



University of Nairobi

M.A IN ARMED CONFLICT AND PEACE STUDIES

**TURKANA-DASSANECH RELATIONS: ECONOMIC DIVERSIFICATION
AND INTER-COMMUNAL CONFLICTS, 1984-2015**

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DECLARATION

I DECLARE THAT THIS IS MY ORIGINAL WORK AND TO THE BEST OF MY KNOWLEDGE, HAS NOT BEEN PRESENTED FOR A SIMILAR OR OTHER AWARD TO ANY UNIVERSITY.

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..... DATE.....

DR. HERBERT MISIGOAMATSIMBI

DEDICATION

To Mum Emily Nyarotso and *Mzee* Jackson Mahero Aura whose sacrifices and determination ensured that I had an education in spite of the profound hurdles; and, to Beatrice Chelangat Aura - my other half - who has been positive enough to believe that I could fly on a broken wing.

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ABSTRACT

This study is on Turkana-Dassanech Relations: Economic Diversification and Frequency of Inter-communal Conflict, 1984-2015. The focus is on induced economic diversification and its influence on frequency of inter-communal conflicts between the Turkana and Dassanech communities of north-west Kenya. The study sought to assess four hypotheses, namely; that the Turkana and Dassanech communities have historically been in conflict: there has been a gradual decline in pastoral activities in the study area; that there has been diversification of livelihoods as a response to the continual decline of pastoral yields to below subsistence levels; and fourthly, that the adoption of the 'new' economies has increased the frequency of conflict in the study area.

The study used Eco-scarcity theory in analysing the nexus between supply-induced resource scarcity, economic diversification and frequency of communal conflicts. Thirty five respondents were interviewed in Lodwar, Kalokol and Illeret regions. Focused group discussions were also held in these areas. Documentations from Kenya National Archives and Reports by agencies working in the area played a key role in reconstructing the history of the relations between the Turkana and the Dassanech.

The research brought about a number of findings. It revealed that Turkana and Dassanech communities have a long history of conflict that could be traced back to early 20th century. The main cause of the early conflict was the nomadic nature of their pastoral livelihoods which necessitated reliance on climate-sensitive resources like water and pasture, and mobility as a mean for maximising resource exploitation in a region characterised by uneven resource distribution. Scarcities brought about by changes in ecology could, therefore, result in conflict as the communities raided each other to replace stock lost to droughts and diseases.

From 1984, however, a combination of factors, including, recurrent droughts, constant cattle rustling, sedentarisation and loss of traditional grazing lands and drought reserves to national projects compelled several pastoralist households to abandon pastoralism or augment it with other livelihoods including agriculture, fishing and trade.

The adoption of these livelihoods as adaptive strategies created new areas of competition in the Turkana-Dassanech economic set up. In an area already characterised by dwindling water levels, constant droughts and vicious cycle of cattle raids, the adoption of these activities exacerbated the scarcities as demand for biological assets like arable farmlands and marine resources surpassed the available supply. This compounded by the steady recession of Lake Turkana due to the damming of river Omo have induced new scarcities, and increased competition resulting in a vicious cycle of conflict and violence. The conflicts have rendered the two communities vulnerable and in constant need of humanitarian assistance especially for women and children.

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LIST OF ABBREVIATIONS

ASAL	Arid and Semi-Arid Lands
CEWARM	Conflict Early Warning and Response Mechanism
DFID	Department for International Development
FBO	Faith Based Organisations
FMD	Foot and Mouth Diseases
HEA	Household Economic Approach
HSNP	Hunger Safety Net Program
IDTG	Intermediate Development Technology Group
IRC	International Rescue Committee
KAR	King's African Rifles
KPHC	Kenya Population and Housing Census
KPR	Kenya Police Reservists
LDC	Less Developed Countries
LPDP	Lokitaung Pastorals Development Project
NCCK	National Council of Churches of Kenya
RVF	Rift Valley Fever
SALW	Small Arms and Light Weapons
SPI	Standardised Precipitation Index
TBI	Turkana Basin Institute
TUPADO	Turkana Pastoralist Development Organisation
USAID	United States Agency for International Development
WFP	World Food Program

OPERATIONAL DEFINITION OF KEY TERMS

A livelihood is taken in this project to refer to an economic activity practiced by an individual, a household or community.

Adaptive capacity: refers to the ability of a community to adjust its characteristics or behaviour in order to cope with existing climate variability or future climatic conditions.

Adaptive mechanisms: are responses to environmental/climatic stressors that involve long term shifts in livelihoods.

Climate change: A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer.

Commercialization: In this study is taken to imply the selling of stolen livestock for profit instead of using them for restocking.

Coping strategies: are mostly reactive responses involving temporary adjustment of livelihood activities in response to drought.

Drylands: refer to all terrestrial regions where the production of crops, forage, wood and other ecosystem services is limited by water.

Livelihood diversification: Refer to process by which households adopt diverse economic activities and social support capabilities in order to boost their chances of survival and/or to improve their standards of living.

Pure pastoralism: Implies that the human population depends exclusively on livestock for subsistence—this may mean that the people consume only livestock products or that livestock provide the means for acquiring grains and other goods through trade, in addition to providing livestock based foods.

Transhumance: is an adaptive mobility wherein parts of the household and livestock herd are mobile, while the remainder of the household lives in a permanent or semi-permanent setting.

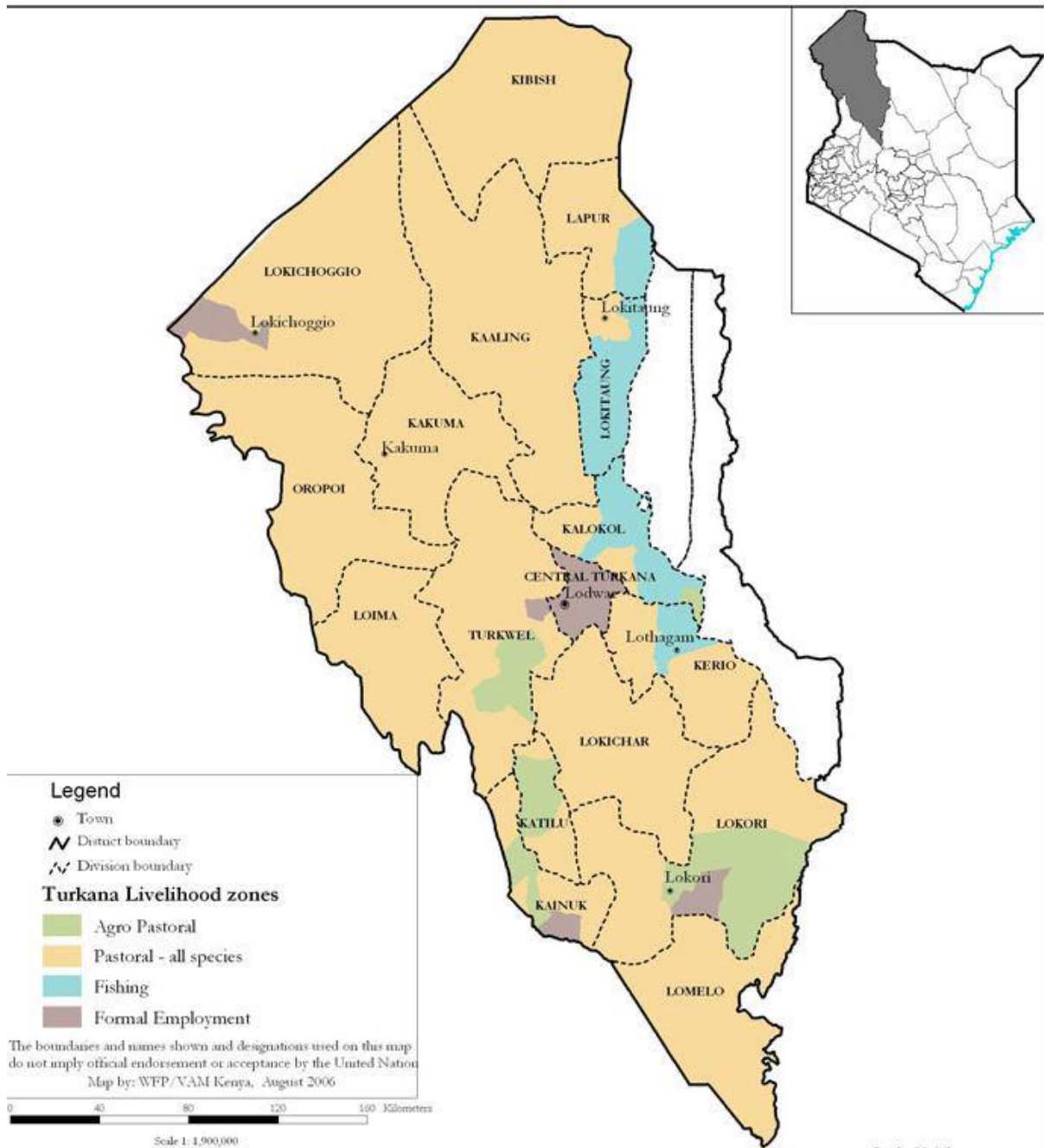
MAP OF THE AREAS INHABITED BY DASSANECH AND TURKANAIN THE LARGER ILEMI TRIANGLE



DAASANACH: ethnic group name, □ Salain: place name, ---- : border

Source: Jesse Creedy, P., *Climate Change and the Turkana and Merille Conflict*, ICE Case Studies, (238),2011.

LIVELIHOOD ZONES IN TURKANA COUNTY



KEY: The Map on the far right shows the location of Turkana in Kenya

Source: Turkana County Resource Maps, 2016

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

There have been numerous experiences of episodes of war and conflict in human history. Over the years, conflict and peace researches and studies have been devoted to understanding the causes of war and conditions for peace by means of systematic analyses of the historical experiences of conflicts. Historically, there are two types of conflicts; interstate and non-state conflicts. Prior to the 1990, most of the conflicts experienced fell within the first category. However, with the end of the Cold War, communal conflicts rose to a position of prominence in international politics. As international wars became rare, focus amongst conflict researchers shifted towards intrastate, mostly, communally defined conflicts - as many groups of people who fight together in these conflicts perceive themselves as belonging to a common culture (communal or religious).

A close look at modern conflicts reveals that conflicts have mutated and most of the causes are no longer socio-cultural irreconcilable differences. The central cause of most communal civil strives in most countries are natural resources. Poverty and political, social, and economic inequalities between groups have also been identified to predispose communities to conflict. Communal conflicts are mostly experienced in the developing world which is characterised by underdevelopment, inequitable access to resources and eco-system-based livelihoods. Many of the countries in this category are also afflicted by high levels of poverty, malnutrition, poor health care, inadequate social amenities, corruption and poor management of shared natural resources. By 2012, eight out of 10 of the world's poorest countries¹ were suffering, or had recently suffered from large scale violent conflict.

Africa has experienced and suffered more from armed conflict than any other continent. Between 1960 and 1998, the continent witnessed 32 wars out of which seven million lives were lost and over nine million people became refugees, returnees or IDPs. In

¹By 2012, the poorest countries were listed as: DR Congo, Chad, Zimbabwe, Guinea Bissau, Somalia, Solomon Islands, Eritrea, Niger, Central African Republic and Sierra Leone. At the time, the poorest country - DRC was also one of the most dangerous countries in the world due to ethnic conflicts. Online: <http://www.poptens.com/2012/04/19/poorest-countries-2012/> Accessed April 19, 2012

1996 alone, 14 out of 53 countries of Africa were afflicted by armed conflicts, accounting for more than half of all war –related deaths worldwide.²

The end of the Cold War in early 1990s coincided with a shift in the dynamic, scope and magnitude of conflicts in Africa. This era saw an upsurge in communal conflicts revolving around competition for access and use of resources. The period 1990–2010, for instance, witnessed 7,200 recorded cases of inter-communal conflicts and violence.³

The wars and conflicts in Africa have had heavy human, economic, and social costs and are a major cause of poverty and underdevelopment. In 1994 for instance, approximately 800,000 ethnic Tutsis and liberal Hutus were massacred in ethnic acrimony that gripped Rwanda. Additionally, the economic underdevelopment in countries like South Sudan, Chad, Liberia and Sierra Leone is attributed to the countries' long history of conflicts.⁴

Among the countries with a rich history of inter-communal conflicts in Africa is Kenya. The main causes of conflict in Kenya are economic and socio-political factors, especially competition over land. However, politically instigated conflicts have historically been the most pronounced especially following the re-introduction of multi-party politics in the early 1990s. However, the more frequent and often violent conflicts are found in the pastoralist environment and cross-border regions in North Rift, North Eastern, and parts of Eastern and Coast regions. These areas are characterized by unpredictable weather conditions leading to periods of hunger, necessitating migration for grazing and water, and periodic droughts which push people into more confined areas, forcing them to compete for decreasing amounts of fodder and water. Thus, scarce natural resources, worsening environmental conditions and increased populations have resulted in stiffer competition for pasture and water. This has precipitated conflicts over access and use of such resources, frequently degenerating to bloody clashes within and among the pastoralist communities.⁵ These conflicts have severe consequences. For instances, between

² Amanda, L. 2003. Women's Peace Building and Conflict Resolution Skills, Morogoro Region, Tanzania. *Journal of Women and Peace in Africa*, Paris UNSCO Workshops, pp.111-131.

³Idean., S. et al, 2012. Social Conflict in Africa: A New Database, International Interactions.*Empirical and Theoretical Research in International Relations*, Volume 38, Issue 4.

⁴Francis, S., 2001. War and Underdevelopment: The Economic and Social Consequences of Conflict. Oxford: Oxford University Press.

⁵ Dawood, I., and Jenner. J. 1996. Wajir Community Based Conflict Management. *A Paper Presented to the USAID Conference on Conflict Resolution in the Greater Horn of Africa*, Nairobi June 1997.

January and October 2014, 310 people died, over 214 were injured and more than 220,177 fled their homes as a result of inter-communal conflicts attributed to cattle rustling, revenge attacks, competition over land and water resources, and struggle over political representation in north-west Kenya.

One of the counties most affected by conflict in Kenya is Turkana. Turkana County lies within the greater Ilemi Triangle - an area of land whose borderline is disputed by Kenya, South Sudan and Ethiopia. It is a sprawling arid land, measuring between 10,320 and 14,000 square kilometers.⁶ Several communities inhabit this rangeland, including the Turkana of Kenya, Didinga and Toposa in South Sudan, the Nyangatom who move between South Sudan and Ethiopia, and the Dassanech who live east of the triangle in Ethiopia and in north-west Kenya, south of the Triangle.

Turkana County lies north-west of Kenya on the border with Ethiopia. Two thirds of it is scrub desert. Rainfall in the region is scant; indeed, Turkana is the driest county in Kenya. No permanently flowing waters exist anywhere in the area. Except for the rather brackish waters of Lake Turkana and a few permanent springs in and below some of the highlands, surface water disappears entirely shortly after the end of the rains and people resort to digging in dry streambeds to reach sub-surface water. The area has semi-desert type of vegetation, with a sparse cover of low bushes and scattered thorn trees struggling through wind-blown sand interspersed with areas where stark expanses of lava and exposed rock prelude any vegetational growth.⁷

During colonialism, the administration deliberately segregated the Turkana people by classifying the county (then a district) as a 'closed district'. This resulted in underdevelopment and marginalization of the area in the period leading up to Kenya's independence.⁸ The marginalization and subsequent state neglect have given rise to endemic inter-communal conflicts among the communities within and around the county. This study focuses on the inter-communal conflict between the Turkana and Dassanech communities.

⁶Fiona, F., and Imeru, T., 2014. Scarcity and Surfeit: Spilling Blood over Water? The Case of Ethiopia. *Journal of Environmental Studies*, pp 2-14.

⁷ John, L., 1992. *The Scattering Time: Turkana Responses to Colonial Rule*: Clarendon Press. London, Pp.4-7.

⁸ Ibid

1.1.2 Background to the Turkana and Dassanech Inter-Communal Conflict

Turkana is the name given to the pastoral and formerly pastoral people living in the arid and semi-arid rangelands of north-western Kenya. The Turkana refer to themselves as “Ngiturkan” and their land as “Eturkan”. The Turkana ethnic group as a whole is composed of two major subdivisions, and each division is composed of territorial sections. The major divisions are the Ngimonia and the Ngichoro. Ngimonia are subdivided into Ngissir and non-Ngissir sections. The sections of the Ngichoro divisions are Ngilukumong, Ngiwoyakwara, Ngigamatak, Ngibelai and Ngibotok. Based on the 2009 National Census, the Turkana number close to 1 million people making up about 2.5% of the national population.⁹

The Kenyan Dassanech on the other hand are a heavily mobile ethnic group residing primarily in Illeret Division of Marsabit County along the eastern side of Lake Turkana. The name Dassanech means “people of the delta.” The 2009 census placed the Dassanech population at 50,000. They have eight sub-ethnic groups namely Sher, Narch, Inkurya, Randeke, Koro, Rele, Oro, and Elile. The Dassanech are known by different names for instance, Ethiopians call them Geleb/Geleba, Turkana call them Merille while the Borana refer to them as Gelluba or Shangilla. The Dassanech argue that any name other than Dassanech is derogatory.¹⁰ This is the name used in this study.

Traditionally, Turkana and Dassanech are nomadic people given the geography of their land. They engage in livestock raids due to the pastoral nature of their economy. In the past, they engaged in fishing in Lake Turkana and River Omo during times of natural calamities such as drought and famines. The most known Turkana fishing clans were the Ngimaruk who used traditional wicket baskets and wooden rafts in fishing. However, fishing was considered a taboo among some Turkana clans like Ngibocheros. This restricted its exploitation to a few clans. Some Turkana and Dassanech households also traded with their neighbours, in times of need.¹¹ The Turkana traded with people

⁹ Jesse-Creeedy., P., 2011. Climate Change and the Turkana and Merille Conflict. Case Studies: No 238, p2-4.

¹⁰Yohannes, G., et al., 2005. Addressing Pastoralist Conflict in Ethiopia: The Case of Kuraz and Hamer Sub-Districts of South Omo Zone. London, Safeworld.

¹¹Casper Odegi, A., 1990. *Life in the Balance: Ecological Sociology of Turkana Nomads*. African Centre for Technology Studies Nairobi, Kenya, p. 31.

inhabiting the lower Omo, Sudan and north-eastern Uganda. From these sources, they procured maize, sorghum, beans and tobacco.¹²

The two communities inhabit an ecologically harsh arid and semi-arid environment. The nature of their land and climate necessitated development of adjustment mechanisms during extreme weather variations.¹³ Over the years, the communities adopted a well-balanced natural resource-use regime, intermittently supported by reciprocal stock raids from each other. Selective grazing patterns, diversification of domestic herds, splitting of herds, and age-set division of labour characterized the natural resource use regimes.¹⁴ These basically were mechanisms to enable the communities to respond to, and survive in a hostile environment characterised by a fragile ecology, low and erratic rainfall as well as scarcity of arable land.

In recent years, though, particularly from the mid-1980s, recurrent drought in the Elemi Triangle, dwindling water levels in Lake Turkana as well as endemic pasture and water conflicts cumulatively led to the decline of pastoral yields to below subsistence levels in the Turkana and Dassanech pastoral economies. This challenged traditional mechanisms previously adopted by the pastorals in coping with famines and droughts.¹⁵ As a result, and mainly for survival reasons, non-pastoral activities – mainly farming, fishing and trade – gained prominence in the local economic landscape. For instance, the Turkana, including the Bochoros clansmen, took up fishing, at times living in common fishing villages with the Dassanech. On the other hand, some groups among the Dassanech took to farming, growing grains along the southern-end of river Omo and in the deltas along Lake Turkana. They also adopted crocodile hunting and fishing. Further, trade in items like livestock and grain gained permanence in the local economic set up as the diversified households sold surplus produces and bought what they lacked.¹⁶ Therefore, the intensity of ecological challenges has opened up room for the thriving of economic diversification among several Turkana and Dassanech

¹² John, L., 1982. The Territorial Expansion of the Turkana: Belligerent Aggrandisement or Peaceful Interaction? A paper prepared for the African Studies Association Annual Meeting; Washington D.C.

¹³ Charles, H., 2010. The Ilemi Triangle: A Forgotten Conflict. *Shalom Centre for Conflict Resolution and Reconciliation*. Web. Accessed 22 June 2011, Available at: <http://shalomconflictcenter.org/conceptpaperarticles.html>

¹⁴ Casper Odegi, A., 1990. *Life in the Balance: Ecological Sociology of the Turkana Nomads*. African Centre for Technology Studies Nairobi, Kenya, pp8-9.

¹⁵ Jesse. Creedy, P. et al. 2011, p.8, op cit.

¹⁶ John L., 1992. *The Scattering Time: Turkana Responses to Colonial Rule*. Clarendon Press. Oxford. Pp 40-41.

households. A mixture of trade, fishing and agricultural activities rose to prominence, replacing and augmenting the prevalent pastoralist economy.

The adoption of the new economic activities has, coincided with emergence of conflicts in the areas around the shores of the lake. The nature of the conflict is economic and it involves farmers, fishermen and traders. This is contrary to past conflicts which were pastoralist-oriented, with pasture and water as prevailing instigators. The 2008-2009 severe drought, for instance, devastated most of pastoralists' livestock economy pushing more pastoralists into fishing and farming. Since then, Turkana and Dassanech inhabited areas along the lake have witnessed a wave of violence in scales unprecedented, resulting in increased loss to human life and destruction of property including fishing gear like nets and boats. The conflicts have become indiscriminate, violent and regular, with at least four confrontations a month since 2009.¹⁷

This study explores how economic diversification has impacted on the relationship between the Turkana and Dassanech communities. The general focus is on economic diversification and its influence on frequency of conflict between the two communities.

1.2 Statement of the Research Problem

Turkana County contains a substantial portion of Kenya's arid and semi-arid rangelands. These arid zones traditionally support millions of both pastoral populations and their livestock. The rangelands are characterised by high spatial and temporal variability in precipitation which directly results in their marginal productivity. The natural endowment of the region is meagre and unevenly distributed and large parts of it are not fit for settled habitation. In the past, the economic adaptation to the environment was mainly based on the rearing of herds of domestic animals like camels, goats, sheep and cattle for meat, milk blood and hides, and donkeys for transport. The ability of Turkana and Dassanech nomadic people to survive in these marginal lands was attributed to their opportunistic mobility and diversified livestock husbandry. These strategies, in addition to well-managed resource-use regimes and reciprocal and symbiotic social networks served as coping mechanisms that ensured the survival of the communities in times of calamities.

¹⁷Jesse Creedy P., et al, 2011, op cit.

In recent years, particularly from 1984, a combination of factors including recurrent droughts, loss of traditional dry season pasturages to national projects and privatization, dwindling water levels in Lake Turkana as well as endemic pasture and water conflicts, and frequent cattle raids led to rapid decline of pastoral yields in the Turkana and Dassanech pastoral economy. In response, several households among the Turkana and Dassanech pastoralists abandoned pure pastoralism in favour of less climate-sensitive, off-farm and farm-based activities, including flood recession cultivation, fishing and trade among others. The adoption of the new economic activities has coincided with an increase in the frequency and magnitude of the conflicts in a scale unprecedented in the communities' long history of conflict.

The fundamental argument of this study is that the diversification of economy to include off-farm and farm-based non-pastoral activities has opened up new areas of interest and competition thereby diversifying the previously cattle-confined conflict. In a region already prone to livestock-based conflict, proliferation of arms, un-policed boundaries, and scarce resources, diversification-induced conflicts have overwhelmed the pastoralists' traditional coping strategies, deepening the region's endemic culture of conflict. Additionally, the damming of river Omo upstream in Ethiopia has led to a steady decline in the amount of water flowing downstream into Lake Turkana, thereby, affecting both the quality and quantity of marine and terrestrial resources thereof and therein the lake. This has exacerbated natural resource scarcity, increased furthering the competition and intensifying the conflict.

There are several popular and academic works of literature supporting the proposition that scarcity of biological assets causes violent conflicts between Turkana and Dassanech people. However, few systematic, qualitative, and comparative studies exist to explain how economic diversification as a response to such scarcities could intensify the conflicts. Researchers writing on the nexus between resources and violent conflicts have failed to factor in the role of induced economic diversification as a basis of conflict. While they have widely written on Turkana-Dassanech inter-community conflicts, much of the existing works dwell predominantly on competition over water, pasture, cattle raids and proliferation of firearms as the causes of the conflict. This study is based on the assumption that economic diversification has added an interesting and significant trajectory in the Turkana and Dassanech recent history of inter-

communal conflicts. The study, therefore, is an attempt to provide an understanding on the link between rapid transformation in Turkana –Dassanech economic set up and its impact on the inter-communal conflicts.

To realize its goal, the study sought to answer several key related issues, including; the role of cattle rustling and banditry in armed violence in the area; factors for the changing nature of pastoralism in Turkana and Dassanech economies; factors that influence economic diversification in the study area; significance of a mixed economy to the Turkana-Dassanech livelihoods; impacts of economic diversification to the conflict in the study area; and efforts made towards resolving the Turkana-Dassanech conflict.

1.3 Key Research Questions

A review of literature on Turkana and Dassanech relationship identified a number of questions that have previously remained persistently unanswered. These include:

2. What is the background to Turkana-Dassanech conflict?
3. What factors have led to the change in the nature of pastoralism in Turkana and Dassanech economies?
4. What factors influence diversification among the Turkana and Dassanech households?

What impact does economic diversification have on the Turkana-Dassanech conflict?

1.4 Objectives of the Study

The general objective of the study is to assess the influence of economic diversification on inter-communal conflicts. Specific objectives are:

1. To assess the background to the Turkana and Dassanech inter-communal conflict.
2. To examine the changing nature of pastoralism in Turkana and Dassanech economy.
3. To assess factors that influence economic diversification among Turkana and Dassanech households.
4. To assess the impact of the economic diversification on Turkana-Dassanech conflict.

