

**SECURITY IMPLICATIONS OF OIL EXPLORATION ON SOCIO-ECONOMIC  
ACTIVITIES IN SOUTH LOKICHAR BASIN, TURKANA COUNTY, KENYA**

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**A thesis submitted to Graduate School in partial fulfilment for the requirements of  
Master of Arts Degree in Security Management of Egerton University**

**EGERTON UNIVERSITY**

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## DECLARATION AND RECOMMENDATIONS

### Declaration

This thesis is my original work and to the best of my knowledge has not been presented for examination of any degree in any Institute or University.

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## **DEDICATION**

This thesis is dedicated to my loving wife Mrs. Emily Cherotich Morei and our dear children, Elsa Chichi Pendo Kamais and Ethan Ekitela Kamais. They have been my pillar through the study period. To my late mother, Mary Erot Akitela, for her vision in keeping me at school despite the tremendous life and health difficulties she faced. To my dad, Asman Ekwom Ewoi, for raising and educating me as his very own blood even when the finances were not forthcoming. To Mrs. Mary Ruto and Mr. Godfrey Lukorito for your understanding and acceptance of my situation to allow me continue with high school education even when my father could not afford the fees. Finally, to the Turkana ethnic community for their perseverance and resilience in the face of hardships; and for their resolve to see a better day.

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## **ABSTRACT**

This study attempted to explore the security implications of oil exploration on the socio-economic activities in south Lokichar basin, Turkana County, Kenya. Motivation for the study was drawn from manifest disputes between the county government and the national government on the exploration, extraction, production sharing of Oil benefits. This study was based on the Resource curse theory and Environmental justice theory. The research objectives were; to analyse the security implications of oil exploration on social activities; to evaluate the security implications of oil exploration on economic activities and; to examine emerging security management issues due to oil exploration. Cross-sectional survey design was used for the study. A sample of 382 respondents was drawn from a population was 8,493 adult residents of south Lokichar basin, Turkana County. A total of 32 key informants were drawn from the expatriate employees of Tullow PLC, administrators and community elders for Focus Group Discussion (FGD). Indigenous respondents were sampled using cluster area sampling, while the key informants/FGD participants were purposively sampled. Primary data was collected using semi-structured interview schedule and FGD sessions; while secondary data was collected through thematic review of relevant literature. Qualitative data was analysed using thematic analysis of excerpts; while quantitative data analysed using Excel and Statistical Package for Social Science (SPSS) and presented through descriptive frequencies, charts and tables. The study found that oil exploration had both positive and negative implications on the socio-economic activities of Lokichar community. The negative implications were mostly security in nature and arose from poor management of the community's expectations as regards expected benefits for oil exploration activities. The lack of proper management of the high expectations led to adversarial relations between the Lokichar community and the oil exploration company resulting in facility takeovers and disruptions in exploration operations. Besides, influx of people from outside Lokichar for oil related engagements led to a rise in crime; further adding to security burden. The study concluded that oil exploration has affected the socio-economic lives of the Lokichar residents and if not well managed, will lead to more confrontations adding to insecurity in the region. The study recommended that measures to manage expectations need to be undertaken by stakeholders. These include; increased community participation to encourage transparency, civil societies involvement to expose abuses, inclusive policy reviews on security, natural resource management and revenue sharing, exploration of alternative energy sources, institution of development and poverty eradication measures, and employment of alternative dispute resolution mechanisms in dealing with disputes arising from oil exploration.

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## LIST OF ACRONYMS AND ABBREVIATIONS

<b>ABCDE</b>	Asset Based Community Development and Empowerment
<b>ALARP</b>	As Low as Reasonably Practicable
<b>AOC</b>	African Oil Company
<b>ASAL</b>	Arid and Semi- Arid Land
<b>BoP</b>	Balance of Payments
<b>BP</b>	British Petroleum
<b>CRG</b>	Conflict Research Group
<b>CSO</b>	Civil Society Organization
<b>DCI</b>	Directorate of Criminal Investigation
<b>EACC</b>	Ethics and Anticorruption Commission
<b>EIA</b>	Environmental Impact Assessment
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>EOPS</b>	Early Oil Pilot Scheme
<b>FDIs</b>	Foreign Direct Investments
<b>FGDs</b>	Focused Group Discussions
<b>GWOT</b>	Global War on Terror
<b>HIV</b>	Human Immune - Deficiency Virus
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>KNPHC</b>	Kenya National Population and Housing Census
<b>NACOSTI</b>	National Commission for Science, Technology and Innovation
<b>NIS</b>	National Intelligence Service
<b>MNOC</b>	Multi-National Oil Corporation
<b>MOSOP</b>	Movement for the Survival of the Ogoni People
<b>PLC</b>	Public Limited Company
<b>PSA</b>	Production Sharing Agreement
<b>SPSS</b>	Statistical Packages for Social Sciences
<b>STI</b>	Sexually Transmitted Infection
<b>UN</b>	United Nations
<b>UNDP</b>	United Nations Development Program
<b>UNEP</b>	United Nations Environmental Program
<b>UNCTAD</b>	United Nations Convention on Trade and Development
<b>USAID</b>	United States Agency for International Development

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

It has been contended that most conflicts resultant security challenges are resource-based more so in the Middle East (Kennedy, 2015). Certain scholars have further noted that Oil has been a leading cause of conflicts as shown by between 25% and 50% of interstate wars since 1973 that were linked to oil exploration and exploitation (Church & Crawford, 2018). It has also been argued that conflicts and insecurity in countries such as Iraq, Syria and Iran have long been passed as ideological extremism struggles to expunge western influence (Colgan, 2013a); and thus the justification of the west to launch the Global War Against Terrorism (GWOT). However, Conflict Research Group (CRG) notes that this is a disguise by the USA, Britain and Israel to access the oil through creating a chaotic environment (CRG, 2016). Abundance, or even prospects, of natural resources such as Oil often occasioned territorial disputes over border zone and offshores areas. Some of such areas include the Caspian Sea, claimed by Azerbaijan and Iran; and South China Sea, claimed by China, Vietnam, the Philippines and Malaysia (Colgan, 2013b).

In Africa, Petro - states have faced a plethora of oil related challenges akin to the infamous resource curse. Between the years 1997 to 2013, there have been varying degrees of resource related conflicts in Africa (Glaser, 2013). Nigeria has been infamous for oil related conflicts with Osagie, Funmilayo, Adegoke, & Ezeani (2010) estimating 25% of all conflicts in country were oil related and civilians comprising majority of the casualties. For instance, the Ogoni, Ijaw and other minority groups in the Niger Delta had been adversely affected by oil activities in their areas including environmental pollution and violation of human rights perpetrated by large Multi-National Oil Corporations (MNOCs) such as Mobil, Chevron, Shell, Elf, Agip among others (Ferdausy & Rahman, 2009). The infamous case of Ken Saro Wiwa is just another example of the repressive measures that the government, urged on by oil MNOCs were ready to employ to repress any efforts by the community to raise their grievances (Caldwell, 2016).

Among other reasons, the Libyan civil conflict and the eventual state of insecurity, that was preceded by the uprising of 2011 and subsequent intervention of the USA, is touted to be related to oil issues and poor governance (Chivvis & Martini, 2014). According to the US

Energy Information Administration (2015) the Libyan oil could indeed satisfy the country's domestic demand and it could contribute stability and eventually prosperity. However, Energy Information Administration (2015) further observes that militias and violent extremist such as ISIS have used oil fields as points of leverage in order to ameliorate their military standing and capacity. Unfortunately, with the absence of a strong governance structures continue favour extremists who have joined the fray to access the oil fields. Regional warlords interested in power and resources will only serve to exacerbate the situation.

In the East African Region, Sudan has faced the most brutal oil related conflicts in the guise of ethnoreligious conflicts pitting the predominantly Muslim Arab north against the predominantly Christian south. Disagreements over oil revenue sharing and oil transit routes has remained a bone of contention between Khartoum and Jubba (Custing & Harding, 2013); with the latter seeking alternative routes southwards to Lamu in Kenya or eastwards to Djibouti. In Uganda, Manyindo, Smith, Dixon, Ruhanga, & Alstine (2015) observe that oil was discovered in 2006 and up to date, the production is yet to start majorly because of disputes in the production sharing agreements (PSA) between the government and the oil companies. This has seen reduced activities within the oil projects in Uganda. The issues that have arisen in Uganda include environmental issues, land factors, international conflict among other factors.

In Kenya, onshore oil exploration has been carried out for years. In April of 2012, Tullow PLC struck oil at Ngamia one in Turkana, bringing about speculations and high expectations regarding economic prospects to the local community and the country at large (Okuthe, 2015). However, the oil discovery could exacerbate existing border tensions between Turkana and Pokot communities on the one hand and the Turkana community against the national government and oil exploration companies. This has been noted by scholars who have warned that in addition to traditional reasons, the new oil discovery is likely to exacerbate existing tensions in the Turkana County (Johannes, Zulu, & Kalipeni, 2015). A Cordaid (2015) report indicates that when the community's interests and expectations in regards to gains from oil are not met, or the benefits are unevenly distributed, conflict and insecurity is the likely outcome.

From the preceding overview, it is evident that mineral resources have occasioned many socio-political and economic problems besides the benefits. In countries where resources have been newly discovered, researchers, policy makers and pundits have tended to focus



more on the economic prospects while ignoring the negative aspects that come with such finds (Imana and Mmbaili, 2016). The excitement that greeted the country after oil discovery in 2012 saw a glut of debate on the benefits with little considerations of problems faced by other resource endowed countries. But noteworthy is that grievances have often been induced not only by the activities of multinationals but also by the perceived deficits in government policy. This is an observation that Douglas (2004) noted when he claimed that legislation strips local people of the necessary benefits, they would have derived from oil production.

With negative effects of oil exploration on social and economic lives of the indigenous residents of Lokichar, the likelihood that the host community will rise against and threaten the security of operations, assets and personnel of oil exploration companies is real; the economic prospects notwithstanding.

## **1.2 Statement of the Problem**

Oil and other natural resources have been associated with conflicts in most places. The conflicts lead to human suffering and loss of property. When the resource conflicts are protracted, they lead to a state of perpetual insecurity thus impeding social-economic development. These conflicts and resultant insecurity arise over disagreement on fundamental aspects of oil or resource exploitation such as jobs, revenue sharing, environmental protection, corruption among others. Expectations of indigenous communities are usually high and at times unrealistic thus contributing to conflicts due to perceived unfairness and exploitation. The responsibility to manage the expectations and conflict factors lies with the leadership, exploration companies, and national government. In most cases this is not done as the focus is on the tantalising economic prospects; and for others the opportunity to loot. The end result is conflict over hitherto avoidable factors thus threatening the social and economic activities in the resource rich areas, and threatening the operations and staff of exploration companies. While many studies on oil exploration in Kenya have majorly emphasized on the economic implication of oil discovery, scanty documentations have placed emphasis on the security implications of the same particularly; especially on how social and economic activities are affected resulting into conflicts that affect security of the host community, the exploration companies and the country at large. Therefore, this study sought to take a critical look of the subject from the security perspective with focus on south Lokichar basin in Turkana County, Kenya.

### **1.3 Objectives of the Study**

#### **1.3.1 Broad objective**

The broad objective of the study was to explore the security implications of oil exploration on socio-economic activities in south Lokichar Basin, Turkana County, Kenya.

#### **1.3.2 Specific Objectives**

- i. To analyse the security implications of oil exploration on social activities in South Lokichar Basin, Turkana county, Kenya.
- ii. To evaluate the security implications of oil exploration on economic activities in South Lokichar Basin, Turkana county, Kenya.
- iii. To assess emerging security management issues due to oil exploration in South Lokichar Basin, Turkana County, Kenya.

#### **1.4 Research questions**

- i. What are the security implications of oil exploration on social activities in South Lokichar Basin, Turkana County, Kenya?
- ii. Which are the security implications of exploration on economic activities in South Lokichar Basin, Turkana County, Kenya?
- iii. What are the emerging security management issues due to oil exploration in South Lokichar Basin, Turkana County, Kenya?

#### **1.5 Justification of the study**

The study is useful to the academic community by contributing to the existing scarce knowledge on the security implications of oil exploration on socio-economic activities. The knowledge gathered from the research forms a basis on which further research will be built more so in the security management perspective.

The findings are important for government and Security agencies in tackling oil related security challenges by means of adding to existing mitigation measures. The recommendations are pertinent for addressing the social and economic expectations of the host communities through proper handling of the explorative, extractive and production processes in terms of formulating proper policies.

The findings also benefits Oil exploration companies such as Tullow Oil PLC, African Oil Cooperation (AOC) among others course in the course of their activities so that they do not inadvertently precipitate conflict with the host communities; thus, avoiding negative security consequences.

### **1.6 Scope and limitation of the study**

This study was conducted in South Lokichar ward in Turkana County where commercially viable oil has been discovered. The study focused on the socio-economic challenges leading to insecurity as a result of oil discovery, in Turkana County, as well as the emerging security management issues due to oil exploration.

The study was limited by the pastoralist/nomadic nature of the indigenous residents who move from place to place in search of pasture and water for their animals. This was be mitigated through having indigenous research assistants with knowledge of their movements to track them down.

Sensitivity and confidentiality of the information given hindered employees of Tullow and security managers/stakeholders from being frank. This was mitigated by obtaining consent for data collection and assurance that the information was confidential; and only for the purpose of the research and not for any other purpose.

## 1.7 Definition of Terms

- Oil Exploration:** Oil Exploration is the common terminology applied to that portion of the petroleum industry which is responsible for exploring for and discovering new crude oil and gas fields, drilling wells and bringing the products to the surface (Duck, 1983). According to this study, oil exploration is the process of searching for the purpose of discovery of resources such as oil or other hydrocarbon deposits.
- Security:** The study adopted the definition by Karim, Gnisci, & Wanjiru (2004) that security is increasingly viewed as an all-encompassing condition in which people and communities live in freedom, peace and safety, participate fully in the governance of their countries, enjoy the protection of fundamental rights, have access to resources and basic necessities of life, and inhabit an environment which is not detrimental to their health and wellbeing.
- Socio-Economic:** The sectors of an individual's activities and understandings that shape him(her) as an economically active person and they are the elements that determine the economic activity of societies (Baker, 2014). According to this study, it is activities relating to, or having the purpose of, promoting companionship, communal activities e.g. sacrificial rituals.
- Upstream:** The study adopted the definition by Okuthe (2015) who defined upstream as process the exploration and extraction of crude oil.
- Mid-stream:** The study adopted the definition by Okuthe (2015) who defined mid-stream process as the transportation of crude oil and gas from the oil field to the refinery
- Down-Stream:** The study adopted the definition by Okuthe (2015) who defined down-stream process as the process involving refining and processing of crude oil and gas products, as well as the distribution and marketing of the products.

## **CHAPTER TWO**

### **LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

#### **2.1 Introduction**

This chapter attempted to review available literature on the subject. Relevant books, journal articles, official organizational/government reports, policy papers, constitution and legal documents, published academic theses, among others were reviewed thematically. Thematic review of literature aimed to provide in-depth information on the subject and illuminate on the research objectives.

##### **2.1.1 Overview of Oil discovery in Kenya's Turkana County and Nexus to Security**

Oil discovery in Kenya was announced in early 2012 making public the discovery of oil deposits in Turkana County (Mkutu & Wandera, 2016). Comparatively, it is estimated that Kenya has the highest petroleum potentiality compared to her neighbours such as Uganda, South Sudan and Sudan (Okuthe, 2015). Exploration of petroleum in Kenya started in the early 1950s and the first well was drilled in the year 1960 by companies such as British Petroleum (BP) and Shell companies (Johannes, Zulu, & Kalipeni, 2015). Seismic surveys were also done by Adobe Oil Company and Frobisher Company limited in Mandera basin in the northern east region of Kenya. However, the surveys were unsuccessful did not materialise into drilling programs afterwards.

Tullow Kenya Company and African Oil Company (A.O.C) carried out successful work in Turkana County striking oil in 2012 (Mkutu & Wandera, 2016). It has been verified that Kenya will release 5,200 barrels of oil per day (Turkana County Government, 2015). Tullow and A.O.C were expected to test more than three other wells before the end of April, 2013 which was expected to double, if not triple, the number of barrels per day. Kenya's 5,200 barrels per day is way far from Saudi Arabia which produces 10.3 million barrels per day (Okuthe, 2015). However, further assessments have raised potential production to 750,000 barrels of crude oil per day (Turkana County Government, 2015).

Managing oil revenue and production, issues related to areas of security, compensation and resettlement formula, communities' involvement and the laws related with investment, especially in the energy industry are vital. Oil resources have been known to lead to social

and economic hardships in countries where they are discovered (Mkutu & Wandera, 2016). Despite the excitement about economic potential, community expectations are usually high and if not well managed they result into conflicts between the community and stakeholders. Perceived or real unfairness in jobs distribution, employment opportunities among others are some of the flashpoints in oil exploration. The communities can easily turn against the exploration companies putting their operations and staff in great security risks; and attendant financial losses. This notion was critical in this study since it endeavoured to examine the potential pitfalls in petroleum resource management that would lead to adversarial relationship among stakeholders thus posing security risks.

The nexus of oil exploration and security management in endowed communities and countries has remained varied and viewed from different perspectives. According to Colgan (2013a), although the threat of “resource wars” over possession of oil reserves is often exaggerated, the sum total of the political effects generated by the oil industry makes oil a leading cause of war. Between one-quarter and one-half of interstate wars since 1973 have been connected to one or more oil-related causal mechanisms (2013b). No other commodity has had such an impact on international security. A report by World Bank indicates that countries dependent on oil are plagued by socio-economic misfortunes (World Bank, 2009). These include civil wars, inequitable resource allocation and marginalization of some communities or places in the country. However, and on the contrary, Mukutu and Wandera (2016) note that the discovery of oil creates a sense of hope and expectation that the revenue would lead to the development of indigenous communities and the countries as a whole. When these expectations are not met, the communities develop hostility towards exploration companies, threatening security of their operations, company operations and employees.

According to Collier, Hoeffler, and Söderbom (2008), natural resources such as oil and gas do not only bring challenges to any economy, but it also has a propensity to generate civil conflict. Such security challenges are a threat to the overall stability of the oil producing region. In many cases, sizeable petroleum reserves in less developed countries have not improved the overall national economic performance and more so the indigenous communities (Mkutu & Wandera, 2016). A similar thought was expressed by Fearon (2010) who observed that in many petroleum-rich underdeveloped states, exploitation has reduced the competitiveness of previously productive economic sectors. This phenomenon has led to declining wealth, social and political unrest, increasingly disaffected populations, emergence of rebel organizations, government corruption, and destabilized domestic security. In other

words, access to such a valuable resource has pitfalls for less developed states lacking the capacity to properly develop and exploit the resource. This in turn dims the expectations of the indigenous communities who, on suspicion of foul play, threaten the security of the perceived offending stakeholders.

In a survey by Collier *et al* (2008), examining the relationship between oil discovery and internal insecurity, concluded that there is evidence linking oil to some instances of internal insecurity. However, not all oil-rich countries experience negative security implications; hence insecurity is clearly not an inevitable result of oil discovery (Stevens, Lahn, & Kooroshy, 2015). For instance, it has been noted that the discovery of oil deposits raises new opportunities for revenues, employment and other benefits, which may impact positively on community activities and peace-building.

Scholars like Collier (2007) note that involvement of the indigenous community will ensure that they are effectively mobilized understanding in oil producing processes. This guarantees that reasonable margins and standards of safety and security are followed. Indeed, partnering with the people of oil producing communities will create and sustain better understanding among stakeholders in the oil industry and make conflict resolution less cumbersome. This requires good resource governance which according to United Nations Development Programme (UNDP) "...is the exercise of economic, political and administrative authority to manage a country's affairs at all levels comprising of the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences" (UNDP, 2011). Such resource governance would entail the manner in which allocative and regulatory mechanisms are exercised in the management of resources and broadly embraces the formal and informal institutions by which authority is exercised and thus inclusiveness is key.

Oil discovery in post-conflict countries may be expected to revive old animosities and political risks, particularly when the past insecurity had significant territorial dimensions such as among the Pokot and Turkana (Imana & Mmbaili, 2016). Other Studies on oil exploration in Kenya have cautioned that the new oil discovery is likely to exacerbate existing tensions in the Turkana County (Johannes, Zulu, & Kalipeni, 2015). Such tensions can easily escalate into insecurity especially where growing militarised inter-ethnic and cross-border insecurity are mainly caused by competition for scarce pastures and water resources.

Conflict and insecurity over resources are not only about natural resources. They are about social and cognitive boundaries, in demarcating resource ownership and thus selective assignment of enmity (Schlee, 2014). This idea supports the perceived definition of a “community”; that is to say, a sense of belonging anchored in institutions as well as naturalised conventions which are a necessary condition to the agreements about the appropriation, use and sharing of natural and land resources (Jacob, 2004). This raises the question about inclusion/exclusion mechanisms and dynamics within a community and between communities. In the case of a marginalised community where resources with huge economic potential have newly been discovered, this ‘inclusion-exclusion’ idea is emphasized and can be a source of conflict when perceived outsiders get to benefit.

The nexus between oil discovery in Kenya and security management in the region is further illustrated in a 2015 Turkana Baseline Report by Cordaid. The report indicated that without access to information and meaningful consultation, most indigenous communities confronted with oil, gas and mining will eventually resist projects that have a negative impact on them (Cordaid, 2015). This is further compounded when negative impacts are not adequately redressed and benefits are unevenly distributed. Trust is further undermined and the risk of intra-community and community–company tensions increases.

Whereas lessons could be drawn from experiences in countries that have been befallen by resource curse, uniqueness in cultural aspects, geographic variations, socio-political developments and historical experiences warrants attention to each country and region in terms of their natural resource challenges and the solutions thereto (Stevens, Lahn, & Kooroshy, 2015). Even Auty (1994) warns that the experiences of resource curse are not iron clad laws that occur every time a resource are discovered. Other scholars such as Sarraf and Jiwaji (2007) note that there is no single reason for the challenges faced by resource endowed countries. They further state that policy suggestion by scholars on how to mitigate such challenges cannot be applied across all resource abundant countries.

According to Obi (2009) oil curse is a fixation that is dependent upon a partial reading of the internal processes in oil-rich African countries without capturing its connections to globalized class relations and capitalist accumulation by dispossession. Oil endowment is not the curse. However, oil is ‘cursed’ by the high premium placed on it by globalized capitalism, spawning inequalities, and contradictions fed by an insatiable greed for finite hydrocarbon resources by the world’s industrial powers. This is often at a huge environmental and social costs to its



victims. These scholars recognized the uniqueness on each country's experiences and the need to treat oil discovery security challenges on a case by case basis despite the fact that some lessons can be applied across the countries.

