 2005).

Article 159 (2) ( c) of the constitution provides for the use of traditional dispute resolution mechanisms, so long as they do not contravene the Bill of Rights. The use of the traditional resolution mechanisms is also encouraged when they are not repugnant to justice and morality and are not inconsistent with the constitution or any written law. Active application of traditional conflict management mechanisms in Kenya bolsters access to justice for all including communities which have challenges in accessing formal conflict management systems. It is paramount to note that traditional justice systems employ informal approaches in the management of natural resource conflicts. The resolution seeks to incorporate mediation and negotiation in the management and

settlement of disputes. This approach is participatory as it has a representation of the affected parties and thus wins their confidence. Thus, this approach is capable of solving natural resource conflicts among the communities. For instance, the Mogadishu Declaration saw communities in Garissa, Mandera and Wajir counties agree to resolve their disputes, including banditry and unauthorized grazing (Maigua, 2012).

## **CHAPTER 5: RESULTS AND FINDINGS**

This chapter presents the findings of the data collected, and discusses the nexus between conflict and environmental security in pastoral areas. The findings are therefore outlined according to the specific objectives of the study. The first objective was to interrogate the theoretical linkage between conflict and environmental security among the pastoral communities in Kenya. The second objective was to examine the implications of the link between conflict and environmental security on pastoralists in Kenya. The third objective was to evaluate the management structures for addressing conflict and environmental security and their applications to pastoral communities.

### **5.1 Conflict and Environmental Insecurity among the Turkana**

Natural resource-related conflicts are the dominant disputes in Turkana. Other types of conflicts are livestock rustling, wildlife and human, and political. The natural resource-based conflicts in Turkana mainly revolve around the question of water points, grazing fields, and land. They are hinged on the desire to control, access, and utilize the land related resources of water and pasture. As a consequence, the scarcity of these vital resources has generated competition with other pastoral communities within and across national borders. Similarly, when there is an abundance of pasture and water in a particular area, pastoralists move to those areas and conflict ensues (Moru, 2010). The question of historical claims to pasture fields also arises when the pastoralists in search of water and pasture clash with farmers in ranches.

The consequence of the adverse drought in 1999, 2003 and 2009 was that there was moisture stress within the natural vegetation. As such, little or no vegetation is left for the animal herds of the Turkana community. The community members are therefore forced to find pasture

for their animals elsewhere, where they clash with the farmers as they are not ready to share resources.

Other factors which expose the Turkana and their neighbors to environmental insecurity include little vegetation cover, overgrazing, poverty, soil erosion and common cutting of trees. Limited availability of these resources increases competition with other pastoral communities over them. The battles are organized by the communities with a desire to gain control, access and a chance to utilize the resources.

There are links between the political, social, economic, environmental and military security of a region and the stability of one of these sectors translates to a marked physical security. In Turkana, for instance, the environmental insecurity experienced in the area has a hand in the elevated instability in the region. The number of small arms among the people is very high, and although they are for the protection of their herds, many are the times they lead to the death of innocents (Kizito, 2013). The mortality of citizens also triggers conflicts, and especially if it is caused by a community with which they share resources.

Moreover, drought has a direct impact on the ecosystems that are necessary for livestock production. The Turkana lose their animals during these periods, and the production of milk reduces significantly. A great deal of human security relates to the access of people to natural resources and changes in the environment (Schiling et al., 2012). Pastoral communities have a variety of natural resources on which they depend on, and their survival is linked to them. Therefore a threat to the resources through the degradation of the environment threatens their security.

The rapid increase in the population of the pastoralist community such as Turkana further contributes to environmental conflicts by reducing the carrying capacity of the land. Overpopulation leads to uneven distribution of natural resources which breeds human conflicts. In addition, the droughts force the pastoralists to travel away from their homes in search of water and pasture for their animals. The migration increases their susceptibility to insecurity as the neighbouring communities with the resources regard their movements as aggression, and this triggers violent conflicts. The erratic rains also hamper the efforts of the Turkana to settle in one region, in an attempt to minimize conflicts (Schiling & Remling, 2011).

### **5.1.1 Conflict and Human Security**

Environmental conflicts are as a result of unsustainable utilization of natural resources and the consequent degradation and scarcity of resources. In this regard, due to a large number of animals that the Turkana community keeps, the existing land, water and pasture cannot sustain their livelihoods. Hence, overgrazing usually leads to land degradation and thus exposes them to climate vulnerabilities and climate change (Kizito, 2013).

Apart from environmental security, the Turkana community experiences other forms of insecurity namely food, health, social, and physical and some aspects of political security. Their dependency on livestock mainly cattle, goats, sheep, and camels and their products for diet are not sufficient to provide a livelihood for the Turkana community. Even with limited small-scale farming, hunting, and fishing around the Lake Turkana, these activities are not sufficient for the production of food and the maintenance of the community (Kizito, 2013). As a result, the region has become one of the chronically food insecure in Kenya, and its survival is pegged on food aid.