1.5 Justification of the Study

Turkana and Dassanech communities have over the past two centuries been involved in resource conflicts. These began with competition over grazing fields, water and cattle raids. For much of the time, ecological factors dictated the magnitude of the conflict. The recent increase in the frequency of the conflict in the area, however, has coincided with economic diversification witnessed in the area. Despite the rise in frequency of the conflict, no research has been done to assess the influence of economic diversification on the inter-communal conflicts. The fact that scholars have omitted this perspective in analyzing Turkana and Dassanech conflict provided a strong basis for this study.

By incorporating economic diversification in its analysis, the study sought to generate knowledge to fill in the gap regarding understanding of the current Turkana and Dassanech relations. Additionally, the study hopes that its findings could be used to inform policy formulation regarding inter-communal relations among pastoralist communities in Kenya.

1.6 Scope and Limitations of the Study

The research was conducted in Lodwar, Lokitaung, Kalokol and Illeret areas – west, north and east of Lake Turkana where clashes between the two communities have recently been witnessed. Turkana and Dassanech communities have repeatedly and regularly attacked each other in this regard. The region covered lies within Lake Turkana shore-lands and mainland. The study focused on Turkana and Dassanech relationship since 1984 to 2015. 1984 was the year in which a sorghum irrigation scheme was first set up in Lokitaung, in an aim to diversify the locals' economy away from pure pastoralism following the droughts of 1979-1982 that had decimated livestock in the area. This marked the first effort towards institutionalizing economic diversification in Turkana drylands. 2015 is the year in which Gibe III Dam in Ethiopia –believed to have far-reaching effects on Lake Turkana's resources – became operational.

Several challenges were faced while conducting the study. These include long distances into the periphery, insecurity concerns and language barrier since the researcher is not conversant with the local languages of the respondents. The limitations were addressed by collaborating with organizations working in the area to facilitate movement. A local

research assistant was hired and he helped in translations. Consultations were also made with County government security offices, police and KPR on personal safety and security prior and when visiting the area. A small group of interviewees and focus group discussions were used thereby reducing the need for movement.

1.7 Literature Review

Turkana and Dassanech communities have had a long history of coexistence and conflict. Domiciled in the north-west region of Kenya, the two communities have traditionally been involved in incessant raids against each other. Competition over the meager and scarce water and pastureland resources has helped in intensifying the conflicts. Acquisition and accumulation of firearms over a long period of time sustained by conflicts in neighbouring countries have ensured that for long time, the two communities have lived without peace. This section is an analysis of literature on communal conflicts in general and on Turkana and Dassanech pastoral communities in particular. It also looks at their interactions in the past; the role of the environment in shaping their economies and how they traditionally coped with natural calamities in the harsh and erratic environment.

According to Daniel Nirenberg, human beings have experienced many cases of communal conflicts.¹⁸ For instance, in medieval Europe, there were clashes between Catholics and Protestants as well as between Muslims and Christians. In Africa, since the 1960s, Nigeria experienced centuries of inter-communal conflicts between different ethnicities especially between Islamic north and Christian south.¹⁹ There was widespread communal violence in 1964 between Arabs and Africans in the multi-ethnic State of Zanzibar that expanded along religious lines.²⁰ Kenyans in Uganda experienced widespread violence in late 1960s and early 1970s.²¹ These arguments highlight the existence of communal conflicts in Africa and the world at large. However, the discussed conflicts are based on race, ethnicity as well as religious differences. As such, the arguments, though addressing communal conflicts, do not mention the influence of resources in conflicts. This study looked into

¹⁸ Daniel, N., 1998. *Communities of Violence: Persecution of Minorities in the Middle Ages*, Princeton University Press.

¹⁹ Samuel Huntington. P., 1993. *The Clash of Civilizations?* *Journal of Foreign Affairs*, Vol. 72, No. 3, pp. 22-49.

²⁰ Conley Richard, N., 14 January 1964. "Regime Banishes Sultan", *New York Times*, p. 4, retrieved 16 November 2008. <http://select.nytimes.com/gst/abstract.html>

²¹ Abdu, K., 1994. *The Social Origins of Violence in Uganda, 1964-1985*; Montreal: McGill-Queen's University Press.

resource-based conflicts and how livelihood diversification has influenced conflict over shared resources.

John Maxwell notes that the frequency of violent conflicts around the world is on the rise. This is attributed to the increasing environmental degradation which puts pressure on much of the world's resources. Scarcities of natural resources are more severe in Third World Countries that have no clearly defined or enforceable property rights, and resources for research and development thereby relying heavily on ecosystem for subsistence.²² In Africa, for instance, poverty and war remain predominant realities. Wars resulting in 1,000-plus battle deaths yearly have plagued Liberia, Somalia, Ethiopia, Sudan, Eritrea, Angola, Sierra Leone and the DRC. Meanwhile, low-intensity violent conflicts have been experienced in Uganda, Chad, Djibouti and Mozambique.²³ The author discusses an increase in environmental conflicts. However, the discussion broadly focused on national analyses and omits conflicts caused by economic diversification. This study analysed economic diversification at the communal level.

1.7.1 Resources, Ecology, and Conflicts among Pastoralists

Gebre Yntiso revealed a relationship between environmental stress and the escalation of inter-ethnic pastoral conflicts in Dassanech area. He argues that socio-cultural and economic factors trigger conflicts in conjunction with ecological processes.²⁴ Another argument on ecology, resources and conflict closely related to the above is made by Helga Binningsbo who argues that the growing environmental scarcity in arable land and renewable natural resource is a security issue globally. She surmises that the growing scarcity of the resources causes perpetual underdevelopment and promotes violent conflicts.²⁵ Clionadh Raleigh supports this notion by observing that climate change has resulted in major changes in availability of freshwater, patterns of human

²² John, Maxwell..W., & Rouveny, R., 2000. Resource Scarcity and Conflict in Developing Countries. *A Journal of Peace Research*: Sage Publication, Oslo, vol. 37 no. 3, Pp 301-322.

²³ John, S. 2000. Ending Africa's Wars. *Journal of Council on Foreign Relations*, Vol. 79, No. 4, pp. 117-132.

²⁴ Gabriel Yntisio., 2012. Environmental Change, Food Crises and Violence in Dassanech, Southern Ethiopia. *Research on Unity, Peace and Conflict Studies* No. 1. Freie Universität, Berlin. Pp 2-14.

²⁵ Helga-Malmin, B., DeSoysa, M., and Gleditsch, P. N., 2007. Green Giant or Straw Man? Environmental Pressure and Civil Conflict, 1961-1999. *Journal of Population and Environment*: Springer Vol. 28, No. 6, pp. 337-353.

settlement and the productive capacity of soils which have precipitated conflicts.²⁶The arguments capture the relationship between climatic factors, economic activities and conflict. Though not mentioning how climate change results in economic diversification, the authors' arguments guided this study in understanding relationship between climatic shocks, environmental stress, resource scarcities and resultant conflicts.

According to Peter Gleick, resources are both sources of tension and factors in numerous conflicts that have exist throughout human history. For instance, conflicts over water arise from numerous reasons including disputes over territorial claims, strategic advantage and disagreement over land. Water as a resource is critical in human existence, and human's daily activities are closely tied to the quality of available water. Fresh-water resources are vital elements for maintaining and sustaining human health, agricultural activities, and economic production as well as fundamental ecosystem functions. Water is fundamental and for many uses, it has no substitutes. Though fundamental, water is a limited resource whose access has worsened with climate change.²⁷The argument underlines the importance of water and land resources in survival of humanity. The impact of global warming on the diminishing vital resource of Ilemi Triangle was also noted during this study. This study investigated how inadequacy of such resources has led to economic shifts and how this leads to conflict among the Turkana and Dassanech.

1.7.2. Pastoralists' Economy in Pre-colonial East Africa

John Lamphear posits that the past 200 years was a historical period characterized by increased specialisation and diversity in northern parts of Kenya, as different communities got to occupy specific ecological niches which could support development of more differentiated cultures and specialized economic activities. However, disastrous series of drought and famines in 18th and 19th centuries forced mixed farmers to abandon the plains leading to expansion of pastoralism. It was during this time that traditions of origin that stressed the tripartite division of world into pastoralist, farmers

²⁶ Clionadh R., &Urdal, H., 2007. Climate Change, Environmental Degradation and Armed Conflict. *Journal on Political Geography* 26(6): 674–694.

²⁷ Peter, Gleick, H., 1993. Water and Conflict: Fresh Water Resources and International Security. *Journal of Development, Environment and International Security*; Oakland California, Vol. 18, No. 1, pp. 79-112.

and hunters as specialized economic groups became ethnically differentiated.²⁸ Lamphear discusses how climatic conditions shaped peoples' economies in the last 200 years. His views helped this study in understanding how climate variability and environmental factors have informed economic diversification and hence conflict in Lake Turkana region.

Helge Kjeskshus notes that East African economies are developed in an ecologically controlled environment where, in the past, there existed a relatively stable balance between mankind and nature. This grew from centuries of clearing land, introducing manageable vegetation and stock and controlling plants. This relationship resulted in an agro-horticultural and pastoral relationship where the dangers of tsetse fly were neutralized and made irrelevant to economic prosperity.²⁹ The East African pastoral economies are viewed as having developed a good balance between nature and mankind. Edward Soja likewise described pre-colonial Eastern Africa as a sea of pastoralists surrounding a few islands of settled-agriculturalists.³⁰ Most of the pastoral groups like the Turkana were wealthy, well-fed and also politically powerful.³¹ Pastoral social and economic organizations are viewed by above scholars as springing directly from the nature of the physical environment and the level of technology. These analyses helped the study in conceptualizing the understanding of the role of environmental degradation in economic diversification and subsequent conflicts.

According to Casper Odegi-Awuondo, pastoralism is traditionally a mode of production and a way of life adapted to the harsh conditions of the arid environment. It is a land-use system which put into profitable use the scantily and sparsely distributed resources of the marginal lands without doing damage to the ecology. In these areas, rain-fed agriculture was not possible. Thus pastoralists kept cattle, sheep, goats, camels and donkeys which moved around freely and foraged on the grass and browse and converted them into human food – meat, milk, blood, urine and dung - in sufficient quantities in each annual cycle. Pastoralism was therefore, a clever way of converting

²⁸ John, L., 1986. The People of the Grey Bull: The Origin and Expansion of the Turkana. *Journal of African History*, Vol 29, pp. 3-22.

²⁹ Helge, K., 1977. *Ecology, Control and Economic Development in East African History: The Case of Tanganyika, 1850-1950*, London: Heinemann, p. 181.

³⁰ Edward, S.W., 1968. *The Geography of Modernization in Kenya: A Spatial Analysis*. Syracuse University Press. pp 2-18.

³¹ Rory van Zwannenbergh, M.A. & Anne, K., 1975. *An Economic History of Kenya and Uganda, 1800-1970*, London: Macmillan. Pp 5-44.

the otherwise useless resources of the dry lands into wealth to sustain human life.³²This argument identifies pastoralists' territories as experiencing scarcity of resources needed in production. However, how the scarcity could lead to economic shifts and hence conflicts is not discussed. This omission informed the need to assess the role of resource scarcity in inducing diversification and conflicts among pastoral communities.

1.7.3. Pastoralists' Adjustment to Natural Calamities

John Lamphear observed that rainfall in Turkana is traditionally scant and that Turkana is the driest area in Kenya. Most early European visitors appalled by the aridity conditions described the country as 'a burning desert of sand and stones with hardly a blade of grass anywhere'. Todenyang - northern end of the lake has an average rainfall of about 4 inches and similar amounts fall on some parts of southern plains.³³Lamphear underlined the difficult conditions of Turkana region which made pastoralism the most viable economic option in the past. Lamphear's knowledge on Turkana and their environment and lifestyle was the guide this study used to understand history of the Turkana and reasons for economic adjustments in the recent past.

Casper Odegi-Awuondo argues that, the fragility of the ecology as well as the scanty land and sparse resources due to low and erratic rainfall required the Turkana and Dassanech to develop well balanced resource use regimes. They developed selective grazing and browsing patterns and flexible herd management practices which included diversifying herds, herd-splitting and a clear sex and age-set-based division of labour. The pastoral economies were further bolstered up by the nomads' capabilities to pursue many ends.³⁴ Pastoralists traditionally engaged in multiple economic activities, using a wide diversity of natural resources available and often modifying animal production to meet the demands of their pursuits. They engaged in farming, traded, handcrafted, smuggled, transported, raided and made war on each other.³⁵The author points out the coping mechanisms adopted by pastoralists of northern Kenya due to scanty resources

³²Casper Odegi, A., 1990. *Life in the Balance: Ecological Sociology of the Turkana Nomads*. African Centre for Technology Studies Nairobi, Kenya.pp. 7-8.

³³ Casper, Odegi, A., 1990. *Life in the Balance: Ecological Sociology of the Turkana Nomads*. African Centre for Technology Studies Nairobi, Kenya.pp.. 6-9.

³⁴ Ibid

³⁵ Daniel, A.R.(ed), 1980. *Must Nomads Settle? Some Notes Toward Policy on the Future of Pastoralism*. New York:Praeger, pp.173-184.

in their region. This study expounded on this by assessing diversification in crop production, fishing and commercial activities as permanent adaptive livelihoods.

Spear and Waller argue that in the late 19th century, Kenya's Rift Valley was in a state of disarray due to assault of its societies by diseases, civil wars and droughts. Rinderpest ravaged herds, smallpox devastated humans and civil disorders rent pastoralists as they strived within themselves to survive. When the survival of the pastoral ideal was in question, Maasai community, for instance, sought refuge in former partners, among neighbours and during age of colonialism, many others sought alliance with colonial officials to boost their chances of survival.³⁶ Odegi-Awuondo supports this, noting that nomad's adjustment strategies became widely evident during the eco-stress of the 1880s and 1890s caused by the rinderpest, scab, malaria, drought, smallpox, famines, and cholera.³⁷ At this time, disasters of cattle epidemic and internecine wars were recorded among the Maasai resulting in large scale influx of Maasai refugees into Kikuyuland. In this time of hardship, children and women were pawned with no stigma attached to pawning. This system was commonly practiced by the Kikuyu and Kamba among many other communities in the area.³⁸ The authors' works emphasize on reciprocity of communities as a coping mechanism employed by the Maasai and her neighbours during times of short-term calamities. They however, fell short of explaining how communities could respond to long term climatic challenges as witnessed in the Elemi Triangle since the 1990s. Learning from above authors, this study examined long term adaptations in economy and how this has brewed conflict between the Turkana and Dassanech.

A closely related argument is made by Philip Gulliver who posits that as an adjustment mechanism, non-pastoral activities became prominent in times of misfortune in which pastoralism yields fell below subsistence levels. For example, in such times, the Turkana in northern-end of the lake engaged actively in trade with communities of the Lower Omo, South of Sudan and northeast Uganda.³⁹ They garnered from the trade an assortment of goods such as tobacco, beans, maize, and sorghum. Turkana would trade cattle with the Merille for sorghum. Relatives would visit the kraals of their kin. For

³⁶ Thomas Spear, S., and Richard, Waller., 1993. *Being Maasai: Ethnicity and Identity in Africa*. East African Educational Publishers. Nairobi, p14.

³⁷ Casper, Odegi, A., 1990, p9, Op cit.

³⁸ Godfrey Muriuki., 1974. *A History of the Kikuyu, 1500-1900*. London.

³⁹ Philip, Gulliver, .H., 1951. *A Preliminary Survey of the Turkana*. Cape Town, pp 2-17.

instance, those whose daughters were married by sons of the Merille would visit the sons-in-law's kraals.⁴⁰ These adjustments to drought and famines were quite successful at the time. This was made possible by the fact that droughts and famines were temporary and resources like land and water were plentiful, thus, communities unaffected by a calamity had enough resources to cater for members of the affected community. However, in the 21st century, with population increase and governmental programs like the Gibe III Dam in Ethiopia, land has greatly reduced.⁴¹ This, in addition to the persistence of droughts necessitated permanent adjustment strategies. This study assessed the long term adaptations, though, it borrowed from this literature on understanding short term coping mechanisms previously adopted to live with eco-stresses and how they are different from long-term adaptabilities.

Lee Cassanelli adds that nomads' adjustment strategies in the past tended to correspond with worsening environmental conditions. A period of unnaturally long droughts forced the Somali nomads for instance, to move their livestock to dry-season pastures where they remained until the drought was over. Herdswere also subdivided into small units where those with long watering interval were taken far away from water points than those with need for frequent watering. The herderswere also subdivided scattered in different directions looking for pastures and water.⁴² Odegi-Awuondo, added that as drought persisted, extending beyond three seasons, children, the aged and women could be sent to live with friends and kins in less affected villages. This sloughed out populations from the pastoral sector saving milk for the calves to improve their survival rate. The other coping trick was systematic culling and sale of livestock. This reduced the grazing pressure on land and also helped the nomads to get cash to buy food. A part from dependency on kinsmen and friends for food, the Somali nomads traded, farmed and took up temporary wage employment as they awaited the rains.⁴³ The authors put into perspective the coping tendencies of nomads in times of worsening environmental conditions. Similar environmental factors were found to be responsible for current Turkana-Dassanech problems. This study assessed how the challenges have necessitated permanent economic adjustments resulting in new conflicts.

⁴⁰ John, L., 1982, p.18, Op cit.

⁴¹ Jesse Creedy, P., et al. 2011, p.8, Op cit.

⁴² Lee, Cassanelli., 1981, Op cit.

⁴³ Casper, Odegi, A., 1990, p.11, Op cit.

Studying adjustments to famine and drought in the last decade of the 19th century by the Gabbra, James Robinson recorded existence of hunting, gathering, farming, trade, and reciprocal gifts for food, intra-community paid-employment and, in dire cases, female children exchanged for food.⁴⁴ Farming and trade were great adjustment choices for the Gabbra because they were of high benefit and low cost activities. The Gabbra who took temporary farming emigrated and farmed alongside the agriculturalist Konso who lived in the well-watered highlands of Southern Ethiopia. They grew maize, potatoes, vegetables and sorghum. The Konso also kept cattle, goats and sheep. Their economy was determined by market demands and forces.⁴⁵ The two communities maintained friendly relationships which the famished Gabbra exploited during the famines of 1890s. They settled among the Konso and planted what crops they could. From their harvests, the migrants bought cattle, goats and sheep. When rains resumed in Gabbra land, they returned and resumed the mainstream pastoralism.⁴⁶ The authors discussed a variety of coping mechanisms among pastorals. These coping mechanisms were however, short term. The knowledge of their applicability in the past derived from this discussion helped understand why the Turkana and Dassanech have applied them again, only that this time it's for long term purposes.

1.7.4 Pastoralists' Relationships during Calamitous Times

Casper Odegi-Awuondo argues that in pre-colonial era, pastoralists' interactions and relationships were guided and motivated by shared values, goals, expectations and beliefs. Individual actions were motivated by the probability that their goals and interests would be served. As such, reciprocity was a fundamental insurance system among pastoral groups. It was founded and sustained by the repeated exchange of gifts, especially livestock.⁴⁷ Cassanelli observed that for pastorals to secure reciprocal partnerships, they hoarded livestock and distributed stock gifts to each other.⁴⁸ For instance, a married Dassanech man built up networks within which reciprocal interests were shared. For their own survival, pastoralists developed a symbiotic relationship

⁴⁴ James Robinson, P.W., 1980. Disaster and Response Among the Gabbra of Northern Kenya: An Historical Perspective'. *A journal of on Ecological Stress in East Africa*. North-Western University and the National Museums of Kenya, Nairobi.

⁴⁵ Richard, K., 1962. The Konso Economy of Southern Ethiopia, in Bohannan and Dalton (eds.), *Markets in Africa*. North-Western University Press, pp.409-428.

⁴⁶ Casper, Odegi, A., 1990, p.10, Op cit.

⁴⁷ Ibid, p. 16-17.

⁴⁸ Lee, Cassanelli., 1981, pp. 6-7, Op cit

with their neighbouring agricultural communities. Therefore, there existed a pastoralist-sedentary interdependence. Pastoralists emerged as a sub-culture with linkages to sedentary communities. This relationship existed between the Maasai and the Kikuyu as well as between the Gabbra and the Konso, among many other communities.⁴⁹The analyses of reciprocity and symbiosis detailed how networks created during peaceful times could be rewarding during times of difficulty. However, authors did not capture how conflicts could be borne out of adaptability as a response to a calamity. The adoption of similar economies by the Turkana and Dassanech is viewed to have increased competition and conflict in Lake Turkana area where the two communities rely heavily on common but limited resources like fertile deltas and marine resources. This study analysed this long term phenomenon and its influence on conflict situation in the study area.

A survey of contacts in the 19th century reveals that the Turkana interacted with their neighbours. With the Maasai, the relationship was characterized by borrowings, adjustments, conflicts and assimilations. The Turkana pre-dominated these contacts sometime defeating the Maasai militarily and often absorbing them linguistically and politically. The Turkana were in a favourable economic circumstance, supported by efficient commercial networks, and by a more diversified pastoral economy. These circumstances gave Turkana an advantage over her neighbours especially in times of severe ecological stress and major epizootics.⁵⁰John Lamphear, for instance, established that Turkana traditionally interacted with their neighbours. Some of the interactions in areas like trade were responses to natural calamity such as famine and drought which greatly reduced yields from pure pastoralism. The previous relations helped in understanding current Turkana and Dassanech relationship by questioning factors that have made such peaceful coping mechanisms turn violent when applied as long term adaptabilities.

Turkana and Dassanech have traditionally enjoyed a mutually beneficial relationship. During times of disaster, the weak from either community could be accommodated in the other community less affected by the epidemic as they awaited the situation to

⁴⁹ Uri, A., 1979. Raiders and Elders: A Confrontation of Generations among the Dassanetch. In Fukui and Turton (eds), *Warfare Among East African Herders*. Osaka; pp.121-122.

⁵⁰ John, L., 1993. Aspects of Becoming a Maasai: Interactions and Assimilation Between Maa and Ateker- Speakers. In Spear, T. & Waller, R., (1993). *Becoming a Maasai: Ethnicity and Identity in Africa*. East African Education Publishers, Nairobi pp.87-88.

return to normalcy. For instance, Turkana impoverished by famine and drought, often, took refuge with the Dassanech and intermarriage between the two communities was widespread. Relations were particularly close between Dassanech and Ngibochoro Turkana fishermen who sometimes lived together in common villages with Dassanech. Even during the sporadic times of raiding, a lively commercial exchange flowed between them. This led early European visitors in the region to have an impression that the Turkana and Dassanech were subgroups of each other.⁵¹The situation at the time was viable since the Turkana and the neighbouring Dassanech engaged in compatible economic activities like fishing for the Turkana and pastoralism for Dassanech, something that facilitated the symbiotic relationship. This relationship was helpful in understanding the Turkana and Dassanech economies and how their relationships have changed in past few decades.

1.7.5. Impacts of Ecological Deterioration on Pastoral Economies

On impact of environmental deterioration on pastoralists, Casper Odegi-Awuondo discusses the 1979 drought in which Turkana were the hardest hit among Kenyan pastoralists. The drought combined with increased cattle raiding from Uganda following the collapse of Iddi Amin's regime left over 90 people dead. Iddi Amin's fall left many deadly weapons in the hands of his former associates. These weapons were used in raiding and preventing the Turkana from accessing their traditional dry-season pastures in the east. Drought, diseases and raids combined to leave dead livestock everywhere in the northern regions of Lorus, Todenyang, Lokichoggio, Kaeris, Makutano and Kakuma. By March 1980, the people of Lokichoggio had not received rain for 18 months. That year, even the long rains did not come. By September 1980, deaths from famine and cholera were reported. A number of nomads in Kalingarea who died in the bush were eaten by vultures since those still struggling on were too weak to bury the dead among them. Turkana reportedly lost between 90-95% of their livestock from the drought.⁵²This case analyses the severity of drought on pastoralists. The study explored how such past experiences have informed the recent decision to diversify and how this has in turn been a basis of inter-communal conflict. Odegi-Awuondo's work served as foundation in understanding how climate and environment have shaped and reshaped Turkana economy over the years, breeding conflict in the process.

⁵¹ John, L., 1992, pp 40-41, Op cit.

⁵² Casper, Odegi, A., 1990, pp. 105-107, Op cit.

The random selection of adjustment strategies by pastoralists bring out a number of features of adaptability. They show that all nomads had mechanisms to cope with natural calamities; adjustment patterns were easily observable in times of misfortune/hardships. The adjustments mechanisms were varied in each community. However, one common denominator in all the cases is that they were creative behaviours of responding to temporary calamities.⁵³This analysis formed the interesting urge of trying to understand how such creative behaviours could impact negatively on societies leading to conflicts when used for long term bases.

Recently, particularly from 1970s, climatic stresses and environmental shocks have become long term. Long periods of drought in the horn of Africa and extension of the Sahara Desert to cover regions like Sudan that were previously unaffected have been noted. Global warming trend of climate change has had tremendous impacts in the Elemi Triangle. In a region already prone to drought, diseases and conflict, global warming has overwhelmed pastoralists' resilience and coping capacity and deepened the region's already endemic culture of conflict.⁵⁴These effects necessitated overhaul or supplementing of pastoralists' economy - adopting agriculture, trade and fishing in the process - something that coincided with increased conflicts between the two communities. This permanent adjustment of economies as responses to calamities, and its relationship with frequency of conflicts was the main objective of this study.

1.8 Theoretical Framework

This study used Eco-Scarcity Theory. The theory was developed in the 1990s by Neo-Malthusian theorists such as Thomas Homer-Dixon. The theorist argues that land degradation and other environmental stresses unleash social conflict and political disorder. They suggest complex causal links between environmental pressure, defined as resource-scarcity, and the outbreak of violent conflicts. According to him, the unequal access to the environmentally scarce renewable resources such as arable land and water are factors responsible for conflicts.⁵⁵The theory argues that adverse resource scarcities caused by ecological factors result in loss of economic activities, food insecurity and reduced livelihoods. This in turn results in poor governance, social

⁵³ Casper, Odegi., 1990, pp. 105-107, Op cit.p.11.