### **2.1.2 Security Implications of Oil Exploration on Social Activities**

Resource abundance brings about opportunities and risks for many endowed countries (Church & Crawford, 2018). Of all sub-Saharan African countries, Nigeria is probably the most infamous for oil production- and oil company-related difficulties. The environmental and human rights problems and related protests of the early 1990s, which culminated in the death of author and activist Ken Saro-Wiwa in 1995, brought Nigeria and the international oil companies that operated there into disrepute (Osagie, Funmilayo, Adegoke, & Ezeani, 2010). Since Nigeria's return to democracy in 1999, the situation in its oil-producing region of the Niger Delta has rapidly evolved and altered, with social protest turning to violent protest, with militancy and criminality on the rise (Kadafa, 2012). Similar risks face new mineral economies if proactive measures to address underlying issues in resource governance are not objectively addressed.

In a 2015 Turkana Baseline Report, oil stakeholders in their assessment were convinced that a more systematic, constructive and inclusive dialogue between indigenous communities, government and oil companies is possible and urgently needed (Cordaid, 2015). This is to prevent further social tensions and rent seeking, in order to contribute to sustainable development in Turkana County. However, it has been noted that oil corporations that have engaged with indigenous communities through development projects have been a cause of inter-community conflicts in the Niger delta between communities participating in such projects and those that do not. In 2004, Shell acknowledged that the company at times precipitated insecurity by the way it awarded contracts, gain access to land, and deal with community representatives (Onuoha, 2008). Furthermore Cash payments by oil companies to community leaders to avoid disruption, or to indigenous (usually armed) individuals for security, fostered both conflict and crime, and the increase in hostage taking, both of foreign oil workers and even prominent Nigerians and their family members (Idemudia, 2010)

In his book on, "*The management and control of explorations projects*", Ericsson (2008) observed that exploration projects have brought negative social impact on marginalized communities. He argued that exploration projects often change the balance of power within

the marginalized communities and that this has exacerbated by exploration companies being unaware of or choosing to ignore traditional decision-making bodies and negotiating with individuals who do not have the trust or support of their own community. He further claimed that most exploration companies have been, over decades, using “divide and rule” tactics, which have always seriously undermined the social cohesion of indigenous marginalized communities and other communities as well. However, other scholars such as Hussain (2010) disagreed with the view by the Ericsson (2008) and emphasized the positive impacts of exploration projects on social development of marginalized groups. Hussain (2010) argued that exploration results into migration of people into a mine area and get employed. The social and economic conflicts brought as result of lack of money are eradicated and this brings about positive social co-existence among the marginalized communities cohabiting together. However, this could not be entirely true in Kenya especially in ethnic regions where people jealously feel primarily entitled to resources in their area. Perceived exploitation usually leads to hostilities and bad relations between the communities and the exploration companies thus creating an atmosphere of insecurity.

One of the effects of oil exploration on communities near oil reserves is its impact on cultural practices. Specifically, the ways in which otherwise benign cultural practices might be rendered problematic in the face of changes resulting from the discovery of oil. In his research, Dadiowei (2009) indicated that Gbaran oil host communities were confronted with an increase in the number of teenage mothers with fatherless babies. This upsets the established African tradition of fathers fending for their families and thus the role is left to the single mothers. Alongside the problem of single motherhood is the issue of sexual exploitation. The work of social Ghanaian historians such as Akyeampong (2008), makes it quite clear that commercial sex work is not a new invention in Africa. He laments the nature, extent and consequences of such practices in our current context more so in the context in the context of mineral exploitation sites. With the emergence of deadly sexually transmitted infections such as HIV/AIDS, women still have very little ability to negotiate safer sexual practices. This is more prevalent in areas where Multi-National Oil Corporations (MNOCs) conduct their field work (Gary, 2009). Be it as commercial sex workers, with attendant risk of sexually transmitted infections including HIV/AIDS, or teenage mothers who are left to care for children all on their own, the destruction of the structures that provide livelihoods for women in oil producing communities is a threat to traditional family role set-up.

Oil companies have also at times been blamed for giving rise to social unrest in the areas where they operate as a result of exploitation of the indigenous communities (Colgan, 2013b). This was particularly apparent in the Niger Delta where violence, oil theft and sabotage of pipelines increased sharply during the mid-1990s and peaking in 2006–2007 (Idemudia, 2010). Militant groups formed and communities vented their anger about limited employment opportunities, inequitable sharing of oil revenues, environmental degradation and threats to indigenous farming and fishing livelihoods. In the process, Chevron Texaco is estimated to have lost around \$750 million as a result of community strife (Idemudia, 2010).

The discovery and exploration of oil has the potential to, and in most cases, have negatively affected the political system of developing nations. As Gumede (2008) argues, the West is selective in their pressure for African countries to democratise by ignoring countries that are rich in oil such as Chad and Equatorial Guinea. Indeed, Ross (2013) has observed that oil and mineral production is linked to authoritarian rule. Likewise, Boonstra, Burke, & Young (2008) noted that there is an intricate relationship between energy production and democracy such that international pressure for bad regimes in oil-rich nations to reform is increasingly weakened as Western countries seek to access the scarce resources in more competitive global markets. In Nigeria, Bloomfield (2008) opines that just as oil has polluted the environment of the Niger Delta, so has it polluted the politics of Nigeria. In Kenya, the political relationship between the Turkana County government and National government became increasingly tense in the recent past due to oil exploration activities. In the wake of oil exploration in Kenya, emerging political governance threats at the national and county levels due to oil discovery in South Lokichar basin are likely.

Oil discovery has also threatened the stability of some governments in the developing world. For instance, in Equatorial Guinea, the news of the discovery of oil in commercial quantities resulted in an attempted coup d'état in 2004 (Gary, 2009). Gary (2009) further argued that oil revenue tends to negatively affect democratic gains. To avoid this, the right institutions and transparent policies ought to be in place before commercial production begins. Le Billon (2017) draws a paradoxical link called resource curse between natural resources such as oil, and underdevelopment. This includes factors such as conflict, poverty, and environmental degradation. These factors have an impact on a national scale and particularly on communities living in resource rich areas. Resource wealth may increase the vulnerability of countries to conflicts by undermining the quality of governance and economic performance.

In sites near oil reserves there has been noted that there is relatively poorer health of community members. The research on the impact of oil discovery and exploration in developing countries indicates the dwindling health status of the people in communities near oil reserves. For example, United Nation Environmental Programme (UNEP) report shows that the exploration of natural resources has the tendency to engender health risks and that this health risk is more acute in developing countries (UNEP, 2009). In addition to exposing indigenous communities to health risks, oil exploration also has the potential of destroying the health seeking behaviour of indigenous communities (Bloomfield, 2008). The negative environmental impacts of oil exploration affect plants some of which are used by the indigenous communities near the oil reserves in their health-seeking behaviour. According to a report by the United Nations Conference on Trade and Development (UNCTAD), the construction of pipelines leads to the destruction of medicinal plants used by the indigenous populations (UNCTAD, 2007). In Turkana county, there are reported instances of people and livestock getting ill and dying due to ingestion, or inhalation, of chemicals used by Tullow PLC in their activities (Imana & Mmbaili, 2016). Contamination of pasture and underground water reservoirs is disastrous for a pastoralist community. This is likely to lead to confrontations between the community and Tullow thus threatening security of the facilities and operations of the latter.

The extractive industry, particularly oil exploration, also has serious human rights implications for developing countries. According to an UNCTAD (2007) report, the participation of transnational corporations in the extractive oil ventures have been linked to human rights abuses. Human rights abuses such as the disappearance of people, arbitrary detention and torture and loss of land and livelihoods without negotiation and without compensation have been recorded (Ferdausy & Rahman, 2009). The persecution case of Ken Saro Wiwa, leader of the Movement for the Survival of the Ogoni People (MOSOP), and eight other Ogoni minority rights activists in November 1995, is an example of atrocious human rights abuses (Obi, 2009). The MOSOP leaders endured persecution because they protested the poor quality of life of the Ogoni in spite of the oil exploration activities of Shell in their community. With voiced grievances against exploitative tendencies by Tullow PLC and the National Government, recurrence of similar human rights abuses in Lokichar is not a far-fetched idea.

### **2.1.3 Security Implications of Oil Exploration on Economic Activities**

As with the interference of social activities, oil exploration has also been known to affect economic activities of the communities in which it is discovered. High economic expectations that are not met lead to feelings of disaffection and breeds adversarial relations between the communities and the oil exploration companies (Mkutu & Wandera, 2016). The discovery of new natural resources, and the sudden increases, revenues portend economic challenges in the form of increased inflation, poor Balance of Payment (BoP), rentier economy, and Dutch disease. Unfortunately, Sarraf and Jiwanji (2007) observe that many countries have not been able to properly manage these windfalls and have ended spending too much too quickly; and mostly on the wrong projects that can be detrimental to the economy in the long run.

Another pitfall of natural resource abundance is the “Resource Curse” phenomenon (Auty R., 1993). This phenomenon has been experienced only in some countries and has been attributed to non-existent or bad resource management policies, exploitative corrupt practices, non-participation of indigenous communities, and neglect of other economic activities (Sarraf & Jiwanji, 2007). Optimistically, some scholars have observed that the resource curse phenomenon is diminishing with improvements in resource governance approaches (Stevens, Lahn, & Kooroshy, 2015). They note that only ten years ago the prevailing wisdom was that resource endowments were not a blessing but a curse – one that constrained growth, fed corruption and fuelled conflict (Stevens, Lahn, & Kooroshy, 2015). Now international financial institutions, consultancies and donor agencies believe that the curse can be avoided by good governance of the extractive sector and the revenues it generates.

Sound and inclusive policy framework is an increasingly important requisite to the management of natural resources partly because population increase and development activities tend not only to alter the ecosystem, but also puts pressure on resource (Stepanova & Bruckmeier, 2013). This places strain on climate changes leading to unprecedented natural disasters. According to Kennedy (2015), natural resource conflict in India involving the Maoist movement was precipitated by two factors: (1) there was natural resource abundance which had been liberalized but indigenous communities were not largely benefiting from the mining sector; and (2) Indigenous communities had cultural significance which they attached to the ecosystem, but which was not taken into account in the mining sector liberalization policies. Natural resource conflicts tend to turn into armed conflict when political institutions

ignore or are unable to settle natural resource dispute hence creating historical grievances (Cordaid, 2015). When economic institutions fail to formulate, or lack, policies that enable communities living in resource abundance areas to benefit from the resources, insecurity is inevitable. These experiences are much identical to resource curse problem in over 50 countries around the world including Angola, Algeria, Argentina, Bangladesh, Colombia, Congo, Ivory Coast, Mozambique, South Africa, Venezuela, Iraq, Malaysia, Philippines and Nigeria (Elbadawi & Soto, 2015). To avoid instances of resource curse phenomenon, the grievances of indigenous communities have to be addressed ab initio and create a sense of inclusive inclusivity in oil resource benefiting.

More notions on oil exploration and negative aspects have been advanced by scholars; with some giving suggestions on how to handle it. For instance, a study in Nigeria by (Chukuezi, 2009) in the Niger Delta region observed that since the underlying issues are neglect, marginalization and the peoples' quest for economic justice, policy makers should improve productive activities and ensure the security and welfare of the citizens. The study also intimated that the negative impacts of the oil and gas exploration and production in the Niger Delta region do not end on the biophysical environment alone but also affect the wellbeing of the people including their security. In an article by Ebiede (2011), the state of affairs on the Niger region in relations to other regions of Nigeria is captured as follows:

*“The Niger Delta is poor, backward and neglected. In terms of poverty head count, available statistics in Akwa Ibom state alone, for instance, show that 72.3% of its population is poor. This is higher than the Nigerian average of 70.7%”.*

Furthermore, Aaron (2013) added the ecological aspects when he observed that the ecological devastation unleashed on the region was life-threatening. These observations by scholar could also be replicated in Turkana County if the government does not integrate the community in the process of oil exploration, and revenue distribution in a bid to develop the underdeveloped community. Such development needs to be in the form of projects in south Lokichar that are beneficial to the community and that takes the form of Asset Based Community Development and Empowerment (ABCDE); a concept in conflict management that takes stock of existing community skills, talents and resources in a bid to ensure measured development approach is adopted and the community is empowered to self-sustain and break away from aid dependency.

More studies in oil economies, especially in developing countries, clearly indicate that corruption and mismanagement of resources could render mineral endowed regions the poorest in the country in spite of its endowment with key natural resources. Turkana County has experienced prevalent ethnic conflict, illicit trade, and general grievances stemming from its underdevelopment. Moreover, it has long been neglected by the Kenyan government, and the population has been marginalized (Cordaid, 2015). Furthermore, extremely difficult socioeconomic and geographic conditions characterize the region, including drought, famine, and poor infrastructure, lack of communication facilities, impassable roads, and illiteracy. In addition, statistics indicate that 9 out of 10 people in this community live in poverty and most of them are nomadic pastoralists and fishermen (Bybee, 2013). It is expected this will change as a result of oil discovery in Lokichar. However, poor development plans at the County and National levels might dash such hopes. Dashed hopes will lead to frustration and result in hostility of the community against exploration companies; including resenting the government.

Further studies have indicated how economic mismanagement in the wake of oil discovery can cause economic turmoil. An interesting argument is thus advanced in this respect, that; with neglect of traditional economic ventures such as agriculture, in favour of oil driven economy, the Dutch disease is likely to set in. For example, according to the World Bank (2008) Sudan is one of the newest significant oil producing countries in the world, and the third largest oil producer in Sub-Saharan Africa after Nigeria and Angola. As a result of oil discovery, the structure of the Sudanese economy shifted from being predominantly reliant on agriculture to oil. In recent years the increasing dependence on oil has led to stable economic growth. Consequently, Sudan's real economic growth averaged around 9% during (2005-2006), putting Sudan among the fastest growing economies in Africa (World Bank, 2008). But while oil has recently contributed to the improvement of economic performance and Foreign Direct Investment (FDI) in Sudan, the recent heavy dependence on oil presents challenges to policy makers, partly because oil is an exhaustible resource and, mainly because the revenue from oil is uncertain and very volatile in international markets. With oil discovery in Turkana county, other traditional economic activities such as pastoralism might be neglected; which could reverse the positive economic growth.

Some scholars such as Gulati, Lavie, and Singh (2010) have argued that exploration projects cause economic hardship by polluting and damaging environment for instance, or by appropriating grazing land for exploration from the marginalized communities who are

actually dependent on scarce vegetation for their livestock. According to Dean and Brown (2009) oil exploration projects results in displacement of settled communities. As a result, Communities may lose their land, and thus their livelihoods, disrupting also community institutions and power relations. This affects the communities in terms of economic empowerment as the spirit of development among members of the displaced groups go down. Contrary to this, Garvin (2009) criticizes the claims by Gulati *et al* (2010), and Dean and Brown (2009) by arguing instead that, communities displaced as result of exploration can receive compensation and substantial flows of revenue when a large exploration project is established. Turkana land is communally owned and held in trust by the County government (Mkutu & Wandera, 2016). This poses a challenge as to how land is allocated for mineral exploration, and who should be compensated in case of displacement, more so where proper compensatory mechanisms and relevant laws are lacking. Perceived unfairness in management of land acquisition and compensation for exploration is a possible source of disagreement that can jeopardize oil exploration activities.

Associated with the negative impact of oil exploration on indigenous communities is the problem of corruption. In Nigeria for example, the oil business offered the opportunity for corrupt politicians to enrich themselves at the expense of the people (Bloomfield, 2008). Supporting Bloomfield (2008), Boonstra *et al* (2008) also stated that corruption in Azerbaijan increased in tandem with increase in oil revenue. Corruption in Kenya is not a new phenomenon and this ‘monster’ is perceived to be a real problem by community living in South Lokichar in the wake of oil discovery. To stem corruption due to oil discovery institutions such the Ethics and Anticorruption Commission (EACC), Directorate of Criminal Investigation (DCI), National Intelligence Service (NIS) are critical as players in oil resource governance.

#### **2.1.4 Emerging Security Management Issues Due to Oil Exploration**

With discovery of natural resources such as hydrocarbons, the economic expectations are usually tempered with a possibility that the resources bring with them a myriad of challenges. Some challenges are uniquely experienced at the onset, or in the process of oil exploration activities (Elbadawi & Soto, 2015). With most of the challenges having a bearing on regional and/or corporate security, they tend to appear as normal challenges. For instance, issues to do with thin security presence in areas where resources have been found (which mostly are



considered remote), increasing security for exploration companies will appear ironical. This is due to the logic that the government appears to value oil more than the people.

The illustrative example above brings about the need for proper natural resource management measures prudent exploitation of natural resources. In a study by Imana and Mmbaili (2016), Natural Resources Management is defined as, "...the norms, rules and institutions that regulate the decisions, actions and interactions of governments, civil society and the private sector in relation to the use of natural resources". This definition underscores the need for wholesome approach to natural resource management with community participation at its core. Natural resource insecurity can escalate especially when it is related to rights issues such as land tenure or conflict between socio-cultural rights of one group and mechanization of agriculture by the other group (Johannes, Zulu, & Kalipeni, 2015). If the conflict is politicized it can escalate into civil war. In the past, failures to address such issues have been attributed to, among other things, lack of a comprehensive understanding of natural resource insecurity. Lack of comprehensive solution to natural resource insecurity often leads to cycles of grievances (Okuthe, 2015). The uproars in Lokichar due to oil matters indicate lack of adequate community participation. Community participation in oil exploration and natural resource management is thus crucial to stem resistance to such projects.

A study by Mukutu (2014) emphasised a long-established idea that in developing countries, mineral wealth has usually failed to benefit most people at both national and indigenous levels. Tension between indigenous communities and investors and/or governments over perceived lack of indigenous opportunities and negative impacts such as environmental degradation is common. Oil discovery in Turkana County has revived conflicts over land rights, job opportunities and tender allocation (Mkutu & Wandera, 2016). Disagreements over these issues escalated leading riots and facility takeovers that resulted into the brief withdrawal of Tullow Oil staff from the site in 2013 (Imana & Mmbaili, 2016). A blockade of oil route for the Early Oil Pilot Scheme (EOPS) at Kaalem Ng'orok area in June – July of 2018, over security and revenue sharing issues, jeopardised the project. Turkana has a number of existing security challenges, such as rampant cross-border and inter-ethnic livestock raids, a high prevalence of illegal small arms and low state penetration of security with an over-reliance on armed civilian volunteer forces (the Kenya Police Reserve). This indicates a loophole in security management strategies by stakeholders especially on the protracted socio-economic activities focused around the oil exploration in Turkana County Kenya.

Civil Society Organisations (CSOs) are known to be vibrant in advocating for the rights of people in an exploitative environment such as oil exploration. In Kenya, CSOs are highlighted abuses in various social aspects thus forestalling them. However, in the field of oil exploration, little is known about the involvement of CSOs. This notwithstanding, lessons can be drawn from activities of CSOs in other countries. In Uganda for instance, a study by Manyindo *et al* (2015) highlights emerging spaces of governance within a new Petro-state of Uganda. The research findings highlight four significant governance gaps: (1) lack of coherence among civil society organisations; (2) limited civil society access to communities and the deliberate centralisation of oil governance; (3) industry driven interaction at the indigenous level; and (4) weak indigenous government capacity. It is well established that Petro-states suffer from information, monitoring and participation deficits over time (Karl, 2007; Ross, 2012). These deficits are manifest both at the indigenous and national levels. Civil society may not be able to hold international oil companies or governments to account due to the over centralization of power within the executive, ineffective fiscal accountability and increasing rentier culture. Normal entrepreneurs, such as domestic and international NGOs, think tanks, donors, international finance organizations, and even industry associations, have sought to counteract these negative impacts of resource extraction through governance initiatives.

Issues of land rights, allocation and compensation, among others, has been revived in Turkana county following oil discovery. Researchers have noted that land is the cornerstone of all other natural resources (Imana & Mmbaili, 2016). Therefore, land rights are critical to realizing resource related peace, stability, equality and economic growth. Resource scarcity or abundance can fuel insecurity if benefit sharing is in dispute. Good policies and governance practices can help mitigate such conflict for example public spending and public service delivery. Other relevant measures include; checks, accountability mechanisms, penalties, and mechanisms to resolve disputes (Mkutu & Wandera, 2016). Therefore, the Turkana county government should institute steps towards management of land and natural resources in era of oil exploration to mitigate disagreements that would pose security risks to oil exploration activities in the region.

Community participation is a key tenet of good governance in a democratic society. This is a more critical concept especially in natural resource management from which the community expects to benefit from. According to World Bank (2009) good governance throughout the value chain has five core components. It includes award of contracts and licenses, regulation

and monitoring of operations, collection of taxes and royalties, revenue management and allocation, and implementation of sustainable development policies and projects (World Bank, 2009). However, the World Bank's conceptualization of the extractive industry value chain as a template for transparency and information disclosure interventions has limitations. The value chain is depicted as a linear typology which misses the scalar and temporal dynamics of the industry, particularly in a 'new oil' country context such as Turkana County, Kenya. The participation of the indigenous community in such chain more so in tender allocation, employment allocation, scholarship allocation or development project implementation, is crucial. This ensures transparency and satisfaction through wide and representative consultation, thus stemming disaffection and conflict.

Decentralization is often seen as desirable for its economic efficiency, responsiveness and improved equity, as centres of decision making are closer to the people, and more representative of indigenous needs, cutting out expensive and unnecessary bureaucracy (Bogdanor, 2010). In the same line of logic, devolution may also be a useful context for experimentation, allowing indigenous governments to innovate new responses to indigenous issues. It has the potential to alter the balance of power in devolved units and raise the stakes in existing conflicts as players may now vie for political power previously beyond their reach. However, devolution in the context of resources and opportunity sharing seems to favour exclusion of 'outsiders. The 'politics of belonging' has seen some groups lay claim to areas which they have occupied for longer than those they view as 'outsiders' is a long running narrative in Kenyan politics (Lynch, 2010). This issue has become central in the devolution process as regional identities are strengthened, and indigenous leaders may not represent minority groups, leading to potential insecurity. An important question is whether devolution reinforces ethnic identities, fuels ethnic conflict and even the drive for secession. With oil discovery in Lokichar, Turkana community at large feel primarily entitled to the resource. At indigenous levels, those in south Turkana constituency, wherein Lokichar ward is found, feel entitled to the oil and view other Turkana from the North as outsiders. This is a likely flashpoint of indigenous skirmishes between the North and South Turkana, as well as Tullow PLC for employing 'outsiders' at the expense of the indigenous people.

Ordinarily, abundant natural resource wealth should enhance a country's economic and social development in resource rich regions such as Turkana County. Unfortunately, evidence from the oil fields of the Persian Gulf to the mines of West Africa shows that millions of people in resource-rich countries have derived little or no benefits, and many have seen their lives

devastated as a result of exploitative commercial relations, corrupt governance, and war (Le Billon & El Khatib, 2017). Related sentiments have been expressed by Johannes et al. (2015) when they noted that if not handled properly, the discovery and exploitation of oil could exacerbate current insecurity between the Turkana and their neighbours on the one hand, and between the Turkana and external actors at the national and international levels on the other hand. Various national and international actors offer a new dimension to an already complex and volatile situation; which if not properly handle can exacerbate the security situation.