The harsh environmental conditions in Turkana County is the primary source of food insecurity among the community as well as the frequent prolonged drought that has characterized

the region. Food insecurity is also perpetuated by the acquisition and use of the SALWs by other pastoral communities neighboring the Turkana. Other factors such as high levels of poverty, cattle raids, and dependence on relief food are other factors influencing food security among the Turkana community (Schilling et al., 2012).

Lack of personal safety due to the marginalization of the community and specifically the ASALs, and the poor conditions of the region contribute to conflict and insecurity in the area. Further, the lack of enough security forces with a capacity to guarantee the community's safety and to secure the porous borders against the heavily armed neighbors exposes them to the poor living conditions, constant conflicts, and lack of food (Schiling et al., 2012). The marginalization increases insecurity and conflict. The Pokot community is the main enemy of the Turkana people, though they are also attacked by other pastoral communities in northern Kenya but on a small a scale.

Traditionally, raiding involved small manageable violence and theft of livestock during periods of diseases or droughts. Loss of human life was rare, and when it happened, compensation in the form of livestock was paid to the victims' families. However, in the recent years, due to the proliferation of SAWLs, the cultural practice has become widespread, more violent and a destructive activity among the pastoral communities of northern Kenya (Njiru, 2012).

In Turkana, raiders are motivated by drought and hunger. During drought periods, the Turkana lose their animals which are their primary source of livelihood and rely on food aids. In the neighboring Pokot community, dowry payment and accumulation of wealth through commercialized raiding are the motivation for engaging in livestock raiding (Schiling et al., 2012). Therefore for the Turkana, raiding is a question of survival than for the Pokot who carry out raids for social entitlement.

The direct impacts of conflict include loss of productive assets such through deaths and raids, and reduced access to essential resources such as water and pasture, and social networks. In a like manner, conflicts lead to continued livestock attacks and limit the mobility of children and women. Conflicts also limit the herding activities of the Turkana people and their exchange activities which form an economic pillar in other counties. For instance, women and children are impoverished and destitute due to lack of food, shelter and basic needs such as medical attention (Opiyo et al., 2012).

Indirect impacts of conflicts include a reduction in the economic growth of the county and its neighbors. The drop is a result of reduced exchange activities and lack of ready markets for their products. A significant impact of the conflicts and insecurity is the feminization of pastoral roles, as a result of death, displacement, and divorce. Traditionally, the Turkana community has set roles for each gender. The men are tasked with herding their herds of cattle, and the constant conflicts lead to their deaths. The women are therefore forced to take up roles meant for the men to sustain their livelihoods (Opiyo et al., 2012).

Conflicts and livestock raiding affect the welfare of pastoral communities in numerous direct and indirect ways. Loss of human lives is the most direct effect of raiding. For Turkana and Pokot communities combined, CEWARN reported the number of conflict-related deaths as 640 in 2009 (CEWARN, 2010). The high death toll indicates that the availability of SALWs is responsible for the deadly raiding. Since the raiders are exclusively male, raiding affects the community by reducing its future prosperity. Nevertheless, disarmament efforts have been selective and poorly coordinated, predominantly failing.

The effects of conflict and raiding on livestock numbers are both direct and indirect. The direct effect of raiding is positive for the raiding community and negative for the raided

community. Furthermore, the direct impact of raiding is felt in the loss of human life, reduction of livestock numbers, limited access to water and pasture, and forced migration. Indirectly, the conflicts and raids create a strong and omnipresent perception of insecurity which results in ineffective resource utilization, food insecurity, and reduced mobility. Hunger and drought impact on the availability of natural resources and are critical raiding motives among the Turkana while for the Pokot, payment of dowry and increasing wealth are the key raiding purposes (Schilling et al. 2012). These factors undermine adaptation strategies and pastoralism.

The Turkana and Pokot communities experienced an estimated loss of livestock 90,000 animals between 2006 and 2009 due to raids (CEWARN, 2010). The reduction of livestock numbers is critical because the Turkana depend on livestock as a source of their livelihood, hence food security. Further, the loss of cattle results into loss of societal recognition as there is no respect for elders without livestock.