⁵⁴ John, M., and Richard, R., 2000. Pp. 2-15, Op cit.

⁵⁵ **Jens, F.**, 2013. *The Future Is Not What It Used to Be: Climate Change and Energy Scarcity*. Cambridge: Michigan Institute of Technology (MIT) Press, pp 4-1.

inequality and bad neighbourhood. These factors attract political and economic instabilities, and social fragmentation, which lead to responses like increased opportunity and motivation for organizing and instigating violence. All these increase the risk of armed conflicts. The effects of the scarcities are adverse in underdeveloped societies that heavily rely on ecosystem for subsistence.⁵⁶

The theory analysis between conflict and three forms of scarcities, namely; supply induced, structural induced and demand induced scarcities. On supply induced scarcities, the theory asserts that wherever environmental change reduces the availability of a given biological asset, there is an increased chance of conflict as the population has to compete for the remaining often inadequate resource.

Structural induced scarcities arise when a given group of people is denied access to a natural resource. This happens through policy or waging of conflict which often prevents the affected community from accessing or using the resource. Demand inducement is brought about by population increase which put pressure on available resource. This is best explained by Thomas Malthus who argued that population, when unchecked, increases in a geometrical ratio while subsistence increases only in an arithmetical ratio. The exponential growth of population unavoidably outpaces the linear increase of subsistence. Tragically, food intake per capita shrinks as population grows faster than subsistence. In a society characterized by social inequality, the poorest of the poor will be the first to feel the looming food scarcity. As population levels rise and food per capita decreases, the food available to the poor will fall below the minimum intake that is necessary for their subsistence. In the end, the system is likely to be readjusted by brutal mechanisms such as war, pandemics, and deviant behaviour.

The theory applied to the understanding of Turkana-Dassanech conflict which has been influenced by both ecological and structural factors. The assumption made is that mankind lives in a symbiotic, social, physical and biological environment which acts as a stimulus to his behavior. A change in environment necessitates human adjustment to fit in the new reality. Persistence of droughts, cattle rustling, change in land ownership systems and the advent of global warming have greatly affected livelihoods in the

⁵⁶ Jens, F., 2000. Who's Afraid of Thomas Malthus? Chapter 4. Oxford. *Department of International Development*. Pp 1-16.

Elemi Triangle prompting several Turkana and Dassanech households to diversify livelihoods. With traditional pure pastoralism becoming unviable and too risky due to erratic and unpredictable ecology, adoption of agriculture, trade and fishing as adaptive responses to ecological challenges took place.

The decision by the government of Ethiopia to dam the Omo River in Ethiopia has affected communities living downstream as it has reduced the volume of water draining into Lake Turkana. The fact that River Omo supplies over 90% of the lake's water has meant that the damming has reduced water in the lake by a significant percentage. This has affected the Turkana and Dassanech communities who rely on the overflowing of the lake to conduct recession agriculture on the shores. Fishing and farming have greatly been affected by the damming. This structural decision has also displaced many Dassanech from Ethiopia as their lands along the Omo River have been taken up for agricultural irrigation activity by the Ethiopian government. These Dassanech often cross the border into Kenya where they join their brethren in Todonyang and Illeret Divisions from where they conduct attacks on Turkana. The decision by Kenyan government to irrigate pockets of land in Turkana has also displaced Turkana from their traditional dry season grazing fields prompting some to opt out of pastoralism and adopt new livelihoods.

The damming and irrigation programs on River Omo as well as ecological factors have cumulatively resulted in increased competition over declining marine and terrestrial resources such as fish and wet farmlands on the shores of the lake. This has led to conflicts as both groups tussle over access, use and control of these scarce resources.

Due to the loss of economic activities, food insecurity and reduction in livelihoods due to ecological factors and continued reduction in availability of land and fish resources for the diversified households, the region has witnessed increased lawlessness, social inequality and bad neighbourhood and a rise in the frequency of violent conflicts. The theory was instrumental in conceptualizing the nexus between degrading environmental conditions, inimical state policies, induced economic transformation, and increased incidences of conflict between the Turkana and the Dassanech communities of north-west Kenya.

1.9 Hypotheses

The study sought to investigate the assumptions that:

1. Turkana and Dassanech communities have periodically experienced conflicts.
2. There has been a decline in pastoral activities among several Turkana and Dassanech households.
3. Several Turkana and Dassanech households have adopted fishing and cultivation as permanent livelihoods.
4. Adoption of new livelihoods has intensified the Turkana-Dassanech inter-communal conflict.

1.10 Methodology

This study analysed the influence of economic diversification on the frequency of inter-communal conflict between the Turkana and Dassanech communities of north-west Kenya. To gain useful insights into the nature of Turkana-Dassanech economies and how they have shifted over time, the study abstracted concepts from narrative reports, archival materials and books. The study used both secondary and primary data. Secondary data was collected through review of books, chapters in books, e-books, journal articles, periodicals, newspapers, magazines, and internet sources, and any other relevant materials. The data was not taken. The materials were sourced from Kenya National Library Services at Ngong Road Nairobi, humanitarian and developmental agencies working in the area of study, Jomo Kenyatta Memorial Library and Institute of Development Studies Library, both at the University of Nairobi, McMillan Library in the Nairobi's Central Business District and IFRA Library in Kileleshwa. Attention was paid to materials relating to the economy of the two communities, the conflict in the region and environmental and climatic changes and their impact on pastoralism in the area.

The study also made use of primary written materials. These include review of Reports on North-west Kenya in general and former Turkana District in particular, from the Kenya National Archives (hereafter, KNA). Archival materials reviewed entailed the unprocessed data in form of colonial reports on the former Turkana Districts and its inhabitants. The materials were important in providing a historical perspective on the Turkana-Dassanech relations especially on cattle rustling and territorial claims during colonial and immediate post-colonial era. Reports on pastoralism development were

accessed from TUPADO – an NGO working with pastoralists in Turkana County. The reports formed the basis on understanding of pastoralism, its challenges and adaptability. This was followed by review of internet sources on the current conflict, after which I proceeded with fieldwork.

Much of the materials for this study were derived from oral interviews conducted in Turkana, Marsabit and Nairobi Counties between March and September 2017, and between June and July 2018. The oral interviews supplemented and strengthened written sources. Interviews using interview guides were held with 35 respondents, mainly in Turkana County and in Illeret Division of Marsabit County. The informants were people with excellent knowledge on the conflict situation between the Turkana and Dassanech.

The respondents were identified using purposive techniques. This sampling method selects respondents from a group of participants that are judged knowledgeable for the purpose of the study. To accurately evaluate the influence of economic diversification on the frequency of conflicts between the Turkana and the Dassanech, the following categories of informants were included in the sample; community elders, local fishermen, cultivators, employees of development agencies in the area, elders in local churches, traders, former raiders, civil servants, police, local community project leaders, and Kenya Police Reservists. After establishing the basic biographical data and period of stay in the area, questioning about a particular happening of which the respondent was knowledgeable of ensued.

The entry point to identify the informants was through John Lomorkai, a former Kenya Defense Force Corporal in Lodwar, James Tulele and Robinson Lopeyok – two post-graduate students at the University of Nairobi. They introduced the researcher to John Chuchu Nakonyi a former chief in Turkana central who in turn linked him to Michael Ome who served as a guide, translator and research assistant. There was also Jackline Kandagor from TUPADO who advised on when, how and where to visit. Jackie helped with the research work in Lodwar and neighbouring areas like Loyo. She introduced the researcher to Humpfrey Amoni in kalokol who helped in organising focused group discussions at Lokwa and subsequent interviews with knowledgeable informants in the area. Due to his good rapport with the locals – him being a local activist - he made it

quite easy to access the needed respondents. Tulele and Eunice Nasieku helped in conducting the research in Illeret where Nasieku resides.

The research also used informal focused discussions at Lodwar. The respondents were 8 including 2 Kenya Police Reservists, 2 Primary school teachers, three herders and a shop attendant. Another Focus Group Discussion was conducted in Lokwa Kalokol among the fishermen in the area. It had 11 respondents of which 7 were women. At Illeret, another focused group discussion was held. It had 7 local respondents at Nasieku's home of which 4 were women and three adult men. Like the interviews, the Focus Group Discussions were also conducted using interview guides.

The interview guides comprised of open-ended questions to encourage discussion and facilitate further probing. The questions revolved around a number of issues including the influence of cattle rustling and banditry to conflict in north-west Kenya; the traditional economies of the Turkana and Dassanech; the reasons for economic diversification; factors that influence household diversification; impact of diversification on the households' welfare; and impact of diversification on inter-communal conflicts in the study area. The desired data was recorded through note taking. The study is primarily qualitative, though quantitative approach was minimally consulted in analyzing incidences of drought and number of livestock lost to drought. The collected data was analysed qualitatively using descriptive narratives, arguments and tables. This method of analysis provided avenues for discerning, comparing and interpreting relevant patterns of activities on which conclusions were drawn. Presentation of findings also took narrative, descriptive, argumentative and tabular forms.

CHAPTER TWO

THE HISTORY OF TURKANA-DASSANECH CONFLICT IN THE ILEMI TRIANGLE

2.1 Introduction

Turkana and Dassanech pastoralists have traditionally practised nomadism, migrating along with their respective herds in search of lands to graze and water. The communities inhabit the north-western rangelands of Kenya on the border with Ethiopia. The area is part of the greater Ilemi Triangle - an area of disputed land in East Africa. Arbitrarily defined, the Triangle measures between 10,320 and 14,000 square kilometers. The boundary disputes regarding the Ilemi Triangle is a major factor leading to conflicts in the region. The countries laying claims of ownership repeatedly armed their citizens as a mean of legitimacy of access and use of the expansive grazing fields. Named after Chief Ilemi Akwon of Anuak, the territory was previously claimed by Sudan, Kenya and Ethiopia. Apart from the Turkana and Dassanech, other peoples in this area include the Didinga, Toposa, and Nyangatom. Records of the Dassanech and Turkana people occupying this region date back to the late 19th century. Turkana and part of Marsabit counties make up the Kenyan bit of the contested Triangle.

Turkana and Dassanech communities have had a long history of both conflict and cooperation in which cattle rustling and banditry went hand in hand with the preferred socio-cultural and economic lifestyle – pastoralism. However, in times of hardships marked by incidences of drought and diseases, the communities cooperated by exchanging and sharing available resources such as dry season pastures and living in common fishing villages. Despite the existence of mechanisms to facilitate these mutually beneficial and reciprocal practices, the history of the relations between the Turkana and Dassanech is largely marred by conflict. This chapter is a departure from the main body of the research as it seeks to help understand the historical background to the conflict between the two communities around Lake Turkana and how the environment has shaped their activities and practices over time.

2.2 The Area and the People of Turkana County

Turkana County occupies the North Western part of Kenya to the west of Lake Turkana. It was one of the districts of former Rift Valley Province. It is geographically

the largest county in Kenya. It shares international boundaries with several countries including Ethiopia to the north, South Sudan to the north-west, and Uganda to the west. Domestically, it lies to the South east of Samburu and to the south, Baringo and West Pokot counties. It borders Marsabit County to the east. It covers a total of 77,000 sq km.

The county is predominantly a vast low lying plain from which emerge isolated mountains and ranges of hills, most lying in the north-south direction following the general structure of the eastern Rift Valley. The plain slopes from an altitude of about 900 meters at the foot of the escarpment which marks the Uganda border to the west. The mountains rise between 1,500m and 1,800m with the largest being Loima which forms an undulating table land of some 65kms square. The mountains form a contrasting environment in rainfall and vegetation and are fairly well distributed except in the central area around Lodwar and the Lotikipi plain in the north which are flat. In the south east, the Suguta valley follows a tectonic trough bordering the Samburu uplands. The main rivers in the county are river Kerio, Tarach and Turkwel. Both Turkwel and Kerio originate from the highlands to the south and share a delta on the lake. The Suguta is in the south east and the Tarach is in the south west. Of all these rivers, only Suguta is permanent.⁵⁷

Vegetation along rivers Kerio and Turkwel form dense forests of up to six to seven kilometres wide dominated by various species of trees, such as acacia. Away from the water courses, the common species vary somewhat with the region and soil type. Ground cover in the county is sparse, bushes being typically thorny and rather widely spaced. Rainfall varies with altitude whereby the lowest is recorded in the central plains around Lodwar, with an annual average of about 180mm. The highest is in the North west regions with Lokichogio having an average of about 520mm per annum. Lokitaung in the north east has an average of about 380mm and Kaputir in the Turkwel Valley further south has an average of about 360mm. Climate variability caused by uncertain rainfall patterns, is one of the most unstable factors that affect pastoral production systems in the county. Here, rainfall is not only sparse, but also spatially and

⁵⁷ Philip Chemelil, .K.. 2015. Ecology and History as Essentials of Deprivation in Turkana County Kenya. *Historical Research Letter*, ISSN 2224-3178, Vol.22, pp. 10-11.

temporally erratic. Rain tends to fall intermittently, though it can occur any time with long rains falling around April to August, and short rains in late November.⁵⁸

The Turkana people describe the two major seasons *asakamu* (dry) and *akiporo* (wet). These two terms, in keeping with realities, are used in an extremely elastic manner. *Akiporo* refers to the times when the rains have been sufficient to produce new and fairly well-established vegetation. *Akamu* means ‘no rain’ or ‘sporadic rain’ that does not produce new growth.⁵⁹ The ideal pattern is reflected in the names of Turkana months. At the beginning of the rainy season is *Titima* (when grass is growing), followed by *Eliel* (spreading – when homesteads move with their herds across the country to utilize the new grass), *Lochoto* (mud), and *Losuban* (time of marriages). The advent of the dry season is marked by *Lopoo* (when dry berries are gathered), followed by *Lorara* (when leaves fall), *Lomak* (when trees are bare), and by sinister periods of *Lolongo* (hunger) and *Lokwang* (the white time – when clouds of white dust envelop the land).⁶⁰

The temperatures are high and fairly uniform throughout the year with an average daily level of about 24 to 38°C in the plains. In the central plains, normally, there are strong winds usually coming from the east or south east which sweep across the largely barren land carrying large quantities of dust and sand. The plains are almost bare of ground vegetation from grazing and browsing. There is a tendency for tree and grass species to be suppressed by browsing, grazing and cutting thus encouraging less palatable, often thorny species, such as the small acacias.⁶¹ Lake Turkana is the main source of water for domestic and commercial activities in the county.

2.2.1 Lake Turkana

Lake Turkana was originally called Lake Rudolf by the Hungarian explorer, Count Sámuel Teleki de Szék, and his Austrian partner Lieutenant Ludwig Ritter Von Höhnel, who were the first Europeans to record the existence of the lake on 6th March, 1888. They named it after Rudolf, Crown Prince of Austria-Hungary. The lake is located in

⁵⁸Philip, Chemelil, K., 2015. Ecology and History as Essentials of Deprivation in Turkana County Kenya. *Historical Research Letter*, ISSN 2224-3178, Vol.22, pp. 10-11.

⁵⁹Philip, Gulliver, H., 1955. *The Family Herds: A Study of Two Pastoral Tribes in East Africa, the Jie and Turkana*. London: Routledge and Kegan Paul Ltd.

⁶⁰John, L. 1992, pp. 7-8, Op cit.

⁶¹Ibid.

Turkana County, with its northern end crossing into Ethiopia. It is the world's largest permanent desert lake and the world's largest alkaline lake. By volume, it is the world's fourth-largest Salt Lake and the 24th among all lakes in the World. The Lake type is Saline and alkaline. The water is potable, but not palatable. In 1975, President Jomo Kenyatta renamed it after the Turkana, the predominant tribe around.

The Lake's basin countries are Kenya and Ethiopia. Settled communities around the Lake include; Turkana, Dassanech, Gabbra, Rendile, Samburu, Somali and Elmolo. Bays around the lake include, Elmolo, Loyangalani, Kalokol, Eliye Springs, Ileret and Fort Banya. The Turkana refer to the lake as *Anam Ka'alakol*, meaning 'the sea of many fish'. It is from the name Ka'alakol that Kalokol, a town on the western shore of Lake Turkana derives its name. The lake is also an imaginary boundary of the Rendille, Borana and Oromo to the Turkana land. The lake holds about 50 fish species, including 11 endemics. Non-endemics include species such as Nile tilapia and the Nile perch. During the early Holocene, the water level of the lake was higher, and it overflowed into the Nile River allowing access to non-endemic fishes and crocodiles mainly of the riverine species.⁶² Besides being a permanent desert sea, it is the only sea that retains the waters originating from two separate catchment areas of the Nile. Its drainage basin draws its waters mainly from Kenya and Ethiopian Highlands.

2.2.2 The Turkana and Dassanech People

Northern Kenya in general and the Turkana Basin in particular has been an area of contact and cross-fertilization between different cultural and linguistic groups for millennia. The Nilotes have interacted with both Eastern and Southern Cushites as shown by their language, vocabularies and cultural practices. The term Nilo-Hamitic was used in the past to refer to the Turkana to indicate a mixture of Nilotic and Cushitic (Hamitic) but has now been dropped. The Turkana population and culture result from a process of mixing and acculturation.⁶³ Turkana County is inhabited by several communities including Turkana, Dassanech, El molo, Gabbra and Somali. Other immigrants like Luo, Luhya and Kisii are also found in areas adjacent to the western side of Lake Turkana. This study focuses on the Turkana and the Dassanech communities.

⁶²John, L. 1992, pp. 7-8, Op cit.

⁶³Philip, Gulliver. 1951. A Preliminary Survey of the Turkana. *Research Report Produced for the Government of Kenya*, Nairobi; p3.

2.2.2.1 The Turkana

Turkana County is majorly occupied by the Turkana people. The Turkana belong to the *Ateker* Group of the Eastern Nilotic Language Family. The Ateker Group, referred to in the past as the "Karamojong Cluster," "Central Paraniotes," or the "Iteso-Turkana Group," consisted of the Iteso, Karamojong, Dodoth, Ngijie, Taposa, Jiye, and Donyiro or Ngiyengatom languages, as well as that of the Turkana. Although all the groups are linguistically related and live in close proximity to one another, their relations were generally based on conflict, characterized by raids and counter-raids.⁶⁴

Throughout the vast territory, the culture of the Turkana is remarkably heterogeneous, the result of constant movement and continual interaction. It is believed that the Turkana descended into the country from Dodoth escarpment before 1800AD⁶⁵ after differing with their ancestral family of Karamajong people. The reasons for the break-up of the Karamajong group are however, a matter of speculation. Turkana oral traditions indicate a breaking away from the Jie by following a wayward ox. This popular version is a story about an old woman and a stray bull.⁶⁶ In the distant, according to the story, the people of the Ateker Cluster lived together in the Karamoja area. During a certain time of severe drought and food shortage, an old woman named *Nyayece* went down the escarpment into Tarash valley to look for food. She temporarily settled there as she found food plentiful. Later, a stray bull found its way into her compound where they then lived together due to good grazing in the place.

Back at home, young men (warriors) were sent out to look for both the woman and the bull. On reaching the Tarash River Valley, the warriors found them living quite happily together, and they were impressed by the excellent pasturage down the valley. They went back to Karamoja and reported what they found. A section of young men and women then moved out with cattle, sheep, goats and donkeys to the newly discovered grazing.⁶⁷ They descended the escarpment to the Tarach River Valley and spread along

⁶⁴ John, L., 1992. *The Scattering Time: Turkana Responses to Colonial Rule*. Oxford: Clarendon Press. Pp. 2-12.

⁶⁵ Philip, Gulliver., 1951, op cit, p 2-5.

⁶⁶ William, Ochieng, R., 1975. *A History of Kenya*. Nairobi: Macmillan Kenya.

⁶⁷ Turkana Oral Tradition does not mention camels; it is believed that these were later acquired from the East, either through trade or raid.

the Turkwel and Kagwalasi (or *Nakwehe*) River Valleys to establish a new homeland in the modern day Turkana County.⁶⁸

Like most other African traditions, the oral tradition ends up demonstrating that the Turkana settlement in their present homelands is logically the termination of migrations which carried the Turkana from the grazing Karamajong area. Thereafter, the grazing and water needs of the stock dictated the settlement patterns and movements. This trend more or less persists up to the present. The Turkana are constantly on the move from the plains to the river banks, to the mountains and then back again. And so, on the whole, they build no permanent homes but live in temporary shelters. Because of the tendency to move wherever grass and water is available, the Turkana pastoralists are in perpetual competition and conflict with their neighbours.⁶⁹

Linguistic studies and the historical traditions of their western neighbours confirm the common origin of the Turkana, Jie, Karamajong, and Dodoth. These, in addition to the Toposa, Nyangatom, Iteso and Toposa tribal groups inhabited the *Korten-Magos* hills in the present day Karamoja district of Uganda at the beginning of the 18th century. During this time, they adopted a strong pastoral outlook and kept thoracic hump *Zebu* cattle that permitted long distance patterns of transhumance. The massive migration of these groups to *Korten-Magos* hills led to serious ecological pressures, exacerbated drought and internecine feuds over pastoral resources.⁷⁰

The Ateker group broke into segments that were to form distinct linguistic groups such as the Karamajong, Dodos, and Toposa. Moving southwards and north-west from the Korten- Magos hills were elements of the Jie and the Turkana. The Turkana later separated from the Jie (now in Uganda) and expanded their territory in all directions, displacing the Toposa, the Dongiro (Nyangatom), and the Dassanech in the north, the Dodoth (Dodos) and Karamajong in the west; the Pokot in the south and the Samburu in the southeast.⁷¹ Displacement by the Turkana occurred over an extended period of

⁶⁸Philip, Gulliver., op cit, 1951:2-7.

⁶⁹Manger, L., 2000. The African Pastoral Crisis. In Leif Manger and Abdel Ahmed (eds) *Pastoralists and Environment*, Addis Ababa.

⁷⁰ John, L..1992: 2-9, Op cit.

⁷¹ Ibid, 2-11.

time by exerting pressure on key opponents. In this milieu of change, some defeated groups were assimilated, while some were forced out.⁷²

Turkana traditions argue that during this period of expansion, military activities were mostly characterised by small-scale raids and skirmishes rather than coordinated campaigns. At the time, they captured large numbers of animals including Boran Zebu cattle and many camels. Although they had acquired camels from the raids in Loima Hills region earlier, extensive camel husbandry by Turkana people began at this time. The final expansion reached south as far as Lake Baringo with raiding parties marauding up the eastern shore of Lake Turkana, although the Turkana did not occupy this region. These conquests of other tribes by the Turkana people was made possible by the fact that the Turkana were isolated from the rinderpest disaster of the 1880s and were, therefore, in a comparatively stronger economic and military position than their neighbours whose livestock was decimated by the epidemic.⁷³

From mid-19th century onwards, due to unfavourable climatic conditions in the Turkana region leading to variable fodder and water supply, poor security, and because of the unique requirements of each stock species, Turkana pastoralists developed a flexible social and pastoral system well augmented with hunting, gathering, and sporadic fishing. They also had competitive raiding relationships with the surrounding tribes.⁷⁴

By the 1890s, before the first arrival of the British military presence, Turkana people had gained control of virtually all territory which was ever to be regarded as Turkana-land and much more that was declared part of Sudan and Ethiopia upon advent of colonialism. The current boundaries of Turkana County are, therefore, artificial and restrictive as far as the Turkana people are concerned. Although essentially settled by virtue of fixed boundaries, land disputes over water and grazing areas continued for a long time against neighbours like the Samburu, Dassanech, Karamajong and Pokot. Yet, despite the recurring violent conflicts in pre-colonial and colonial times, the Turkana traded with the neighbours including the Pokot and Karamajong who are

⁷²Gufu, O., 1992. Ecological Factors in Land-use Conflicts, Land Administration and Food Insecurity in Turkana. *Pastoral Development Network Papers*, No. 33a. London: Overseas Development Institute. pp. 1-8.

⁷³ Philip, Gulliver., 1955, Op cit.

⁷⁴Philip, Gulliver., 1955, Op cit.

known fierce raiders. From the trade, the Turkana acquired millet, maize, tobacco, spears, iron, cooking pots, beads, and ostrich eggs and feathers.⁷⁵

The encounters between Europeans and Turkana were mostly hostile. Although the Turkana generally had no major political leaders, a few powerful diviners rose to war leadership in resistance against the British. The diviners led a major uprising from 1916 against the colonial powers, but its suppression seriously disrupted the peoples' social security system. Diviners were men, and occasionally women who exhibited supernatural powers of prophesy, and whose influence embraced the entire Turkana society.

By the outbreak of World War I, few parts of Turkana had been put under colonial administration. Most importantly, the land occupied by the Turkana was harsh and very dry. The Turkana were, therefore, less affected by colonialism than other tribes because the British saw little value in their land. From World War I through to end of World War II, Turkana actively participated in the wars as allies of Britain against invading Italy. Turkana region was used as a launching pad for the war against the Italians forces leading to the liberation of Abyssinia(Ethiopia).After World War II, the British led disarmament and pacification campaigns in the region leading to massive disruptions and dispossession of Turkana pastoralists. The colonial administration practiced a policy of deliberate segregation of Turkana people by categorizing the area as a 'closed district'. This led to marginalization and underdevelopment in the lead up to Kenya's independence.

The county remained remote after Kenya became independent in 1963. The development of this arid part of Kenya never became a priority of the Kenya government until the 1980s.⁷⁶ However, the paving of a road through Turkana to Sudan accelerated changes, and by 2002, the administrative centre Lodwar was a bustling frontier town of over 20,000 people.⁷⁷Despite the changes in the county, most Turkana people still follow their traditional beliefs and customs including wearing traditional clothing and inhabiting traditional huts.

⁷⁵KNA/DC/LOK/5/3, An Outline of North Turkana History from Records in Lokitaung, 1951.

⁷⁶Republic of Kenya 1992. Development Policy for the Arid and Semi-Arid Lands (Asal).Nairobi: Government Printer, Kenya.

⁷⁷Republic of Kenya 2002. *Turkana District Development Plan 2002-2008: Effective Management for Sustainable Economic Growth and Poverty Reduction*. Nairobi:Government Printer, Kenya.