According to Magstadt (2006), the goal of any state (government) is to provide a reasonable amount of security for its citizens. Accountability for the security of countries and people from both domestic and international perspectives is one of the core obligations of governments and states all over the world. This has been a challenge to Kenya more so in the remote areas such as Turkana where security on the ground is scarce or non-existent. However, scholars such as Collier (2011), sees security as multi-disciplinary and from a multidimensional approach as an all-hazards and holistic approach that involves several departments working simultaneously to attain security goals and objectives collectively. This brings about the concept of collective security which involves citizens, private sector and government partnering together in ensuring the protection of lives and property of the citizens. Adequate and holistic security is vital in addressing extant security challenges and not only focused on oil fields and routes.

Insecurity has existed in Turkana even before discovery of Oil. Traditionally, a combination of factors such as availability of small arms, unfavourable climatic conditions and geographical contiguity, with Uganda South Sudan and Ethiopian borders, have conspired to confine the pastoral communities to the lowest levels of poverty (Kumssa, Jones, & Williams, 2009). These factors have led to the shrinking of the resources and provoked persistent inter-communal conflicts with devastating ramifications on environmental security (Onyango, 2013). Though the problem of insecurity among pastoral communities is a consequence of several factors, governance deficit is a major one. Oil discovery will definitely add to existing factors of insecurity and besides other factors such as cattle rustling, community clashes. Thin Police presence on the ground and the concern over personal security prompts individual arming for community defence.

## **2.2 Theoretical Framework**

Theoretical framework focused on reviewing and discussing the relevant theories as pertains to the study. This study was guided by two theories; Resource Curse theory and Environmental Justice theory.

### **2.2.1 Resource Curse Theory**

The resource curse theory was advanced by Auty (1993) in his cross-country cooperative study titled, '*Sustaining Development in Mineral Economies: The Resource Curse Thesis*'. The theory is premised on the counterintuitive phenomenon where countries with an abundance of natural resources (like fossil fuels and certain minerals), tend to have less economic growth, less democracy, and worse development outcomes than countries with fewer natural resources.

In developing this theory, Auty (1993) conducted a cross country comparative survey of four South American and African countries of Peru, Chile, Bolivia, and Zambia. In the study, he found a common phenomenon that indicated that despite the resource abundance in these countries, their economic performance over time tended to decline. He attributed such decline to the Dutch disease phenomenon where boom in oil revenues causes shift of focus from other tradable sectors of the economy and they eventually capitulate. He further observed that rent seeking behaviour from corporations and the government is a common outcome of oil exploration. Corporations get to control large shares of the oil industry with minimal economic benefit to the host country. Ultimately, it gets down to government economic policies which could either encourage resource curse or avoid it.

The idea that resources might be more of an economic curse than a blessing began to emerge in debates in the 1950s and 1960s about the economic problems of low and middle-income countries. The term resource curse was coined by Auty (1993), to describe how countries rich in mineral resources were unable to use that wealth to boost their economies and how, counter-intuitively, these countries had lower economic growth than countries without an abundance of natural resources such as Taiwan, South Korea, China, among others.

Further studies have found a strong correlation between natural resource abundance and poor economic growth (Auty R. , 2001; MacNeish, 2010). Scholars have now evaluated the effects of resource wealth on a wide range of economic outcomes, and offered many explanations for

how, why, and when a resource curse is likely to occur. The lottery analogy has been propounded by some scholars. Examining the impacts of terms of trade growth and volatility Blattman, Christopher, Hwang and Williamson (2007) found that prices of commodity exports depended on geography and chance reminiscent of a gamble. A succinct explanation of Lottery analogy is that oil brings about a lot of income that a country has no proper plans of utilization. As such, many observers have likened the resource curse to the difficulties that befall lottery winners who struggle to manage the complex side-effects of newfound wealth (Donald, 2010). This analogy points towards the lack of proper plan to benefit from natural resources in the form of proper policies exploitation strategies and development plans, by the endowed country. This policy gap eventually leads to a chain of misfortunes and disagreements over pertinent issues relating to oil exploration. Such confrontations are a threat to the security of not only the indigenous community, but also of the exploration companies and the country as a whole.

On the contrary, there have been speculations and much academic debate about the reasons for and exceptions to these adverse outcomes. Most experts believe the resource curse is not universal or inevitable but affects certain types of countries or regions under certain conditions (Stevens, Lahn, & Kooroshy, 2015). These speculations tend to point towards the notion that resource curse is not necessarily the fate of resource abundant countries. Auty (1994) cautions that, the resource curse thesis should not be interpreted as an iron law but a recurrent tendency in resource abundant countries. Also, Sarraf and Jiwaji (2007) observed that in Botswana, adoption of good economic policies and good management of the windfall gains have allowed the country to continuously manage success manage growth and become one of the greatest success stories of developing countries. Furthermore, Sachs and Warner (1995) asserted that oil wealth need not necessarily lead to inferior economic or political development but rather it is best to view it as a double-edged sword with both benefits and dangers. The outcome is dependent on how it is managed.

Critics of the theory argue that previous assumptions that oil abundance is a curse were based on methodologies which failed to take into account cross-country differences and dependencies arising from global shocks, such as changes in technology and the price of oil (Blattman, Hwang, & Williamson, 2007). Furthermore, Stevens, Lahn, and Kooroshy (2015) note that the time span taken to arrive to the conclusions of the resource curse theory was not sufficient given the changes in socio-economic conditions of a country over time. Researchers studied data from the World Bank over the period 1980–2006 for 53 countries,

covering 85% of world GDP and 81% of world proven oil reserves. They found that oil abundance positively affected both short-term growth and long-term income levels (Kamilar, 2010). In a companion paper, using data on 118 countries over the period 1970–2007, Blattman *et al* (2007) found that it is the volatility in commodity prices, rather than abundance per se, that drives the resource curse paradox. Thus, it can be contended that resource curse is not a universal phenomenon. However, when it occurs, a myriad of factors account for it and they vary from country to country.

Analysis of resource curse theory points towards poor socio-economic policies in the management of resources as the smoking gun for its occurrence. Despite the scepticism around natural resource finds that had been bolstered by the understanding of the resource curse theory, scholarly focus has increasingly shifted towards explaining why some resource-rich countries succeed and why others do not (Torvik, 2009). This is as is opposed to just investigating the average economic effects of resources. Studies suggest that the manner in which resource income is spent, system of government, institutional quality, type of resources, and early vs. late industrialization all have been used to explain successes and failures (Sarraf & Jiwanji, 2007).

The quantum of natural resources and the level of dependency on the same have been used to explain why resources result in negative socio-economic consequences including insecurity. For instance, Brunnschweiler (2008) argues that the curse vanishes when looking not at the relative importance of resource exports in the economy but rather at a different measure: the relative abundance of natural resources in the ground. Using that variable to compare countries, he contends that resource wealth in the ground correlates with slightly higher economic growth and slightly fewer armed conflicts. That a high dependency on resource exports correlates with bad policies and effects are not caused by the large degree of resource exportation. The causation goes in the opposite direction: conflicts and bad policies created the heavy dependence on exports of natural resources. When a country's chaos and economic policies scare off foreign investors and send indigenous entrepreneurs abroad to look for better opportunities, the economy becomes skewed (Brunnschweiler, 2008). Factories may close and businesses may flee, but petroleum and precious metals remain for the taking. Resource extraction becomes the "default sector" that still functions after other industries have come to a halt.

In Kenya, proper legal policies and strategies as pertains oil exploration and exploitation are non-existent, unsuitable and/or in their developmental stages (Okuthe, 2015). The petroleum bill of 2014, which contains relevant exploitative and revenue sharing provisions is still being thrown around between the National Assembly, Senate and State house; the contentious issue being the revenue sharing formula. Besides, there has been a political fallout between the National government and the County government on the revenue sharing formula; more so the percentage to the community, which the President revised from 10% to 5% and the 20% due to the county government which is then capped at not more than twice what the National government allocates to the county per financial year (Kenya Law Review, 2017). Such a move has been understood by the indigenous communities on Lokichar as a unilateral action by the National government to exploit the host community. The resultant fallout is likely to escalate to undesirable levels if not addressed to the satisfaction of the relevant stakeholders. Such escalation is early manifestations of the Resource Curse phenomenon that can impact negatively on the expected economic gains, and even reverse other existing economic benefits. In terms of security, hostile community members pose a security threat on the operations, facilities and staff of oil exploration companies as was the case of Tullow facility takeover in 2016 (Mkutu & Wandera, 2016).

Resource curse theory is suited for this study since it indicates that a lack of or bad resource management strategies will eventually diminish, or even eliminate, expected benefits from the oil resource. Furthermore, mismanagement resources, expectations and community relations lead to a conflict which creates a negative security environment. However, the theory only focuses on availability of natural resource and the ensuing challenges due to mismanagement and bad policies. It ignores the complex ecological interactions of humans, resources and the environment that results in such negative developmental and security challenges. Thus, it was supplemented by Environmental Justice Theory.

### **2.2.2 Environmental Justice Theory**

This theory was postulated by Schlosberg (1999). The theory has undergone reviews over time and it has been refocused to entail the broad perspectives of community and ecology. In revising his original conception, Schlosberg (2007) tried to reconcile the distributive concepts of Social Justice Theorists and Environmental Justice groups on the one hand and the individualistic Concepts of Environmental justice groups and the Collective concepts of Ecological theorists on the other hand. Schlosberg (2007) combines the notion good



distribution and bad distribution two concepts on recognition that they are mutually inclusive. Therefore, the main tenet of Environmental justice theory is about justice in distribution of the environmental ‘bad’ and ‘goods’ (Schlosberg, 2013). This is a deduction drawn after an extensive review and development of initial concepts of environmental justice to include a global perspective and the community rather than just focusing on the individual. More specifically, environmental justice refers to fairness in the distribution of environmental ‘goods’ or ‘bads’ and fairness in providing information and opportunities necessary for people to participate in decisions about their environment (Muigua & Kariuki, Natural Resources and Environmental Justice in Kenya, 2015).

According to Schlosberg (2013) environmental ‘bads’ are the negatives of the environment that include pollution, arid environment and health risks while the environmental ‘goods’ entail the benefits of the environment including the good food, clean water, fresh air etc. It is observed that the environmental ‘bads’ are distributed only to the lower and less privileged members of society. For instance, in the USA, polluted and dirty areas were associated with the people of colour and blacks (Bullard & Wright, 2009). This brings in the issue of segregation along socio-economic parameters such as race, economic status, ethnic grouping among others.

The other aspect of the environmental justice theory is justice to the environment and its ability to sustain itself. As Schlosberg (2013) argues, the element of capabilities is crucial to the harmonious existence of the environment with not only the human entities but with the non-human entities. If this capability is disrupted, more so by the human entities, it creates the inability of the environment to sustain the non-humans in the environment. Thus, injustice will not only have been done to the environment but the non-human elements. This can be through environmental degrading acts such as pollution. Such acts disrupt the ecosystem and causes disharmony which affects both human and non-human entities. Upstream, Midstream and Downstream oil activities are human acts with potential to degrade the environment (Okuthe, 2015). With lack of, or shoddy, Environmental Impacts Assessments (EIAs), pollution and land degradation will occur with serious socio-economic disruptions to the humans and non-humans. The same is true for offshore oil exploration companies in Turkana County. Reported pollution, related illnesses of residents of Lokichar and death of their livestock is just an early manifestation of the repercussions of injustice to the environment’s capabilities to sustain it.

The history of natural resources in Kenya depicts a struggle for environmental justice (Muigua & Kariuki, Natural Resources and Environmental Justice in Kenya, 2015). A classic example is the Mau Mau revolt in the 1920s-1950s. One of the main reasons for the revolt was to claim back land and land-based resources which had been diverted from indigenous communities and vested in Her Majesty (Muigua & Kariuki, 2014). Several Countries in Africa have defined environmental justice to entail the right to have access to, use and control natural resources by communities. This notion is exemplified by the *Endorois case*, where the community was fighting against violations resulting from their displacement from their ancestral lands without proper prior consultations, adequate and effective compensation for the loss of their property, the disruption of the community's pastoral enterprise and their development as a people (Muigua & Kariuki, 2014). The laxity of the Government to address the *Endorois* issue demonstrates the Government's laxity in actualizing environmental rights in Kenya. This is a factor of conflict and insecurity due to the inevitable agitation by the affected indigenous people to fight for their rights.

The first step towards achieving environmental justice is through the government affording the indigenous communities' access to relevant environmental information in forms that they would appreciate (Imana & Mmbaili, 2016). According to UNEP, access to environmental information refers to the availability of environmental information; including that on hazardous materials and activities in communities, and mechanisms by which public authorities provide environmental information (UNEP, 2009). Communities will not be fully involved on issues relating to the environment and the exploitation of natural resources without an understanding of what the ideals should be in a society where there is environmental justice. Lack of such information in exploration areas is detrimental to operations and staff security as well as brooding bad relationship with the indigenous communities

The current Constitution of Kenya provides a foundation for environmental justice by emphasizing the need for public participation in matters of governance including the governance of environmental matters and natural resources in Kenya (Mkutu & Wandera, 2016). The Constitution of Kenya of 2010 provides for the national values and principles of governance which include, inter alia, democracy and participation of the people; human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination and protection of the marginalised; good governance, integrity, transparency and accountability;

and sustainable development. Observance of these values as relates to the exploration and exploitation of natural resources in Kenya is critical in ensuring environmental justice.

It is worth mentioning that natural resources are perceived as an integral part of society the world all over, as sources of income, industry, and identity (Imana & Mmbaili, 2016). Owing to this central role of natural resources to the general wellbeing of communities, conflicts related to the exploitation of natural resources are inevitable. Natural resource-based conflicts have been defined as disagreements or disputes that arise with regard to the use, access and management of natural resources (Muigua & Kariuki, 2015). This could also be viewed as situations where the allocation, management, or use of natural resources results in: violence; human rights abuses; or denial of access to natural resources to an extent that significantly diminishes human welfare.

According to United States Agency for International Development (USAID), the history of environmental justice is important in the Kenyan context as it shows how laws and policies can impose environmental burdens disproportionately on people (USAID, 2006). Analysis of the policies have indicated that they marginalize and exclude communities from natural resources; and hinder communities from enjoying a fair share of their natural resources. As (Okuthe, 2015) observes, Kenya weak mining and environmental policies and laxity in enforcing them exposes Kenya to environmental challenges. He further warns that many new oil - exporting countries failed to give adequate attention to the environmental and social aspects of petroleum sector in its early development stages. Inevitably, this will have far reaching negative political and economic impact for the government, oil industry and the society as a whole. Eventually, ignored environmental justice aspects of oil exploitation, such as mining and environmental policies, community information and participation, prudent allocation of oil proceeds among others could precipitate conflict and insecurity over natural resources.

Governments have not made much effort towards improving the situations in such areas whereas much effort has been invested in the more privileged areas that are considered economically viable (Johannes, Zulu, & Kalipeni, 2015). This disparity automatically creates a feeling of alienation among those groups and entities that experience the environmental “bads”. Turkana County has faced marginalisation by successive Kenyan governments in terms of socio-economic neglect. A native Turkana would use the metaphor of “going to Kenya” from Turkana to imply traveling ‘down-country’. This is because of the feeling that

they are not part and parcel of the beneficiaries of the national cake. With the discovery of oil, they hoped this situation would be reversed.

### **2.2.3 Synthesis of the Theories**

While the resource curse theory was used to explaining the challenges posed by poor resource management policies, the environmental justice theory augmented it by looking by at community engagement in oil exploration and the intricate relationships within the environment and how it is affected by oil exploration activities in respect to communal distribution of the ‘goods’ and ‘bads’ besides the need for information on oil exploration, extraction and the expected benefits.

Resource curse theory focused on the counterintuitive phenomenon experienced in certain resource rich economies whereby the resource abundance does not lead to economic prosperity but instead causes conflicts, insecurity, and socio-economic hardships. Good and inclusive resource management policies and management of community expectations are thus critical in avoiding the Resource Curse phenomenon in Turkana County, and in Kenya. While Resource Curse theory explains the negative effects of resource mismanagement, it does not expound on the ecological aspects that also precipitates misfortunes due natural resources.

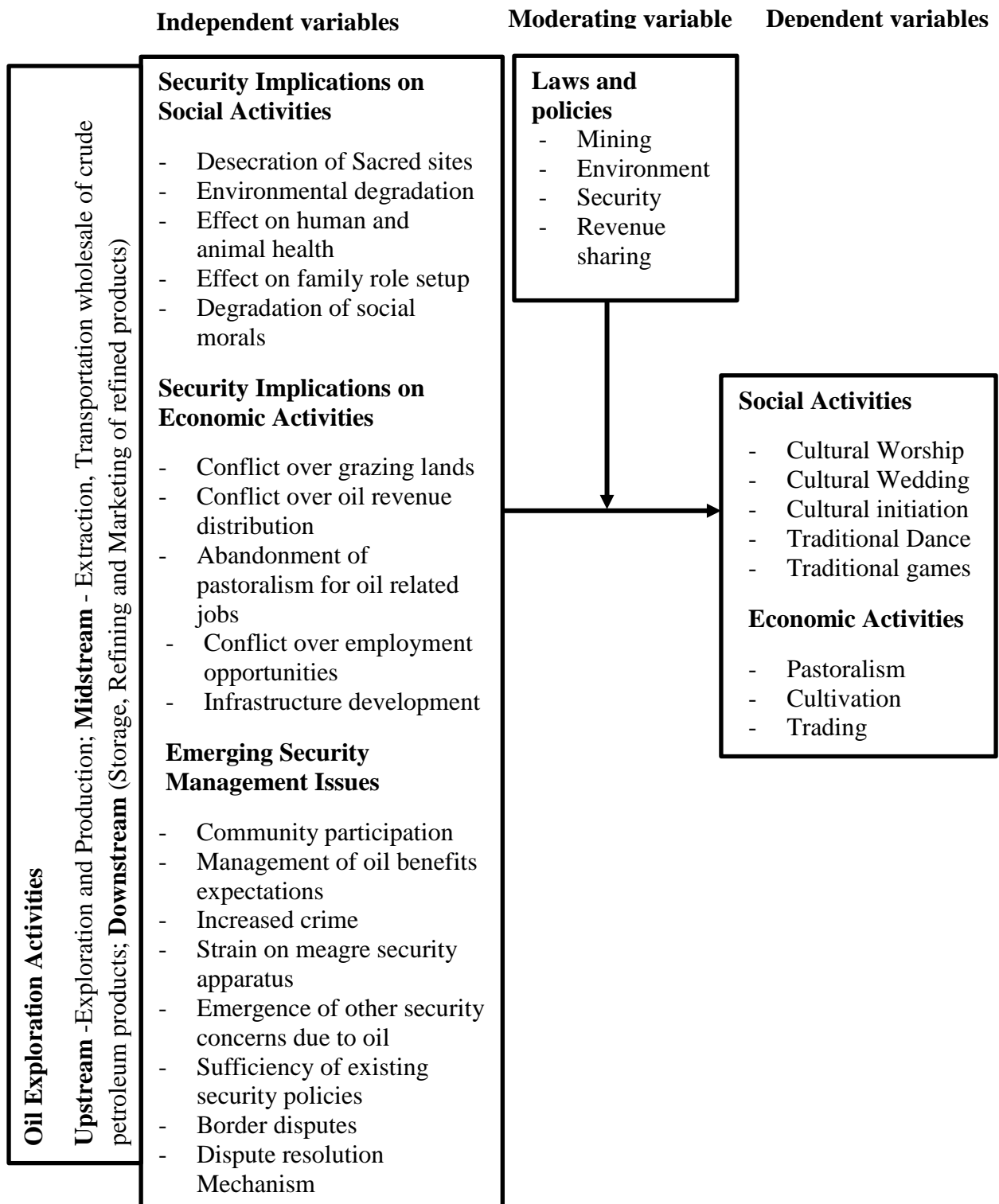
On the other hand, Environmental Justice theory plugged the ecological gap by focusing on the need to have equitable distribution of the environmental benefits (goods) and reduction of the environmental harms (bads). It also goes further to emphasise the need to maintain the environmental capability to maintain itself (between living and non-living organisms) since disruption of this capability leads to a chain of events that eventually affects humans and their security. Environmental benefits include mineral discoveries with the resultant benefits and the harms include the environmental pollution and degradations that disrupt the environment’s capability to function. Such is manageable through proper resource management policies and practices such as EIAs.

## **2.3 Conceptual framework**

The conceptual framework explains the security implications of oil exploration on socio-economic activities in Lokichar. In the study conceptualized security implications of oil exploration on Social Activities, Security Implications on Economic activities and Emerging Security Management Issues constituted the study’s independent variables. Dependent

variables for study were Social activities and Economic Activities. The Social activities and Economic Activities in Lokichar were expected to be affected due to resultant security implications due to oil exploration activities.

The conceptual framework showing the relationship of variables indicated in figure 2.1 below:



**Figure 2.1: Conceptual Framework**

As indicated in figure 2.1 above, the study conceptualized three independent variables. They included security implications on social activities, security implications on economic activities and emerging security management issues due to oil exploration; whole of which hinge on oil exploration activities in Lokichar.

On the variable on security implications on social activities examined aspects such as desecration of sacred cultural sites, environmental degradation affecting pastoralism, effect on human and animal health, effect on family role setup and the role of women in changing economic era and degradation of social morals due to indulgence in activities such as prostitution due to the inflow of money and in-migrants for jobs.

On the other hand, the security implications on economic activities examined aspects such as conflict over grazing lands, conflict over oil revenue distribution, abandonment of pastoralism for oil related jobs, conflict over employment opportunities and infrastructure development. Finally, the study explored the emergent security management issues due to oil exploration that security managers in Lokichar have had to grapple with. The included, Community participation, management of oil benefits expectations, increased crime, strain on meager security apparatus, and emergence of other security concerns due to oil, sufficiency of existing security policies, dispute resolution mechanisms

Depending on how oil exploration activities are managed, the dependent variables were either adversely affected or be positively impacted. Adverse effects led to confrontations between the community and the oil exploration companies thus posing a threat to their operations, facilities and employees. The relationship between the various factors under study and the successful implementation was influenced by the existing government policies and exploration companies' business regulations. Among the government policies that influenced the way oil drilling project are affected by the identified factors include mining laws and policies, environmental laws and policies, security laws and policies.

## **2.4 Gaps Exposed in Literature Review**

The study aimed to fill inherent research in the context of oil exploration and security management. This chapter has reviewed literature on various studies that have been done on the effects of oil exploration on several socio-political and economic matters. The literature reviewed reflected the global, continental and regional and country perspectives.

The chapter discussed the various attempts by scholars to delve into the matter of oil exploration and the inherent challenges faced in the exploitation of this resource. Various aspects of the challenges have been examined and it has been clear that the focal point of many studies have been focused on economic aspects with minimal attention being paid on social aspects; although resource related conflicts have been regularly highlighted. However, security management aspects are entirely missing in these scholarly attempts.