The government has carried out the exercise of disarmament of illegal arms in northern Kenya in order to avert the deadly raids and to promote security among the pastoralists. These disarmament efforts have however been selective and uncoordinated. In 2006, the government of Kenya launched an operation aimed at mopping out illegal firearms in northern Kenya. In 2010, the second disarmament exercise was carried out which sought to recover 50,000 guns. Nonetheless, the exercise was not a success. Lack of incorporation of community leaders' views and uncoordinated points of command of the Kenya Police, the General Service Unit, Kenya Army and the Administration Police was pointed as the primary reason for the minimal success of recovering 1,201 firearms, and 1,665 rounds of ammunition (Wepundi et al., 2011). Proponents of disarmaments argue that help in reduction of destruction by preventing the loss of human life and animals that would have occurred due to possession of weapons and helps in promoting negotiated

resolutions to the conflict. However, the disarmament exercise has been criticized given the human rights violations and brutality by security agencies (Okumu, 2013).

## **CHAPTER 6: CONCLUSION AND RECOMMENDATIONS**

This study set out to interrogate the relationship between conflict and environmental security and its implication on the livelihood of the pastoral communities. Using the Turkana community in Kenya as a case study, it probed the theoretical linkages between conflict and environmental security among the pastoral communities in Kenya and the nature of the relationship between conflict and environmental security. It also evaluated the conflict management structures for addressing conflict and environmental security in Kenya and their applications to pastoral communities. This chapter summarizes the study and ends with conclusions and recommendations.

### **6.1 General Conclusion**

This study is anchored within the Thomas Homer-Dixon's environmental scarcity theory. The theory which is customized to suit the pastoral setting used secondary data. The study establishes that there is a nexus between conflict and environmental security within the context of the pastoral communities in Kenya.

The pastoral economy relies primarily on livestock rearing and is more vulnerable when one or several conditions of scarcity prevail. The incomes and means of livelihood held hostage because of environmental stress and harsh weather. The Turkana case highlights how a steady reduction of watering points and pasture, as well as rapid increasing human and livestock population negatively affect a community.

The current volumes of SALWs is a consequence of the political instability that has characterized it for over a long time. These reasons pastoralists acquire SALWs include communal security, protection of the livestock and the struggles over scarce natural resources. It further points out that the militarization of the pastoral areas is a consequence of marginalization, weak government administration and lack of effective natural resource and management frameworks in

pastoral areas. This has created zones of insecurity and lawlessness among the pastoral communities. The militarization of the pastoral groups has influenced negatively on the traditional mechanism for conflict management, prevention, and resolution.

The study confirms the significance of natural resources and livestock as key elements of conflict in Northern Kenya. However, the study also shows that different conflicting parties engage in the same conflict for various motives. In Turkana, the raiders are driven by hunger, drought, and poverty.

The study also notes that scarcity of pasture and water, limited state structures and institutions of governance combine to form an intricate web of complexity that contributes towards conflict and environmental insecurity. The erosion of traditional value systems and the authorities that enforced them has also contributed conflict in the pastoral regions. Further, it confirms that elements of conflict can cause environmental security and vice versa.

The aim of this study was to understand the impact of conflict and environmental security on the pastoral livelihoods. From the analysis and in particular on the objectives, the study concludes that there is a relationship between conflict, environmental security, and governance. The study responds to the first hypothesis that there is a positive correlation between conflict and environmental security. This implies that weak state governance harbors conditions for conflicts and environmental insecurity.

The study also confirms the second hypothesis which states that the challenges of conflict and environmental security among the pastoral communities in Kenya are as a result of institutional and policy failure. The study has established that weakness in the existing institutional

and normative frameworks have contributed to the declining human security among the pastoralists. These include the easy acquisition of SALWs and the weak traditional justice system.

From the study, a number of factors are held responsible for this upsurge of conflict and continued vulnerability of the pastoral communities. The factors include cattle raiding, decades of political marginalization, pastoralists' cultural and economic focus on livestock, resource scarcity, and the forced disarmament process by the State troops.

The study disproves the notion that conflicts among the pastoralists are a consequence of the shortage of resources and environmental stress. Instead, it acknowledges that a combination of several factors is behind insecurity in pastoral areas. The root cause as proposed by the study is both institutional and legislative failure. Moreover, the study asserts the theoretical propositions to the environmental conflict and scarcity-driven explanations of violent conflict fostered by environmental conditions. It also notes that formal, traditional institutional and legislative frameworks for conflict prevention, management resolution mechanisms for natural resources are important considerations.

It further concludes that conflicts in pastoral areas can be explained by the following factors; (i) competition over scarce natural resources; (ii) weak state governance structures; and (iii) marginalization. In combination with SALWs, droughts, diseases, social and political marginalization, the effects of raiding pose a significant threat to pastoral livelihoods. It can be concluded that the pastoral communities in Kenya will continue to suffer the consequences of conflicts which are directly related to environmental insecurity.

The central thesis is that the connection between conflict and environmental security is essential in understanding and making a sound contribution to the state of human security in the

pastoral regions. Hence, this calls for an effective engagement of the ecological, socio-economic and political factors that affect the pastoral systems of production in the ASALs of Kenya.