2.2.2.2 The Dassanech

The Dassanech are a semi nomadic group living a mixed pastoral and agricultural lifewhere they grow sorghum, maize, pumpkins and beans along river Omo and Lake Turkana deltas. The majority are however, pastoralist relying on goats and cattle for milk, meat and hides especially in dry season. They mainly occupy the central region of the Omo Delta in Ethiopia where the cultivate crops and traditionally had excellent grazing land for their livestock. They practice flood retreat cultivation, pastoralism and fishing in and around the Omo River and Lake Turkana. In the 20th century, they migrated from the Omo River Valley in Ethiopia and settled around Illeret location, north-east of Lake Turkana. To the south, Illeret borders Sibiloi National Park and the Site Museums of *Koobi Fora*. They engage in business with the main items of trade being exchange of livestock for grain or firearms. This kind of business engagement has enabled the Kenyan Dassanech to sustain prolonged conflicts with their neighbours, many times supported by their Ethiopian brothers.⁷⁸

Based on 2009 census, the Dassanech in Kenya numbered around 50,000.⁷⁹ The original homeland of the Dassanech is believed to be in Sudan before they moved to Ethiopia in the 18th and 19thcenturies. Their migration is believed to have been caused by climatic conditions with increased aridity limiting availability of grazing pastures and water resources. Their main homeland is in Dassanech Woreda District, Dehub Omo Zone, southern Ethiopia.⁸⁰ Despite the existence of their clans in Kenya, Ethiopia and South Sudan, the Dassanech do not feel they belong to any of these countries and prefer to govern themselves by their own customs and interpretation of land borders. The name Dassanech means “people of the delta” though much of their traditional land is dry. They speak a Cushitic language. Like many pastoral groups in Africa, the Dassanech are a highly egalitarian society with a social system involving age sets and clan lineages - both of which involve strong reciprocity relations.⁸¹Majority of them

⁷⁸ James, Mwangi, N., 2010. Herders, Guns and the State: Historical Perspective of the Dassanetch Frontier Areas and the Politics of Arms in Northern Kenya, 1909-1997. *MA Project Paper, University of Nairobi*. P.3.

⁷⁹Sagawa, T., 2011. Automatic Rifles and Social Order Amongst the Daasanach of Conflict Ridden East Africa. *Nomadic Peoples*, Volume 14: Issue 1. 2010; American University Library.

⁸⁰ Hadgu Kassaye, E. Michael, G.Y and Ambaye. Z., 2005. Addressing Pastoralist Conflict in Ethiopia: The Case of Kuraz and Hamer Sub-Districts of South Omo Zone. London, Safeworld. Pp. 2-22.

⁸¹Claudia, Carr.. J., 1977. Pastoralism in Crisis: The Dassanech of Southwest Ethiopia. University of Chicago.

occupy the Omo delta, south of River Omo and shores of Lake Turkana to the north and east.

The Omo delta is located at the northern end of Lake Turkana. It is a large closed-basin lake located primarily in Kenya. The Omo river provides about 90% of the lake's water. Given their location close to the floodplains of river Omo, in the past, Dassanech people enjoyed relatively stable supplies of pasture. However, since the 1960s, they have suffered massive losses in number of their cattle, goats, and sheep as a result of land scarcity, in part due to environmental changes which rendered much of their land unsuitable for pastoralism, and partly due to exclusion from their traditional lands in the larger Ilemi Triangle. The impact of these losses caused many of them to migrate south to areas closer to Lake Turkana in an attempt to grow crops to survive.⁸²

Traditionally, the Dassanech traded with her neighbours for beads, food, cattle, and cloths. More recently, the trade has been in guns and bullets. As roads were made through the area, other goods including beer were introduced into the Dassanech villages. In Dassanech-land sorghum is the staple food crop though they also grow maize and beans. Dassanech herders live in dome-shaped houses made from a frame of branches, covered with hides and woven boxes. Within the village, it's the women who build and take down huts during migration.

Dassanech society has classes. The *Dies*, or lower class or 'poor people' are people who have lost their cattle and thus, their way of living. Cattle were traditionally lost to diseases, raid or drought. For those who had lost their cattle, the option was to turn to fishing or cross tribal boundaries, which had always been fairly permeable and join with another group where an individual had a family connection. This is how majority of Dassanech came to Kenya.

Dassanech community practice both male and female circumcision. Uncircumcised women are regarded as '*animals*' or 'boys' and could not get married or wear clothes. Women wear a pleated cows-skin skirt and necklaces and bracelets. Men wear a checkered cloth around their waists. Dassanech are governed by an Age-set system. In the society, power is in the hands of about thirty elders, locally known as "Ara" (bulls).

⁸² Jesse Creedy, P. 2011, Op cit.

⁸³ The Dassanech community is not strictly defined by ethnicity. Anyone – man or woman - could be admitted as long as they agreed to be circumcised. Over the centuries, the tribe absorbed a wide range of different peoples. In a way, Dassanech clans reflect the wide-ranging origin of its members. Each clan has its own identity and customs, its own responsibilities towards the rest of the community, and is linked to a particular territory.⁸⁴

2.3 Causes of Turkana-Dassanech Conflict

Turkana and Dassanech communities have historically been in regular conflict over water, pasture and livestock. However, over the past few decades, the traditional conflicts have become increasingly violent, not only resulting in more deaths, injury and destruction of property, but also limiting the mobility of people and livestock that is crucial to their pastoral lifestyle. Armed violence is a key factor underlying the chronic poverty, vulnerability and underdevelopment in the area. Reciprocal acts of violence are common in this setting which in turn further deplete communal resources and undermine the communities' resilience to ecological shocks.

In addition to competition over pasture and water, is the practice of cattle rustling that has been a part of Turkana and Dassanech pastoralist societies for generations.⁸⁵ The history, context, and driving causes behind Turkana-Dassanech pastoralist clashes often differed, though all if not most, were centered on livestock, water and pastures. The origin of this conflict goes back into colonial era and even before, though no scholar has managed to put a fixed date on to which the conflict really began.

In an attempt to contain the problem of cattle rustling and raids in the Ilemi Triangle, the Kenyan colonial government obtained concession with Sudan. No agreement was reached with the Abyssinian (Ethiopian) government from which the notorious Dassanech raiders incessantly raided Turkana cattle.⁸⁶ The Abyssinian Dassanech conducted the raids in conjunction with their Kenyan brothers who had settled in Todenyang, south of River Omo. A case in point is in 1936 where the Dassanech

⁸³Age-set System *is one of the oldest political institutions in Africa, which divides people into age categories for the purpose of political, economic and social structure.*

⁸⁴ Parry, Ben. Friday Jan 4, 2013. Dassanech People: Ethiopia's Indigenous Crocodile Hunting Ethnic Group. BBC News Programs Newsletter. Available at: <http://www.bbcnews/africa-dassanech-people>

⁸⁵Kenya Human Rights Commission, 2010. "Morans No More – The Changing Face of Cattle-Rustling in Kenya". Nairobi, Kenya. P7.

⁸⁶ KNA/DC/LWD/2/1/1, Frontier Affairs Kenya, Uganda, Sudan and Abyssinia, 1927-1957.

repeatedly raided the Turkana despite the fact that they were grazing their cattle on Turkana territory.

There was a relative period of peace in the 1940s following the re-drawing of the 'blue-line' – a boundary-line- which marked the northern limit of Turkana's grazing land. The line was much deeper than the previous 'red-line' that had been drawn in 1914. The second drawing done by Kings' African Rifles during World War II gave much of Turkana grazing land to the Dassanech and Toposa in the north. To protect the newly acquired lands, the Abyssinian government armed the Dassanech with firearms giving them an upper hand in their struggle with the Turkana. On December 19th, 1957, the Dassanech ended the peace period by launching a surprise attack in which about 164 Turkana were killed and 5000 heads of cattle driven away.⁸⁷ Raids on Turkana by Dassanech and vice versa continued to the independence era with an increase in sophistication. In June 6th 1963, for instance, the Dassanech raided again killing 32 Turkana.

After independence, most African countries found themselves in conflicts that culminated in serious civil strife, as was the case with all states that neighboured Turkana and Dassanech. These states include Uganda, Somalia, Ethiopia, and the Sudan. As a result, firearms landed on the hands of pastoral communities who acquired them through trade with criminal gangs. Since the 1970s, there is no year that the Turkana and her neighbour failed to launch raiding expeditions, though a number of them were often small. With the passage of time, the situation soon became complicated as the pastoralists not only raided with the intention of acquiring livestock but as a source of other needs including school fees.⁸⁸

Initially, cattle raids among the pastoralists were a result of attempts by various groups to maximise herd sizes in order to ensure communal survival. Thus, raiding entrenched the position of a given social group which could guarantee territorial area and means of survival. Raids were a form of response by a society to disasters emanating from cattle diseases, famines and other forms of calamities. Another cause of cattle rustling which

⁸⁷KNA/DC/LDW/2/1/1, 1930 Turkana District Annual Report 1926-1932.

⁸⁸ Mathew, B. 2015. Oil Exploration in Kenya: Success Requires Consultation. An Assessment of Community Perceptions on Oil Exploration in Turkana County, Kenya, p.18.

became more entrenched in the last few decades of the 20th century was that of self-acquisition motives. Raids motivated by such tendencies did not occur as a response to ecological or natural calamities, but occurred at any time with the aim of acquiring animals for commercial purposes and individual gain. While the first category of raids hinged on communal interests and was monitored by the community through social norms, the latter was based entirely on private interests and was controlled by armed kraal (*manyatta*) leaders. This led to the emergence of cattle warlords.⁸⁹

The practice caused great havoc in north-west Kenya in terms of loss of human lives, destruction of property, and dislocation of populations.⁹⁰ Commercialization of raids and business in firearms made cattle rustling profitable for the illegal arms traders and led to an extension of conflict throughout the region. The interconnected nature of Turkana-Dassanech conflict can, therefore, be exhibited with the nature of profiteering through illegal weapons obtained from Uganda, Somalia, Sudan and Ethiopia. As the conflict evolved from a small-scale conflict fought with basic clubs and bows and arrows to more retaliatory, full-scale assaults undertaken with advanced firearms, the conflict spiral became more and more evident between the communities. If a herdsman purchased arms to protect his livestock, opposing factions would do the same fearing his actions were aggressive and ill-intended.⁹¹

The new forms of violence seemed to be the result of multiple cracks in the administrative structures of the state and social norms. The government seemed to have lost effective control over north-western Kenya, especially with regard to bandits and cattle rustlers who became more militarised and destructive in their operations. The bandits justified their militarisation on the basis that they were defending their communities against enemies, a role that government was expected to play, but didn't. Thus, cattle rustling – traditionally considered a cultural practice and sanctioned and controlled by elders, over time acquired new tendencies and dynamics, leading to commercialization and internationalization of the practice.⁹² The phenomenon had undergone fundamental transformation from a cultural practice of testing a person's

⁸⁹Charles Ocan. E., 1994. Pastoral Crisis in North-Eastern Uganda: The Changing Significance of Raids. *Working paper* No.2, Kampala: CBR Publishers. P2.

⁹⁰ Kenya Human Rights Commission 2010:26., Op cit.

⁹¹Kenya Human Rights Commission 2010:26, Op cit.

⁹² Ibid

personal bravery and prowess to bloody warfare between various groups. This practice soon became endemic challenging the societal structures, survival, as well as moral foundations within the practicing communities.⁹³ With time cattle rustling became a reserve of warlords and militarised groups.

2.4 Militarization and “Warlordism” of Banditry and Cattle Rustling

Traditionally, pastoral warfare and cattle rustling served mainly as a tool for resource and land expansion by these societies. There were often institutions in place to curb widespread violence. Typical weapons were *rungus*, wooden clubs commonly found around, and bows. There were laws of conflict spelt out by clan and community elders which prohibited phenomena such as violence against women and children during the raids. During early periods, these conflicts were often seen as a form of redistribution and balancing of wealth between communities in which one community would take cattle from another when they were short on livestock, and vice-versa. It was as such, a reciprocal activity by nature.⁹⁴

By 1888, the Dassanech had mainly traditional weapons like spears, bows and arrows. About ten years later, they were impoverished and scattered to such an extent that European travellers of the time claimed they no longer existed. However, by 1890s, they had in their arsenal *Fossil Gas* rifles that fired a heavy bullet. In archival material, this gun is described as 45, though its unit of measurement is not well documented. By 1913, having acquired more weapons, the Dassanech were strong enough to launch raids. From this time on, the Abyssinian government was never in a position to exercise total control over their activities in the area. The lack of control is what made them to constantly harass their Turkana neighbours with impunity. This is because, while the Kenyan colonial administration was able to curtail Turkana access to arms, by controlling movement in the ‘closed district’ and constant disarmaments, the Dassanech lived in a world of willing-buyer-willing seller - free from any governmental inhibitions. As a result, the Dassanech went on to possess lethal Automatic Kalashnikovs (AK47) during World War II.⁹⁵

⁹³Mohamed, S.A., 1992. Agro-Pastoralism: An Underestimated Regional Food Production System. *Eastern Africa Social Science Review*, Vol. IX, No. 1, p.29.

⁹⁴Pragya, N.D. 2011. Conflict Assessment: Northern Kenya. Available at: http://www.pragya.org/doc/Conflict_Assessment_Report.pdf, accessed 9 May 2014.

⁹⁵KNA-PC/NFD4/4/4/*Marsabit Political Records*. Kenya National Archives.

As from 1950s, the Dassanech steadily accumulated an arsenal of firearms turning every small conflict with the Turkana in the region violent and bloody. The importance of arms in the history of the Dassanech lies in the menace they caused through raids because they were well armed early enough to assert their influence *vis a vis* their neighbours and the colonial state. Heavily armed in a territory largely left un-policed, they realized the power of the gun and the role it could play in determining relationships with various sectors, including the state. There were a number of reasons that “necessitated” acquisition of firearms by the Turkana and Dassanech in colonial and post-colonial eras. These include:

2.4.1 Marginalization by the Colonial System

The existence of Turkana and Dassanech pastoralists has periodically been under intolerable stress leading to a violent struggle to survive.⁹⁶ Various forms of pastoral systems reacted differently to changes in the ecological, environmental and economic situations. Pastoral systems were by and large products of climatic and environmental factors. In most parts of the pastoral areas, crop rotation was difficult if not impossible due to the extremely dry weather conditions. These pastoralists, therefore, were threatened by famine, drought and violent conflicts. The arrival of colonialism compounded their problems. The British government established administration in Turkana in 1910. Immediately, they declared the area a ‘closed district’.

Thereafter, the government through the Special District Administration Ordinance Order empowered the District Commissioner and police to issue or not issue a pass to persons who wished to enter or leave the district. The government dictated particularly to business people where and when to trade.⁹⁷ Until 1968, the county was a restricted area and people travelling through it had to have a special administrative and police permits. The natives were forbidden to enter without dressing traditionally. The British considered Turkana to be nuisance to the neighbouring European farmers at Trans-Nzoia and had to be contained. For this reason, and the fact that the people were nomadic pastoralists, very little development was accomplished in the county

⁹⁶Mohammed, K. 1994. Market-based Early Warning Indicators of Famine for the Pastoral Households of the Sahel. Vol 22 No 2, p. 198.

⁹⁷ KNA/DC/LDW/1/1/125, Special District Ordinance Order, 1951-1954.

throughout the colonial era and well into the years of political independence.⁹⁸ Additionally, their nomadic nature incapacitated the establishment of permanent social amenities and infrastructure, such as schools, hospitals and roads.⁹⁹

Colonial administration's repeated punitive measures also disrupted the material bases of the Turkana pastoralists' economy and hence, the Turkana could no longer subsist from their herds.¹⁰⁰ Hundreds of thousands of stock was taken in these expeditions. Additionally, in a bid to make them work, the colonial government slapped taxation on the Turkana. The Turkana were unwilling to work especially in road construction and other manual activities because of their cultural background of pastoral lifestyle. As a punitive measure, taxation was started in Turkana in 1928. Hut and poll tax was collected in which every male with cattle was made to pay Kshs. 6. At the time, the amount was extremely high as it could buy two cows. In 1928, tax collected in the county was Kshs. 39,324 while in 1929 it rose to Kshs. 48,686.

The root cause of socio-economic problems among the Turkana could, thus, be traced to the disruptive and inimical policies of the colonial government in their attempt to pacify the Turkana.¹⁰¹ Following the establishment of colonial rule, the government adopted policies which contributed to the economic and political marginalisation of the pastoral communities. The colonial government favoured the establishment of white settlers' plantation economy at the expense of peasant production. Pastoralism was regarded by colonial officials as a primitive mode of production and efforts were made to discourage it.¹⁰² The government demarcated tribal reserves for African populations. This was aimed at making more fertile land available for alienation to white settlers. The creation of fixed borders did not only limit free access to grazing land and water, but also increased social conflict among the Africans. These borders hindered free movement of people and livestock. The pastoralists were adversely affected by the

⁹⁸Roger, M.J.Z. and King, A. 1975. *The colonial history of Kenya and Uganda*. Nairobi: East African Literature Bureau.

⁹⁹ KNA/DC/LDW/1/1/104, Turkana Rehabilitation and Development, 1963-1964.

¹⁰⁰ John, M., (ed) 1993. *Conflict and the Decline of Pastoralism in the Horn of Africa*. London: Macmillan, p. 147.

¹⁰¹Casper, Odegi, A., 1992. *Life in the Balance: Ecological Sociology of Turkana Nomads*. Nairobi: ACTS Press. P. 44.

¹⁰² John, G., Aronson, D. & Salzman, P.C. (eds) 1980. *The Future of Pastoral Peoples*. Nairobi: IDRC. Pp.184-186.

measures since their mode of nomadism resulted from ecological demands necessitating mobility to balance ecological heterogeneity.¹⁰³

Due to their small territory, pastoralists remained ethnically cohesive society, and often their conflict for grazing area was about community survival. A number of them were made landless by the colonial administration and European settlers who pushed them out of the most fertile land or land set out for building administrative posts into the drier parts. Colonialism, therefore, made the political relations in the area worse as access to land shrunk and populations of animals and people in restricted areas increased against available resources. Acute competition for water and pasture between settlements became the only answer. Fatal decisions like restricting movement meant that when animals of one group died, the only way to replenish stocks – the most natural and socially available to lowly developed social formations – was cattle raiding.¹⁰⁴

In addition to border restrictions and movement control, the colonial government also imposed market taxes, quarantine, destocking campaigns, and other impediments. These measures made border trade difficult and less profitable. Thus, cattle remained the main source of livelihood. In that connection, the immediate response to stock shortages was to turn against another community and deplete its resources in order to replenish losses.¹⁰⁵ To achieve success in raids, access to firearms became the lone goal.

2.4.2 Repression by Subsequent Post-Colonial Governments

The defining feature of Northern Kenya is its separation from the rest of the country, which manifests itself in both physical and psychological ways. The Turkana and Dassanech pastoralists have had to contend with state repression since the colonial period. For example, their land was a ‘closed district’ and was administered by military officers. Free movement in and out was restricted. This had negative effects on the social, economic and political developments of the communities. Whenever a cattle raid occurred, the government would send punitive expeditions against the suspected ethnic

¹⁰³Charles, Ocan, E., 1994. Pastoral crisis in North-Eastern Uganda: The Changing Significance of Raids. *Working Paper No.2*, Kampala: CBR Publishers. P7.

¹⁰⁴Charles, Ocan, E., 1994. Pastoral crisis in North-Eastern Uganda: The Changing Significance of Raids. *Working Paper No.2*, Kampala: CBR Publishers. P7.

¹⁰⁵ Ibid

group, mostly against the Kenya Turkana leaving the highly mobile Ethiopian Dassanech scot-free. Such expeditions led to the killing of many Turkana people and confiscation of livestock. These measures created strong resentment against colonial rule, and resulted in the tendency of rejecting all forms of western influence for a long time.¹⁰⁶

Since ancient times, the two groups of communities protected their livestock from wild animals. Later on, protection against raiders also became necessary. These considerations made it prudent for them to be armed. This was however, seen as a threat by the colonial authority. Additionally, the colonialists often used negative terms such as “war-like” and “violent” when referring to Turkana as a way of creating an enemy image and using it as an ideological justification for counter aggression.¹⁰⁷ The government used this perception as a justification to put a close watch over the Turkana and other pastoralist communities in the area. The government officials and their African collaborators believed that the only way to deal with the cattle rustling menace was to use brute force.

The post-independence government adopted the same strategy in dealing with cattle rustling in the area. It’s worth noting that by the 1950s, Turkana were among the wealthiest and most productive pastoralist groups in East Africa. Yet by the turn of the 21st century, the majority of them led a life of destitution, abject poverty and dependence on relief provision. This sorrow state of affairs is attributed to two related factors: the Turkana were victims of deliberate marginalisation by the independence and subsequent post-independence governments, and natural calamities – both of which contributed to the decimation of their herds. The use of force by the state disrupted the material bases of the Turkana economy.

Despite the use of force, the government failed to achieve its objectives of ending cattle rustling and only exacerbated the problem. This failure made the bandits the de facto administrators of area. The increase in state brutality gained momentum in the 1970s when the Turkana and Dassanech pastoralists easily obtained deadly fire arms from the neighbouring countries which were undergoing political turmoil. These weapons were

¹⁰⁶Charles, Ocan, E. 1994. Pastoral Crisis in North-Eastern Uganda: The Changing Significance of Raids. *Working Paper No.2*, Kampala: CBR Publishers. P7.

¹⁰⁷ Katsuyoshi, F. and Markakis, J. (eds) 1994. *Ethnicity and conflict in the Horn of Africa*. London: James Currey.

acquired not only for defensive but for offensive purposes as well. Another impact of state repression was the manner in which confiscated livestock were stolen by government officials. In that regard, the plunder created at one level a destitute and demoralised society and at another an armed and brutalised one. The people therefore, saw the gun as their saviour against enemies, including government operatives.¹⁰⁸

In subsequent years, the Turkana in collaboration with elements in the government employed sophisticated raiding methods using heavy guns, military trucks for transport and large scale networks of smuggling extending up to Sudan.¹⁰⁹ Consequently, from a means of obtaining a few animals and improving one's fighting prowess, raiding evolved into military operations using conventional war tactics and involving thousands of livestock. Not just young raiders were killed, but women and children were brutally killed in the process too. Huts, stores and harvests were set on fire and shops looted. The government's reaction was to send military helicopters to bombard the suspected bandits' hideouts. The government also put renewed emphasis on the policy of de-pastoralisation. Such military and economic measures however, failed to achieve the expected results as they eradicated the symptoms rather than the root cause of the problem. Having lost all or most of the animals and being continuously threatened with physical extinction, men were left with little choice but to raid while women, children and the elderly were compelled to go to refugee camps or urban slums.¹¹⁰

The weakening of state control in the area resulted in the emergence of cattle warlords with armed militia to protect their interests. Consequently, violence, chaos and insecurity became the dominant feature. Cattle warlordism involved mobilisation of hundreds of youths by promising them security and a share of the raided loot. The government consequently lost effective control over bandits and cattle rustlers who became militarised, predatory and destructive in their operations. Warlords privatised violence for the purposes of predatory accumulation.¹¹¹ Unlike the previous elder-controlled raids, the new raids were controlled by wealthy and influential traders promising the people good tidings, security and prosperity. Due to the people's

¹⁰⁸Tim, A., (ed) 1996. *In Search of Cool Ground: War, Flight and Homecoming in North-east Africa*. London: James Currey, p. 122.

¹⁰⁹ John, Markakis., 1993:89, Op. cit.

¹¹⁰ Ibid, p. 95.

¹¹¹Katsuyoshi, F. and Markakis, J. (eds) 1994. *Ethnicity and Conflict in the Horn of Africa*. London: James Currey, p. 159.

disillusionment and anger over the government's mistreatment, the warlords easily won strong support from the locals.¹¹²

The warlords created strong and heavily armed private armies which, apart from providing local security, also went on cattle raids. The warlords created several retainers whom they could send on raids, while they maintained and supervised the raiding party. The warlords became the final authority on cattle relations, overriding the traditional powers of the elders. There emerged links between warlords and livestock traders from Kenya and neighbouring countries. They maintained a strong trade network reminiscent of the old East African caravan trade. The youth played a very crucial role in the system of warlordism. Since they were impoverished and marginalised by economic realities, they were structurally available and ready for mobilization - offering service to the highest bidder. The youths comprised the group most excluded from the social, economic and political order of the society. They were amenable and easy to manipulate.¹¹³

2.4.3 Ecological Impediments

The practice of nomadic and semi-nomadic pastoralism in Turkana region has been across roads with the robust and unprecedented scale of ecological, social, and economic factors, putting adaptable customs of the pastoralists under increasing strains. The pastoralists' understanding and response to ecological pressures were systematically eroded by colonialism. This was effected through the drawing of ethnic and national boundaries as well as by the restriction of cattle movements. These measures greatly affected the transhumant patterns already mastered by the pastoralists from their long experience with ecological hardships.¹¹⁴

The pressures resulting from colonial boundaries and perpetuated by the post-colonial governments are evident in the inter-group raids and conflicts along the borders. These fixed boundaries were drawn with little regard to seasonal variations and the needs of the people for pasture.¹¹⁵ Attempt by the Turkana and Dassanech pastoralists to ignore the colonial boundaries and interpret them according to traditional ecology exacerbated

¹¹² Ibid

¹¹³ Katsuyoshi, F. and Markakis, J. (eds) 1994, p. 159, Op cit.

¹¹⁴ Casper, Odegi, A, 1992:1, Op cit.

¹¹⁵ John, G. et al 1980:145, Op cit.

tensions between them. During good rains, livestock have enough pasture to eat. However, when the rains fail and droughts occur, animals are often taken to territories belonging to other clans or ethnic groups. This led to conflict between Dassanech and Turkana who share both a communal and an international boundary.¹¹⁶

In pre-colonial times, pastoral societies used migrations as a panacea for droughts. The imposition of boundaries destroyed this possibility, and was totally at variance with the understanding of boundaries by the pastoralists who responded to ecological demands. Consequently, massive deaths of cattle led to raids as one of the options of replenishing the depleted stocks.¹¹⁷ The major effect of the colonial policies which restricted movement was the creation of demographic pressures. These reduced the ability of the pastoralists to sustain large herds. These inimical policies continued under post-independence government.