Given that corporate entities, in the form of oil exploration companies and MNOCs, are the ones involved in the various levels of oil exploration and exploitation, it is concerning that only the traditional security management practices are being applied. These have included barriers, batons and guards that are more focused within the corporate security fences; and not outward-looking to the community and the manner in which they operate and how that threatens corporate security. This is a gap in which the security management parlance refers to managing of relations which entails engaging the community within which the company operates in order to create cordial relations based on mutual understanding.

The above is critical in ensuring that the security risks that would otherwise emanate from the community due to hostility based on socio-economic grievances. Responsibility for this is vested on several stakeholders but most importantly on chief security officers who are primary advisers the management on importance of engaging the community to manage their expectations as a security measure. While the conflict literature is often time assumed to automatically infer security management, it does not weave well into corporate security in its current form. This is a gap that study sought to fill.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter described the research design, target population, sampling design and sample size, data collection methods, validity and reliability of research instruments and data analysis technique.

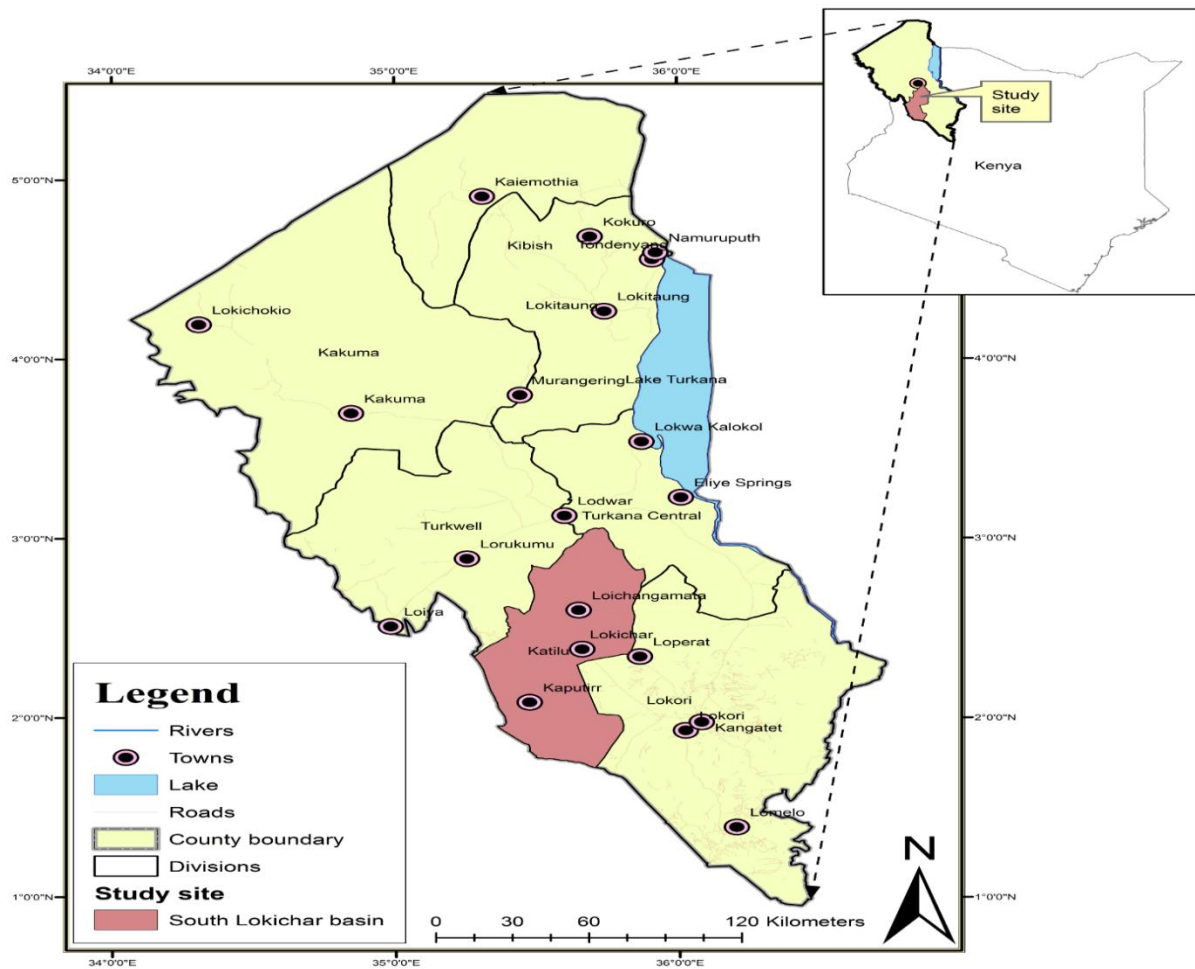
#### **3.2 Research Design**

The study adopted a cross-sectional survey research design. According to Kumar (2004) cross-sectional survey research design is best suited to studies aimed at finding out the prevalence of a phenomenon, situation, problem, attitude or issue by taking a cross-section of the population. Kumar (2004) further notes that cross-sectional survey research design is useful in obtaining the overall picture as it stands at the time of the study. The design was chosen because the study seeks to make an assessment of the security effects of oil exploration on the socio-economic activities of South Lokichar Basin residents, as at the time the study was conducted. Furthermore, Cross-sectional research design are comparatively cheaper to undertake and easy to analyse since it involves one contact with the study population. However, due to passage of time, changes occur and follow - up studies required to track them.

#### **3.3 Study Area**

The study was conducted in Lokichar Ward in Turkana County Kenya within which recoverable oil resources have been found. Lokichar Basin is within the Lokichar Ward in Turkana South Constituency of Turkana County. Turkana County is well endowed with natural resources including oil. Notable explored oil wells include Ngamia 1, Ngamia 2, Amosing 1, Ekales 1, Twiga South 1, Agete 1, Etuko 1, Ewoi 1 among others. Of the numerous oil wells, Ngamia 1 Amosing 1 and Ekales 1 have since been found to be economically viable with a projected production of 750 million barrels (Turkana County Government, 2015). Details of the study area are depicted in Figure 3.1 below:





**Figure 3.1: Map of Kenya Showing the Study Area**

(Source: Author)

The map in Figure 3:1 above shows the location of Lokichar in Turkana County, Kenya. Tullow Oil PLC and African Oil Corp (AOC) is allocated block 10BB, 13T, 10 BA, 12A and 10A. Tullow, independently operates in block 13T and 10BB. So far, the significant oil finds have been in Ngamia 1 in Block 10BB. Other notable finds have been in Ekales 1 and Amosing in block 13T. However, the economic viability of most these finds is still being assessed.

### 3.4 Target Population

The target population for this study were residents of Lokichar Ward and Employees of Tullow. According to Mugenda and Mugenda (2009) the target population answers most critical characteristics of the population. According to the Kenya National Bureau of Statistics (KNBS), the Kenya Population and Housing Census (KPHC) of 2009 projected the

2017 population, aged 18 years and above, for Lokichar Ward to be 8,493 (KNBS, 2010). The respondents were selected because they live, work in Lokichar and are expected to be affected by impacts of oil exploration.

### 3.5 Sampling Procedure and Sample Size

According to Kothari and Garg (2014) sampling is the procedure by which some elements of a population are selected as representative of the entire population. Sampling enables a researcher to draw conclusions about the entire population. As Zikmund (2003) notes, a sample answers most critical questions on the characteristics of the population. A sample size of 382 respondents was selected using Yamane formula on sample size (Yamane, 1967):

$$n = \frac{N}{1+N(e)^2}$$

Where n = is the sample size

N = the target population (8,493)

e = precision level (0.05)

Therefore:

$$n = \frac{8,493}{1 + 8,493(0.05)^2}$$

$$n = \frac{8,715}{1 + (8,493 \times 0.0025)}$$

$$n = \frac{8,493}{22.2325} = 382.0083212 \approx 382$$

The respondents were then proportionately distributed to the 33 centres of Lokichar ward using area sampling as shown in Table 3.1. According to Kothari (2004, p. 65) area sampling is used whenever a cluster has some geographic subdivision. Interview schedule was administered to the respondents with the help of one trained research assistant. Use of the research assistant was settled on because of low literacy levels especially indigenous respondents (Orodho, 2009). In addition, it ensured collection of relatively accurate information. The proportionate distribution of the samples as drawn from the 33 villages of Lokichar Ward is as indicated in table 3.1 below:

**Table 3.1: Sample Size of indigenous respondents distributed among villages of Lokichar ward**

Ser	Centres	KNBS-KPHC 2017 projections	%age	Proportionate sample size $n = \frac{N}{1+N(e)^2}$
1	Edos	131	1.5	6
2	Kachibilil	13	0.2	1
3	Kaengolereng	146	1.7	7
4	Kaichupaluk	103	1.2	5
5	Kaipokook	83	1	4
6	Kakalel	151	1.8	7
7	Kakali	395	4.5	18
8	Kamarase	663	7.8	30
9	Kapese	475	5.6	20
10	Karoge	234	2.8	11
11	Kasuroi	519	6.1	23
12	Kaekoreakwan	25	0.3	1
13	Kekorisogol	221	2.6	10
14	Kimabur	185	2.2	8
15	Lochoremoit	373	4.4	17
16	Lochwaa - Kwan	189	2.2	9
17	Lochwang'ikamatak	436	5.1	20
18	Lokaburu	288	3.4	13
19	Lokichar Girls Primary	469	5.5	20
20	Lokichar Mixed Primary	419	4.9	19
21	Moru Alligoi Water point	165	1.9	7
22	Nagetei	408	4.8	18
23	Nakimak	45	0.5	2
24	Nalemusekon	380	4.5	17
25	Namatalem	158	1.9	7
26	Napusimoru	538	6.3	23
27	Narengemunyen	203	2.4	9
28	Natorbei	133	1.6	6
29	Nawoiyalim	162	1.9	7
30	Ng'akitoko	90	1.1	4
31	Nakipi	151	1.8	7
32	R.C.E.A Settlement	393	4.6	18
33	Sopel	149	1.8	8
<b>Total</b>		<b>8493</b>	<b>100</b>	<b>382</b>

(Source: Field data)

From table 3.1 above, the study selected a sample of 382 indigenous people drawn proportionately from the 33 centres of Lokichar ward. Indigenous residents in the study entailed those living in the study area and who are socio-economically affected by oil exploration.

**Table 3.2 Key Informants**

<b>Ser</b>	<b>Informant</b>	<b>Number of participants</b>	<b>Remarks</b>
1	Tullow Expatriates	12	Purposive sampled
2	Administrators	8	Purposive sampled
3	Community Elders	12	Purposive sampled
<b>Total</b>		<b>32</b>	

(Source: Field data)

From table 3.2 above, key informants comprised of 12 Tullow PLC expatriate employees, 8 administrators, and 12 community elders were purposively sampled. Kumar (2004, p. 189) indicates that purposive sampling is used reliant on the researcher's judgement as to who can provide the best information to achieve the objectives of the study.

### **3.6 Unit of analysis**

The units of analysis for this study was the resident of South Lokichar, Turkana County, Kenya; comprising of both the indigenous and non-indigenous individuals who reside and/or work in Lokichar and are affected by oil exploration activities.

### **3.7 Methods of Data Collection**

#### **3.7.1 Sources of Data**

The research was utilized both primary and secondary data. The secondary data was obtained from textbooks related to the study, journals, presented conferences papers and government reports as well as the internet. The primary data on the other hand was obtained from the respondents using interview schedules and focused group discussions.

#### **3.7.2 Interview Schedule**

According to Kothari (2004) interview schedule is the most appropriate tool for investigations that are thorough. Interview schedule enable the researcher to get in-depth

details and required data by asking probing questions. An interview schedule made it possible to obtain information necessary to meet exact goals of the study (Orodho, 2009). The interview schedule which consisted of both open and closed ended questions and was used to collect quantitative and qualitative data from indigenous residents of Lokichar.

### **3.7.3 Focus Group Discussion**

The researcher conducted three Focus Group Discussions (FGD), with the aid of interview schedule for Key informants. The Focus Group Discussion consisted of 32 key informants comprising 12 Tullow expatriates, 8 administrators and 12 community elders. Kothari (2004) guides that a focus group of 8 to 12 participants is sufficient for a discussion session. Participants in FGDs were purposively recruited to capture different perspectives about Oil exploration activities and its security implications on their social and economic activities. According to Sekaran (2013), FGDs allow a researcher to get deeper insight into a situation or phenomenon. FGDs yielded qualitative data given that the questions were open ended. FGDs captured what the respondents said in a given context; for instance, their attitudes, perceptions, opinions and experiences in relation to oil exploration.

## **3.8 Validity Test and Reliability Test**

Mugenda (2008) observes that whenever a test or other measuring device is used as part of the data collection process, the validity and reliability of that test is important. This is to ensure that the instrument will eventually measure what it is supposed to measure consistently.

### **3.8.1 Validity Test**

Validity is defined as the accuracy and meaningfulness of inferences, which are based on the research results (Mugenda A. , 2008). In other words, validity is the degree to which results obtained from the analysis of the data actually represents the phenomena under study. Pilot study was being conducted in Katilu area of Turkana County to determine the validity of the instruments. Peer review was sought to ensure that the interview schedule developed is sound in content and structure.

### 3.8.2 Reliability Test

Reliability refers to the extent to which the instrument of research gives consistent data after a number of trials (Mugenda A. , 2008). In order to ensure that reliability was promoted, the study used Cronbach alpha to determine the internal consistency of the instruments. Cronbach Alpha is commonly used in studies with multiple Likert questions where the researcher wishes to determine if the scale is reliable (George & Mallery, 2003).

Based on the formula  $\alpha = rk/[1 + (k - 1)r]$  where k is the number of items considered and r is the mean of the inter-item correlations, the size of alpha is determined by both the number of items in the scale and the mean inter-item correlations. George and Mallery (2003) indicate that rule of thumb is as follows: “ $\alpha > .9$  – Excellent,  $\alpha > .8$  – Good,  $\alpha > .7$  - Acceptable,  $\alpha > .6$  Questionable,  $\alpha > .5$  – Poor and  $\alpha > .4$  Unacceptable”.

The importance of Cronbach Alpha is that it is a single number that tells how well a set of items measure a single characteristic. This statistic is and overall item where values range between 0 and 1. Values above 0.7 are often considered to be acceptable.

Reliability Statistics Cronbach’s Alpha for the 5 social activities items was .943, all the items were retained based on their value was more than .7 shown in column 4 of table 3.3 below.

**Table 3.3: Security Implications of Oil Exploration on Social Activities**

<b>Social Activities</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale variance if Item Deleted</b>	<b>Corrected Item Total Correlation</b>	<b>Cronbach’s Alpha if item Deleted</b>
Cultural sites and practices	12.07	39.982	.638	.956
Family roles setup	11.98	39.975	.659	.955
Environmental pollution and health risks	11.55	33.106	.904	.935
Politics	11.60	32.923	.923	.934
Human Rights	11.52	33.213	.899	.935

(Source: Pilot test data)

Reliability Statistics Cronbach’s Alpha for the 4 economic activities items was .872, all the items were retained based on their value was more than .7 shown in column 4 of table 3.4 below.

**Table 3.4: Security Implications of Oil Exploration on Economic Activities**

<b>Economic Activities</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale variance if Item Deleted</b>	<b>Corrected Item Total Correlation</b>	<b>Cronbach's Alpha if item Deleted</b>
Grazing Lands	8.29	12.191	.614	.905
Traditional economic activities	8.20	10.842	.820	.861
Employment Opportunities	8.21	10.660	.832	.858
Infrastructure development	8.21	10.876	.819	.862

(Source: Pilot test data)

Reliability Statistics Cronbach's Alpha for the 7 emerging security management issues items was .801, all the items were retained based on their value was more than .7 shown in column 4 of table 3.5 below.

**Table 3.5: Emerging Security Management Issues due to Oil Exploration**

<b>Economic Activities</b>	<b>Scale Mean if Item Deleted</b>	<b>Scale variance if Item Deleted</b>	<b>Corrected Item Total Correlation</b>	<b>Cronbach's Alpha if item Deleted</b>
Community participation	17.83	57.926	.585	.939
Security management strategies	17.87	58.212	.600	.938
Participation of civil societies	18.08	58.290	.693	.935
Natural resources management policies	18.11	57.539	.734	.934
Indigenous entitlement	18.15	57.788	.788	.932
Adequacy of security	18.13	57.373	.747	.933
Oil as a factor of insecurity	18.18	56.716	.807	.932

### **3.9 Data Analysis**

Data was analysed as guided in statistical analysis table in Appendix IV. The quantitative data obtained was organized, coded and organized using the Statistical Package for the Social Sciences (SPSS) and Excel. The results were presented in the form of tables, frequency distribution, graphs and charts. The qualitative data obtained from the key informants and FGDs was analysed using thematic analysis by putting into various categories in accordance with the objectives of the study and thereafter inferred in the findings and discussions.

### **3.10 Ethical Considerations**

The study adhered to requisite ethical guidelines for scientific academic research. According to Kothari (2004) ethics in research pertains doing good and avoiding harm to the subjects of the research. The study was guided by need to ensure the safety of respondents and the research team, maintaining confidentiality of respondent's, any possible distress to the participants by the research was minimized, participants was provided with sufficient information to enable them to give informed consent and participation in the study will be voluntary and respondents will not be paid. In the course of the study, requisite authorizations for the study were obtained from the relevant institutions. Research authorization sought from Egerton University Graduate School and Research Permit was obtained from the National Commission for Science Technology and Innovation (NACOSTI).



## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1 Introduction

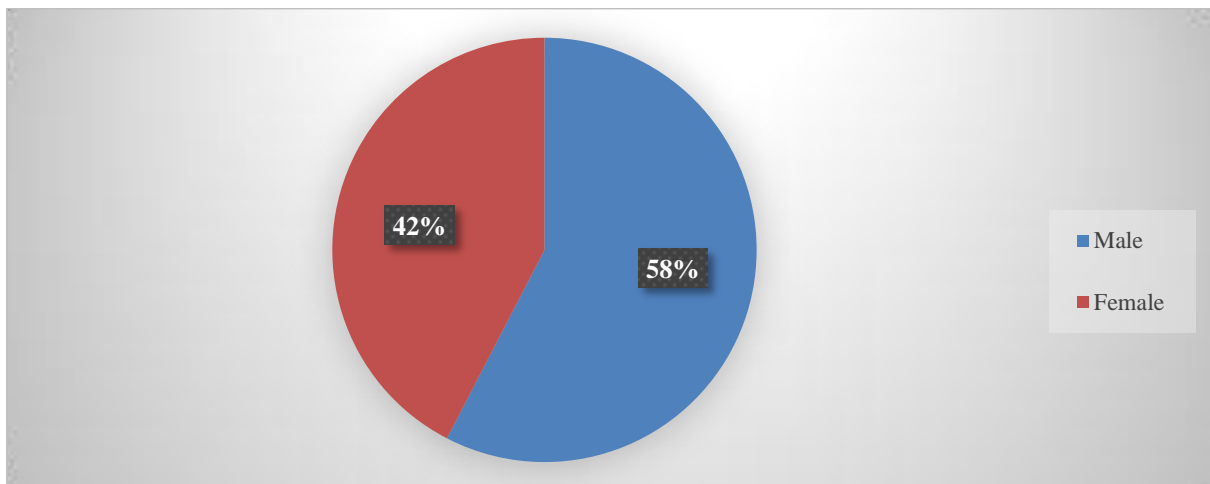
The chapter presented the results and the discussions thereto. The results were arrived at after a data analysis process. Data analysis is the process of reducing or summarizing a large amount of collected data to data that addresses the initial proposition of the study (Kothari, 2004). This chapter presents the research findings as related to the research questions that guided the study.

#### 4.2 General Information

This section presents the demographic characteristics of the respondents. The characteristics were gender, age and education level.

##### 4.2.1 Gender of the respondents

The study sought to determine the gender of the respondents. According to Tannenbaum, Greaves and Graham (2016), gender is important in decision-making, communication, stakeholder engagement and preferences for the uptake of interventions and thus the need to consider it in research studies. The findings are shown in Figure 4.1 below;



**Figure 4.1: Distribution of respondents by Gender**

(Source: Filed data)

From the findings presented in Figure 4.1, 58% of the respondents covered in this study were male while 42% were female. This indicates that majority of the respondents were male.

### 4.2.2 Age of the Respondents

The researcher requested the respondents to indicate their age bracket. The results are shown in Table 4.1 below:

**Table 4.1: Respondents' Age Distribution**

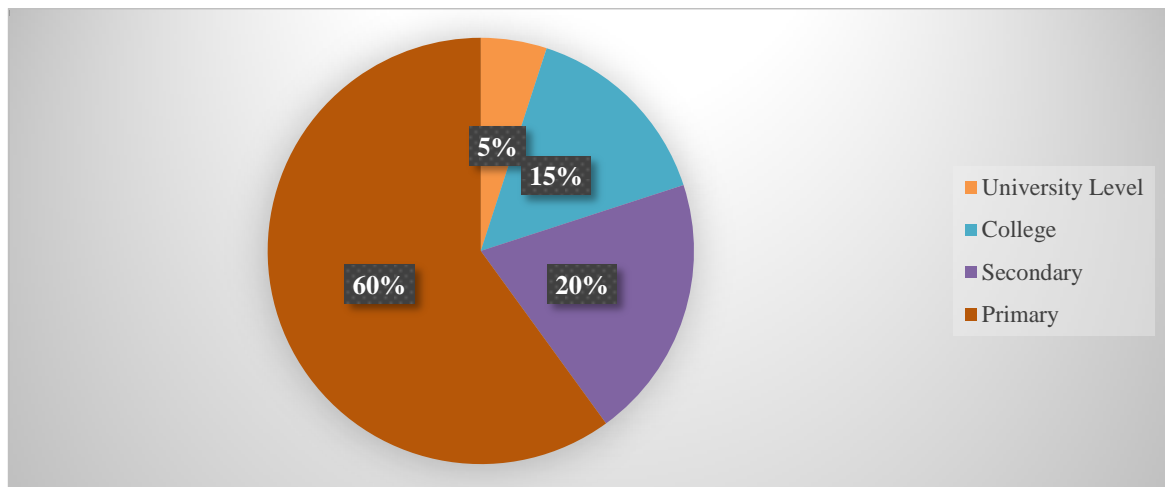
Age Range	Frequency	Percent
18 to 27	130	45.3%
28 to 37	39	13.6%
38 to 47	32	11.1%
48 to 57	36	12.5%
58 to 67	35	12.2%
67 and above	15	5.2%
<b>Total</b>	<b>287</b>	<b>100%</b>

(Source: Field data)

Table 4.1 above presents the respondents' age, whereby majority (45.3%) of respondents were aged between 18 and 27 years. The findings also show that 13.6% were aged between 28 and 37 years, 12.5% were aged 48 and 57 and 58 and 67 while 5.2% were aged 67 and above. The findings show that majority of participants were young.