## 6.2 Recommendations

Conflict and environmental security generating factors are closely intertwined. These combine to shape and influence the livelihood of the pastoralists. The solution to these conflicts and environmental insecurity lies in the promotion of good governance that will ensure effective normative and institutional frameworks for sustainable exploitation, utilization, and management of the natural resources.

The prevalent conflicts and the declining environmental security in pastoral areas is a result of a combination of factors that include competition over scarce, vital natural resources. The situation is worsened by harsh climatic condition and ineffective management and utilization mechanisms. The study acknowledges the presence of a constitutional provision to guarantee a healthy environment though there are no enforcement mechanisms.

The study notes that the availability of SALWs promotes conflict in the region. There is a need for effective conflict mitigation that breaks the unending cycles of violence, retaliation, and impoverishment. The capability of the actors must be tackled in order to reduce the disputes. In the past, disarmament efforts have been conducted poorly and predominantly failed. Therefore, proper disarmaments should be conducted, and the community encouraged to practice alternative livelihoods such as paid labor.

The study also recommends the enhancement of enforcement mechanisms, revision of the frameworks to cater for environment problems occasioned by overgrazing and overutilization of pastoral resources, building the capacity within the legal profession and providing an enabling

environment for the effective participation of civil society actors to engage effectively in matters pertaining to the environment.

The study notes that the over-dependence on pastoralism as a source of livelihood remains a major challenge facing the pastoral communities. This means that unless livestock keeping is improved and other alternative sources of livelihood strategies adopted, the pastoral land will have devastating consequences to the pastoralists and their economy.

Furthermore, there is a need for effective conflict mitigation that breaks the cycle of violence and impoverishment. Therefore the study recommends that interventions in conflict prevention, management and resolution should address the underlying causes of conflict as well as the triggers. This includes adequate institutional and normative frameworks for sustainable exploitation, utilization, and management of the natural resources.

Disarming pastoral communities is a major approach to keeping law and order and should be well coordinated for it to be successful. There is need to ensure employment of effective measures to control the proliferation of SALWs. There should be improved data collection and SALWs profiling, destruction of all weapons collected, increased public awareness of the dangers of SALWs and initiating joint borders patrol with neighboring countries. The reasons as to why the pastoralists acquire SALWs should be addressed alongside proliferation.

Since the advent of oil discovery in the Turkana region, there have been conflicts between the people and the oil exploring companies. Thus, this is an emerging area of research, particularly the impact of oil discoveries in the county and pastoral livelihoods as well as what measures can be employed to avert the foreseen conflicts.

### **6.2.1 Future Research Areas**

The study identifies the discovery of oil in Turkana as an area of future study. With the discovery of oil deposits at Ngamia oil exploration sites, economists believe that it will be a major boost to the economic growth of the country. This discovery has opened up Turkana to further explorations and exploitations of the oil fields. This will have tremendous positive impacts on the Gross Domestic Income (GDP). The country will earn revenue from the oil resources based on the government's product sharing contract with the exploration company. The country's major earning will arise from the oil profit and the windfall tax charged on neighbouring countries to benefit from the establishment of the pipeline. If the oil prices are low, the government will not earn much to cover its costs (Macharia, 2016).

Oil discovery introduces a significant factor that will have far-reaching implications for the livelihood of the Turkana community, its neighbours and the country at large. In relation to conflict and environmental security, it means a possible source of conflict between the community, the government and the mining company. The impact of the oil discovery will depend on the normative and institutional framework that will guide the relationship between the three key stakeholders and in particular revenue sharing among the three stakeholders.

Environmental Security will remain a significant factor because the mining and extraction of the oil will have to take into account the environmental impact of the process. Oil extraction will have irreparable harm on the environment that results from crude oil production. Crude oil emits a variety of pollutants such as carbon monoxide, carbon oxide, nitrogen oxide and sulfur dioxide and volatile organic compounds. These emissions are pollutants that are linked to climate change as these gases insulate the earth. Oil extraction in Turkana will increase the country's levels of green house gas emissions instead of reduction according to the Paris Agreement (COP21,

2016). Further, the extensive exploration of oil in Turkana will aggravate pressure on the land which will result to alienation and impoverishment of the Turkana community who will be denied access to environmental resources.

The impact on health security and will be in a dire state due to the carbon emissions. It will lead to an increase in the respiratory diseases suffered by the communities living around the extraction industries aswell as the oil mines workers. The key question is whether mitigation measures will be put in place to cushion the foreseen infections. Accordingly, an assessment of the likely impact of the discovery of oil on the livelihood of the Turkana community is compelling to undertake.

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