Besides the socio-ecological factors, the pastoralists had to contend with natural calamities such as drought and famines. In Kenya, previously, serious droughts occurred once every decade.¹¹⁸ The prevalence of this phenomenon had adverse effects on animal production and often led to famines.¹¹⁹ Cattle raids often constituted a communal response to natural calamities. On the overall, raiding had the impact of creating a desperate cycle of continuous raids as each group in the region saw it as a means for re-stocking. Thus, the social dilemmas created by frequent natural disasters appeared to be the major catalysts of the cattle-rustling phenomenon. The predatory exploitation and misuse of the ecology triggered hostility and undermined security. The main losers in such conflicts were the poor peasants whose lives were tied to land and pasture.

Discussing impact of drought on pastoralism, John Lamphear, illustrates that by 1950s, the Turkana livestock population was in ‘a kind of ecological balance with their environment’.¹²⁰ At the time, the Turkana maintained about 6.5 ‘livestock units,’ (calculated at 1 cow or 10 small-stock or 1.4 camels) per person. Since then, however, a dramatic loss in livestock during periods of severe drought had lowered the ratio to

¹¹⁶Charles, Ocan 1994:13, Op cit.

¹¹⁷ Casper, Odegi.A, 1992, Op cit.

¹¹⁸John, G. et al, 1980:144, Op cit.

¹¹⁹ Charles, Ocan, E., 1994.:14-15, Op cit.

¹²⁰ Philip Gulliver, H., 1950. p.43, Op cit.

about 1.3 units per person by 1992. This is insufficient for subsistence implying that the Turkana have had to find ways of survival if they had to avoidextinctive catastrophes. Many adopted cattle rustling to fill the void left by the loss of livestock.¹²¹

2.5 Conclusion

This chapter intended to analyse the historical background to the Turkana and Dassanech conflicts in north-west Kenya. Previously, conflict between the communities arose mainly from the nomadic nature of the communities' economies. Constant migration in search of water and fresh pastures were the basis of the conflicts as the communities struggled to survive in an environment characterized by unpredictable and erratic ecological conditions. Advent of drought brought more conflicts as people made attempts to replace lost stock through raiding. Despite the prevalence of cattle raids, the practice was reciprocal and socially sanctioned by elders who decided when and where to raid. There were rules of engagement that dictated the conduct of the operations. This ethos forbade attacks on several categories of persons such as women, children and the elderly.

Various dimensions such as constant droughts, state repressions and marginalization by inconsiderate colonial policies exposed the communities to increased pressure and conflict, transforming the previously culturally accepted cattle raids to deadly cattle rustling conducted by militarized youths. Unlike in the past where the raiders used common *rungus* and sticks as weapons of choice when conducting the raids, the transformed activities were violently carried out by use of firearms acquired through trade from neighbouring countries. This saw an increase in violence in unprecedented scales as each raid was met with a bloody-counter raid. Acquisition of latest firearms became the main goal. The ensuing arms-race between the two communities created a vicious cycle of violent conflicts in which elements of attack on women and children emerged. Increased lawlessness created by ineffective state intervention practices resulted in emergence of cattle warlords – who eventually became the sole rulers of this volatile region. Violence and destruction became the main characteristics of the subdued north-west Kenya.

¹²¹John, Lamphear., 1992, p. 13, Op cit.

CHAPTER THREE

CHANGING NATURE OF PASTORALISM IN TURKAKANA-DASSANECH ECONOMIES

3.1 Introduction

The previous chapter revealed that Turkana and Dassanech communities are traditionally nomadic pastoralists traversing the great Ilemi Triangle with their herds in search of water and pasture. Despite the challenges posed to pastoralism by human and eco-stresses, the pastoralists shrewdly adopted coping mechanisms that ensured human and livestock survival. Pastoralism, therefore, characterized the economic and social lifestyles of the Turkana and Dassanech people for a long time. However, a combination of several factors over the years subdued the pastoralists' resilience leading to a gradual decline in the practice of pure pastoralism as the main socio-economic orientation in the region. The pastoralists were increasingly vulnerable to climate-induced shocks due to their overdependence on climate-sensitive pastoralism and low adaptive capacity. The vulnerability was further exacerbated by political, socio-economic, and ecological factors. This chapter examines two issues, namely; the traditional coping mechanisms adopted by Turkana and Dassanech pastoralists in the past; and factors that have led to abandonment/augmentation of pastoralism by several households in the region.

3.2 Traditional Coping mechanisms to Stressors by Turkana and Dassanech Pastoralists

To survive ecological and environmental challenges, pastoralist Turkana and Dassanech adopted various coping mechanisms. These include:

3.2.1 Intensive Mobility of People and Livestock

In order to cope with the variations in forage distribution and rainfall, both pastoralists and their herds possessed a high degree of mobility. Two aspects of mobility were practiced; resource exploitation mobility and escape mobility. Resource exploitation mobility was undertaken in response to unpredictable forage and water availability. Escape mobility involved long distance migration to evade drought conditions. Distances moved dependent on availability of limiting resources both within and outside the communal territory. The main aim was to maximise animal survival. Resource exploitation mobility allowed nomadic herds to utilise widely dispersed

forage resources at times when they were most nutritious. Such a system resulted in annual migratory cycles determined by seasonal changes. The distance moved, routes followed, and the degree of flexibility built into the system varied from herd to herd, year to year, and place to place.¹²²

Seasons of drought were the hardest as scarcity of water and poor quality of forage meant that livestock used more energy simply to maintain body functions. Body reserves were utilised in movement, resulting in substantial emaciation, weight loss, and at times death. Nomads attempted to minimise such losses by utilising mobility to rapidly convert growing vegetation to livestock products. The number of movements undertaken during any year depended on harshness of the environment inhabited, the state of available resources, and the animal species managed.

Traditionally, the Turkana moved about 12 times yearly, in response to fluctuating water and pastures resources. This practice was made successful due to the commonality of pastoralism as main economic activity in the region. According to Ruth Imekwi, in the past, droughts were not frequent but when they extended beyond two to four years, pastoralists had to move from one area to another, begging friends for grass and water. This was made possible by the fact that droughts were relatively selective; you could have drought in Turkana and not in Karamoja or Ngijie, or Toposa regions across the ridge. The “localization” of droughts allowed for sharing of dry season grazing fields and water points by the affected community. The ‘borrowing’ was done in accordance with the existing rules in which elders from both groups met and agreed on the period and area to be shared. Such requests were often granted as they were reciprocal. During times of hardships, the communities shelved their pre-existing differences. Imekwi reiterates that:

Grazing lands were available in large quantities as pastoralist populations were small. Most pastoral communities in Ilemi Triangle had large tracks of land that facilitated mobility and sharing. Additionally, droughts were hardly regional; they often affected a community or few communities, sparing others.¹²³

¹²²Novikoff, G. 1976. Traditional Grazing Practices and their Adaptation to Modern Conditions in Tunisia and the Sahelian countries. In A. Rapp, N. H. Le Houerou and B. Lundholm (eds.), *Can Desert Encroachment be Stopped?* Ecological Bulletin No. 24, Stockholm, Sweden.

¹²³ Oral interview, Ruth Imekwi, Nakwamekwi Village, Turkana County, 14th July, 2017

This seasoned movement eventually resulted in transhumance pastoralism. Unlike nomadism, in transhumance, only part of the household and part of livestock herd was mobile, while the remainder of the household remained in a permanent or semi-permanent setting. Other than search for pasture and water, the pastoralists also, especially recently, move around in search of markets. This is a form of movement pursued purely for livelihood basis and is influenced by one's choice.¹²⁴

Mobility is known to allow pastoralists to adapt to the environment which opens up the possibility for both fertile and infertile regions to support human existence. Mobility transforms pastoralist systems to fit the environmental condition rather than adjusting the environment to support it. Bernard Enkomo reiterated that:

Among the Turkana, mobility is a central risk reduction strategy, especially in times of drought. It is used in exploiting varying rangeland resources. Recently, this strategy is not just used to avoid drought but also to access markets or urban centers. The level of mobility differs depending on access to pasture, water resources and market.¹²⁵

Herd mobility enables opportunistic use of resources and helps minimize the effects of droughts, disease outbreaks, and livestock losses through raids. Turkana and Dassanech herders frequently migrate across borders, especially to Uganda, South Sudan, and Ethiopia. The movements are often interrupted by violent conflicts, diseases and droughts.

3.2.2 Herd Diversification and Multi-Species Stocking

Nomads traditionally occupy specific tribal territories. Their lands are often partitioned into dry and wet season ranges. 'Wet' season ranges are a result of seasonal rainfall. They are areas full of annual vegetation. For much of the year, they remain waterless and uninhabited. Unlike wet season ranges, dry season ranges are high potential areas including riparian ecosystem, flood plains/lake shores, pockets of highlands, and the tsetse infested ranges traditionally regarded as drought season grazing reserves. Exploitation of these territories varied in intensity and time in the drought-affected location - and would be activated sequentially as the conditions progressively

¹²⁴Oral interview, Ruth Imekwi, Nakwamekwi Village, Turkana County, 14th July, 2017

¹²⁵ Oral interview, Bernard Enkomo, Nakwamekwi, Turkana County, 13th July, 2017

worsened. The strategies used relied on whether drought conditions were local or regional.¹²⁶

As a coping strategy, Turkana and Dassanech pastoralists have adopted a system in which they reared different species of livestock as a risk management and coping strategy. The species include goats, sheep, camels and cattle. Diversified species helped spread the risk as a single species could easily be wiped out by a drought or disease. The strategy is used for different socio-cultural obligations and aims at taking advantage of the heterogeneous ecosystem that the pastoralists inhabit. The herds kept are of different uses, with varying levels of behavioural and physiological adaptations, different feeding preferences, and react differently to environmental challenges. According to Mary Abenyo:

Herding different species of stock enable pastoralists to exploit different ecological niches and complementary adaptabilities of animals, together with meeting social and economic needs of people during drought periods. To achieve this, pastoralists in Turkana stock their herd with a mixture of sheep, cattle, camels, goats and donkey. The high population of goats and sheep is partly attributed to their socio-cultural functions and drought tolerance characteristics. In addition, the two species can readily be sold to meet basic needs for the households as they cost less.¹²⁷

By keeping different species of herds, resource maximisation was best realized. The different herd types were maintained to ensure survival of pastoral households. The use of different livestock species had both ecological and economic implications. Each type of stock prefers to graze certain type of topography and certain species of plant. For instance, goats and camels prefer browsing though they may be grazers at certain times, unlike sheep and cattle that are largely grazers. Environment consisting of both shrubs and grasses could, therefore, be utilised better with a combination of different ruminant species with different grazing habits.¹²⁸ Additionally, the different species of ruminant species display different digestibility of various dietary constituents. For example, goats have better ability for utilising fodder than sheep or cattle.¹²⁹

¹²⁶ Oba, G. and Walter, Lusigi, J., March 1987. An Overview of Drought Strategies and Land use in African Pastoral Systems. Paper 23a, p.5.

¹²⁷ Oral interview, Mary Abenyo, Kanamkamer, Turkana County, 18th July, 2017

¹²⁸ Richard, F. W. and Barbara. H. C. 1980. *Seeds of Famine: Ecological Destruction and the Development Dilemma in the West African Sahel*. Universe Books, New York.

¹²⁹ Lundholm, B. 1976. Adaptations in Arid Ecosystems. In A. Rapp, N. H. Le Houerou and B. Lundholm (eds.), *Can Desert Encroachment Be Stopped?* Ecological Bull. No. 24, Stockholm, Sweden.

Different species of herds also have different water requirements. In the ASAL rangelands of Turkana, traditionally, cattle are watered on daily basis. Therefore, the effective grazing distance from a watering point was quite limited. On the other hand, during the dry season, camels could graze up to 60-80km away from a water source and only had to be watered once every one or two weeks. However, small stock like sheep and goats require watering at least once a week. Thus, the keeping of different species ensured that the family of the pastoralists survived drought even as distance to water points kept increasing with each drying water point. This is because those herds with long watering interval could survive for long as they walked to distant water while those with short watering intervals like goats and sheep remained close to permanent watering holes. Keeping one species of livestock risked decimation of the entire stock putting the whole family at risk if nearby water points dried up.

3.2.3 Livestock Splitting and Accumulation

During periods of severe drought when geographical mobility was not possible and forage supply critically limited, the nomads responded by splitting their herds into various groups depending on interval of watering, and moving all livestock from degraded rangelands closer to permanent water, into areas of the range which because of lack of water had remained unused. The distance covered depended on the herd's walking distance and forage availability. Herds with long watering intervals were moved far away from water sources while those with frequent need for water like calves and lactating ones were kept closer.¹³⁰

In addition to herd splitting, Turkana and Dassanech pastoralists also accumulated large numbers of herds. By having a large number of herds, one was assured of having remnants after a drought/disease. Thus, other than being for prestige and symbol of wealth, large herds also served as insurance in a system where banks and modern monetary forms of currency did not exist. As such, the herders kept large herds that were sometimes detrimental to environment and couldn't be supported by available resources just as protection against adverse droughts.

¹³⁰Temple, R. S. and I. Reh. 1984. Livestock Populations and Factors Affecting them. In B. Nestel (ed). *Development of Animal Production Systems. World Animal. Sci. 2.* Elsevier. Amsterdam.

3.2.4 Communal Land Tenure System

Communal land tenure entails a set of rules or guidelines on exploitation of communal land resources and other natural resources on it like, pastures forests and water. Rules of tenure define how property rights to land are to be allocated within societies. They define how access is granted to rights to use, control, and transfer land, as well as associated responsibilities and restraints. Among the Turkana and Dassanech, land tenure systems determine who can use what land resources for how long, and under what conditions. Land tenure is an important part of social, political and economic structures of the Turkana and Dassanech people. It is multi-dimensional, bringing into play social, technical, economic, institutional, legal and political aspects of the inhabitants. On communal land ownership practices, Steven Eregae argues that:

Communal land ownership rights are crucial to pastoralism because they ensure that every herder and livestock have access to pasture and water at different times of the year. In Turkana rangelands, individual rights to water and pasture did not exist in the past, and still don't, in most of the interior regions. To cross from one territory to another, one requires the permission of *emuron* (elders) who allocate resources using the right to household. The right to utilization in some regions could and can only be curtailed by the fear of attacks by cattle rustlers or diseases.¹³¹

Regarding access to water, individuals could only lay claim to dug boreholes or wells, but this ownership claims could not be extended to flowing water sources like rivers, communal springs and dams. This communal approach to ownership ensures that water and pasture are sustained and allowed to replenish through abstinence from usage by the entire community when circumstances demand.¹³² By 2012, a remarkable 99% of households in Turkana didn't own individual land in the county.¹³³

Though communal land tenure among the Turkana and the Dassanech was used as a coping and drought adaptation strategy in the past, the inherent challenge of common resource utilizations associated with non-excludability and non-rivalry regarding the use of resources became a problem. During severe droughts, Dassanech and the Samburu

¹³¹ Oral interview, Steven Eregae, Kalokol, Turkana County, 27th June, 2018

¹³² Oral interview, Aru Lokwawi, Kalokol, Turkana County, 26th June, 2018

¹³³ Household Economic Approach (HEA), "Livelihood Profiles, Livelihood Zones in Turkana County, Kenya Assessed Using the Household Economy Approach", June 2012. Oxfam.

often encroached on Turkana's dry season grazing lands resulting in increased competition and pressure. This made inter-communal conflicts inevitable.¹³⁴

3.2.5 Symbiotic Social Networks and Protection Schemes

Pastoralist Turkana and Dassanech traditionally practised a system of reciprocity which made use of networks of friends and kinsmen in different localities during times of hardships such as famines, and drought. The individuals felt obliged to help each other as this served as insurance against future calamities. Emeto Loyeye narrates:

This system is important because of its reciprocal nature. Having someone to look up to in times of need is comforting and serves as a buffer against total decimation by a calamity. In times of need, an individual or family or entire clan could send the vulnerable members like women and children to kinsmen in less affected areas. This ensures that a hardship cannot claim entire families, preserving human capital which is used to rebuild once the period of hardship is over.¹³⁵

3.2.6 Training in Veterinary Skills and Animal Care

This is quite a recent strategy associated with the increased civil societies and international Faith Based Organisations (FBO) in the area. Training in livestock health provision reduces risks associated with recurrent drought and livestock diseases. This assertion supports the earlier finding by Lawrence Mugunieri¹³⁶ that increased number of trained, community-based animal health workers operating in the marginal areas of the county is an important animal health delivery channel. Pastoralists gain skills, training, and knowledge from the community-based animal health workers. Traditionally, the control of livestock diseases was through the use of local herbs and local techniques. However, this has changed with the emergence of trained community-based animal health workers who use modern medicine.

3.2.7. Out-migration

This strategy has increasingly been adopted since the 1990s. Out-migration to urban centres has been used frequently as a strategy by the Turkana to live with climate variability and other stressors in the region. Young people move from rural villages to towns and urban settlements like Kakuma, Kitale, Lokichoggio, Lodwar, and Nairobi

¹³⁴ Oral interview, John Ekuwom, Lokwa Kalokol, Turkana County, 28th June, 2018

¹³⁵ Oral interview, Emeto Loyeye, Nawoitong, Turkana County, 15th July, 2017

¹³⁶ Lawrence, M.G., et al. 2004. Performance of Community-based Animal Health Workers in the Delivery of Livestock Health Services. *Tropical Animal Health and Production* 36(6): 523–535.

where conditions are considered favourable, with a better access to essential facilities and services.¹³⁷ Gender and demographic imbalances in population statistics also indicate that young adults move from remote villages to urban centres within and outside the county as demonstrated below.

Table 1: Population Projection in Urban Centres – Turkana County

Urban Centres	2009(Census)			2012			2015 (Projections)			2017 (Projections)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Lodwar	2,349	3,019	5,368	7,083	7,895	4,978	2,819	3,803	6,623	7,304	8,422	5,726
Kakuma	6,820	5,142	1,962	0,383	8,349	8,732	4,700	2,236	6,936	8,075	5,274	3,350
Lokichoggio	,313	,382	7,695	1,286	0,157	1,443	3,676	2,309	5,985	5,545	3,991	9,536
Total	8,482	6,543	5,025	8,751	6,402	15,153	1,196	8,348	39,544	0,924	7,688	58,612

Source: KPHC 2009, (Turkana County Integrated Development Plan, 2013-2017, p. 12)

The table above indicates population in urban centres in Turkana County in the years ranging 2009 to 2017. The table reveals an increase in the number of urban dweller in the given years – an indication of increased migration of locals from rural areas into urban areas in the county.

Lodwar Town has the highest urban population in Turkana County projected to have reached 75,726 in 2017. The high number in these urban centres is attributed to more influx of people seeking employment and the availability of infrastructure and social amenities. According to the Cities and Urban Areas Act of 2012¹³⁸, only the above three urban centres qualify to be classified as Towns in Turkana County.

In addition, parents have also adopted a practice of sending children to boarding schools and some to towns to work for upkeep and income to reduce the number of dependants on the dwindling pastoral yields. This strategy has however, led to increase in child labour and prostitution in centres like Kakuma and Lodwar. Out migration as a strategy began to be employed following the establishment of Kakuma refugee camps

¹³⁷ Oral interview, Emeto Loyeye, Nawoitong, Turkana County, 15th July, 2017

¹³⁸ According to this Act, a population of at least ten thousand residents; demonstrable economic, functional and financial viability; the capacity to effectively and efficiently deliver essential services to its residents; and has sufficient space for expansion.

which led to growth of the area creating jobs for the locals. Majority of the youths send out to work are young girls who work as house helps, prostitutes or tend shops in urban centres. This informs the large number of girls and adult females in urban centres as compared to males. Additionally, majority of Turkana conservatives still hold unto the pride of male youths as warriors (*morans*) obligated to protect family livestock and conduct raids when necessary.¹³⁹

Some of the coping and adaptive strategies adopted by Turkana and Dassanech pastoralists in the past and at present are ecologically based, while others depend upon socio-economic and cultural mechanisms. While these drought strategies were successful in the past, several factors have recently overwhelmed the resilience capabilities of the communities resulting in pursuance of non-pastoral farm-based activities and off-farm livelihoods. The same trend of diversification has also been witnessed among other pastoralist communities around the eastern side of Lake Turkana such as Gabbra, Elmolo, Rendile and Samburu who share a similar ecological niche with the Turkana and Dassanech.

In addition to severe droughts and floods, resource base available to the two pastoralist communities is inadequate to support livestock numbers needed to sustain a purely pastoral system. Their removal from certain landscapes to pave way for development of new projects as is the case with Tullow oil in Lokichar; intensifying urbanism due to discovery of oil and water; invasive *Propis* weed locally known as *Eritae/Mathenge*; lack of public participation in resource distribution in the county; resource based conflicts among the neighbouring communities; population pressure (the average household size in Turkana is 6.9, 1.6 higher than the national household size of 4.4: and it has a population density of 562.8 which is higher than the national population density of 401.1 per square kilometre , with 6.9 people in every km 2)¹⁴⁰; and lack of secure land administration have reduced land available for nomadism necessitating the need to avail alternative livelihood options to persons who opt/forced out of the pastoral production system. Diversification is also increasing with sedentarization, both forced from loss of access to grazing lands and proactive sedentarization of individuals

¹³⁹ Oral interview, Emeto Loyeye, Nawoitong, Turkana County, 15th July, 2017

¹⁴⁰ Kenya Inter-Agency Rapid Assessment (KIRA), Turkana Secondary Data Review, March 2014, p. 5. Available at, https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Turkana%20Secondary%20Data%20Review_20141112.pdf

wishing to embrace new economic opportunities. With locals embracing diversification, there has been a steady decline in pastoral activities in the area with only 55% of population being pure pastoralists by year 2012. There are several factors that have informed the abandonment of pure pastoralism among Turkana and Dassanech communities.

3.3 Main Factors for the Decline of Pastoral Activities in the Study Area

For decades, the Turkana and Dassanech people represented an interesting example of how pastoralists adapted to arid environments and coped with a number of adversities that profoundly affected their livelihoods. A National policy for the sustainable development of Northern Kenya Report established that:

The two pastoralist groups were able to sustain their livelihoods in increasingly arid, hostile and harsh ecological conditions by adopting appropriate ways in which their pastoral livelihood strategies could be enhanced. They often led a lifestyle geared towards subsistence production, with the principal asset and primary source of sustenance being livestock. They kept cattle, sheep, goats, camels, and donkeys, and their staple food was milk, blood and meat. Their culture revolved around flexible movement in response to sparse, erratic rainfall, ephemeral vegetation, water and security needs.¹⁴¹

A combination of several factors, however, has overwhelmed the communities' resilience and coping capacity leading to a decline in activities of pure pastoralism and subsequent diversification. These factors are:

3.3.1: Frequent Droughts

Turkana region has experienced several devastating droughts that have threatened to extinct the community. The case in point is the 1979 drought which hit it and the surrounding areas leading to a loss of about 90-95% of livestock. The hardest hit areas were Kaling, Lorus, Todenyang, Lokichoggio, Kaeris, Makutano and Kakuma in northern Turkana. The drought and subsequent famine resulted in over 90 recorded human deaths. The dead were often fed on by vultures as the survivors were too weak to bury them.¹⁴²

Drought has had significant impacts in this climate sensitive area. In the past, frequent droughts led to the deterioration of livestock condition, increasing incidences of certain

¹⁴¹ Republic of Kenya, 2012, "Sessional Paper No. 8 of 2012 on National Policy for the Sustainable Development of Northern Kenya and Other Arid Lands", Republic of Kenya, Nairobi.

¹⁴² Oral interview, Ekurchanait Momoh, Loyo Lodwar, Turkana County, 9th July, 2017.

diseases and livestock deaths, altered herd structure, and subsequently led to a collapse of livestock markets.¹⁴³ As a result, a high level of livestock mortality became a norm. The 2008 -2009 drought caused the highest livestock mortality in history, exceeding in destructiveness the 1980 and 1984 droughts. Based on reports from Turkana Pastoralist Development Organization (TUPADO), 22 % of livestock mortalities in Turkana are associated with starvation from drought events yearly. Increased incidences of livestock diseases and deaths in small ruminants are also partly associated with drought. Turkana County has been under constant drought as depicted in the table below:

Table 2: Meteorological Drought Severity in Turkana between 1950 and 2012

Year	Annual rainfall Total (mm)	Standard deviation (r)	Drought severity index (SPI)	Drought category
1950	143.1	24.7	-2.6	Extreme
1955	163.3	20.2	-1.94	Severe
1960	124.7	15.4	-3.37	Extreme
1965	184.2	31.0	-1.16	Moderate
1970	182.7	26.2	-1.22	Moderate
1975	286.6	35.7	2.62	Normal
1980	129.3	22.5	-3.19	Extreme
1985	202.5	26.2	-0.49	Mild
1990	80.2	8.1	-5.01	Extreme
1995	74.1	8.6	-5.24	Extreme
2000	75.9	12.7	-5.27	Extreme
2005	176.6	24.3	-0.18	Moderate
2006	369.8	44.0	5.70	Normal
2007	388.0	31.1	6.37	Normal
2008	130.2	16.7	-3.16	Extreme
2009	160.8	30.5	-2.03	Extreme
2010	261.2	29.0	1.68	Normal
2011	77.3	8.8	-1.00	Moderate
2012	420.0	38.2	7.16	Normal

Source: Compiled from Lodwar station precipitation analysis, July, 2017.

Table 2 above indicates the droughts that have been experienced in Turkana County and the level of severity. It indicates that there has been an increase in frequency of droughts in the 21st century with a total of eight (8) droughts experienced in eleven

¹⁴³ Ifejika, S.C. 2010. Drought Coping and Adaptation Strategies: Understanding Adaptations to Climate Change in Agro-pastoral Livestock Production in Makueni District, Kenya. *European Journal of Development Research* 22(5): 623–642.

since year 2000 vis a vis ten (10) experienced in fifty (50) years between years 1950 and 2000.