### 4.2.3 Education Level

The respondents were asked to indicate their education level the findings are shown in the Figure 4.2 below;



**Figure 4.2: Education Level**

(Source: Field data)

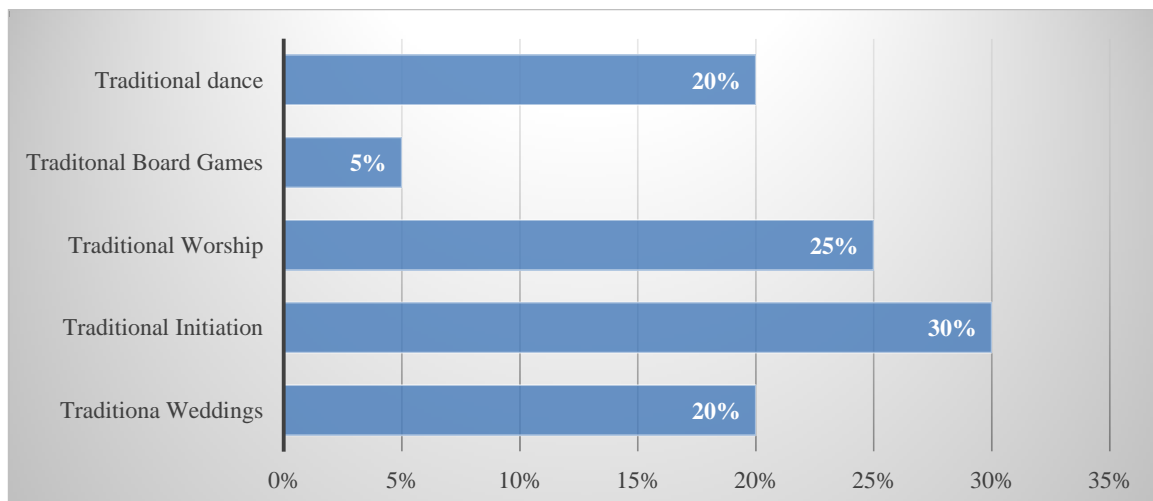
Figure 4.2 above shows that majority (60%) had primary level, 20% secondary, 15% college while 5% had university level. This implies that most respondents had primary education level, and thus had a basic understanding of matters surrounding the exploration of oil in Lokichar. A sizeable number of 20% had secondary education and thus could well articulate issues around oil exploration and security in Lokichar.

### 4.3 Security Implications on Oil Exploration in Social Activities

The first objective of this study was to determine the security implications of oil exploration on social activities in South Lokichar Basin, Turkana County, Kenya. The respondents were asked to respond to queries on various aspects of social activities factors that have been affected by oil exploration. These queries sought to gather their opinions and perceptions in regards to the security effects that have been experienced on social activities in Lokichar since the beginning of oil exploration. Their responses were recorded and presented in the following charts and figures.

#### 4.3.1 Main Social Activities

The study sought to determine the main social activities according to the opinion of the respondents. The findings are presented in Figure 4.3 below;



**Figure 4.3: Main Social Activities**

(Source: Field data)

Figure 4.3 above presents the main social activities in South Lokichar Basin. Respondents indicated the main social activities to be traditional initiation or *asapan* (30%), traditional

worship (25%), traditional wedding ceremonies or *akuuta* (20%), traditional dance or *edong'a* (20%) and traditional board games or *ajua* (5%).

#### 4.3.2 Significance of Social Activities among Lokichar Residents as a way to manage security

The study sought to find out the perception of Lokichar residents on the significance of social activities as a means to manage security in the area in the era of oil exploration. The findings are presented in Table 4.2 below:

**Table 4.2: Significance of Social Activities among Lokichar Residents as a way to manage security**

	Frequency	Percent
Very significant	120	42%
Significant	81	28%
Neutral	52	18%
Insignificant	15	5%
Very insignificant	19	7%
<b>Total</b>	<b>287</b>	<b>100%</b>

(Source: Field data)

Table 4.2 above presents the significance social activities as a means to manage security in the era of oil exploration in Lokichar. The findings show that majority (42%) of respondents reported that the social activities are very significant, 28% significant while 5% very insignificant. Box 4.1 shows the excerpt of explanation on the significance of the social activities as means to manage security in Lokichar in the era of oil exploration

#### **Box 4.1: Explanation on significance importance of Social Activities among Lokichar Community**

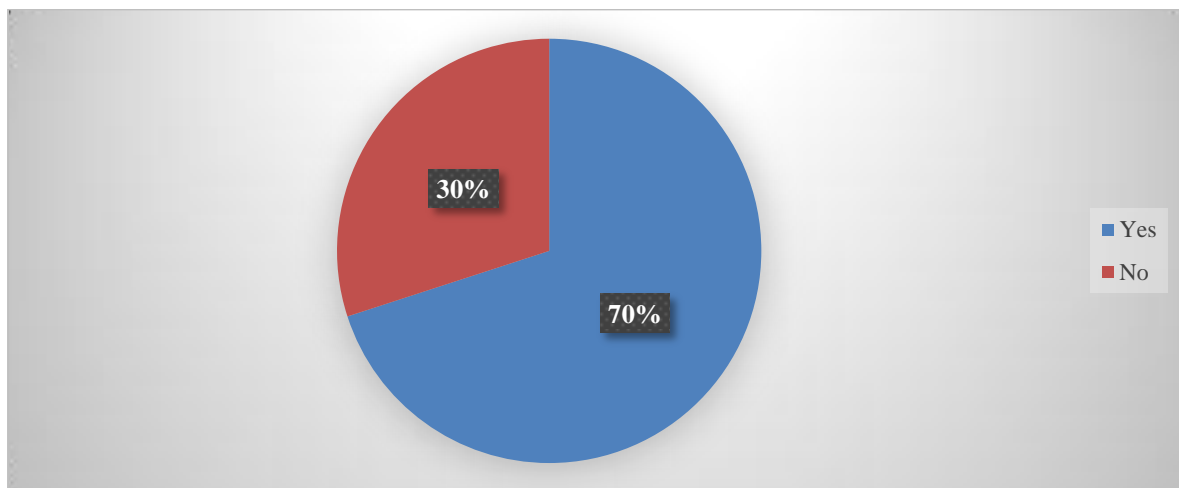
*“Such activities help to distract the youths from engaging in criminal activities by occupying them and providing alternative means of passing time as well as keeping the clan and community bonds strong and dissuaded individuals from engaging in activities that promote insecurity in the area.”*

Source: Respondent No 50 September 2018

The excerpt in Box 4.1 above lays emphasis on significance of social activities in the Lokichar community. The social activities serve to occupy the youths divert them from prosecuting other activities that would endanger the security of the region. Most of the key informants indicated that such activities engaged the youths who would otherwise be tempted to engage insecurity promoting activities such as stealing, highway robberies, cattle rustling etc.

### 4.3.3 Effects of Oil Exploration on Social Activities

The respondents were asked to indicate if oil exploration affects social activities. The findings are as shown in the Figure 4.4 below;



**Figure 4.4: General Effects of Oil Exploration on Social Activities**

(Source: Field data)

Figure 4.4 above presents the respondents' views on the general effects of oil exploration. The findings show that majority (70%) of the respondents indicated that oil exploration has an effect on social activities while 30% said No. Explanation on the effect of oil exploration on social activities is indicated in the excerpt in Box 4.2 below:

*“The number of youths who have engaged in alcohol and drug abuse due to oil exploration in the region as increased. oil exploration has led to early pregnancy and spread of HIV/AIDs.”*

” Source: Respondent No 16, September 2018

*“Oil has raised the profile of Turkana in Kenya and globally. But we (Turkana Community) are fearing that our traditional cultural practices and rights area being trampled upon since we are taken as second-class citizens. For instance, our land was given away to oil companies without our knowledge. Our sacred places are being desecrated by the companies as they look for(explore) oil. Our worship grounds, a grave yards are being damaged and we can no longer access them. We were not prepared for the flurry of activities that area happening now”.*

Source: Respondent No 35, September 2018

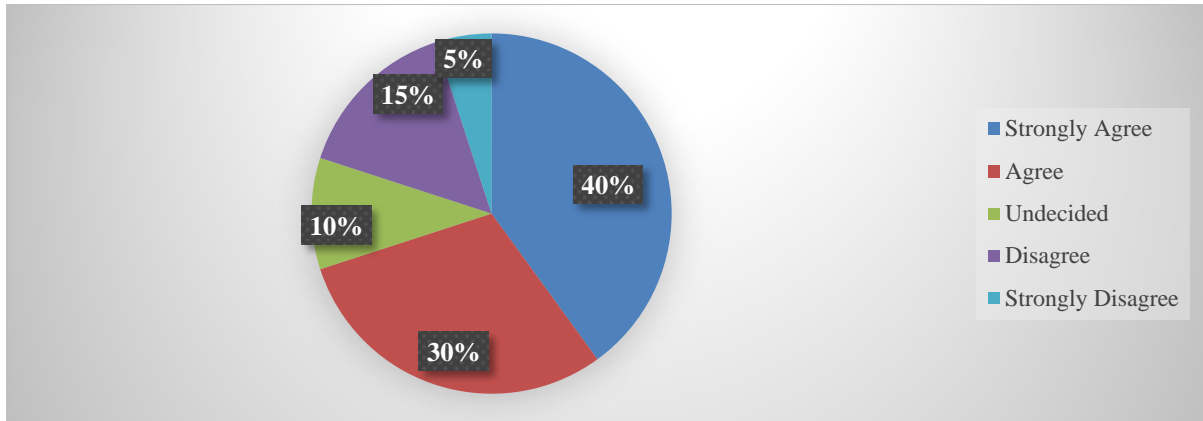
#### **Box 4.2: Explanation on Effects of Oil Exploration on Social Activities**

Box 4.2 above indicates the concerns of respondents on the general effect of oil exploration on social activities. Some key informants pointed out that oil exploration had negatively affected socio-cultural behaviour of the community. They were particularly concerned with increase of immoral activities and desecration of sites of cultural importance to the community since the advent of oil exploration in Lokichar.

The findings point to conclusion made by Erickson (2008) and Gary (2009), who revealed that the exploration project has an impact on social development with projects bringing about negative social impact on marginalized communities; including deadly venereal diseases such as HIV/AIDs and other Sexually Transmitted Infections (STIs).

#### **4.3.4 Security Effects of Oil Exploration on Social Activities**

The respondents were asked whether they agreed that Oil exploration had negative security effects on the security of social activities in Lokichar, Turkana County. The findings are as shown in Figure 4.5 below;



**Figure 4.5: Security Effects of Oil Exploration on Social activities**

(Source: Field data)

Figure 4.5 above shows that majority (40%) of respondents strongly agreed that oil exploration has a negative impact on social security, 30% agreed. The findings show that 15% disagreed while 5% strongly disagreed that oil exploration has an impact on social security. The respondents were asked to explain their views and they indicated that oil exploration has had some security effects on the security. Some of their explanations are indicated in Box 4.3 below:

**Box 4.3: Explanation of the security effect of oil exploration on social activities**

*“The security effect is mostly related to issue of land allocation and benefits sharing. The process of land allocation for exploration has not been consultative. Even where consultation was done, some community members felt not properly included while some had a change of mind afterwards regarding the terms of reallocation and benefits. This has led to instances where raids against oil drilling facilities has been perpetrated and has become a threat.”*

Source: Respondent No 50 September 2018.

*“Since oil companies came to Lokichar, security in the area has deteriorated. Oil companies came and attracted people from Kenya (down-country) who have come with bad behaviour here. They have engaged in muggings, theft of shops, and other criminal behaviours. In as much as the youths in the area were engaged in highway robberies, people from down country have brought crime into our settlement areas”*

Source: Respondent No 242, September 2018

Box 4.3 highlights excerpts on the security effects of oil exploration on social activities. Most felt that the influx of workers from different parts of the country, to work in the oil sector or related businesses, is responsible for upward spike in criminal activities in Lokichar; with practices that affected that local social activities. Another critical security effected pointed out it the issue of land allocation without consulting the community. Haphazard land allocation had led to displacements of people for oil exploration that they had affected their traditional social and cultural activities. This led to the urge by youths to raid the oil facilities and reposes their lands. Such effects were previously noted in a study carried out Dean and Brown (2009) who indicated that oil exploration projects have led to displacement of various communities from their areas of domicile to make room for oil exploration activities. As such communities lose their land and their livelihoods, and their socio-cultural life is disrupted.

#### 4.3.5 Significance of Security Implications of Oil Exploration on Social Activities

The study sought to assess the significance of oil exploration on security of social activities. The respondents were asked; how they would rate the general significance of security implication of oil exploration on social activities among Lokichar residents. The scale of 1-5 was used whereby 1=very significant, 2=significant, 3=neutral, 4 insignificant and 5=very insignificant; and the findings are as tabulated in Table 4.3 below:

**Table 4.3: Significance of Security Implication on Social Activities**

	Frequency	Percent
Very significant	125	44%
Significant	76	26%
Neutral	52	18%
Insignificant	20	7%
Very insignificant	14	5%
<b>Total</b>	<b>287</b>	<b>100%</b>

(Source: Field data)

Table 4.3 above presents the significance of oil exploration on security of social activities in Lokichar. The findings show that majority (44%) of respondents reported that the security implication is very significant, 26% significant while 5% very insignificant. With majority of the respondents feeling that their socio-cultural way of life is being affected by oil exploration, hostility towards oil exploration companies could lead to confrontations and



endangering security of operations, assets and staff. Government response through security forces can infuriate the community and further exacerbate the security situation.

#### 4.3.6 Extend of the Security Effects Oil Exploration on aspects of Social Activities

The respondents were asked to assess the effect of oil exploration on security of different social aspects of social security. The scale was on 1-5, whereby 1=very high extent, 2=high extent, 3=medium extent, 4= low extent and 5=very low extent. The findings are as shown in Table 4.4 below;

**Table 4.4: Oil Exploration Effects on Security**

	1	2	3	4	5
Cultural sites and practices	24.2%	50.0%	5.8%	20%	0.0%
Family roles setup	26.5%	34.5%	14%	20%	5%
Environmental pollution and health risks	36%	42%	12%	6%	6%
Politics	43%	27%	10%	10%	10%
Human Rights	32%	18%	22%	14%	14%

(Source: Field data)

Table 4.4 above presents oil exploration effects on security. The findings show that majority (50%, 34.5% and 42%) indicated that oil exploration has a high extent affects the Cultural sites and practices, family roles setup and environmental pollution and health risks respectively. The findings also show that 43% and 32% of respondents revealed that oil exploration has a very high extent to politics and human rights respectively. However, one key informant disagreed with the view that social aspects especially family roles have been affected to a high extend. The key informant noted that there was no much change in gender roles in terms of who heads the family although both the man and woman were expected to provide for the family. The view is captured in box 4.4 below:

#### **Box 4.4: Contrary View on Extend of Security Implications of Oil Exploration on Social Activities**

*“Culturally, the Turkana household is headed by the man except in circumstances where the man is deceased or absent due to other reasons. In such cases, the woman can remarry and her children and household will be taken care of by the new head of the house. Wife inheritance is also a common practice by brothers of a diseased man.”*

Source: Key Informant September 2018

*“There has not been much influence on the political inclinations of the region except that politicians have used their positions to profit from oil exploration activities. However, Turkana political leaders more so from Lokichar have been on the forefront in the agitation for the community’s fair share. The appointment of Petroleum and Mining Cabinet Secretary from the region in the wake of the community’s protests is seen as a significant development; although the community does not have much faith in that since he is a known puppet.*

Source: Respondent 225, October 2018.

Box 4.4 indicates alternative views on the extend of effects of oil exploration on social activities. While other respondents indicated a very high to high extend, the excerpts indicate that family role set-up and politics have not significantly changed except for the politicians exploiting their position for personal gain.

#### **4.3.7 Findings from the Focus Group Discussion on Security Implication of Oil Exploration on Social Activities**

Focus Group Discussions were conducted with community elders in Kamarase and Lochwaang’ikamatak, on the security implications of oil exploration on social activities. The groups were convened and given the briefing on the purpose of the study. Though the female community elders were allowed to attend but unfortunately none of them showed up for the discussion. The participants were encouraged to be as free as possible in discussing the real issues pertaining to the study. The findings were summarized in Boxes 4.5 and 4.6 below:

#### **Box 4.5: Focus Group Discussion at Kamarase Area**

Area: Kamarase trading centre

Size of the group: 12 members

Age: varied between 50 years to 67 years

Highest education level: Bachelor's Degree

Lowest education level: KCPE

Gender: Male

Date of discussion 14/09/2018

#### **Findings**

One of the participants of aged 54 noted; "Oil exploration is affecting our social way of life. They foreigners do not care about our sacred sites. They just come and drill them up...even close to our ancestral burial grounds. We no longer have places to do our traditional worship and asapan (*initiation*)". Another participant lamented that, "our health has been affected oil drilling. The water we drink is no longer safe because of the chemicals they use. You can imagine being in a dry place like Turkana and then the scare water you depend on is contaminated; it is a disaster". A third participant observed that, "people from Nairobi (*other places in Kenya*) have come here to take jobs in the companies and also bring with them bad behaviour. Our daughters are getting pregnant and we fear that they will contract the big disease (*HIV/AIDS*). Crime has gone up since these people from Nairobi came. Theft of shops and muggings have increased especially in trading centres. We no longer feel safe staying outside late into the night. If these people do not stop, we will have to deal with them as men and their employer (*fight them*)"

As indicated in the excerpts in Box 4.5 above, various aspects of the community's social life have been negatively affected. It is also clear that the community is not happy with these changes and thus are developing resentment against the oil exploration companies. If not mitigated the community will turn on the companies thus jeopardising oil exploration. Similar sentiments on security were expressed during a Focus Group Discussion with local administrators at Lochwaang'ikamatak chief's office. The administrators were requested to attend the FGD through the County Commissioner's office. They were comprised of 6 males, and 2 females. The findings are indicated in Box 4.6 below:

**Box 4.6: Focus Group Discussion at Lochwaang'ikamatak Area**

Area: Lochwaang'ikamatak Chief's office

Size of the group: 8 members

Age: varied between 45 years to 54 years

Highest education level: Bachelor's Degree

Lowest education level: Diploma

Gender: Male and Female

Date of discussion 18/09/2018

**Findings**

One of the administrators confirmed that, "it is true that oil exploration has negatively impacted the community and I can confirm that they are not happy and are likely to take matters into their own hands. They feel that their security has been affected by criminal gangs who think they have money from the oil exploration jobs in the area. Some people have even been drugged in bars and wallets with money stolen. This is something that has not been experienced before." A female administrator expressed dismay by the number of pregnant school girls around oil exploration areas. She said, "School children are being spoilt and school dropout rate is disconcerting. The young girls are being lured with money...they fall easily for that given the hardships in this place. When they get pregnant, they leave school and the parents have to take care of them since the men usually disappear or deny responsibility. Some parents at near Amosing oil well area staged a protest in February, 2018 against the rising cases of school girls impregnations. The activities at the oil well came to a standstill and some staff were injured. These confrontations such issue is affecting security of the areas and may escalate leading to serious consequences to both the companies and the community. Something has to be done to address and forestall this. A third participant concurred with his counterparts by saying that, "the effects mentioned are happening and it is bringing animosity between the company and the community...the community wants the money from the oil but are also not happy that their ways of life are being impacted negatively. The company is not doing enough to manage the relationship and it is posing a security threat to their operations. The scare security apparatus in the areas are being overstretched since they have to manage the relations between the company and the community in a bid to manage the security situation".

The observations and concerns raised by the administrators, as indicated in Box 4.6 above, illustrates that oil exploration has a negatively social way of life of the Lokichar community resulting in resentments. Instances of backlashes against the companies for perceived complicity have been reported thus adding to security challenges of not only the community but also of the companies, their facilities and staff.

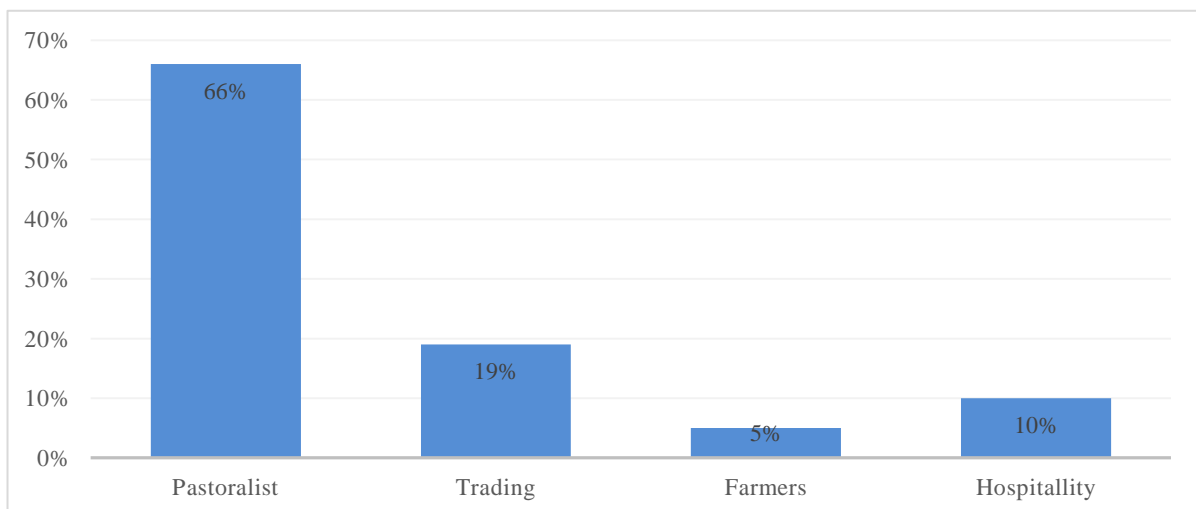
#### 4.4 Security Implication of Oil Exploration on Economic Activities

The study's second specific objective was to examine the security implication of oil exploration on economic activities in south Lokichar basin, Turkana County. This was done through structured and unstructured questions. The findings were as shown below;

##### 4.4.1 Economic Activity

The respondents were asked to indicate the pre-existing main economic activities in Lokichar before the advent of oil exploration, discovery and exploitation. The respondents revealed the following;

**Figure 4.6: Main Economic Activities in Lokichar**



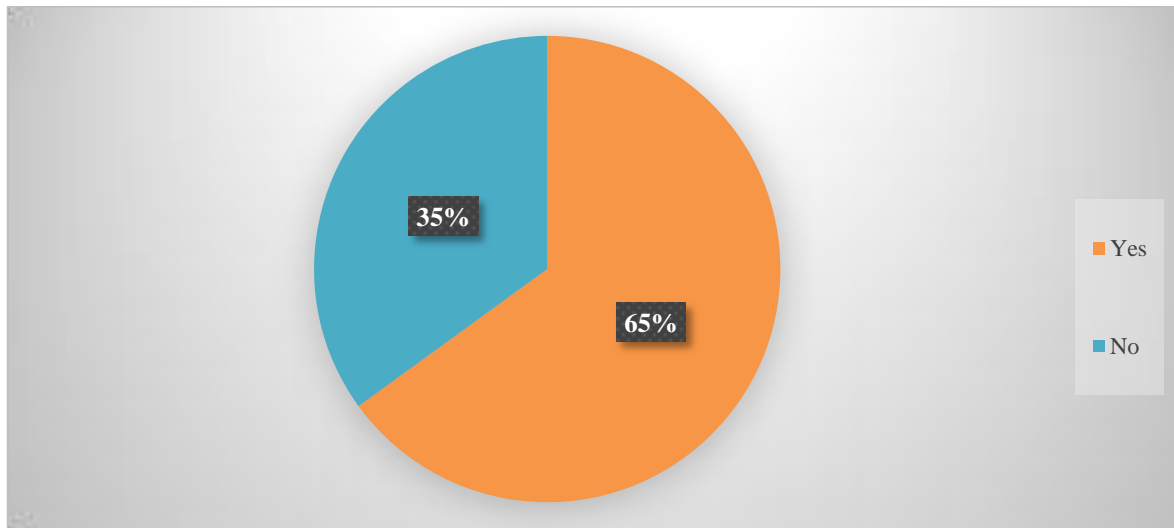
(Source: Field data)

Figure 4.6 presents the main economic activities in Lokichar. The findings show that majority (42%) of respondents indicate that pastoralism is the main economic activity, 10% hospitality, 19% trading while 5% were farmers. The findings confirm that pastoralist nature of Turkana community. Trading is also conducted on a limited scale and main commodities are livestock and livestock products. Limited agriculture is practiced along the irrigation

schemes, such as in Turkwel area. Overall, the findings indicate that the residents of Lokichar rely on livestock as their economic mainstay.

#### 4.4.2 Effects of Oil Exploration on Economic Activity

The respondents were asked to indicate if oil exploration had effects on the economic activities in Lokichar and they indicated as shown in Figure 4.7 below;



**Figure 4.7: Effects of Oil Exploration on Economic Activity**

(Source: Field data)

Figure 4.7 above indicates that the majority (65%) of the respondents agreed that oil exploration has an effect on economic activity while 35% responded in the negative. Explanation of one of the respondents is quoted Box 4.7 below:

#### **Box 4.7: Effects of Oil Exploration on Economic Activities**

*“In the course of Tullow’s exploration and drilling activities, some skilled people in the community get employment as drivers, mechanics, plant operators, security among other activities. But the well-paying jobs are usually left for people from Nairobi. The company has also promoted trade in areas it operates since enterprising community members are able to sell food items to the workers. The local trading centres are also thriving due to increased customer base brought about by the company’s workforce.”*

Source: Respondent 236, October 2018.

From the excerpt in Box 4.7, it was clear effects of oil exploration on economic activities were both positive as well as negative. The economic symbiosis between Tullow Company and the Lokichar community plays an imperative role in enhancing economic development of the nation through job creation and income generation. However, some key informants noted that young people are resorting to employment in oil exploration companies and abandoning the traditional economic activities such as pastoralism. Box 4.8 shows the sentiment:

**Box 4.8: Key Informant's Sentiment on Abandoning of Traditional Economic Activities**

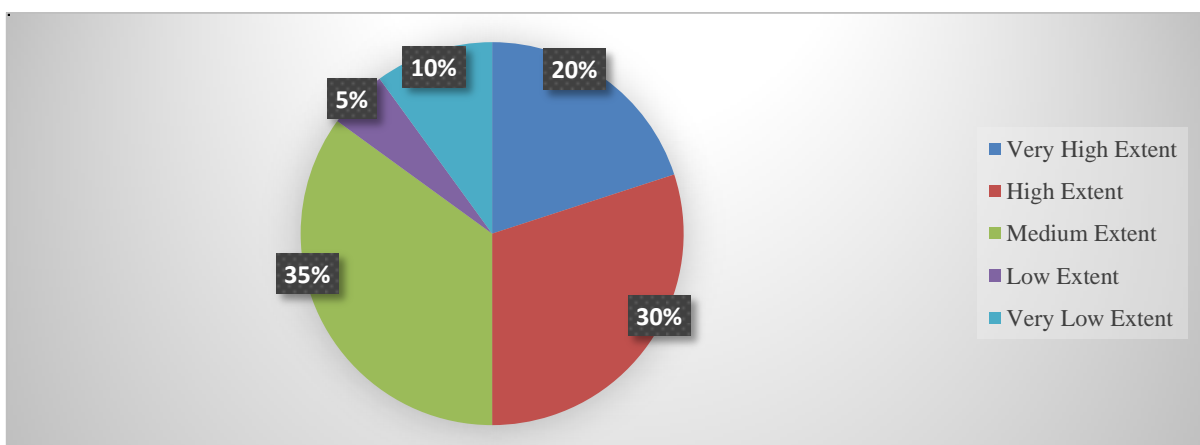
*“Young people in Lokichar areas near oil exploration sites have moved to seek employment in the companies due to perception that they can make a lot money faster. The aged have been left to herd animals”*

Source: Key informant, September 2018.

The sentiment in Box 4.8 above presents a worrying development. Considering that oil and other minerals are exhaustible resources, when will they decline other industries will have been grounded and will take a while to revive and thus hurting the economy.

**4.4.3 Extend of Oil Exploration Impact on Security of Economic Activities**

The study sought to assess the extent of oil exploration impact on security of economic activities. The findings are as shown below in Figure 4.8 below;



**Figure 4.8: Extend of Oil Exploration Impact on Security of Economic Activities**

(Source: Field data)

From Figure 4.8 above, majority (35%) of respondents indicated that oil exploration has medium impact on security of economic activities, 30% high extent, 20% very high extent while 5% low extent. Community elders confirmed that oil exploration has to a minimal extent improved the livelihood. Based on the explanations of the responses, it was noted that the respondents were optimistic as well as pessimistic about the extent of oil exploration on the security of their economic activities. Scholars such as Fearon (2010) have posited that oil discovery tended to lead to economic hardships. On the contrary Gulati *et al* (2010) observed negative economic impact to be due to environmental pollution and misappropriation of land for oil exploration. Contrarily, Garvin (2009) criticized the supposition by Gulati *et al* (2010) by arguing that the oil discovery leads to employment and compensation for reallocated lands and thus improved economic situation. These arguments were reflected in the responses by the respondents most of whom expected their economic condition to change for the better as a result of oil discovery while at the same time being pessimistic with the developments in the processes of oil exploration and exploitation. Most opined that priority should be given to the indigenous community in terms of employment and other economic benefits. Box 4.9 below shows some of the explanations;

**Box 4.9: Explanation on extend of Security Implication on Economic Activities**

*“Our pastoralist way of life has been significantly affected. Since creation of Turkana people, our way of life has been anchored on rearing animals. That is where we get our daily sustenance besides being central to the Turkana social status. But these people (oil exploration companies) has destroyed where we graze our animals. Our animals die when they drink borehole water and graze near Tullow sites. It is like the chemicals they use in drilling affects grass and water. We need the company to pay us for the losses and also relocate their activities away from our grazing fields.”*

Source: Respondent No 200, October 2018

Box 4.9 above conveys the sentiments of one of the respondents on the effects of oil exploration on economic activities. The chemicals used in drilling oil wells appear to have contaminated water and pasture thus leading to livestock losses. This is an environmental impact that affects the key economic mainstay of the Turkana community in Lokichar. This



can lead to confrontations between the community and the companies to force them to relocate their activities.

#### 4.4.4 Significance of Security Implication on Economic Activities

The study sought to determine the security implication on economic activities. The scale of 1-5 was used whereby 1=very significant, 2=significant, 3=neutral, 4 insignificant and 5=very insignificant;

**Table 4.5: Significance of Security Implication on Economic Activities**

	Frequency	Percent
Very significant	57	20%
Significant	109	38%
Neutral	75	26%
Insignificant	26	9%
Very insignificant	20	7%
Total	287	100%

(Source: Field data)

Table 4.5 above presents respondents' views on significance of security implication on economic activities. Majority (38%) of respondents revealed that security implication has a significant impact on economic activity, 26% said that oil exploration had neutral impact, and 20% very significant while 7% very insignificant impact on economic activity. The findings imply that most respondents believe that there is significant security implication of oil exploration on economic activities. Oil and gas exploration and production are known to not only affect the biophysical environment alone but also the wellbeing of the people including their security and thus suggested that since the underlying issues are neglect, marginalization and the peoples' quest for economic justice, policy makers should improve productive activities and ensure the security and welfare of the citizens.

#### 4.4.5 Extent of Security Implication on Economic Factors

Respondents were asked to express their views or rating of the extent of security implication on different economic factors; the scale was on 1-5, whereby 1=very high extent, 2=high

extent, 3=medium extent, 4= low extent and 5=very low extent. The findings are as shown below;

**Table 4.6: Extent of Security Implications of Oil Exploration on Economic Factors**

	Very High Extent	High Extent	Medium Extent	Low Extent	Very Low Extent
Grazing Land	30%	40%	5%	25%	0.0%
Economic Activity	27%	30%	19%	17%	7%
Employment Opportunities	45%	30%	18%	4%	3%
Infrastructure Development	40%	32%	15%	6%	7%

(Source: Field data)

Table 4.6 above presents the security implication on the economic factors whereby 40% and 30% of respondents indicated that the security implication affects grazing land and economic at a very great extent respectively. The findings show that majority (45% and 40%) indicated that security implication at a very great extent affect employment opportunities and infrastructure development respectively. Views of a respondent are as indicated in Box 4.10 below:

**Box 4.10: Key Informant Views on Extent of Security Implications of Oil Exploration on Economic Factors**

*“Grazing lands are being explored for oil and large areas cordoned off thus denying access to the animals to graze. With scarcity of pasture due to harsh climatic conditions, this is likely to affect relations of Tullow with the pastoralist community. There is also discounted among community members that skilled and high paying job opportunities are being appropriated to expatriates. We feel that the company is not doing enough to develop skills of the community members to take up the jobs despite a few being sponsored to pursue courses in petroleum engineering. The menial low paying jobs left to the low skilled community members make them feel exploited due to little payments for the same.”*

Source: Key Informant, September 2018

Box 4.10 indicated that the community feel alienated in most oil exploration activities that affect them economically from land allocation, jobs, capacity development among others. The key informant's sentiments present a warning that such alienation continues to stock resentment by the indigenous community who are likely to pose a security threat to the companies as a backlash.

There was also a general sentiment that the infrastructure of the areas has not been well developed except for a few kilometres of tarmac in Lokichar town. Most key informants pointed out that Tullow PLC is not doing much in terms of Community Social Responsibility in the area to the expectation of the community members. However, to indicate improvements in development initiatives and community engagement, another key informant (Tullow employee) highlighted as indicated in Box 4.11;

**Box 4.11: Key Informant's Sentiment on Improved Relations between Community and Oil Exploration Companies**

*“Following the suspension of our operations in Turkana in late 2013, we increased our engagement with our host communities. In early 2014, we recruited more Community Liaison Officers (CLOs) from the local area, bringing the total headcount of the Social Performance field stakeholder engagement team to 36. The main issues the communities raised were land access, security, the health of their communities and their live-stock, access to water, job opportunities and education. Since early 2014, Tullow has begun to hold quarterly meetings with the Turkana Leadership Forum to ensure they get regular updates on our operational activities, Local Content initiatives and social investment programmes.”*

Source: Key Informant, September 2018

As indicated by the excerpt in Box 4.11, there is a thawing of relationships between the exploration companies and the community. This is after confrontations and realization by the oil exploration companies that they need to manage relations with the community in order to secure their operations, facilities and staff.

#### **4.4.6 Findings from the Focus Group Discussion on Security Implication of Oil Exploration on Economic Activities**

A Focus Group Discussion was conducted with Tullow expatriate workers in their facility at Ngamia 1 in Kapese. The groups were convened and given the briefing on the purpose of the study. The participants were encouraged to be as free as possible in discussing the real issues pertaining to the study. The FGD findings on security implication of oil exploration on economic activities were summarized in Box 4.12 below:

##### **Box 4.12: Focus Group Discussion at Kapese**

Area: Tullow Ngamia 1 offices, Kapese

Size of the group: 12 members

Age: varied between 33 years to 48 years

Highest education level: Master's Degree

Lowest education level: Diploma

Gender: Male and Female

Date of discussion 24/09/2018

##### **Findings**

A participant revealed that, “the expectations of the community are very high regarding how much benefit they can get from oil. The expectations are high and unrealistic. We are doing our best with the community leadership to manage them through awareness and community engagements”. Another participant confirmed that, “our facilities at Amosing were attacked in early 2016 due to the fact that the community felt left out of jobs and that the company (Tullow) was not helping the community (CSR). Also protests the greeted the EOPS in July 2018 further portrayed the community's dissatisfactions. As a company we are doing our best to meet our CSR obligations as per the laws.” A third participant noted that, “the bad relations with the community due to grievances over perceived unfairness resulted in run-ins that were inimical to our operations and safety of the staff. We have revamped engagement and public relations efforts to enhance cordial relations with the community so as to avoid confrontations.”

The admission by participants as indicated by excerpts in Box 4.12, point to the problems posed by poor relations between the community and the company. Expectations management was also a key finding. High expectations, whether realistic or unrealistic, if not managed

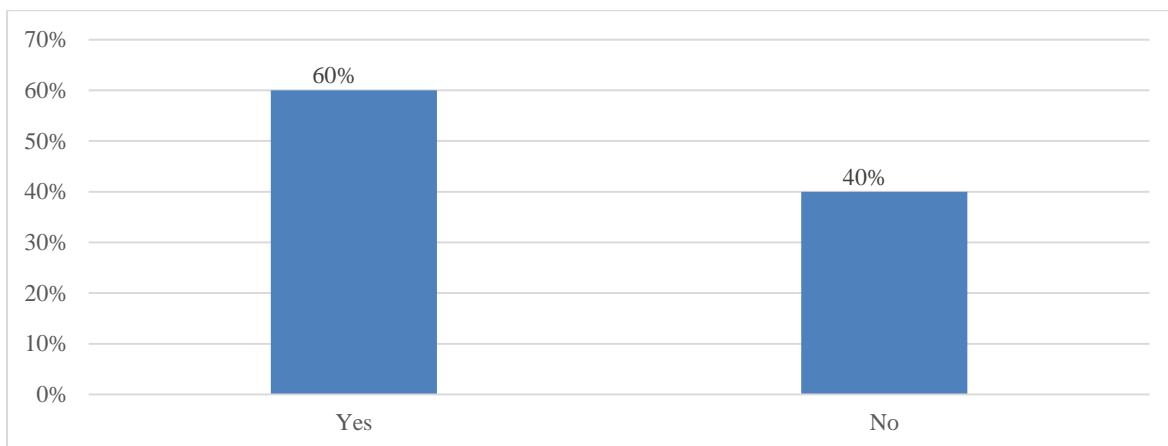
usually leads to frustrations and in turn aggression against the company. The two factors pose a security threat to the operations, facilities and staff of oil exploration companies.

#### 4.5 Emerging Security Management Issues

The third specific objective of the study attempted to assess emerging security management issues due to oil exploration in South Lokichar Basin. The findings were presented as follows:

##### 4.5.1 Community Participation

Respondents were asked to give their opinion on whether there was sufficient community participation in oil exploration and natural resources management activities in south Lokichar basin, Turkana County. The findings are as presented in Figure 4.9 below:



**Figure 4.9: Community Participation**

(Source: Field data)

Figure 4.9 above presents respondent's views on community participation where a majority (60%) indicated that there is sufficient community participation while 40% there is no sufficient community participation. On the same concern, key informants noted that following recent protests by the community, the government had tried to engage more with the political leadership and community representative thus creating more participation by the community. One respondent and a key informant observed as indicated in Box 4.13 below;

#### **Box 4.13: Observations on Community Participation in Oil Exploration Projects**

*“Initially there was no much engagement of the community on matters of oil exploration. The led to misunderstandings between the community and [oil] exploration companies. Local residents invaded some of the facilities in Ngamia 9 and destroyed some equipment’s. They [Tullow PLC] cannot just come to our land and do what they want without consulting with us[community]*

Source: Respondent No 94, September 2018

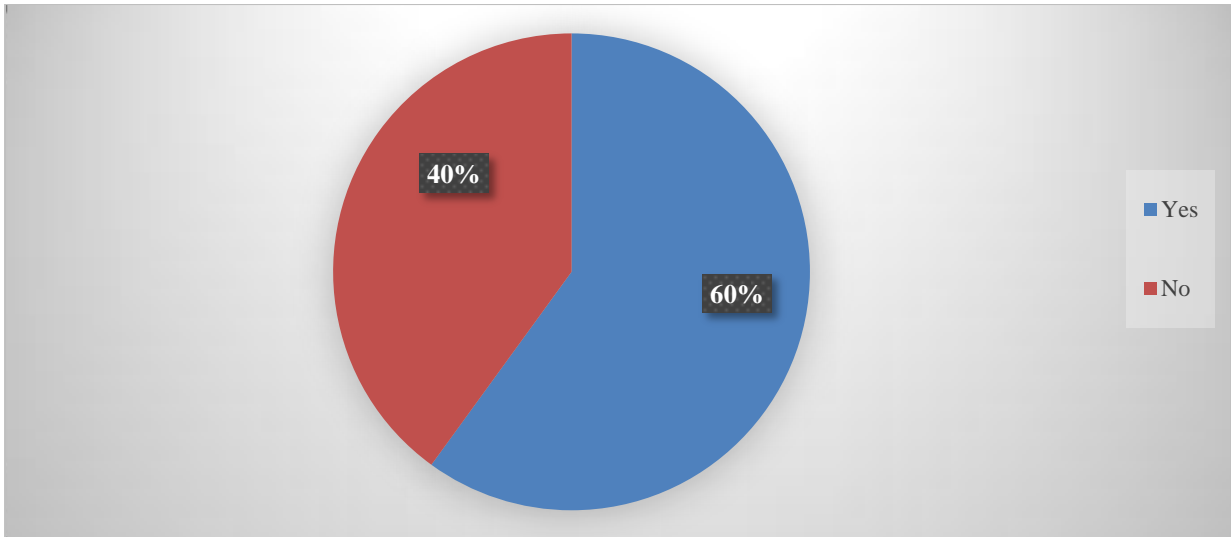
*“The aggrievement was further expressed in recent uproars in Lokichar due to oil matters indicated lack of adequate community participation and therefore the government had to engage the community more following the unrests that resulted from the community’s resistance to the EOPS. This is was in a bid to stem such resistance and improve on natural resource management approaches.”*

Source: Key Informant, September 2018

Box 4.13 indicates the views on the community participation in oil exploration. It is evident the process of oil exploration in Lokichar did not involve the community to a large extent. This caused feeling of alienation and resentment from the community members who had to express the anger through facility takeovers and protests; thus, disruption oil exploration and production operations. The security threat to oil exploration and production underscored a key aspect of security management: relationship management. This is a critical aspect for any corporation’s chief security officer. During the planning and phases of the company’s activities, the voice of the security officer is critical in emphasizing relations management in order to mitigate threats to the projects from the community.

#### **4.5.2 Sufficiency of Security Management Measures**

Respondents were asked to indicate if security management measures that have been instituted by the county government and national government were instituted sufficient. The respondents were not guided on any specific security measure and they were to respond based on what they thought were the security measures. The findings are shown in Figure 4.10 below;



**Figure 4.10: Sufficiency of Security Management Measures**

(Source: Field data)

Majority (60%) of respondents revealed that Security Management Measures sufficient while 40% said No as presented by Figure 4.12 above. In explanation, some respondents opined that as far as protection of oil exploration companies and crude oil transportation, security measures were sufficient. However, they lamented that the general security situation in the areas, and Turkana County in general was insufficient. One opinion is as shown in Box 4.14 below;

**Box 4.14: Explanation on Sufficiency of Security Measures**

*“The government in Nairobi does not care about our [Turkana] security. We have to protect ourselves. Even in the recent past the government sent security officers to escort oil while we do not have such protection. Security officers in Turkana are few and also fear for their safety. Oil transportation vehicles get security while we remain vulnerable.”*

Source: Respondent No 71, September, 2018

The sentiments as expressed in Box 4.14 present the community’s sentiments on the irony of government’s security measures. The community of Lokichar wonders why oil has been valued more than the lives and property of people in the area. While the government is struggling to get officers to deploy in the area where insecurity is rampant, it seems to have enough officers to safeguard oil exploration and transportation.

### 4.5.3 Manifestation of Emerging Security Management Issues

Respondents were asked to confirm whether certain security management aspects had manifested as a result of oil exploration in Lokichar. These security aspects were considered to have been brought, or heightened, by oil exploration activities. The findings are as presented in Table 4.7 below:

**Table 4.7: Emerging security management issues**

<b>Emerging Security management Issue</b>	<b>Yes</b>	<b>No</b>
Human Right Abuses since oil discovery	55%	45%
Civil Society Participation in oil exploration activities	40%	60%
Adequate Natural Resource Management Policies	35%	65%
Feeling entitlement to Oil Benefits	40%	60%
Increase in crime	60%	40%

(Source: Field data)

Table 4.7 above show the respondents views on the manifestation of emerging security management issues. The findings show majority (55%, 60%) agreed that oil discovery has led to human rights abuse and insufficient civil society has participation in oil exploration, 65% of respondents indicated that resource management policies are adequate, 60% revealed that indigenous people feel that they are entitled to oil benefits. Finally, 60% of respondents indicated that oil discovery has led to increased crime in the region. In their opinion, key informants expressed that most indigenous people of Lokichar have expressed the desire to be the first beneficiaries of oil proceeds. The opinion of a respondent and key informant are captured in Box 4.15 below:

#### **Box 4.15: Views on Expected Oil Proceeds Sharing**

*“We see trucks taking oil away from here every day and yet we do not know how much we are getting from it. We want our share into our pocket so that we can use it for daily subsistence”*

Source: Respondent No 83, September 2018

*“The community is not well sensitized on the way the community allocation should be utilized and thus they have the idea that they should be given the money in cash so that they can spend it.”*

Source: Key Informant, September, 2018



In terms of the nexus of oil exploration and security, some of the key respondents noted that there have been incidents of raids against Tullow facilities leading to shutdowns and disruption of operations. Such sentiments have been echoed by scholars such as Mukutu (2014) who noted that in developing countries, mineral wealth has usually failed to benefit most people at both national and indigenous levels and instead occasioned socio-economic problems. Tension between indigenous communities and investors and/or governments over perceived lack of indigenous opportunities and negative impacts such as environmental degradation is common. However, one key informant had a contrary opinion that the security in the area had not been adversely affected: Box 4.16 captures his views;

**Box 4.16: Views on Security Situation in the Era of Oil Exploration**

*“The Overall security has not deteriorated in the area due to oil exploration; the usual insecurity incidents have just been punctuated by criminal incidents such as highway robberies and facility takeovers at Tullow sites. There is also concern over workers from outside the area who are alleged to be miscreant and contribute to instances of mugging, theft, promiscuity etc., that were hitherto less common in the area. Oil discovery is also alleged to have heightened tension between the county and its neighbours who claim their borders extend inside Turkana county to areas where oil has been discovered or where there was potential for oil discovery.”*

Source: Key Informant, September, 2018

Despite the optimistic views on security expressed in Box 4.16, it also evident that oil exploration activities have led to confrontations between the Lokichar community and oil exploration companies over outstanding grievances by the community. Another security aspect is the adversarial relationship between the Turkana and neighbouring Pokots. Oil discovery seems to have rekindled tensions over borders.