Table 3: Livestock Mortality Rates Associated with Drought Reported in the Study Area

Drought Year	SPI^a	Drought category	Cattle (%)	Shoats (%) (Sheep and goats)	Camels (%)
1952–1956	-4.47	Extreme	70–80	–	13
1962–1965	-1.87	Severe	30–50	–	–
1980–1984	-5.97	Extreme	63	55	45
1990–1995	-5.24	Extreme	40	23	10
1999–2001	-5.17	Extreme	35	43	18
2008–2009	-3.16	Extreme	60	40	–

^a*Standardized Precipitation Index: Source: Opiyo et al, 2015, p.301*

The above table indicates the amount of livestock lost to drought in Turkana County since the 1950s. Only the droughts of 1950s had a higher mortality rate than that of the year 2011. This indicates how extreme drought has become in Turkana land in recent years. It is such increase in drought-induced mortality in livestock that has inspired several pastoral households to abandon pastoralist for less-climate-sensitive activities like trade.¹⁴⁴ The table below depicts droughts, years of occurrence and the locals' perceptions of those droughts.

¹⁴⁴ Oral interview, Emeto Loyeye, Nawoitong, Turkana County, 15th July, 2017

Table 4: Major Historical Droughts and Famines, Names and Descriptions among the Turkana.

Year perceptions	Local name (Turkana)	Local
1925	<i>Ekwakoit</i>	Bad hunger.
1930	<i>Abrikae</i>	Drought and bad hunger.
1942	<i>Lolewo</i>	Bad animal disease.
1943	<i>Ekuwan Loyang</i>	Drought and famine.
1947	<i>Ataa nachoke</i>	Animal disease and famine.
1949	<i>Ngilowi</i>	Animal disease.
1952	<i>Lotira</i>	Animal disease, drought and famine.
1954	<i>Lokulit</i>	Bad years, famine continued.
1960	<i>Namotor</i>	Drought and famine
1966	<i>Etop</i>	Serious but short drought.
1971	<i>Lolewo</i>	Cholera epidemic, many deaths.
1979- 1981	<i>Loukoi</i> <i>Lopiar</i> <i>Atanayanaye</i>	Animal disease (anthrax), security problems and famine.
1984	<i>Kilejok, Kidirik</i>	Minimal rain, animal raiding.
1990- 1992	<i>Lopiar</i>	Skins everywhere, many livestock deaths
1997	<i>Etop</i>	Serious but short drought.
2005- 2006	<i>Kumando</i>	Drought and bad hunger. Drought which terminated everything

Source: Richard, J.O., 2009. Turkana Livelihood Strategies and Adaptation to Drought in Kenya, p.143; and field data (2017).

The above table demonstrates droughts, famines and how the locals describe such phenomena. It reveals that no decade has passed without the inhabitants of Turkana facing drought or famine since 1925. Analysis of occurrences of food shortages in the county reveals that the local people name the famine periods as they experience or perceive them. Each prolonged famine period has a specific name. However, the famine cases and years listed above represent just acute cases only, since those were the ones that the people could recall. Otherwise, even the perceived good years have had periods of drought, though short.

Other than famine and livestock deaths, other drought impacts are; drying up of water sources, decline in availability of pasture, shortage of food, increase in prices of food, and loss of income.¹⁴⁵ While there are many far-reaching impacts of drought on the people, none are more severe than the drying up of water points. The area is permanently under water stress with seasonal streams and groundwater serving as the main water supply. The majority of households trek for over 10 km daily in search of water supplies.

The tragedy of Turkana and Dassanech pastoralists in relation to drought cannot, therefore, be measured in terms of human mortality alone, but must also be reckoned in terms of livestock loss - their survival base. The decimation of herds by drought has frightening implications for the pastoralists. The people primarily rely on the livestock for protein supply, money and social security. To lose them, therefore, is to lose everything. Such animal losses translated into economic terms could also be an economic disaster to the county governments of Turkana and Marsabit, where economies are to some extent, largely livestock based. Lore Aruani posits that:

Calculating livestock losses to drought in monetary terms alone ignores the value of broken social bonds, friendship, and family which are often cemented through exchanges of livestock. In addition, the value of a milk cow that die, the loss of which deprive a family of an immediate supply of food and future progeny cannot be valued in terms of money alone. Not only do pastoralists suffer a loss when livestock die, but traders, butchers, and ultimately the county and national economies suffer. Between 55-60% of Turkana are pastoralists. This figure reflects the significance of livestock to Turkana people. The effect of drought on economy is, therefore, insurmountable and cumulative.¹⁴⁶

A part from an immediate reduction of herd size after catastrophic drought, the number of female animals continues to fluctuate for years later. This has a drastic effect on milk supply and herd production to the households. In the case of a three-year drought, for example, Dahl and Hjort postulates that not until 10 years after the beginning of the drought does the growth rate from the total female herd catch up with the normal growth rate. Even then, there will be fluctuations in the number of herds and their

¹⁴⁵ Francis, Otieno J., et al, 2015. Drought Adaptation and Coping Strategies Among the Turkana Pastoralists of Northern Kenya. *International Journal of Disaster Risk Science*, 6:295–309. Available at, www.springer.com/13753 Published online: 16 September 2015.

¹⁴⁶ Oral interview, Lore Aruani, Nawoitorong Turkana County, 15th July, 2017.

yearly growth rate for years to come.¹⁴⁷ Between 1909 and 2009, 100 major droughts were recorded in Turkana-land. Out of these, 5 occurred between 1999 and 2009 alone indicating an increase in frequency.

3.3.2 Environmental Degradation

Eckholm and McLeod wrote that man has played a central role in recent climatic changes in Africa. This has occurred through induced rainfall decline by mismanagement of the land. Increased atmospheric dust resulting from over-cultivation, overgrazing and burning of rangeland cover reduces local rainfall and encourages climate shift. However, Nancy Lomer and Ben Ejore of Nawoitorong observed that the recent changes in the pastoral environment in Turkana result from outside pressures instituted by the displacement of nomads from vital traditional dry season grazing areas and exposing them to more brittle environments where increasing pressure generates environmental degradation and drought severity. The Samburu and Pokot, for instance, encroach on Turkana dry season grazing lands and the Dassanech have displaced Turkana from the fertile lake deltas, precipitating overcrowding in areas considered safe like Lodwar town.¹⁴⁸

Overgrazing is a widely mentioned source of environmental degradation. The tendency to overgraze communal rangelands is explicitly recognised in Hardin's paradigm of the '*Tragedy of the Commons*'. Hardin presupposes that, since land among pastoral communities is communally owned, there are few incentives to reduce stocking levels. Furthermore, for any individual, the benefits always exceed the cost of overgrazing. The individual owner sees the pasture essentially as a free resource, which, if he fails to fully exploit, will be exploited by somebody else. Overgrazing results in an effort to maximise utilisation of such communal resources. The problem of resource over-exploitation in Turkana has been compounded by the presence of Kakuma refugee camp in the area. Overcrowding of the refugees leads to over-exploitation of resources like firewood, pasture and water especially by South Sudanese refugee pastoralists, accelerating the degradation.¹⁴⁹

¹⁴⁷ Dahl, G. and A. Hjort. 1979. *Pastoral Change and the Role of Drought*. SAREC Report R2: Swedish Agency for Research Cooperative with Developing Countries. Natural History Press, New York.

¹⁴⁸ Oral interviews, Nancy Lomer, Nawoitorong, Turkana County, 15th July, 2017

¹⁴⁹ Ibid

Additionally, some pastoralists' responses to stressors like drought and famines are reactive and mainly involve intensive exploitation of scarce tree cover. Over-exploitation of these resources through collection and sale of firewood and burning of charcoal are among the major causes of rangeland degradation. The sale of charcoal and firewood - a labour-intensive and environmentally destructive activity - is a known coping strategy mainly appropriated by poorer households without livestock or capital to venture into business. Households engaging in these activities are those settled near urban centres or around refugee camps which provide a market for the wood and charcoal. Although not the best strategy, the sale of charcoal has increasingly become one of the ways to pool resources and diversify incomes in times of drought. Though beneficial to the poor with fewer diversification options, this modest mode of adaptation impacts negatively on the environment by reducing the shrubs that cover the ground, decimating the vegetation and exposing the pastoralists to the wrath of environmental deterioration.

3.3.3 Loss of Traditional Grazing Lands

The root cause of current problems among the two pastoralists groups leading to abandonment of pure pastoralism has also been attributed to encroachment of cultivators on nomadic grazing lands. When this happens, pastoralists are forced from their dependable grasslands onto more fragile areas where increased grazing pressure generates the desertification processes. This process of land encroachment not only deprives herders of dry seasonal pasturage, but also pushes them into regions of more erratic rainfall where drought is more common and severe. In the area south of Ethiopia, Gibe III power plant project on river Omo has displaced thousands of Dassanech people who previously farmed the river's south-most floodplains. In addition, much of the land around Woreda District - the traditional homeland of the Dassanech has been annexed by Ethiopian government for irrigation agricultural programs, displacing many from their traditional grazing and farming zones. The displaced have migrated south into Lake Turkana region where they eke a living from fishing and farming on the shores of the lake. This has affected the Turkana who rely on the lake for similar activities.¹⁵⁰

¹⁵⁰ Oral interview, Lokoe Kamar Imana, Illeret village, Lake Turkana East, 8th July, 2018.

Additionally, the Kenya government policy encourages cultivation of pockets of high potential areas in the arid and semi-arid rangelands. These areas are traditionally used by pastoralists. This policy has accelerated the migration of cultivators onto these marginal lands, depriving pastoralists of access to their dry season retreat areas making them more vulnerable to drought. Also, the exclusion of pastoralists from drought reserves as a consequence of such areas being set aside for wildlife and tourism has drastically altered the pattern of pastoral land-use. The loss of such important dry season ranges results in increased deterioration of the remaining more fragile lands.¹⁵¹ Government has concentrated its development efforts in income generating tourism activities in Turkana, in the process, ignoring less potential areas inhabited by pastoralists.

3.3.4 Persistent Cattle Raids and Cattle Rustling

A report on Arid Lands Resource Management reveals that pastoralist communities in Turkana area have periodically used violence to access pasture, water and to steal livestock from neighbouring groups. However, in the recent decades¹⁵² the cultural practice of livestock theft has experienced significant changes which in combination with the availability of small arms and the effects of extended droughts have made raiding more frequent, violent and destructive.¹⁵³

According to Conflict Early Warning and Response Mechanism(CEWARN) report, between 2006 and 2009 Turkana and neighbouring areas experienced a net loss of livestock of more than 90,000 due to raiding alone.¹⁵⁴ Over the past two centuries, livestock raiding involving Turkana, Dassanech and neighbouring communities has seen slightly peaceful periods only (1939 to 1953) and periods of violence (1954 to 1992, 2000-2014). Data on raiding from CEWARN and the nongovernmental organization TUPADO show that livestock raiding is a frequent and deadly activity in

¹⁵¹ Oba, G., and Lusigi, W.J., March 1987. An Overview of Drought Strategies and Land use in African Pastoral Systems. Paper 23a, pp.18-19.

¹⁵² According to residents, this period of violent raids intensified in the 1980s following the political upheavals in Ethiopia, Somalia, and Sudan which increased the inflow of small arms and light weapons in Turkana territory

¹⁵³ Government of Kenya (2008). "Arid Lands Resource Management Project, Report Turkana." Retrieved 27 June 2011, from http://www.aridland.go.ke/arid_annual_reports/arid_annual_07-08/turkana_07-08.pdf.

¹⁵⁴ CEWARN (2010). CEWARN Country Updates: September-December 2009. Addis Ababa, CEWARN (Conflict Early Warning and Response Mechanism).

the county. On average, 71 raids were recorded per year (six raids per month) between 2006 and 2009 in Turkana. In 2006, 139 people died from raids while 27 were injured. These numbers increased to 190 and 80 respectively in 2009.¹⁵⁵

3.3.4.1 Types of Cattle Raids Practiced by Turkana and Dassanech

Turkana and Dassanech raiders are involved in three types of cattle raids classified based on the number of participating raiders. The first, usually, highly organized raids are “*mass raids*” in which several hundreds to even thousands of raiders assemble from all over the community to attack a whole community in a neighbouring locality. Second, are “*Adakar*” raids where several dozens and occasionally up to a few hundred raiders from near-by villages come together to raid one village or kraal of a rivaling community. The third type of raids is the smallest with mostly a handful to rarely more than 15 participating raiders. The targets of these raids are normally small unprotected kraals or a group of animals accompanied by one pastoralist or herds-boy who they forced to drive the livestock to the host area of the raiders.¹⁵⁶ Once this area is reached, the hostage is usually released. In some few instances, the hostage is killed afterwards. Recently though, there has been a shift from *mass* and *Adakar* raids to smaller but more frequent raids. Robinson Lopeyok noted that there are two reasons for the shift. He argues:

First is that the improvement in communication infrastructure in the region since the turn of the 21st century has made mid- and larger sized raids easy to be spotted by government authorities. Smaller raids on the other hand require a shorter organization period and hence attract less attention. The second reason relates to the larger development of commercialization of raiding. Most raids are conducted after identifying potential buyers. Thus, the small raids are favoured as they are quick to conduct and hard to predict. The animals involved are also few and easy to drive to destination points.¹⁵⁷

Cattle rustling in the study area involve both internal and external actors. Elders and women are part of internal actors, though their roles are particularly contrasting. Elders encourage or even assist the raids with blessings and information (for example on where to find the enemy’s livestock). The elders receive a share of the livestock, sometimes even ‘the biggest bull’. A KPR narrates:

¹⁵⁵ TUPADO, Turkana Pastoralist Organisation (2011). Turkana Pastoralist Organisation Incident Register 2000-2010.

¹⁵⁶ Oral interview, Michael Ome, Illeret Location, Lake Turkana East 7th July, 2018

¹⁵⁷ Oral interview, Robinson Lopeyok, Bruce House, Nairobi County, 20th July, 2017

Village chiefs among Turkana and Dassanech communities are in a difficult position. On one hand, they are the representation of the national government on the ground and hence have to assist in the recovery of livestock stolen by members of their community and support national disarmament efforts; on the other hand, they understand the raiders and their community's need for arms as a means of self-protection. Most opt to act in communal interest thus, protect the raiders and the arms. Women also have an influence on the raiding activities of their men. They either encourage their men by preparing special meals for them after a successful raid or they discourage the raiders by expressing fear of losing their men in the conflict.¹⁵⁸

3.3.4.2 Factors Influencing Cattle Raiding in the Area

Cattle rustling has persisted in Turkana region for various reasons. For starters, Turkana County is an operational area. The area is close to the borders of rather insecure areas of neighbouring countries, something that has led to proliferation of illegal arms. The availability of illegal firearms and the culture of “moranism” where young people are expected to raid livestock from neighbouring communities in order to be qualified for marriage or praise makes armed raids a common thing.¹⁵⁹ This has decimated herds of some pastoralists and created atmosphere of insecurity that has seen some residents opt out of pastoralism for fear of incessant attacks and counter attacks. Other motivations responsible for constant cattle raids in the county are payment of dowry, poverty, accumulation of general wealth, tribal-based politics, commercialization, retaliation, the availability of small arms and light weapons (SALW), resource degradation and climate change related factors. The major causes of raiding conflict in the area are asymmetrical, though; the connection between the accumulation of wealth and the commercialization of raids is the more pronounced factor. There is also a degree of political instrumentalisation in the encroachment activities of the two communities into each other's territory. The unclear demarcation of territory and subsequent desire to redraw the territorial boundaries could be considered a contributing conflict driver as well.

3.4 Conclusion

¹⁵⁸ Oral interview, Police Reservist, PR Kanamkamer, Turkana County, 18th July 2017

¹⁵⁹ Oral interview, Constable PT, Lodwar town, Turkana County, 7th July 2017

This chapter sought to provide insights on the coping mechanisms employed by the Turkana and Dassanech pastoralists in dealing with the changing nature of pastoralism in the area. The chapter also aimed at assessing factors for the gradual decline in pastoral activities in the study area. Traditionally, the Turkana and Dassanech herders enjoyed great control of the harsh and unpredictable environment they inhabit. They devised mechanisms to cope with droughts and livestock diseases. The nomadic transhumance practiced majorly by the Turkana was characterized by risk-spreading and flexible mechanisms, such as mobility, communal land ownership, large and diverse herd sizes, and herd separation and splitting. The livestock types kept to manage and spread risk included cattle, camels, goats, sheep and donkeys. These strategies ensured survival of livestock and people during hard times.

Since the 1970s, pure pastoralism has, however, faced various challenges. There have been recurrent climatic shocks, adverse environmental stresses and incessant cattle raids. In addition, there has been loss of dry season grazing lands to development projects, feeble governmental support and rapid urbanism. These challenges have overwhelmed resilience and coping strategies, necessitating economic adjustment by the grievously affected households. The next chapter examines the new economic activities that have been embraced by these households as a survival response to the prevailing decline in pastoral yields.

CHAPTER FOUR

FACTORS THAT INFLUENCE DIVERSIFICATION AMONG TURKANA AND DASSANECH HOUSEHOLDS

4.1 Introduction

In the period leading to 1950s, Turkana and Dassanech pastoralists enjoyed a sense of economic freedom characterized by wealth and good health. They traversed the large Ilemi Triangle to Ethiopia, Sudan and Kenya in search of better pasture. In spite of the existence of national boundaries, the colonial government in Kenya had not been keen enough on enforcing cross border movements especially in ASAL rangelands. However, since then, a combination of factors both internal and external altered the economic set up of north-west Kenya. Enforcement of territorial boundaries meant Dassanech lost much of their traditional lands to Toposa and Nyangatom communities in Ilemi Triangle, and later to government projects. As a result, they lost much of their livestock and moved closer to river Omo and Lake Turkana where they adopted crocodile hunting and fishing. In addition, the pastoralist groups faced rampant droughts and desertification. These were compounded with livestock diseases, lack of market outlets, conflicts, and lack of veterinary services including cattle dips.

Susceptibility of pastoralism to climatic, environmental and human challenges prompted several Turkana and Dassanech households to opt out of pastoralism. The decline in pastoralism gave rise to less-climate-sensitive non pastoral farm-based and off-farm activities. This chapter assesses three areas: the off-farm and non-pastoral economic activities adopted; factors that determined diversification by the households; and examines the significance of diversification among the diversified households.

4.2 Diversification: A conceptual Understanding

Livelihood diversification is the process by which households combine diverse portfolios of activities and assets in order to improve their welfare. Peter Little has defined livelihood diversification among pastoralists as the pursuit of any non-pastoral

income earning activity, whether in rural or urban areas.¹⁶⁰ There are several reasons that influence the choice for diversification though the main reasons are choice and necessity. Poor households succumb to push factors that make them diversify out of necessity so as to survive, while wealthier households take advantage of the pull factors that present them with opportunities of creating wealth. According to Von Broun and Pandya-Lorch, diversification is both a risk minimization strategy and a post-challenge coping strategy. Diversification can have both positive and negative outcomes depending on factors that make a household to diversify.¹⁶¹ The rationale for diversification is to create a portfolio of livelihoods with different risk attributes so that drought risk can be managed in advance of moisture deficit and recovery is quicker and easier after the event.¹⁶² In north-west Kenya, the Turkana and Dassanech have diversified their economies to incorporate agro-pastoralism and off-farm activities.

4.3 Farm-based and Off-farm Activities

In the 1980s, over 70% of residents in Turkana pursued extensive nomadic lifestyles, rearing livestock in communal open access rangelands. However, by 2015, only 55% of residents were practicing nomadism. This figure could even be much less among the Dassanech who have adopted agriculture and fishing in larger numbers than their nemesis, the Turkana.¹⁶³ The adopted adaptive economic activities could be divided into farm-based and off-farm strategies.

4.3.1 Farm-based Non-Pastoral Activities

These comprise of labour intensive, climate sensitive income generating activities undertaken by the households on the land and water apart from pastoralism. They include:

4.3.1.1 Crop Production/Agropastoralism

Crop production is practised by agro-pastoralists mainly on pockets of arable land within flood plains and along riverine areas. The harvest is dependent largely on the

¹⁶⁰ Peter, D.L., et al, 2006. The Multiple Dimensions of Poverty in Pastoral Areas of East Africa. In *Pastoralism and Poverty Reduction in East Africa: A Policy Research Conference in Nairobi, Kenya*.

¹⁶¹ Joachim, V.B., and, Rajul, P.L., 1991. Income Sources of Malnourished People in Rural Areas: Microlevel Information and Policy Implications (No.5). International Food Policy Research Institute. Washington DC.

¹⁶² Thomas, R., and Stephen, A. V.. 1995. Links Between Rural Poverty and the Environment in Developing Countries: Asset Categories and Investment Poverty. *World Development* 23(9): 1495–1506.

¹⁶³ Oral interview, Corporal John Lomorkai (rtd), Lodwar Town, Turkana County, 10th July, 2017.

amount of rain realized in a good year and the volume of water flowing in the two major seasonal rivers of Turkwel and Kerio. Households at Lorengelup farm by Kerio River and River Lokichar when it rains. Those who farm at Lorengelup use hand hoe and practice bush burning as a land clearance method. However, most farmers in the area lack access to improved farming practices and implements.¹⁶⁴ At Kang'arise, a proportion of households also undertake farming, growing crops and cultivating by use of hand hoe while a few use hired donkeys. Farming here is majorly rained fed and therefore, extremely unpredictable. Farming in the area is hindered by climatic conditions since farmers have no access to irrigation system and shortage of arable lands.

On the eastern and northern parts of the lake, flood farming is mainly carried out in villages near the lake's shores. Dassanech inhabiting the area depend on annual flooding of the lake to grow crops and. Others grow crops on the floodplain during the rainy seasons and are harvested during the dry season starting once in December and then again in February. Crops grown include millet, green gram, cowpeas and to a small extent drought tolerant varieties of maize. One notable farming village in the area is Nang'olei in Illeret. Farming villages here have farms on small plots of land about a quarter to half acres per household. Asekon Echwa, a resident, indicated that land in the village is mainly obtained through inheritance or simply identifying any idle land and undertaking the agricultural activities.¹⁶⁵ The yields are however low, sometimes as low as 4 bags per acre of sorghum. Drought and inadequate wetlands for farming are the main challenges to farmers in Illeret.

Majority of local Turkana and Dassanech farmers practice traditional farming methods where land is cleared by use of machetes and bush burning. Planting is undertaken using sharp stick to open the land and a seed put in while harvesting is done by use of knives to cut the crop which is then threshed using sticks. The major crop production is very limited as communities still rely on traditional methods and water availability is unreliable.

At Lokitaung in the north, villagers have come up with Lokitaung Pastorals Development Project (LPDP). The program harvests rain water for crop production and

¹⁶⁴ Oral interview, Corporal John Lomorkai (rtd), Lodwar Town, Turkana County, 10th July, 2017.

¹⁶⁵ Oral interview, Asekon Echwa, Illeret Village, 8th July, 2018

members use animals for ploughing. The project, though, funded by NGOs, is largely managed by locals. It has trained local people - many of them women - to become water harvesting technicians. LPDP helps to improve existing sorghum gardens, and to establish new ones through land reclamation programs. Traditionally, some Turkana planted sorghum where rainwater runoff accumulates in natural depressions making growing conditions favourable.¹⁶⁶ The local sorghum variety requires very little water and can be harvested after two months. According to Pius Chuchu, LPDP project secretary:

LPDP improved the collection of rainwater runoff to give the crop more moisture to survive the arid conditions. Activities at the start were centred on improving rainwater harvesting for sorghum production. The idea was that crops would help to supplement income from livestock, and by bartering surplus grain, families that had lost livestock to raids could rebuild their herds. The aim was to help victims of cattle raids to 'get back on their feet'.¹⁶⁷

Rainwater harvesting has made sorghum production more reliable in Lokitaung. LPDP has developed rain water harvesting system called 'spillway system', locally known as '*Irimeto*'. The system consists of earth bunds on three sides of individual plots. These plots vary in size from half a hectare to two hectares. The plots are sited where small channels bring runoff water during storms and the runoff is held by the earth bunds. Surplus runoff runs away around the tips of the two "arms" which extend up the slope. The earth bunds are built to a maximum of a metre in height, and are up to eight metres in base width. Although the soils are carried in metal basins by the workers, oxen have been trained to pull a scoop to bring heaps of soil closer. The scoops are also used to level the plots so that the water spreads better and the crops grow more evenly.¹⁶⁸

In addition to introducing oxen scoops, LPDP has trained oxen and donkeys to plough. Traditionally, land was prepared by hand. However, the project brought in an animal draught trainer who trained a local Turkana in every three different centres. A new and appropriate type of plough has been introduced - based on the Ethiopian *ard*. The ploughshares are made by local blacksmiths and the frames of the ploughs are made

¹⁶⁶ Oral interview, Mr Pius Chuchu, LPDP Project Secretary, Turkana town, Turkana County, 7th July, 2017

¹⁶⁷ Oral interview, Mr Pius Chuchu, LPDP Project Secretary, Turkana town, Turkana County, 7th July, 2017.