**4.5.4 Other Security Factors and Implementation of Oil exploration**

The study sought to establish the influence of security factors on implementation of oil drilling project in Turkana County by ranking them as very high, high, low and very low. The security factors investigated were cattle rustling; police presence; community clashes and personal security. The results are as below:

#### 4.5.4.1 Cattle Rustling

This study sought to establish the influence of cattle rustling on the oil projects implementation in Turkana, Kenya. The results are given in Table 4.8;

**Table 4.8: Influence of Cattle Rustling on Oil Projects Implementation**

	<b>Freq</b>	<b>Percent</b>
Very high	100	35
High	130	45
Low	43	15
Very low	14	5
Total	287	100

(Source: Field data)

Majority of the respondents (45%) considered cattle rustling as having high influence in the implementation of the oil drilling project in Turkana while 35% considered that cattle rustling had a very high influence on implementation of the oil drilling project.

#### 4.5.4.2 Police presence

This study sought to establish the influence of police presence on the oil project implementation in Turkana, Kenya. The results are given in Table 4.9;

**Table 4.9 Influence of Police Presence on Oil Projects Implementation**

	<b>Freq</b>	<b>Percent</b>
Very high	57	20
High	29	10
Low	115	40
Very low	86	30
Total	287	100

(Source: Field data)

An average of the respondents (40%) considered police presence as having low influence in the implementation of the oil drilling project in Turkana while 86% of the respondents

indicated that police presence had a very low influence low influence in the implementation of the oil drilling projects.

#### 4.5.4.3 Community clashes

This study sought to establish the influence of community clashes on the oil project implementation in Turkana, Kenya. The results are given in Table 4.9.

**Table 4.10: Community clashes**

	<b>Freq</b>	<b>Percent</b>
Very high	172	60
High	72	25
Low	29	10
Very low	14	5
Total	287	100

(Source: Field data)

Majority of the respondents (60%) considered community clashes as having very high influence in the implementation of the oil drilling project in Turkana; while 25% considered community clashes as having very high influence in the implementation of the oil drilling projects.

#### 4.5.4.4 Personal security

This study sought to establish the influence of personal security on the oil project implementation in Turkana, Kenya. The results are given in Table 4.11;

**Table 4.11: Personal security**

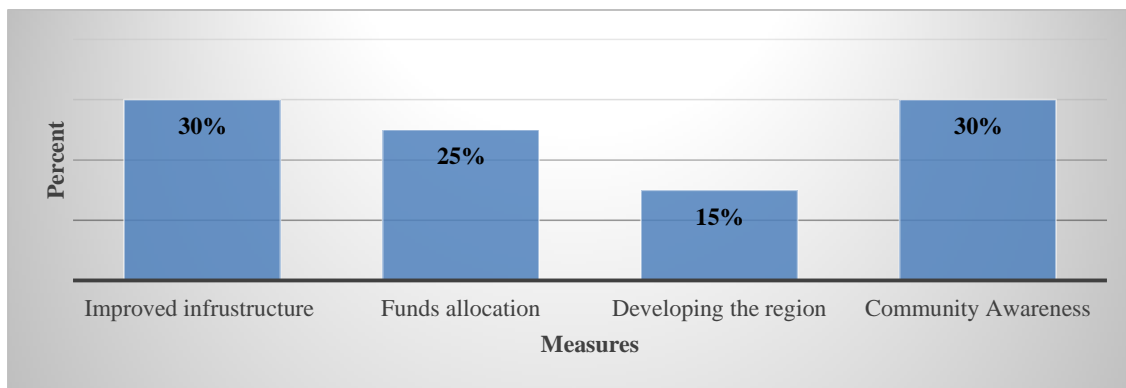
	<b>Freq</b>	<b>Percent</b>
Very high	144	50
High	60	21
Low	66	23
Very low	17	6
Total	287	100

(Source: Field data)

Majority of the respondents (50%) considered personal security as having very high influence in the implementation of the oil drilling project in Turkana; while 60% and 66% of the respondents considered personal security as having high and low influence in the implementation of the oil drilling projects respectively.

#### 4.5.5 Measure to Curb Insecurity

Respondents were asked to suggest measures to curb negative effects of oil in exploration on economic activities. The responses are as indicated in Figure 4.11 below:



**Figure 4.11: Measure to curb negative security effects of oil exploration on economic activities**

(Source: Field data)

The Figure 4.11 above presents respondents' opinion based on measures to curb negative security effects of oil exploration on economic activities. Majority (30%) indicated that community awareness and improved infrastructure plays an essential role in curbing the negative effects of oil exploration while 25% suggested funds allocations and 15% suggested development of the region. Revenue sharing, infrastructural development and community awareness has been a bone of contention between the National government and the Turkana county government and thus featuring high on possible solutions. The Community has been particularly against the oil revenue sharing formula that puts the allocation to the community at 5% and capping it at not more than 25% of the annual revenue allocation to the County government by the National Assembly (*Kenya Law Review, 2017*).

#### **4.5.6 Findings from the Focus Group Discussion on Security Implication of Oil Exploration on Social Activities**

Focus Group Discussions were conducted with community elders in Lochwaang'ikamatak, on the emerging security management issues due to oil exploration on social activities. The participants were encouraged to be as free as possible in discussing the real issues pertaining to the study. The findings were summarized in Box 4.17 below:

##### **Box 4.17: Focus Group Discussion at Lochwaang'ikamatak Area**

Area: Lochwaang'ikamatak Chief's office

Size of the group: 8 members

Age: varied between 45 years to 54 years

Highest education level: Bachelor's Degree

Lowest education level: Diploma

Gender: Male and Female

Date of discussion 18/09/2018

##### **Findings**

One administrator asserted that, "security in the area has been volatile even before oil was discovered; oil is just an added factor that has brought with it challenges". The security measures in place include deployed officers who conduct patrols. The area is expansive and thus they(officers) are overstretched. Emphasis are placed on key government installations and oil facilities". Another participant pointed that, "the community feels that we (government administration) are not providing security and thus have resorted to acquiring arms for protection". A third participant indicated that, "community participation has improved and the community is getting to understand issues surrounding oil exploration and benefit sharing. This improved relation has reduced hostility by the community toward the companies".

Sentiments expressed in Box 4.17 indicate that oil discovery brought with it some security challenges while it heightened some of the existing ones. However, security managers and apparatus are realizing the security challenges and are instituting efforts to mitigate them.

## 4.6 Discussion

This study intended to investigate the security implications of oil exploration in south Lokichar basin Turkana County. The study aimed at filling the knowledge gap from the security management perspective given the fact that most studies in the area of oil discovery in Kenya have focused on the economic prospects.

### 4.6.1 Security Implications of Oil Exploration on Social Activities

The study found out that Oil exploration had effect on social activities in Lokichar and this was indicated by 70% of the respondents as show in Fig. 4.4. Through the explanations offered by the respondents as shown in Box 4.2, the researcher came to the realization that the effects were negative affecting cultural sites, family roles setup, health, and human rights in the areas. Where the actual effect had not occurred, the respondents opined that there was a high potential of occurrence.

As stated in Box 4.4, respondents expressed concern that their traditional cultural practices were particularly in danger due to oil exploration activities. To them, certain sites where particular and significant rituals are conducted are now being allocated to oil exploration companies. Such rituals, as indicated in Fig. 4.3, include *Asapan* (passage into elderhood), cultural prayers to *Akuj* (god) during times of crisis or during calamities such as extreme droughts, *edong'a* (cultural Turkana dance characterised by song and graceful leaping); and which were now threatened since the spaces were being reallocated.

Turkana community is patriarchal with men heading the families. Modernization and income differentiation have seen this social norm steadily changing. Women have taken up leadership roles mostly in politics and they have been employed with decent income. Although it is not explicit, it is implied that they have taken up the roles of guiding the family through making important decisions due to their empowerment. However, a discussion with the community elders, as shown in Box 4.6 indicated that they are not accepting such changes and women are still required to subjugate to men. However, the practice is changing. With oil exploration activities, family roles are bound to changes in certain ways. Firstly, women are bound to get more empowered through employment and thus elevating their social standing. Secondly, divorce rates are likely to increase due to resistance by men to accept such social role changes. Thirdly, single parenthood occasioned by divorces or demises due to STIs/HIV are likely to see majority of women having to raise families singlehandedly. The same could

be occasioned through irresponsible sexual behaviours leading to unwanted pregnancies; a concern bothering the community elders since it is a threat to family security.

Politically, there have been ugly spates of public altercations between the National political leadership and the County political leadership. As indicated in Box 4.4, this was occasioned by disagreements on issues relating to oil revenue sharing. Although the political leaders have since reconciled, the researcher noted that community members were dissatisfied the terms truce. This is mainly because they view it as a betrayal by leaders who they thought were representing their plight and would fight for the community's fair share. Most of the community members revealed that such disquiet is likely to lead to recurrence of public disagreements and heightened insecurity in the region.

#### **4.6.2 Security Implications of Oil Exploration on Economic Activities**

The study found that oil exploration impacted on the economic activities in Lokichar as shown in Fig. 4.7 and Box 4.9. This was indicated by 65% of the respondents indicating that indeed oil exploration affected economic activities. The researcher noted that the respondents had a mix of expectations on the economic prospects of oil exploration. While initially they were optimistic that oil exploration would improve their economic status, that hope is diminishing over time due to developments around exploration and benefit sharing. As indicated in Box 4.10, recent developments in the oil revenue sharing formula, Lokichar community members expressed pessimism and frustration that such developments are a continuation of their marginalization.

As the FGD findings in Box 4.12, community elders lamented that the grazing lands have been allocated for oil exploration and thus reducing their grazing area. This has seen occasional trespass into oil exploration facilities leading to confrontations with the security managers of those facilities. As indicated in Box 4.9, respondents noted that there have been instances of animal sickness and deaths that the residents tend to blame on the oil exploration activities. This could likely be attributed to contamination of pasture and underground water by the chemicals used for when digging the oil wells. This brings to question the environmental impact assessments done by the oil exploration companies and whether such effects were foreseen. The developments will definitely lead to legal battles and protests to seek for compensation for the lost livestock given that it is the mainstay of the resident's livelihood.

Indicated in Fig 4.6, the study found out that in Turkana, pastoralism has for centuries been the dominant livelihood, but recent pressures have forced some pastoralists to adopt subsistence farming along river valleys and deltas. However, the discovery of oil has already brought dramatic changes to the area. Oil exploration and impending production activities by Tullow Oil have created intense external interest in the county and region, and will inevitably trigger further transformation. The findings show in Table 4.6 that oil exploration has contributed to economic insecurity, this was represented by 40% of the respondents who felt that oil exploration activities had a significant security effects on economic activities in South Lokichar.

The study, in Box 4.8, noted that the traditional economic activities had not been largely abandoned as residents continued with livestock keeping, small scale farming, and businesses, among others. Only a few of the indigenous residents had secured casual labour with the oil companies due to the fact that the jobs requiring higher skills were allocated to expatriates and people from outside Lokichar. However, as indicated in Box 4.11, Tullow PLC was making an effort to develop local capacities of the residents to enable them take-up skilled jobs in compliance the 30% local content as required by section 46 and 47 of the Mining Act of 2016. This was done through scholarships to bright students for oil engineering courses.

Oil exploration activities have added to the employment opportunities that were hitherto available. The major employers have been Turkana County is the Government of Kenya, NGOs ran by international organizations such as the UN in Kakuma refugee camps, Oxfam, and World Vision. The small number and uneven distribution of such government and NGO jobs, particularly senior positions to nonlocal educated Kenyans, are a source of discontent among the Turkana. This perception of discrimination against the Turkana people in job allocation and against their pastoral lifestyles was heightened by the dominance of outsiders in government agencies regionally. Thus, the news of the oil discovery, with consideration of the limited the other economic opportunities, the Turkana communities were raised (Imana & Mbaili, 2016).

As Le Billion and El Khatib (2017) note, oil in Turkana could break the county's cycle of insecurity and hunger if the proceeds are shared fairly with the local Turkana to address their local needs. However, such hopes and aspirations are dependent on the proper management of the resources in a way it can realistically meet the expectations. Importantly, management



of the expectations of the indigenous people is critical in calibrating some unrealistic expectations to the realities on the ground. This is in consideration of the fact that the oil exploration, extraction and production is a process that will take quite some time and therefore the returns will not be immediate.

The findings also show, in Table 4.6, that more than 45% of respondents revealed that security implication at a very great extent affect employment opportunities and infrastructure development. This finding is similar to the conclusion made by Imana and Mmbaili (2016) who stated that oil exploration has significantly affected the economic development. Furthermore, Johannes, Zulu, and Kalipeni (2015) revealed that there are crucial issues including impacts on local economic activities and regional socioeconomic development, and the concern on whether oil exploitation would foster peaceful development or intensify conflict at local, regional, and or international levels.

The study also revealed that 38% found that oil exploration has an impact on economic development. Mkutu and Wandera (2016) stated that on expectations and fears regarding the discovery of oil in their region, major emerging themes included positive development aspects such as jobs creation, and more importantly, the increased potential for conflict and chaos. Some respondents cited the potential modernization of Turkana through modern jobs and infrastructure generated by the oil industry.

There is no question that the oil industry offers a rare opportunity to reduce unemployment, poverty and boost infrastructural development in the region and Turkana County at Large. However, overpromising and under-delivering is a major risk that could lead to more disaffection with the oil industry among community members. This anger could be channelled towards the company posing a threat to its operations and security of its facilities.

#### **4.6.3 Emerging Security Management Issues due to Oil Exploration**

The study found that there are emerging security issues that have been spurred by oil exploration while others have just been exacerbated by the discovery of oil. Manyindo *et al.*, (2015), revealed that community participation is important in ensuring that there is transparency and accountability in the community. While community participation is a crucial ingredient in public administration, resource management and policy formulation, the discovery of oil in Turkana County, and its subsequent management, has highlighted the need

to emphasise community participation. This is critical in managing community expectations so that confrontations that could pose security threat to oil exploration are minimized.

As Imana and Mmbaili (2016) noted, without sufficient information communities tend to resist projects that they perceive to have negative effects on them. Such resistance has been manifested in Lokichar area in the form of protests, oil facilities takeover and destruction, blockade of oil transportation routes etc. Such issues can be avoided through community inclusion in the processes by acceptable representation. As indicated in Fig. 4.9 the study found that 55% agree that community participation is sufficient. This is due to the reinvigorated efforts by the National government to engage the community at the political leadership of Turkana County following the standoff the greeted the EOPS in mid-2018.

In Table 4.7, the study found out that more than 50% of respondent indicated that oil discovery has led to oil abuse and society has participated in oil exploration; resource management policies were noted to be inadequate as indicated by 65% of the respondents; and 60% of the respondents revealed that indigenous people feel that they are entitled to oil benefits. All these findings concur with the observation by Mukutu (2014), that indigenous pastoralist communities have already experienced other negative livelihoods impacts, particularly the loss of grazing lands and death of livestock. Oil fields have fenced off 300 sq. km of land that the Turkana previously used for grazing and watering livestock. The Turkana are concerned because the perimeter fence separates them from these important natural resources. Furthermore, the community is not aware of resource management policies and thus could not determine their adequacy. This is indicative of lack of public information on the oil exploration processes.

The study found out that 60% of respondents revealed that Security Management Measures sufficient as shown in Fig. 4.10. This has played an imperative role in transparency and satisfaction through wide and representative consultation. This finding goes hand in hand with conclusion made by World Bank (2009) good resource governance throughout the value chain is essential for proper utilization of resources and realisation of benefits. Security management measures helps in implementation of security in the processes of oil exploration, extraction and production. It also helps to ensure security of the facilities through enhance relations with the host community and thus making the threat from the community less imminent. World Bank's conceptualization of the extractive industry value chain as a template for transparency and information disclosure is critical in resource management.

With enhanced transparency in the entire process of oil extraction and production, maximum benefits from the resource will be realised and the negative security effects will be reduced to As Low as Reasonably Practical (ALARP).

As indicated in Boxes 4.16 and 4.17, the study noted that the security situation in the area had grown more precarious since oil discovery. While oil could not be particularly cited as a cause of insecurity, the residents noted that it added to the contributory factors. Of concern was the issue of workers from outside the area who were alleged to be miscreant and contributed to instances of mugging, theft, promiscuity etc. that were hitherto less common in the area. Oil discovery was also linked to increased tension between the county and its neighbours who were seen to lay claim to border areas inside Turkana County where oil has been discovered or where there was potential for oil discovery. Thus, oil discovery exacerbates the existing security situation in the area that has largely been characterised by cattle rustling, proliferation of small arms, highway robberies and occasional revenge raids.

Taking cognisance of the fact that Turkana County has been plagued by insecurity even before the discovery of oil, the study sought establish how other existing security factors influenced oil drilling projects in Lokichar. As indicated in Tables 4.8, 4.9, 4.10 and 4.11, community clashes (60%) were considered as the most influential factor in implementation of oil drilling projects. followed by, personal security (50%), cattle rustling and finally police presence (20%) respectively. Marginalization of Turkana and other Northern parts of Kenya has seen rise in armed locals who have been engaging in banditry and other crimes. Cattle rustling, at 35%, was the second most influential security factor cited by the respondents and is what contributes to the community clashes which was cited as the most influential security factor to affect the implementation of oil drilling project.

Combined with the existing security factors, oil exploration came with additional factors such as conflict of land, contracts, employment opportunities, revenue sharing among others. These factors affect the relationships between the community and the oil exploration companies. Unmet community expectations give rise to resentment and hostilities towards the oil companies. This in turn affects the security of their operations, facilities and staff. Similarly, the existing security factors such as cattle rustling, thin police presence, and community clashes continue to dominate the environment in which oil exploration companies have to operate. This further complicates their operation security and, in a way, ratchets up operations costs thus eating into national resources.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

The chapter presented the summary of key findings, the conclusion drawn from the highlighted findings and recommendations made thereto. The conclusions and recommendations were drawn in addressing the research question or achieving the research objectives.

#### 5.2 Summary of Findings

The study finding revealed that 58% of sampled population were male while 42% were female. The researcher also found out that 45 % were aged between 18 and 27 years. The researcher revealed that most participants 60% had primary level while 5% had university level. The study also found out that most (30%) of community members considered cultural initiation, as a main social activity while others considered; traditional worship (25%), traditional dance (20%) as the main social activities. The findings show that 70% of participants indicated that oil exploration has an impact on social activities. The number of youths who have engaged in alcohol and drug abuse due to oil exploration in the region had increased. The researcher found out that 40% of respondents strongly agreed that oil exploration has an impact on social security. Moreover 5% strongly disagreed that oil exploration has an impact on social security. The findings show that majority (44%) of respondents reported that the security implication is significant. Also, majority (50%, 35% and 42%) indicated that oil exploration has a high extent affects the Cultural sites and practices, family roles setup and environmental pollution and health risks respectively. The researcher revealed that (42%) of respondents indicate that pastoralism is the main economic activity. Most (65%) of total population sampled indicated that oil exploration has an effect on economic activity, (35%) of respondents indicated that oil exploration has medium impact on security of economic activities.

Furthermore, (38%) of respondents revealed that security implication has a neutral impact on economic activity, 40% of respondents indicated that the security implication affects grazing land. The researcher indicated that (55%) indicated that there is sufficient community participation. In addition, (60%) of respondents revealed that Security Management Measures sufficient, majority (55% & 60%) have agreed that oil discovery has led to oil abuse and civil

society less participation in oil exploration respectively. More than (60%) of participants indicated that oil exploration has an impact on security of economic activities. Also, a majority (30%) indicated that community awareness and improved infrastructure plays an essential role in curbing insecurity.

When asked about the influence of security factors on the implementation of oil drilling project in Turkana, Kenya, community clashes, was ranked as the most influential at 60%, personal security at 50%, cattle rustling at 35% and police presence at 35 %. These are ratings of the factors as considered as having a very high influence on implementation of oil drilling projects in Turkana County.

Finally, in order to mitigate security threats to socio-economic activities due to oil exploration, respondents considered the following measures are appropriate; improved infrastructure (30%), fair oil revenue sharing (25%), general development of the region (15%) and enhanced community awareness on matters of oil exploration (30%).

## **5.3 Conclusions**

### **5.3.1 Theoretical Conclusions**

The study was guided by two theories; Richard Auty's Resource Curse Theory and David Schlosberg's Environmental Justice Theory. Resource curse theory focuses on the counterintuitive phenomenon experienced in certain resource rich economies whereby the resource abundance does not lead to economic prosperity but instead causes conflicts, insecurity, and socio-economic hardships. This experience has largely been attributed to poor resource management policies and corruption. Other resource economies such as the Netherlands, USA, Saudi Arabia, Botswana etc., have not experienced resource curse mainly due to good resource management policies that are wholesome in approach and does not only centre around extractive mineral industries at the detriment of other economic sectors. Thus, the Dutch disease, which is a major aspect in resource, was reversed after being experienced in the Netherlands. Good and inclusive resource management policies and management of community expectations are thus critical in avoiding the Resource Curse phenomenon in Turkana County, and in Kenya.

On the other hand, Environmental Justice theory focuses on the need to have equitable distribution of the environmental benefits (goods) and reduction of the environmental harms

(bads). It also goes further to emphasise the need to maintain the environmental capability to maintain itself (between living and non-living organisms) since disruption of this capability leads to a chain of events that eventually affects humans and their security. Environmental benefits include mineral discoveries with the resultant benefits and the harms include the environmental pollution and degradations that disrupt the environment's capability to function. Such is manageable through proper resource management policies and practices such as EIAs.

The study confirmed instances of manifestations of effects of resource curse albeit in minimal extent. They include weak resource management policies, poor community participations, poor relations between oil companies and residents among others. The benefit sharing is contentious and likely to recur in future grievances. Environmental pollution and degradation are rife and already reported livestock deaths have occurred as a result. If such manifestations are not addressed early, or in a proactive manner, they will grow out of proportion and out of control.

While the grievances and issue in contest might seem to be small and negligible in effect, they will simmer and explode into a security crisis that might get out of control. It is a prudent strategy to be proactive, anticipation of all possible scenarios and remedies for any venture is critical for successful operations. A flexible plan of action that is drawn by all the stakeholders, reflecting their needs is important in a venture such as oil exploration. Whereas there might be minimal interest when minerals are not found, whenever they are found that is when the hitherto disinterested parties stake their claims. Thus, as Auty (1993) observed, it is mainly poor or non-existent resource management and economic policies, bad practices such as corruption that are the culprits in precipitating the Resource Curse phenomenon. Therefore, since the Mineral resource management laws and regulations in Kenya are fragmented, and some at formative stages, it is prudent to have a comprehensive body of oil production law that encompasses the needs of the host communities. Combining this with an invigorated war on graft and zero tolerance on the vice, Kenya is going to benefit from the oil production in a sustainable way to the satisfaction of the stakeholders and ensuring that the environment is protected.

### **5.3.2 Empirical Conclusions**

Based on the findings, the study concluded that oil exploration has contributed to both positive and negative security effects on socio-economic activities in south Lokichar Basin Turkana County. The oil exploration has led to adversarial relations between the companies and community over unmet socio-economic expectations that threatening the security of the community, operations of the exploration companies, security of oil drilling sites and the security of the oil companies' staff.

The study concluded that oil exploration has affected security of economic activities. Oil exploration has an impact on the economic activities, in most areas where oil has been explored has significantly reduced the poverty level. The study also concludes that oil exploration great extent affect employment opportunities and infrastructure development. Most of the better paying jobs that require advanced skill sets have been allocated to expatriates and individuals from outside the oil producing region of South Lokichar basin Turkana County.

The study concluded that oil exploration has affected grazing land which has been appropriated to the oil exploration companies. With the arid climatic conditions in the area, this has further limited access to the already scarce pasture in the area. Further allocation of land for exploration and the resultant degradation will further exacerbate the already dire shortage of pasture and water for the predominantly pastoralist community. This is a potential issue of confrontation between the community and the oil companies thus a real threat to the security of the region.

The study also, concluded that the existing security measures are not sufficient and thus they need to be reviewed. Outstanding insecurity in the area has not been resolved and the issue oil of oil only adds to it. This has recently been manifested by the protests by residents of Lokichar demanding, as one of the grievances, that the national government address insecurity in the area before the EOPS can commence. It is thus incumbent upon both the National and County governments to reviews measures to curb insecurity in the region. Community participation in oil resource management and improved infrastructure play an essential role in curbing insecurity. It is important for the community enhance community knowledge on security in the region.

The study concluded that the oil resource management policies in place are not sufficient. Where the policies have been formulated in form of laws and guidelines, they are well known to the community members where oil has been found. While dependence has mostly been on the Mining Act of 2016 (Kenya Law Review, 2016), this is seen to be too general and does not consider the peculiarities of particular minerals and the communities where the resources have been found. For instance, where it will be less problematic to allocate land for exploration from a community with advanced development and which does not practice pastoralism, this will be a bit problematic in a community in Turkana where development is lagging behind, the community is nomadic pastoralists and the climatic conditions are unforgiving. Thus, the Petroleum bill of 2017 (Kenya Law Review, 2017) was a good initiative but it has stalled due to contentious articles on oil revenue sharing. While various laws govern various aspects of oil exploration in Kenya, these are fragmented and contradictory. Thus, it is high time that such laws are consolidated into a master statute book governing all the aspects of oil exploration in Kenya.

The study concluded that the Civil Society is not participating sufficiently in the oil exploration activities. This leaves a gap in the advocacy for human rights and holding to account relevant authorities. Research in the Niger delta has revealed that human rights are particularly endangered in the form of labour exploitation and when communities rise against oil companies for environmental pollution and exploitative practices. Thus, Civil Society Organisation is critical in ensuring in such instances human rights are respected.

The study concluded that majority of the indigenous residents of Lokichar do not feel primarily entitled to benefit of oil exploration. They take cognisance of the fact that oil is a National resource and is meant for the development of the nation as a whole and not specifically the area where it is found. However, there is still concern among the residents that the expected developments in infrastructure and social amenities are not being done fast. Some development in the area in terms of improved roads, better school structures, hospitals, water dams etc. will appease the discontent. Managing the expectations of the resident is also important in calibrating those expectations to what is realistic.

The study also concluded that oil exploration adds to the factors of insecurity in Lokichar. While there have been existing insecurity factors such as proliferation of small arms, conflict over scarcity of pasture and water, cattle rustling, border disputes with neighbouring counties, among others, oil has brought its own security challenges. Some insecurity issues relating to



oil exploration include the influx of people from outside Lokichar bringing with them practices such as robbery, prostitution, drug abuse among others. Given that areas where oil has been found lie closer to county border areas, this has led to renewed claims by the neighbours about the extent of their lands before the partition by colonialists; and the agitations to reposes such lands. Community clashes, cattle rustling and concern over personal security also had high influence on security of implementation of oil drilling projects in Turkana.

Finally, the study concluded that with all the security challenges facing oil exploration activities and the community, the stakeholders are not doing enough to solve them. Much of the problem, which have led to adversarial relations, stem from the high expectations of the community. The governments at national and county levels have not done enough to engage the community, in a transparent way, and manage their expectations to realistic levels. Tullow PLC on the other hand has not lived up to the community's expectations in terms of CSR engagements. All these unfortunate omissions by the company, and the government, has created have led to animosity by the community resulting in threats to oil drilling operations and facilities.

## **5.4 Recommendations**

Based on the findings and conclusions the study recommends the following in line with the specific objectives;

### **5.4.1 Security Implications of Oil Exploration on Social Activities**

- i. The national and the county government should take deliberate effort to identify important cultural sites that the Turkana the community use in carrying out their traditional rituals and cultural practices. These should then be mapped and protected under the National Museums and Heritage Act of 2009 (Kenya Law Review, 2009). Despite any mineral potential of such areas, they should under no circumstances be appropriated for exploration activities. This will serve to avoid offending the indigenous communities by disrupting their valued cultural practices; an act that can be interpreted as disrespect to the community.

- ii. The Civil society organizations need to take a proactive role in highlighting instances of human rights abuses by the oil exploration companies, or government agencies. They should take a lead role in advocating for justice and respect for human rights in line with established laws and international standards. The CSOs also need to educate the public about their rights so that they are aware whenever exploitation or abuse of those rights occur in the course of oil exploration. This is important in the endeavour to hold oil companies and government machinery to account and ensure that human rights are upheld.

#### **5.4.2 Security Implications of Oil Exploration on Economic Activities**

- i. The national government and all relevant stakeholders should establish programs that recognize that poverty eradication and successful rural development depending on the involvement of local communities. There should be a strong focus on strengthening grassroots organizations and on making resources available for community development activities. The program for addressing rural poverty must identify and target the most vulnerable, empowering them to participate effectively in development activities.
- ii. To avoid the misfortunes that other countries have faced due to overdependence on oil discovery this study recommends the need to use oil discovery and water discovery in Turkana County to invest heavily in diversification particularly in agriculture and the business sector. This is pivotal since overdependence on oil has both short -term and long-term effects on the community. The government should also involve the local community in the process of oil generation because thus creating and sustaining better understanding among stakeholders in the oil industry and making conflict resolution less cumbersome.
- iii. The national government should explore alternative sources of energy more so renewable energy such as wind energy in *Loiyangalani* (Lake Turkana Wind Power Project) and solar energy (Garissa Solar Power project). The renewable energy types will require less land area, do not pollute the environment and is sustainable. As the world moves towards minimizing carbon emissions and

embracing green energy, the government should reduce her appetite for petroleum energy especially in the transport sectors and industries.

### **5.4.3 Emerging Security Management Issues**

- i. The government and other stakeholders should come up with measure such as community participation to curb insecurity in the region. Community awareness and improved infrastructure will help in curbing insecurity. Considering the finding of this study the government of Kenya should also endeavour to develop Turkana County as a way to curb insecurity. Otherwise, without development it will be impractical to institute security measures. Development in this case will involve, building good infrastructure, increasing social infrastructure, up lifting citizens' standards of living and promoting other industries to grow for Turkana County to be strong and stable.
- ii. Besides development and community participation in the management of oil exploration, the government should enhance security measures in place. The longstanding issues of insecurity in Turkana and its neighbours must be resolved so that it does not affect the oil exploration ventures or form part of the grievances against oil exploration. In this endeavour, the county government of Turkana must take the lead role in leading the community to shun security threatening practices such as cattle rustling.
- iii. Alternative economic ventures have to sought and explored to augment pastoralism and thus reduce the need to measure wealth in terms of livestock. The community also needs to be educated on alternative was to settle bride price and to review the exorbitant number of animals required for such. This will make marriage affordable and lessen the pressure to steal animals as a way to pay dowry.
- iv. The government should undertake a comprehensive environmental survey of the Turkana County, establish the causes of ecological and socio-economic change over time, and induce corrective action by encouraging relevant stakeholders to address specific environmental and related socio-economic problems identified in the course of the survey.

- v. The study recommends that the government of Kenya address issues related to land, environment degradation, employment and tendering issues, resettlement and disruption of indigenous residents which would contribute to insecurity is not well handled. It is also vital that extant laws relating to mineral exploration and production be strictly adhered to and enforced. Petroleum specific laws should be enacted to address concerns peculiar to the young oil industry in Kenya. Indeed, adhering to international best practices in oil production holds the key to a healthy environment. Alternative dispute resolution mechanisms should be encouraged to solve oil related disputes. If not, Turkana County faces security risks, erosion of relationship between people and government and risks on other natural resources like water resources, land management, and biological resources.
- vi. The Kenyan Government needs to adopt and utilize the Extractive Industries Transparency Initiative (EITI). This is a global standard that promotes open and accountable management of natural resources. It seeks to strengthen government and company systems, inform public debate, and enhance trust among stakeholders. The EITI promotes access to information, transparency and accountability in the extractive sector through disclosure and publication of payments made by mining, oil, gas and other extractive companies. In this way the indigenous communities in Kenya can participate in the governance of oil and gas industry.

### **5.5 Areas for Further Research**

The current study focused on security implications of oil exploration on socio-economic activities in south Lokichar basin, Turkana County, Kenya. In the process, the study raised several questions that require to be investigated scientifically. Therefore, the following are areas for further research:

- i. Assessment of the role of County government in managing oil related security issues in south Lokichar basin, Turkana County.
- ii. Analysis of the effects of Oil exploration in cross border security situation between Kenya and South Sudan.
- iii. Study on the impact of oil exploration gender participation in security management.
- iv. Examination of Civil Society involvement in checking abuses during oil exploration activities.

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## APPENDICES

### APPENDIX I: PARTICIPANT'S CONSENT FORM

#### PART I: Introduction

My name **Cosmas Ekwom Kamais**; a Post-Graduate student at Egerton University, Njoro; undertaking **Master of Arts Degree in Security Management**. I am here to collect data on **security implications of oil exploration on socio-economic activities in south Lokichar Basin**, Turkana County, Kenya. This is in partial fulfilment of the requirements for the award of the Degree of Master of Arts in Security Management of Egerton University.

This study shall be vital in understanding some of the key security effects of oil exploration activities within Kenya especially within Turkana County. With your consent, we will interview you on issues which will include how security issues due to oil exploration has impacted on socio-economic aspect.

The data and information collected from you will be held strictly confidential and will not be used for any other purpose outside the objectives of this study. Participation is voluntary and there are no risks at all. If at any time you wish to withdraw from participating in this study, you can do so. Feel free to ask any questions which are not clear to you regarding this study any time.

Signature.....Date.....

## APPENDIX II: INTERVIEW SCHEDULE

### SECTION A: DEMOGRAPHIC DATA

1. Gender

Male

Female

2. Age (years)

18 – 27

28 – 37

38 – 47

48 – 57

58 – 67

67 and above

3. What is your Highest Level of Education?

University Level

College

Secondary

Primary

### SECTION B: Security implications of oil exploration in social activities

1. a) What do to consider to be the main social activity in Lokicha? (Tick one)

Traditional Worship

Traditional Dances

Traditional initiation

Traditional wedding

Traditional board games



Insignificant ( )

Very insignificant ( )

4. On a scale of 1-5, where 1= Very High Extent, 2= High Extent, 3 = Medium Extent, 4= Low Extent and 5=Very Low Extent; how does oil exploration affect security of the following aspects of social activities among Lokichar residents. (Tick one box in every category corresponding with your rating)

	<b>Very High Extent</b>	<b>High Extent</b>	<b>Medium Extent</b>	<b>Low Extent</b>	<b>Very Low Extent</b>
<b>Category</b>	1	2	3	4	5
Cultural sites and practices					
Family roles setup					
Environmental pollution and health risks					
Politics					
Human Rights					

**SECTION C: Security implications of oil exploration on economic activities**

- 1.What are the main economic activities of the residents within Lokichar region?

.....  
.....  
.....

- 2.Does oil exploration affect economic activities among Lokichar residents?(Tick one)

YES [ ]                      NO [ ]

Explain

.....  
.....  
.....

3.To what extent does oil exploration affect security of economic activities in Lokichar?

(Tick one)

- Very High Extent
- High Extent
- Medium Extent
- Low Extent
- Very Low Extent

Explain.....  
.....  
.....

4.On a scale of 1-5, where 1=Very significant, 2=Significant, 3 =Neither significant nor insignificant, 4= Insignificant and 5=Very insignificant; How would you rate the general significance of security implications of oil exploration on economic activities among Lokichar community? (Tick one)

- Very significant ( )
- Significant ( )
- Neither significant nor insignificant ( )
- Insignificant ( )
- Very insignificant ( )

Explain your answer

.....



- .....
- .....
5. On a scale of 1-5, where 1= Very High Extent, 2= High Extent, 3 = Medium Extent, 4= Low Extent and 5=Very Low Extent; how do you rate the security implications of oil exploration on the following economic factors among Lokichar Community? (Tick one box in every category corresponding with your rating)

	<b>Very High Extent</b>	<b>High Extent</b>	<b>Medium Extent</b>	<b>Low Extent</b>	<b>Very Low Extent</b>
<b>Category</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Grazing Lands					
Traditional economic activities					
Employment Opportunities					
Infrastructure development					

**SECTION D: EMERGING SECURITY MANAGEMENT ISSUES DUE TO OIL EXPLORATION**

1. In your opinion, has there been sufficient community participation in oil exploration and natural resources management activities?

YES [ ]                      NO [ ]

Explain

.....

.....

.....

2. In your opinion, are the security management measures in place sufficient?

YES [ ]                      NO [ ]

Explain

.....  
.....  
.....

3. Have the following security management issues manifested since exploration started?

Human rights Abuses	Yes ( )	No( )
Civil societies participation	Yes ( )	No( )
Adequate National resource management policies	Yes ( )	No( )
Feeling of entitlement by community	Yes ( )	No( )
Increase in crime	Yes ( )	No( )

4. In your opinion how do these other security factors influence implementation of oil exploration projects in Lokichar, Turkana county?

a. Cattle rustling, (Tick one)

- Very high ( )
- High ( )
- Low ( )
- Very Low ( )
- Very insignificant ( )

b. Police presence. (Tick one)

- Very high ( )
- High ( )
- Low ( )
- Very Low ( )
- Very insignificant ( )

c. Community clashes. (Tick one)

- Very high ( )

- High ( )
- Low ( )
- Very Low ( )
- Very insignificant ( )

d. Personnel security. (Tick one)

- Very high ( )
- High ( )
- Low ( )
- Very Low ( )
- Very insignificant ( )

5. What measures can be instituted to curb negative security effects of oil exploration?

- a) .....
- b) .....
- c) .....
- d) .....

***Thank you very much***

## **APPENDIX III: KEY INFORMANTS INTERVIEW SCHEDULE**

### **Security Implications of Oil Exploration on Social activities in South Lokichar Basin, Turkana County**

1. What is your opinion on the implications of oil on social activities in south Lokichar Basin, Turkana county?
2. Has oil exploration affected cultural sites where traditional rituals are carried out? If yes, which particular cultural practices have been affected?
3. Kindly give your opinion on the effects of oil exploration on human and animal health/
4. What gender roles changes have been experienced since oil discovery?
5. How has oil exploration affected the politics of Lokichar Basin, Turkana county?

### **Security Implications of Oil Exploration on Economic activities in South Lokichar Basin, Turkana County**

1. According to you, has oil exploration activities led to neglect of traditional economic activities?
2. What is your opinion regarding who should be given priority for the benefits of oil exploration and production? Explain.
3. How has oil exploration affected grazing areas?
4. Have the indigenous people benefited with employment opportunities in oil exploration? Explain
5. Are the oil exploration companies exploiting indigenous workers? Explain
6. In your opinion, are there infrastructural development in Lokichar following oil discovery?

### **Emerging Security Management issues due to Oil Exploration activities in south Lokichar Basin, Turkana County**

1. What are your opinions on community participation in oil exploration activities in Lokichar?
2. Are civil rights organisations involved in monitoring human rights abuses? Explain
3. What is your take on sufficiency of security measures in Lokichar?
4. What are your views on existing resource management policies in the wake of oil discovery?
5. What are the feelings of the community on oil benefit sharing?
6. How is the security of Lokichar since oil discovery?

**Thank you so much for your time!**

#### APPENDIX IV: STATISTICAL ANALYSIS MATRIX

Research questions	Independent Variables	Dependent Variables	Quantitative	Qualitative
What are the security Management implications due to oil exploration on social activities in South Lokichar Basin, Turkana County, Kenya?	Security implications on Social activities	Social activities <ul style="list-style-type: none"> <li>- Cultural sites and practices</li> <li>- Family roles setup</li> <li>- Politics</li> <li>- Environmental pollution</li> <li>- Human rights abuse</li> </ul>	Percentages, Frequency tables, Charts,	-Thematic analysis of narratives -Excerpts
What are the security management implications due to oil exploration on Economic activities in South Lokichar Basin, Turkana County, Kenya?	Security implications on economic activities	Economic activities <ul style="list-style-type: none"> <li>- Grazing lands</li> <li>- Traditional economic activities</li> <li>- Employment opportunities</li> <li>- Infrastructure development</li> </ul>	Percentages, Frequency tables, Charts,	-Thematic analysis of narratives -Excerpts
What are emerging security management issues in South Lokichar Basin, Turkana County, Kenya?	Emerging Security management issues: <ul style="list-style-type: none"> <li>-Community participation</li> <li>-Security management strategies</li> <li>-Role of civil societies</li> <li>-Natural resource management policies</li> <li>-Indigenous entitlement</li> <li>-Adequacy of security</li> <li>-Oil as a factor of insecurity</li> </ul>	Socio-economic activities	Percentages, Frequency tables, Charts,	-Thematic analysis of narratives -Excerpts

**APPENDIX V: NACOSTI RESEARCH PERMIT**

**THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013**

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

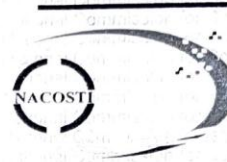
**CONDITIONS**

1. The License is valid for the proposed research, location and specified period.
2. The License and any rights thereunder are non-transferable.
3. The Licensee shall inform the County Governor before commencement of the research.
4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.
5. The License does not give authority to transfer research materials.
6. NACOSTI may monitor and evaluate the licensed research project.
7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.
8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.

National Commission for Science, Technology and innovation  
 P.O. Box 30623 - 00100, Nairobi, Kenya  
 TEL: 020 400 7000, 0713 788787, 0735 404245  
 Email: dg@nacosti.go.ke, registry@nacosti.go.ke  
 Website: www.nacosti.go.ke



REPUBLIC OF KENYA



National Commission for Science, Technology and Innovation

**RESEARCH LICENSE**

Serial No.A 22521

**CONDITIONS: see back page**

**THIS IS TO CERTIFY THAT: MR. COSMAS EKWOM KAMAIS OF EGERTON UNIVERSITY, 30503-100 Nairobi, has been permitted to conduct research in Turkana County**

**on the topic: SECURITY IMPLICATIONS OF OIL EXPLORATION ON SOCIO-ECONOMIC ACTIVITIES IN SOUTH LOKICHAR BASIN, TURKANA COUNTY, KENYA**

**for the period ending: 19th December, 2019**

**Applicant's Signature**

**Permit No. : NACOSTI/P/18/91059/24517**  
**Date Of Issue : 19th December, 2018**  
**Fee Received :Ksh 1000**



**Director General**  
**National Commission for Science, Technology & Innovation**

## APPENDIX VI: NACOSTI RESEARCH AUTHORIZATION LETTER



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone +254-20-2213471,  
2241349,3310571,2219420  
Fax +254-20-318245,318249  
Email dg@nacosti.go.ke  
Website www.nacosti.go.ke  
When replying please quote

NACOSTI, Upper Kabete  
Off Waiyaki Way  
P O Box 30623-00100  
NAIROBI-KENYA

Ref No **NACOSTI/P/18/91059/24517**

Date **19<sup>th</sup> December, 2018**

Cosmas Ekwom Kamais  
Egerton University  
P.O. Box 536-20115  
**NJORO.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Security implications of oil exploration on socio-economic activities in South Lokichar Basin, Turkana County, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Turkana County** for the period ending **19<sup>th</sup> December, 2019.**

You are advised to report to **the County Commissioner and the County Director of Education, Turkana County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**GODFREY P. KALERWA MSc., MBA, MKIM  
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Turkana County.

The County Director of Education  
Turkana County.

*National Commission for Science, Technology and Innovation is ISO9001:2008 Certified*

## APPENDIX VII: EGERTON UNIVERSITY AUTHORITY LETTER

EGERTON

Tel: Plot: 254-51-2217620  
254-51-2217877  
254-51-2217631  
Dir. line/Fax: 254-51-2217847  
Cell Phone  
Extension: 3606



UNIVERSITY

P.O. Box 536 - 20115  
Egerton, Njoro, Kenya  
Email: bpgs@egerton.ac.ke  
www.egerton.ac.ke

OFFICE OF THE DIRECTOR, GRADUATE SCHOOL

AME21/14512/15  
Ref:.....

29<sup>th</sup> October, 2018  
Date:.....

Mr. Cosmas Ekwom Kamais  
Dept. of PSSS  
Egerton University,  
P. O. Box 536,  
EGERTON.

Dear Mr. Kamais,

RE: CORRECTED PROPOSAL

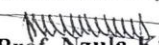
This is to acknowledge receipt of two copies of your corrected proposal entitled "Security Implications of Oil Exploration on Socio-Economic Activities in South Lokichar Basin, Turkana County, Kenya."

You are now at liberty to commence your fieldwork. However note the following: -

1. You must register each semester.
2. Pay your fees every semester.
3. Submit progress reports every four (4) months (Masters) or six (6) months (PhDs). Without this, your thesis/project will not be accepted. Forms are available at the Board.
4. You are expected to publish one (1) paper (Masters) or two (2) papers (PhD) in peer-reviewed journal and present them before issuance of "Intent to Submit Thesis/Project" form by the Board.

Thank you.

Yours sincerely

  
Prof. Nzula Kitale

DIRECTOR, BOARD OF POSTGRADUATE STUDIES

c.c. Dean, FASS  
COD, PSSS  
Supervisors

NK/ear