¹⁶⁸ Ibid

from local wood. The project's staff include, a communal elder (*Ekarabon*), a monitoring/store person, a water harvesting technician and an animal draught trainer. With the technology, Lokitaung has been in a position to produce sorghum and other quick maturing cereals even in times of drought.¹⁶⁹

Despite the relative success of LPDP project, there are several constrains to farming in the area. These include inadequate arable land, long periods of drought and pests and insects such as birds, squirrels, bore worms, and grasshoppers which infest the crop before harvesting. The main sources of water in areas like Lorengelup, Kang'arisaie and Kalokol in the north-west are traditional wells which can hardly facilitate irrigation farming, hence reliance on fishing, trade or periodic rain-fed sorghum cultivation. About 30% of soils in Turkana are fertile, though only 20-22% of the population lives on agriculture or agro-pastoralism due to water constraints.¹⁷⁰

4.3.1.2 Fishing

Fishing is practiced in Lake Turkana - the biggest inland lake in Kenya with an area of 7,560 km². The lake is 265 km long and 40 km wide. Fishing is done at subsistence level. Commercial fishing is constrained by poor infrastructure that limits market access, fluctuating water levels that make fish harvests equally fluctuating and a poor fish-eating culture among the Turkana and the Dassanech. About 12 % of the county population derives its livelihood from fishing.¹⁷¹

Originally, fishing was carried out by a small minority of Luo from the western part of Kenya. Over the years, affected by adverse weather condition, the Turkana and Dassanech increasingly turned to fishing. Artisanal fish processing methods used are mainly sun drying and smoking. Private traders often transport the dried fish by trucks while fresh fish is transported in refrigerated vans all the way to Nairobi and western part of Kenya and as far as D.R. Congo. Incomes received from fishing increases when the lake water level increases.¹⁷²

¹⁶⁹ Ibid

¹⁷⁰ Oral interview, Mr Pius Chuchu, LPDP Project Secretary, Turkana town, Turkana County, 7th July, 2017.

¹⁷¹ Patrick Watete, W., et al 2016. Pastoralism: Are There Options Outside Livestock Economy? Diversification Among Households of Northern Kenya. Research, Policy and Practice, p.6.

¹⁷² Ibid

Many species of fish are found in the lake. Of economic importance are tilapia and Nile perch which are widely consumed in many towns in Kenya and beyond. There are twelve landing bays where fish is collected around the lake. Eight are located on the western side at Lowerengak, Nachukui, Todonyang, Kalokol, Kerio, Elliye springs, and Namadak. On the eastern side, landing bays are located at Loiyangalani, Elomolo bay, Moite and Illeret. Most fish is marketed at the beaches to middlemen. Some are transported to Kisumu, Eldoret, Nakuru, Nairobi and Moyale.¹⁷³

Among the Dassanech, fishing was traditionally a reserve of the poor (*Dies*) who owned no livestock. *Dies* lived on the shores of Lake Turkana and River Omo fishing and hunting crocodiles and occasionally, hippopotamus. *Men hunt at night from small dugout canoes, using a torch, and a harpoon attached to a rope.* Although their status is considered low because of their lack of cattle, the *Dies* help the herders with crocodile meat and fish in return for livestock meat. With climatic changes resulting in prolonged drought that has led to huge losses of livestock, Lake Turkana has become the safe net with increasing number of pastoralists turning to fishing.¹⁷⁴

4.3.1.3 Charcoal burning and Sale of Firewood

Some Turkana and Dassanech pastoralists' diversification strategies are quite reactionary embracing charcoal burning and firewood selling. The overexploitation of forestry resources through collection of wood for fuel and charcoal burning are among the major causes of rangeland degradation. The sale of charcoal and firewood is a livelihood diversity employed majorly by the poor households of Kakuma and villages surrounding Lodwar town. This practice has contributed to the plight of constant drought that the local populations face. Residents who lost livestock to the droughts and diseases adopted the sale of charcoal and firewood. Initially, it was basically a short term survival practice during famines. However, a number of households have adopted it fully, traversing the plains in search of firewood and trees for charcoal. Ekurchanait Momoh, a resident of Loyo in Lodwar reveals that:

Different geographical niches in the region are suited for different economic activities. Some are good for off-farm activities, while others are good for pastoralism and agriculture. However, most agro-pastoralists,

¹⁷³Patrick, Watete, W., et al 2016. Pastoralism: Are There Options Outside Livestock Economy? Diversification Among Households of Northern Kenya. Research, Policy and Practice, p.6.

¹⁷⁴Ibid

pastoralists and agriculturalists usually turn to charcoal burning in times of extreme decline in both pastoralist and agro-pastoralist yields.¹⁷⁵

4.3.1.4 Hunting and Gathering

Other economic alternatives adopted by the Turkana and Dassanech people include hunting, and gathering. The practice has traditionally been made use of in the past. However, unlike in the past where gathering was basically done in times of drought and famine, currently, this activity is undertaken even in normal times to supplement available pastoralist and agro-pastoralist resources. Men do hunting in small groups. Women collect wild fruits which they cook for hours (due to the hard sun backed fruit covers) and feed it to their families. Leaves and roots are also picked and dug respectively and served as food. By so doing, the locals believe that they are in a position to augment their food reserves thereby reducing over-reliance on livestock and grain produces. Wild fruits, roots and plant tubers are eaten. Of the wild fruits, doom palm is the most widely used.¹⁷⁶

4.3.2 Off-farm Activities and Strategies

These are activities and strategies shrewdly employed to generate income and minimize intake of pastoral products thereby preserving the existing pastoral yields or creating a totally new and independent portfolio upon which households rely on in times of hardships. The mechanisms mostly augment pastoralism or farm-based non-pastoral economic activities. The strategies do not require one to make direct use of assets like land or water in generating an income. They are 'land-detached' economic activities that are hardly affected 'first degree' by climatic shocks and environmental stresses. They include;

4.3.2.1 Trade

Trade in Turkana County` revolves around agricultural products, general shop merchandise, and hospitality and service industry. Lodwar, Kalokol, Kakuma, Lokichar, Kainuk and Lokori, Lokichogio trading centres host most of the wholesale and retail shops in the county. Turkana County offers a transit route from port of

¹⁷⁵ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

¹⁷⁶ Oral interview, Asekon Echwa, Illeret Village, 8th July, 2018

Mombasa to southern Sudan, leading to establishment of several shopping centres along the route.

Internally, the major sectors that enable trade to thrive are the food sector. Turkana is a net importer of food stuffs such as maize and beans. The county is a major producer of animal products that includes live animals transported to other parts of the country. Beside these, the region produces a huge supply of fish, which forms the bulk of trade with other parts of Kenya. Other main industries are basket weaving which produces baskets and locally designed wares sold to tourists and visitors from other parts of Kenya. Food commodities are mainly imported from other regions. Vegetables and cereals are obtained from Kitale. Clothes are obtained from Nairobi, Kitale and Kisumu. Fishing gear is bought at Kisumu and Kitale towns. The main commodities exported are fish and livestock. A survey of prices of common shop groceries and their sources shows a significant price differential reflecting scarcity and transportation costs. The farther a place lies from Lodwar town, the higher the price of commodities. Most shop items are obtained from Kitale. Meat is found in high quantities locally. At Illeret, shop items are obtained from Marsabit town.¹⁷⁷

Turkana and Dassanech pastoralists recently embraced trade as a central economic livelihood. In the past, the sale of livestock was an unattractive idea for the pastoralists. However, TUPADO Reports reveal that trade in livestock and livestock products has recently picked up as the people diversify their food habits from livestock. Livestock markets have been established in Loriana, Lodwar and Illeret where willing pastoralists can sell their animals.¹⁷⁸

Livestock off-take at different stages of upheavals like famine is also an important adaptive strategy. In times of food shortages, increased off-take is necessary to meet the household's food demands. Trade in the area is necessary for some reasons. First is that grain is the most important source of food in domestic economy and second is that animal sales realize some economic return from livestock that would otherwise have been lost to droughts. For years, Turkana livestock owners were generally regarded as unmotivated by market forces that prescribe buying when prices are low and selling when prices are high. However, the realization that losing livestock to drought is more

¹⁷⁷ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

¹⁷⁸ Oral interview, James Lodome, Lodwar town, Turkana County, 9th July, 2017

detrimental than off-loading them for a small fee has motivated their involvement in the cattle-business economy.¹⁷⁹

Majority of those who sell livestock on a regular basis do so to acquire cash income to address other costs and to cope with short-term stresses like need for school fees and settling of health bills. Pastoralists prefer to hold unto cows for calf production and milk and thus, most sell small stock such as goats more often than other livestock type. They are motivated to sell goats due to the need to pay school fees, obtain medical care, buy food, and obtain cash for basic household needs. The increase in price and demand for livestock products created by urbanization has provided another incentive for the increased interest to venture into livestock business. According to James Lodome:

Many pastoralists make use of livestock markets to off-load livestock when climatic shocks temporarily reduce the rangeland pasture and water resources needed to sustain livestock. These same pastoralists then use the markets to restock their herds when local rangeland conditions recover.¹⁸⁰

In Lokitaung, there is trade in not only sorghum but also in sheep and goatskins. The locals in the area lost majority of their cattle herd to the droughts of 1970s and 1980s and to raids by Dassanech and Pokot in subsequent years. They took up grain farming and only rear small stocks like goats. They grow drought resistant sorghum that also has a short maturity period ensuring that the residents have food and trade commodity even in harsh conditions.¹⁸¹

At Lorengerup and Kalokol, water available to locals is limited and incapable of supporting irrigation agriculture. People in these areas, therefore, rely on barter trade to meet food shortages. They sell charcoal and firewood or exchange fish for grains from Dassanech – in Illeret and from those in southern Ethiopia. The Ethiopian side of the Omo delta has more intensive farming with bigger, fertile farms. Buying of grain with monetary currency has also increased as livestock markets have been introduced in many areas of the county thereby enabling the pastorals to sell their stock and acquire cash. Charcoal/firewood sale is practiced by many only in times of great catastrophe. Additionally, a number of Turkana and Dassanech populations derive their living from petty businesses such as shop keeping and selling small merchandise like baskets and

¹⁷⁹ Oral interview, Ekurchanait Momoh., Loyo, Turkana County, 9th July, 2017

¹⁸⁰ Oral interview, James Lodome, Lodwar town, Turkana County, 9th July, 2017

¹⁸¹ Oral interview, Mr Pius Chuchu, LPDP Project Secretary, Turkana town, Turkana County, 7th July, 2017

traditionally-made Turkana wares like bangles and rings. Basket weaving is a significant source of income for the people at Lorengelup and Kalokol and to a lesser extent at Kang'arisae. Baskets are weaved from doom palms gathered in thickets. The baskets are then sold locally or bartered for food grains.

4.3.2.2 Formal Employment and Casual Labour

For off-farm households, the greatest portion of their income is derived from salaries/wages. Since colonial days, Turkana and Dassanech people did not value formal or informal employment much. In fact, the reason why taxes were introduced in Turkana by the colonial government was to force the Turkana to embrace formal employment. Their dislike of formal employment was based on their sentimental attachment to nomadic pastoralism which required much time. However, a decline in pastoral activities due to various aforementioned factors and the embracing of education by the locals since the beginning of the 21st century, has seen several of them take up formal employment and wage labour.¹⁸²

Households that receive salaries are adequately cushioned against livelihood shocks and are able to remain well-off even during times of erroneous climate. Kamar Imana, a resident of Lokwa Kalokol, asserted that:

Migration to cities and urban areas by people who have lost their herds and have some education has increased in recent years. Those with jobs send home part of their earnings which are reinvested back into pastoral system. This movement of pastoral labour into cities, however, has serious consequences, though, as it creates a labour shortage in the pastoral system.¹⁸³

With the establishment of animal health services and the training of animal health workers, youths with animal health care skills are able to support their families with income earned from the sale of veterinary drugs and from attending to sick animals. The significance of this group however divides opinion. Livestock Department officials in Lodwar perceive the community based animal health veterinarians as a threat to the provision of adequate animal health services in the area due to their limited training and literacy levels. However, owing to their knowledge of the local terrain, the local health workers are able to access sick animals faster than government's professional animal

¹⁸² Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

¹⁸³ Oral interview, Kamar Imana, Lokwa Kalokol, Turkana County 26th June, 2018

health officials. Subsequently, they charge little fees in comparison to the professional veterinarians. As such, they are the preferred choice for majority of the local pastoralists. Mr. Ekwe Loote a resident of Kalokol observed that the services provided by the local animal health workers are up to standard and reliable just like that of professional government-sanctioned veterinarians from Lodwar or other towns who, in any case, prefer not to venture into the interior for insecurity reasons or charge exorbitant fees for their services thereby locking out poor locals.¹⁸⁴

In addition to providing animal health services, youths in the county seek employment in the tourism and NGO sectors in the area. They work as tour guides or translators for the NGOs, relief and research organizations in the area. The county government also has a large pool of local professionals including teachers, KPR, among others. Abraham Apenyu narrates that:

Unlike in the past when Turkana County relied on professionals from other regions, currently, the county boasts of a great number of teachers, nurses, bankers, security personnel and lawyers and many other professionals from the area. The free primary education launched in 2003 by the NARC administration and the sensitisation efforts made by the local politicians managed to convince parents to send their children to school. The benefits of this have been tremendous.¹⁸⁵

Apenyu notes that, the decision by majority of the educated youths to work elsewhere is detrimental to the continued growth of the county. The ‘brain drain’ has denied the county the human capital necessary for development.

The refugee camps in Kakuma, established in 1992, are another source of casual employment for youths in the county. The youths serve UNHCR and its officials in different areas including translation. The county government has also employed a number of locals in many of its top and mid-level positions. Seeking jobs outside the pastoral economy is, therefore, a major option for Turkana fatigued by the intrigues of pastoralism. The Turkana and other locals in the county are employed in the tourism industry in the area. The county boasts of Sibiloi national park and South Turkana National Reserve. Also, Lake Turkana with its South and Northern islands, the rich fauna and flora including rare bird’s species, Hippos and crocodiles is a major tourist

¹⁸⁴ Oral interview, Ekwe Loote, Lokwa Kalokol, Turkana County, 28th June, 2018

¹⁸⁵ Oral interview, Abraham Apenyu, Kanamkamer, Turkana County, 18 July, 2018

attraction. A number of youths are engaged in income generating activities, either acting as guides, translators or exhibiting the rich cultural heritage of the Turkana and Dassanech people.

4.3.2.3 Schooling

In Turkana region, just like elsewhere in the country, children are sent to school to acquire education and training. However, among the Turkana, schooling is partly seen as an essential strategy in facilitating income diversification for pastoral households especially in the long-term. Households believe that education assists family members to find jobs in the modern sector and urban economy thus, reducing pressure on pastoral economy whose yields have tremendously dropped. Other households also send children to school to ensure that they get food through school feeding programs. One such learning institution is the Missionary Community of St Paul Apostle School under father Fr Francis Yakulula. The Church-cum-school provides education and security to children from the Turkana and Dassanech communities. It has over 160 children. According to Hellena Lokoro:

For a long time, education for the pastoralists was considered by government as an exit strategy from raiding and not as an adaptive mechanism. This probably explains why pastoralist areas have lower enrollment, retention, completion, and achievement rates than the rest of the country. The idea of teaching Turkana youths not to raid could not be conceived by the proud parents who wanted their sons to be communal heroes (*morans*). However, currently, children are sent to school to help improve their human capital in terms of knowledge, skills, ability to labour and good health that enable them to pursue a variety of livelihoods after completing the schooling.¹⁸⁶

Among the Turkana, only 32% of the school-age children were enrolled in schools by 2012.¹⁸⁷ This situation is worse when viewed in light of enrolment in post-primary education. Households believe that when young boys and girls go to school, there is a probability of them abandoning domestic obligations thereby, forcing redistribution of household tasks to parents and to those children who do not attend school. Thus, though education represents and is a proven diversification mechanism for pastoralists, it is seen to present a cultural dilemma as the educated youths find it hard to fit into the

¹⁸⁶Oral interview, Hellena Lokoro, civil servant, Lodwar Town, Turkana County, 7th July, 2017.

¹⁸⁷ Joash, M., et al, 2012. Trends in Primary School Dropout and Completion Rates in the Pastoralist Turkana County, Kenya. *Universal Journal of Education and General Studies* 1(10): 331–338.

existing pastoral system, viewing it as backward and unattractive. As a result, many parents find it disruptive to send children to school as they fear ‘losing’ them to modernity.¹⁸⁸

To solve the problem of labour shortage created by schooling, residents with financial capability hire herders while women stay at home with school-going children. Other than improving human capital, Turkana people also view schooling as a way of reducing dependency of school goers on home meals. In schools sponsored by NGOs and churches, children are fed, thereby reducing the number of meals taken at home. This takes pressure of pastoralism by reducing competition for milk between children and calves. This is especially important in dry seasons when milk levels drop.¹⁸⁹

4.3.2.4 Dependency on Relief Aid

Relief food, currently a popular form of outside assistance to drought-afflicted pastoralists, has also come to be treated as a form of economic diversification strategy. Turkana pastoralists consider acquiring relief food as a formal way of earning a living. Other benefits of relief food are that it enables herd owners to minimise food in-take from their herds. Ruth Imekwi, recalled that household members classified as ‘vulnerable’ (among them are the old and orphans) count on the receipt of aid as an economic activity/option other than the adoption of either off farm or agriculture. Communities receive food aid ration comprising of maize, peas, corn, soya beans and oil.¹⁹⁰

Organisations and agencies that provide food/relief Aid in Turkana include, World Food Program , Child Fund, Government of Kenya, Veterinaires San Frontieres (VSF), The Salvation Army, Child Fund, Don Bosco, International Red Crescent Society, OXFAM, United Nations Development Program and International Rescue Committee (IRC), among several others.¹⁹¹

4.4 Household Characteristics that Influence Diversification

The main livelihood activities practised in the study area revolve around off-farm, pastoralism and agro-pastoralism activities. A number of household characteristics

¹⁸⁸ Oral interview, Abraham Apenyu, Kanamkamer, Turkana County, 18th July, 2017.

¹⁸⁹ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

¹⁹⁰ Ruth Imekwi, Nakwamekwi Village, Turkana County, 14th July, 2017

¹⁹¹ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

influence the choice and ability of a household to pursue a given livelihood strategy. These factors include:

4.4.1 Age and Educational level of the Household Leader

Age and educational background of family heads are important factors that influence economic diversification. For instance, heads of households pursuing off-farm strategies like employment are relatively younger compared to their counterparts pursuing pastoralism and agro-pastoralism. They also happen to have more years of formal education. Thus, educational attainment is a major determinant for engagement in remunerative off-farm activities. Household heads that have spent more years in learning institutions tend to be opportunistic and progressive, therefore, participate more in off-farm income generating activities than in pastoralism. Such heads are likely to sell livestock to take their children to schools as opposed to those without/with little educational attainment.

Subsequently, pursuance of off-farm strategies attracts younger and relatively well-educated individuals since pastoral or agro-pastoral livelihoods require accumulation of a viable livestock herd and access to assets for farming such as arable land. Acquisition of such resources is mainly through inheritance upon maturity or once one's parents' dies. Thus, young people with living parents mostly have no land or livestock of their own. Inability to access such resources is a hindrance to the people wishing to pursue agro-pastoral and pastoral activities. This implies that older persons are more likely to adopt farm-based opportunities whereas the younger people are more predisposed to take up off-farm opportunities.

4.4.2 Gender of the Household Head

Both male and female-headed households participate in most income-generating activities in the region, though at different levels. However, diversification is influenced by gender of the household head. Male-headed households tend to diversify more than female-headed households. This is because female-headed households have fewer streams of income compared to men. This is due to property ownership customs which dictate that assets such as land and livestock in most cases are passed on from father to male children. Additionally, women have to combine the new diversified roles with their normal household chores thereby limiting their ability to take up extra income generation opportunities. This establishment supports earlier finding by

Sowmya Dhanaraj that gender affects diversification options as gender roles are culturally determined, mobility of females may be constrained and females experience differential access to assets.¹⁹²

Women, however, still enjoy some degree of participation in the diversified activities such as trade. They engage more in the agricultural activities as most farms are located within or near homesteads.¹⁹³ Since majority of men are sentimentally attached to livestock, particularly for agro-pastorals, they end up spending most of the time out in the fields grazing the herds, while women and young children are entrusted with the responsibilities of caring for the farms and farm produces including selling of the surplus produce. Men also participate in trade through the selling of livestock in livestock markets. Whatever they get from the sale is re-invested back into the cattle economy or spent in purchasing grain or cloths or payment of school fees for the children. However, due to demographic and gender constraints, males engage in off-farm activities more than females.

4.4.3 Accessibility to Water points and Markets

Households located in the more peripheral areas tend to pursue pastoral livelihood strategy as the opportunities of engaging in non-pastoral activities are more limited. Households engaging in off-farm activities are mostly settled within trading centres with better access to water. The number of livestock held by a household varies significantly between pastoral and off-farm households and also between agro-pastoral and off-farm households. Pastoral households own more livestock though they have to walk for longer distances to obtain water. Living near trading centres offers one the opportunity to participate in business, attend/send children to school, seek employment or run an eatery joint.¹⁹⁴

The distance to water sources also dictate that those who live further away from water sources diversify less as majority of the pastoralist rely mostly on their herds' products for sustenance. People inhabiting areas close to sources of water like Turkwel and Kerio are in a position to diversify, by engaging in activities such as agriculture, small

¹⁹² Sowmya, D., 2015. Health Shocks and the Intergenerational Transmission of Inequality. United Nations University *World Institute for Development Economics Research*, University of Oxford, pp.3-7.

¹⁹³ Ibid

¹⁹⁴ Oral interview, Ekurchanait Momoh, Loyo, Turkana County, 9th July, 2017

stock pastoralism and trade. Therefore, access to water is a major determinant of diversification among the Turkana and Dassanech households.¹⁹⁵

4.4.4 Resource Endowment

The major sources of income for most households across all the wealth categories among the study groups are livestock sales, firewood/charcoal and sale of other livestock products (like meat, hides and skins). For employed households, receipt of wages is another major source of income. Agro-pastoral households have higher scores for durable index (own more assets) compared to both pastoral and off-farm households. On the other hand, pastoral households own more livestock than agro-pastoral and off-farm households. Pastoral households have their water sources spread over long distances as they occupy the most remote areas that suite extensive grazing. An improvement in welfare status among the Turkana and Dassanech leads to a decline on dependence on charcoal or firewood as a source of income, indicating that this activity is more of a coping strategy than an income generating activity in the area.

Pastoral and off-farm households exhibit more income generating diversification compared to agro-pastoral households, as they are engaged in livestock sales, milk sales, salary, business, wages, and charcoal/firewood sale. Off-farm households participate in a wider variety of income generating activities followed by pastoral households who earn income from five different sources including sale of livestock, livestock products, milk, and charcoal burning. However, agro-pastoralists own more assets (A household that has more assets has a higher durable index score) including livestock and arable lands, followed by the pastoralists, then the off-farmers. Thus, the number of livestock one owns determines the number of income generating activities he may indulge in.¹⁹⁶

4.4.5 Availability of Labour

The availability and sustainability of the stream of labour influences the livelihoods a household adopts. Agro-pastoral households for instance, tend to engage in fewer income generating activities compared to pastoral and off-farm households. This is attributed to labour-demand concerns as crop farming demand more labour compared to the other activities. Therefore, individuals undertaking crop production are unable to

¹⁹⁵Ibid

¹⁹⁶ Oral interview, Ekurchanait Momoh., Loyo, Turkana County, 9th July, 2017

take up extra income-generating activities due to shortage of labour. As a result, agro-pastoral households receive the least income with the greatest portion of their income coming from crops and relatively little income derived from livestock and sale of charcoal.¹⁹⁷

Agro-pastoral households are however, more resilient as very few of such households drop into poverty following environmental and economic shocks. These households are able to survive drought events better than the pastoral and off-farm households as they utilize their agricultural food during drought, thus reducing the impacts of drought. They are also able to use crop residues to supplement their animals during drought periods, thus saving some livestock that could otherwise have been lost through the drought. However, promotion of agro-pastoralism as a livelihood option for pastoral communities is constrained, as it may only support a small percentage (20-22%) of households in Turkana. This is attributed to the fact that only 30% of Turkana soils are fertile; and even soil fertility does not translate into agricultural appropriation as rainfall in most of the fertile regions is scanty and unreliable. Thus, agro-pastoralism has minimum significance as a poverty reduction strategy.¹⁹⁸

4.5 Significance of Economic Diversification

Diversification by the Turkana and the Dassanech households is born out of necessity rather than choice. The fragility of environment, scanty land and sparse resource due to low and erratic rainfall have cumulatively necessitated adoption of new economies and strategies on a permanent basis to supplement the few pastoral yields still generated. The economic adjustment from a pure nomadic pastoral culture to a diverse food generating base has had various significances to the wellbeing of households.

The values of diversification are both direct and indirect as well as being measurable and immeasurable. These benefits have local and national dimensions. They also have intrinsic benefits for global society which could be measured or not. First, diversification has improved food security of practicing households by cushioning them against stressors such droughts, diseases, and rapid conflicts. For instance, agro-pastoral households are more resilient to ecological variability. The households are able

¹⁹⁷Ibid

¹⁹⁸ Patrick, Watete, W. et al, 2015. Are There Options Outside Livestock Economy? Diversification among Households of Northern Kenya. *Research, Policy and Practice*, p.12.

to survive drought events better than other categories. There are several incidences in which the pastoralists groups have come close to having their entire economic bases wiped out by droughts. Since the 1950s, drought and desertification saw great decline in Dassanech livestock resulting in their migration close to the mouth of River Omo and Lake Turkana where they adopted agro-pastoralism. The 1979 drought wiped out about 95% of Turkana livestock leading to famine and over 90 reported human deaths. Since 1984 following adoption of sorghum farming on an irrigation scheme in Lokitaung and flood retreat cultivation by the Dassanech, there have been few reported cases of famine related deaths in agro-pastoral areas. The cultivators utilize their agricultural produces during drought, thus reducing the severity of the impact of drought.¹⁹⁹

Additionally, in the event of livestock raid, agro-pastorals are in a position to rely on agricultural produce, conduct trade in grain and rebuilt their herds using income from trade in grain surpluses. This is the case in Lokitaung, Turkwel, Illeret and Kerio regions where victims of raids take on sorghum farming. In Kerio and Turkwel, irrigation schemes are used to facilitate agriculture when rainfall is inadequate. After harvesting, cultivators sell part of the produce and buy small stocks like goats and sheep which they keep for some years. The multiplied small herds are and sold revenue obtained is used to purchase big herds like cattle and camels. Grains are in the meantime used for food as the residents wait for the restocking of the herd.

Households in employment and trade are the greatest beneficiaries of diversification, as they do not directly rely on climate-sensitive agriculture and pastoral activities. In times of drought, animal disease or cattle rustling, off-farmers rely on their salaries and wages to purchase food items. This has therefore, reduced the impact of famines and droughts on these populations. In addition, agro-pastoralists and off-farmers are relatively secure in conjunction to pastoralists as there are few incentives for cattle rustlers to conduct mass raids on them. The few livestock they keep are inadequate for the large scale raiding activity conducted by the raiders. Off-farmers also live far from conflict zones as most of them live in urban centres or up-market places with better security.²⁰⁰

¹⁹⁹ Oral interview, Pius Chuchu, LPDP Project Secretary, Lodwar Township, 7th July, 2017

²⁰⁰ Oral interview, Pius Chuchu, LPDP Project Secretary, Lodwar Township, 7th July, 2017

In terms of nutrition, agro-pastoralists are exposed to better, well-balanced diets as they have access to both pastoral and agricultural produces. Their balanced diet comprises of meat, milk, fruits, and cereals locally produced. This has reduced incidences of malnutrition and child mortalities amongst the families. This is also the case to off-farmers on formal employment or in trade. They also have access to salaries/wages with which to seek modern health services. Because of their relative high educational level and exposure to modern facilities, off-farmers have a better living standard than pure pastoralists. Their lifestyle and living conditions are better due to their access to improved social amenities.²⁰¹

Diversification has opened room for economic innovation for those who wish to try non-pastoral activities. Other than reducing cattle rustling conflicts, diversification has opened up new vistas for investment for those wishing to take up new opportunities. For instance, agro-pastoralists are double employed, pursuing remunerative agriculture as well as bit-part animal husbandry. During harvest time, they access markets to offload excess produces. From this trade they acquire cash with which they can acquire other needs like medical services and buy what they do not produce.

Additionally, pastoralism and crop cultivation have a symbiotic relationship. Animal dung and droppings are often appropriated as manure for crops. Oxen are often used in preparing land for planting, especially in Lokitaung. After harvest, the bulls are used to transport the produce from the *shambato* barns or to the markets for sale. On the other hand, crop residues are used to feed livestock especially during dry season when vegetation is in short supply. Plants also serve as ground cover, preventing soil erosion. They also provide shades to calves and lactating females that remain within homesteads. Grain produces are also sold in order to acquire money with which to procure livestock health services. The complementary advantage of agro-pastoralism has improved conditions in the peripheral areas of Lokitaung and Illeret by providing transport, manure and the energy needed in ploughing, trade and improved food production. This has resulted in stable food production even during drought, something that has seen a steady reduction in cases of famines and malnutrition. Practising two

²⁰¹Ibid

complementary economies on same rangeland has also helped to maximise natural resource exploitation.²⁰²

Trade has also been of great importance to practicing traders, pastoralists and cultivators. This venture has opened up employment for the formerly unemployed categories including women and youths. Privatization of communal land for cultivation and irrigation of pockets of dry season grazing corridors purportedly to spur economic growth made more pastoralists vulnerable. The lease of productive grazing lands to private developers in violation of existing communal land rights has enhanced the vulnerability by pushing the pastoralists further into a more fragile ecosystem. This has resulted in drastic losses in the number of pastoralists' livestock during droughts. These in addition to the endemic cattle raids have cumulatively displaced a great majority of Turkana and Dassanech out of pastoralism. The displaced group has found refuge in off-farm activities like trade, where they sale charcoal, firewood and livestock products. In the past, individuals who lost livestock to raids or drought resorted to raids and counter raids to restock the depleted stock. Having alternative economic activity to venture into once one loses herds has reduced incidences of counter-raids and related conflicts in the area.²⁰³

Additionally, traders tend to make use of resources that would otherwise have gone to waste in the local system. For instance, the increase involvement of pastoralist in livestock business has reduced the magnitude of the impact of droughts on the pastoralists. The pastoralists are in a position to off-load livestock before they are decimated by the droughts. As a result, they are able to salvage some financial gains from livestock that would otherwise have been lost to droughts. With this money, they acquire food items from the cultivators. This reduces severity of famines during droughts. There is also intensified trade in milk and meat products. This has reduced losses especially during the time of plenty as excess milk and meat are gainfully disposed of. The traders are in a position to buy surplus milk from pastoralist families which they sell on a profit. In this way, both the pastoralist and the traders gain.

The onset of diversification has also witnessed an increase in tourism activities in the area. Trade in hides, skins and baskets, belts and Turkana and Dassanech traditional

²⁰² Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

²⁰³ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

ware has also helped to convert the rather useless resources in the area into useful items sold to tourists and visitors in the area. This has resulted in an increase in tourism activities as visitors come in search of the indigenous wares in addition to witnessing the exhibition of Turkana and Dassanech culture. The major attraction centres in Turkana include, Central Island National Park in the Middle of Lake Turkana, the beaches of Eliye springs, the doum palm trees overgrowing the Ferguson gulf, Kalokol and Lokori Standing Stones and Rock Art, flamingo-filled Lobolo Swamp, Dancing Stones of Namoratung'a, and Sibiloi National Park.²⁰⁴

Located on the north-eastern shores of Lake Turkana, at Nariokotome is Koobi Fora - popularly known as the Cradle of Mankind. It is at this site that the Turkana Boy, a 1.5million-year-old skeleton of a boy was discovered in 1984 by Kamoya Kimeu - a Kenyan fossil collector. This is a major tourist attraction centre.Livelihood diversification has also resulted in rampant urbanisation as towns sprout up in trading centres and trade routes. Increased trade activities have bred various centres in areas around Kakuma, Kalokol and Kanamkamer.²⁰⁵

Other than the tangible values of diversification, there have been other covert benefits of the economic dynamism. The case in point is the development of dry land environmental management skills including skills on preservation of ground cover. There is also the generation of knowledge and skills on crop production in Arid and Semi-Arid rangelands. This goes a long way in helping other communities in similar environmental niches in Kenya, Africa and globe a large to understand how they can gainfully adjust their economies in response to climate change and environmental deterioration. This is so, following the Turkana and Dassanech example in which livelihood diversificationhas reduced poverty, hunger, malnutrition and effects of environmental degradation in the areas' dry rangelands.²⁰⁶

4.6 Conclusion

This chapter sought to analyse two factors: the economic activities and strategies adopted by the former pure pastoralists; and examine how the adoption of the activities has influenced the livelihoods and food security of the people in the study area.

²⁰⁴ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

²⁰⁵ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

²⁰⁶ Ibid

Turkana and Dassanech pastoralists have been forced by environmental, climatic factors and inconsiderate state sponsored developmental programs to diversify. For survival, they adopted crop cultivation, trade and fishing among other activities. These activities are often complemented with a certain degree of livestock husbandry. Agro-pastoralists grow maize, beans and sorghum. Diversification has had significant measurable and immeasurable, local as well as external impacts. The practice of different complementary economies like crop cultivation and livestock keeping has resulted in better natural resource exploitation. Agro-pastoralists are in a position to exploit crop and livestock produces at different seasons of the year thereby cushioning themselves from effects of extreme climatic conditions.

Also, traders have helped make use of resources that would otherwise have been wasted like surplus grains and meat products. Their activities have also reduced the number of livestock lost to droughts as there is constant offload before they could be wiped out by drought. This helps to generate revenue used by pastoralist families to buy food during harsh ecological times. In general, diversification has reduced cases of malnutrition, hunger and wastefulness amongst the pastoralists and former pastoral Turkana and Dassanech households. This has generated a hypothesis of hope among communities previously so indebted and dehumanized by the extremely climate-sensitive pastoralism.

CHAPTER FIVE

IMPACT OF DIVERSIFICATION ON TURKANA-DASSANECH INTER-COMMUNAL CONFLICT

5.1 Introduction

Turkana and Dassanech communities in Ilemi Triangle have been in conflict for centuries. Conflict in the region is an endemic phenomenon that only mutates with time. The very history of the Turkana as a community is built on conflict with her neighbours – members of the Ateker group which led to their migration down the Tarash River from the original homeland in Karamoja area. Turkana have, therefore, been in conflict since the establishment of the community as a single ethnic entity. After the Ateker conflict and wars of conquest, Turkana conflict transited into cattle raids and later cattle rustling with her neighbours, including the Dassanech.

Cattle raids traditionally influenced the conflict between the Turkana and the Dassanech. Since the 1950s, increased raiding activities by the Dassanech who were better armed resulted in the Turkana acquiring firearms of their own from Uganda in the 1970s. Recurrent conflicts and erratic climate led to a steady decline in pastoral yields, with poverty and dependency on external aid as the net outcomes. As a response to declining pastoral yields, several households diversified their livelihood from pastoralism, though they still retain some livestock though in smaller quantities than pure pastoralists. The adoption of the new economic activities coincided with an increase in the frequency of conflict between the communities. This chapter explores how the diversification has induced conflicts. The chapter also examines mechanisms that have been taken to resolve the conflict.

5.2 Transformation of the Conflict

Historically, conflict between the Turkana and the Dassanech was driven by cultural practices involving rites of passage whereby teenagers were tasked with killing members of the other tribe to prove their manhood. This culture unsurprisingly, provoked revenge attacks from the other side. The next phase of conflict - at the first half of the 20th century- could be attributed to colonial policies geared towards private land and resource ownership and restricted movement and grazing rights. This increased competition for resources such as land and water in the fragile arid and semi-arid region. The conflicts were later exacerbated by economic and social

marginalization by the independence government and growing population pressures and environmental degradations which hampered pure pastoralism.

In addition, developments in rustling and banditry such as commercialization of stolen livestock necessitated acquisition of arms for defense by the vulnerable groups. Communal elders eventually lost control over the raiders to cattle warlords and rich businessmen financing the raids. The transformation of cattle rustling from a communally sanctioned activity to a war of attrition also witnessed a change in the victims and magnitude of violence. Subsequently, since 2000, there has been an increase in the frequency of the conflict and number of casualties. The conflicts have also become indiscriminate, targeting categories of persons previously protected from attacks such as women, children and the elderly.²⁰⁷

Previous conflicts were mostly livestock-confined and were witnessed in grazing fields, around watering points and around *kraals* where livestock were kept. However, conflicts happening since 2000 take place mostly around Lake Turkana shores where fishing and flood retreat farming occur. They also involve conflicts along trade routes. The conflict revolves around assets and resources like arable lands, marine resources and fishing territories.

Thus, adoption of new economic activities has therefore, influenced the new conflicts. In a region already prone to droughts, livestock and human diseases, environmental degradation and pastoral conflicts, the adoption of crop farming, fishing and intensive commercial activities by Turkana and Dassanech households amid decreasing terrestrial and marine resource has reduced biological assets needed for production and precipitated conflict.²⁰⁸

5.3 Livelihood Diversification-Induced Conflicts

Due to loss of economic activities, reduction in livelihoods and the subsequent food insecurity, the areas inhabited by the former pastoralist west, east and north of Lake Turkana have witnessed increased lawlessness, social inequality and endemic conflicts. The diversification-caused conflicts include:

²⁰⁷ Oral interview, Godfrey Aarii, Illeret Division, 10th July, 2018

²⁰⁸ Ibid

5.3.1 Agro-pastoralism-Induced Conflicts

Turkana region consists mostly of arid and semi-arid land where ground cover is very little and vegetation is quite poor. The scant rainfall in the region is important for the growth of crops, natural vegetation, and survival of livestock. However, climate variability, brought about by uncertain rainfall patterns and environmental degradation are some of the most unstable factors that greatly affect agricultural production. This environment has made it difficult to rely on rain-fed agriculture. People living adjacent to the lake depend on flooding of the lake for farming. When the flooding is high, there is enough sediment for agricultural activities on the delta. However, Nalemkori Sule, a resident of Illeret notes that:

The flooding of the lake has become unreliable because the flow of River Omo has been affected by the damming project in Ethiopia. The level of water flowing into the lake has declined, reducing the size of arable wetlands. This creates conflict as there are more willing farmers than farming lands.²⁰⁹

Rainfall in Turkana is not only sparse, but is spatially and temporally erratic. This has hindered rain-fed agriculture leaving the flood plain-lands as the only arable areas for agricultural production. In the northern parts of the lake, conflict arises as the two groups tussle over ownership and use of the few farming portions. The conflict arises out of the controversy surrounding the Kenya-Ethiopia boundary. Majority of Turkana believe that the boundary should be more northerly, extending into modern day southern Ethiopia as was the case before 1944. On the other hand, Ethiopian Dassanech have followed Omo River downstream where they practise farming and fishing. The Turkana claim that this is their ancestral land. As a result, there is rampant conflict over appropriation of wetlands on the northern-end of the lake. The conflicts in this region are predatory, where farmers are attacked and crops destroyed.²¹⁰ The conflict assumes different forms including attacks on traders as was the case in April 2011 where about 20-40 Turkana, mostly women, were killed when returning from Ethiopia where they had gone to buy food. Conflicts over agricultural resources often begin as a household or clan issue. However, they usually assume a communal approach as communal interests, culture and grudges over past injustices trickle in. The Turkana feel that most

²⁰⁹ Oral interview, Nalemkori Sule, Illeret Division, 10th July, 2018

²¹⁰ Ibid

the land occupied by the Dassanech is their entitlement and view the Dassanech as encroaching on their resources.

5.3.1.1 Factors the Cause Agro-pastoralism Conflicts

There are several factors that cause agro-pastoral conflicts. They include:

5.3.1.1.1 Contrasting Land Use systems

The contrasting use of land by herders and cultivators has also been a source of conflict especially along Lake Turkana and river Omo's shores where the competition for land has been mounting. This happens mostly in areas where land has been taken from the pastoralists and put up for agricultural programs. The increased frequency of this conflict stems in-part from the introduction of private property ownership practices that have come with increased diversification and the discovery of oil and water in Turkana. With many people predicting an increase in the value of land, there have been increased individual claims on the land. The conflict has also been exacerbated by recent efforts to irrigate pockets of dry season grazing rangelands to spur economic growth. Pastoralists in such areas have been exposed to the vagaries of climate where they suffer huge livestock losses to drought. As a result, pastoralists graze their herds in cultivators' farms. Turkana households graze their herds on Dassanech crops and vice versa. This often exacerbates conflict as the offended community often reciprocates the injustice by launching cattle raid or attacking vulnerable lone traders.

5.3.1.2 Lack of Land Title Deeds

Conflict over farming lands also stems out of lack of land Titles Deeds in the area. Most of the land in the region is either government trust land or communally owned. There are no individual title deeds hence one can settle down on an idle piece of land. Land could also be passed on through inheritance or allocated by the village/clan elders. However, local leaders do not adhere to communal land tenure systems. Distribution of fertile farmlands is often done through favouritism, displacing a number of would-be beneficiaries. As a result, the displaced core often turns to raids for survival. Additionally, conflict arises when one settles down to farm a piece of land previously utilised by another group. In the event that a Turkana finds a fellow Turkana farming his wetland, the issue is often resolved through compensation for the labour used in preparing the land by the previous user. However, when a Dassanech is found tilling the land, the matter is often taken as encroachment and mostly results in conflict.

Since there are no title deeds, it is difficult to prove ownership of contested land in most areas except through existing usage.²¹¹

Because of inadequacy of proper allocation of farmlands, land appropriation for farming is often an issue of communal interest. It is an unwritten rule for every Turkana to support his fellow Turkana in the event of a dispute regarding land ownership on the shores, regardless of the genuineness of the grievance. This applies to Dassanech farmers too. Land ownership especially in Todonyang is acquired through violence. The communities resort to arms in order to protect their deltas, creating tension and often leading to armed confrontations at the slightest provocation.²¹²

Conflict over crop production is not just limited to land usage, they also extend to farm produces where aggrieved parties resort to destruction of the other group's farm products. This often happens when crops are ripe so as to starve and weaken the opponent. Dassanech blame the Turkana for the increased conflicts over farming portions insisting that they never cross the lake to the west where most Turkana reside, but the Turkana often move east to join their few clansmen there and harass the Dassanech farmers. In response, the Dassanech join with their clansmen at Todonyang in the north from where they launch attacks on Turkana. The Turkana allegedly take advantage of the numerical disadvantage of the Dassanech on the eastern side of the lake to attack them.²¹³

5.3.1.3 Wetland Degradation

Conflict over arable land has been exacerbated by degradation of the available lands. The ballooning of the population around the catchment areas has resulted in the degradation of land in the area. Degradation happens when those who cannot be accommodated by the inadequate wet deltas resort to burning charcoal for sale, cutting down the few available trees, leaving the ground bare. There is also the clearing of woodlands for construction materials by settled agriculturalists. Degradation of the land also results from over-grazing, over-cultivation and cutting trees down for firewood. Deforestation and degradation have been exacerbated by poverty that has rendered the people over-reliant on ecosystem for everything subsistent.

²¹¹ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

²¹² Oral interview, Godfrey Aarii, Illeret Division, 10th July, 2018

²¹³ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

Human-induced environmental degradation has resulted in soil erosion which has negatively affected crop productivity by removing the nutrient-rich topsoil and reduced water retention capacity of the soils. Some of the areas that were previously doing well agriculturally have eventually been reduced to rocky dry lands due to erosion. This has led to a decline in crop productivity. Agro-pastoralists have to search for new cultivatable lands. This increases tension as such groups often end up settling on claimed land. As the productivity of the land has decreased, cattle numbers along with crop output have both declined in the Illeret, Lokitaung and Todonyang areas. With cattle and people starving, communal cattle raids and counter raids have risen to prominence as the displaced farmers settle back to raiding for survival.²¹⁴

5.3.2 Conflicts over Marine Resources and Fishing Zones

This is the most pronounced source of conflict in the recent years. Prior to the 1960s, Lake Turkana stayed a long time without commercial fishing activities happening. The traditional fishermen on the lake used sticks with sharp ends to strike the fish which were mainly for domestic consumption. Most of the fishing activities only occurred at the shallow shores of the lake. But with emergence of commercial fishing in the mid-1960s, boats and nets are used to fish at the deeper ends of the lake. These rushes for financial gain have led to over-exploitation of the lake's resources in the deep ends of the lake and overfishing at the shallow breeding areas. The recession of the lake, the destruction of the shores by watering livestock, in addition to the use of undersize nets, which catch fish before their productive age have caused the quantity and quality of fish to reduce. It's no longer easy to catch big sizes of the Nile perch and the sizes of tilapia have also reduced.²¹⁵

Most of conflicts around fishing zones have become frequent since 2006. This is the year in which Ethiopia's Gibe III Dam Project across river Omo was launched. The construction of the Hydropower Dam was aimed at diversifying Ethiopia's sources of power both for domestic use and for export. Controversy surrounding the dam stems from the negative environmental and social impacts associated with it. Among the impacts of the dam include reducing water flow from river Omo to all areas downstream, affecting more than 300,000 indigenous people who depend on the river's

²¹⁴ Oral interview, Nalemkori Sule, Illeret Division, 10th July, 2018

²¹⁵ Oral interview, Godfrey Aarii, Illeret Division, 10th July, 2018

annual floods for cultivation and grazing downstream. A reduction in the flow of water has negatively affected fish populations along the river by reducing water inflow patterns. The construction has reduced the level of water flowing to the lake threatening food security as the size of flood plains have reduced as the lake recedes inwardly. This is manifested in the drying up of fertile wetlands around the lake's shore. As this asset declines, livelihoods are reduced resulting in increased conflicts over the declining farmlands. Part of the economically displaced farmers resort to cattle rustling and banditry.²¹⁶

River Omo is one of Lake Turkana's three key inlets. It supplies over 90% of the lake's fresh water. Because of this, a reduction in the amount of fresh water into the lake, which has already been recorded, increases its salinity, affect fishing grounds and reduce the size of the lake. Joseph Kipsiine, a resident of Illeret posits that:

The decline in water flow from river Omo is affecting the fishing because the Dassanech and Turkana fishermen catch fish in the lake's shallow lagoons, which have reduced. They are forced to go deeper into the lake to catch fish but their tools are meant for shallow fishing. With fewer breeding grounds, there are fewer fish, and this increases anxiety leading to conflict.²¹⁷

Lake Turkana supports more than 8 indigenous ethnic groups including Turkana, Dassanech, El molo, Gabbra, Rendille, Samburu and the Somali on both the eastern and western sides of the lake. The decrease in water levels has caused the lake to become saltier resulting in altering the ecosystem and wildlife in and around the lake. By filling the Gibe III dam, the water flow to Lake Turkana has reduced by more than 50% along with resulting in a 23-33 foot drop in the depth of the lake.²¹⁸

People living around the lake in areas such as Moite, Elmolo Bay, Kilimambogo and Tondonyang depend on the lake as a source of water for livestock and domestic use. The lake is also a source of water for livestock, and its water is believed to be of medicinal value to livestock with deworming and nutritional value. There is also a type of reed which the locals refer to as *Maasai reeds*, which are dried, and ground for food during dry seasons. The lake also contains Nile cabbage whose seeds are dried, ground,

²¹⁶ Oral interview, John Nakonyi, Lodwar town, Turkana County, 10th July, 2017

²¹⁷ Oral interview, Joseph Kipsiine, Illeret Village, Marsabit County, 10th July 2018

²¹⁸ Ibid

and used as floor during drought. In addition, people at Illeret on the river delta and at the shore of the lake practice flood (recession) farming; when its rainy season at the catchment areas in Ethiopia, there is much water that comes into the lake causing it to burst its shores, in the process creating wetland for farming. Various families also depend on the lake for fishing as a source of food and income. Men mostly fish to sell while women do it for domestic purposes. However, women are also involved in fishing for commercial purposes especially in Loiyangalani, Moite and Kalokol areas, where women, individually or in groups engage in extensive fishing.²¹⁹

The number of people eking a living out around the lake is huge. This signifies the irreplaceable importance of the lake to the surrounding communities. The lake is a representation of the existence of these communities. A reduction in any of its marine or terrestrial asset implies increased competition.²²⁰ The reduction in quality and quantity of fish has affected a majority of groups relying on the lake for subsistence and trade. As a result, several violent conflicts have been noted around and within the lake. For instance, in 2006, at least 40 people died in continuing clashes over fishing zones in the lake and grazing land. Fighting occurred in Oromoat the northern end of Lake Turkana when the Turkana followed the Dassanech to retaliate at earlier attack at Todonyang.

The most infamous case, however, is the Todonyang Massacre of May 2011. In a small village along the waters of the lake, two fishermen were murdered as they were putting out their nets. A cascade of retaliatory violence between the Turkana and Dassanech led to the death of at least four Dassanech and 20 Kenyans, though Kenyan government officials placed the Turkana death toll at 69. Turkana officials accused the government of Ethiopia of arming the Dassanech militia against the Turkana.²²¹

The 2011 attack coincided with the settlement of an estimated 900 armed Dassanech militia and 2,500 their Ethiopian civilian tribesmen on Kenyan territory around Todonyang.²²² The Kenyan government claimed that these illegal immigrants had taken

²¹⁹ Oral interview, Joseph Kipsiine, Illeret Village, Marsabit County, 10th July 2018

²²⁰ Oral interview, Chuchu Nakonyi, Assistant Chief (rtd) Kalokol, Turkana County, 27th Julne, 2018

²²¹ Nation Reporter, "Water Conflict: Violence Erupts Along Ethiopia-Kenya Water-stressed Border", Daily Nation, Tuesday, 21 June, 2011. Available at, www.nation.co.ke/News/politics.../1064

²²² Ibid

control of 10 Turkana villages. According to John Munyes, a Turkana member of parliament at the time, Ethiopians had moved 15 km inside Kenya. He narrated that:

This tension often exacerbates when level of water in Lake Turkana declines reducing quantity of fish available. The decline has resulted in increased conflict. The Dassanech have stopped our people from fishing, they have thrown us out of the pastures, and we can't access the waters. We leaders allowed our people to continue fighting and competing over the resources.²²³

Another attack occurred in August 2011, where 14 Turkana women were shot dead when they went to the lake to fetch water. Afterwards, the Dassanech celebrated the massacre with a festival. Between January and June 2012, the communities attacked each other 10 times resulting in several deaths and displacements for settled farmers around. Between July and August 2013, four attacks were recorded resulting in 14 deaths and loss of property including fishing gear like boats and nets. The conflict between Turkana fishermen and the Dassanech has threatened the peace of communities eking livelihood around Lake Turkana and caused emergency situations.²²⁴

The notion of Ethiopian government arming the Dassanech to move into Kenyan territory confirms the controversy surrounding the Ilemi Triangle borderline and the attempt by the Ethiopian government to “localize/communalise” the territorial dispute. The Dassanech and Turkana often cross the borders and attack each other in the lakeside in total disregard of the existing international boundaries. This is because the Turkana recognises the 1914 ‘redline’ border which extends to the Ferguson Gulf in the north while the Dassanech recognises the 1940s ‘blue line’ which serves as the current boundary line between Kenya and Ethiopia. To the Turkana, the current boundary prevents them from accessing much of their dry season grazing lands to the north. The lines were drawn by colonial administrations with the ‘redline’ being more northerly and the ‘blue line’ more southerly. The presence of the Dassanech in both Kenya and Ethiopia has complicated the situation further making it difficult to resolve the conflict.

²²³Nation Reporter, “Water Conflict: Violence Erupts Along Ethiopia-Kenya Water-stressed Border”, Daily Nation, Tuesday, 21 June, 2011. Available at, www.nation.co.ke/News/politics.../1064

²²⁴Amoni, Amfry., Sept 19, 2013. Kenya/Ethiopia: Conflict between Kenya’s Turkana fishermen and Ethiopia’s Dassanech peoples causing humanitarian crisis. Minority voices newsroom <http://www.minorityvoices.org/news.php/fr/1493/kenyaethiopia-conflict-between-kenyas-turkana-fishermen-and-ethiopias-dassanech-peoples-causing-humanitarian-crisis>

Thus, the air of tranquility that dominates Lake Turkana's desolate north western shoreline and surrounding rural landscape belies the severity of the tribal conflict gripping this part of the world's largest permanent desert lake. Since 2000, there has been repeated intensive fighting. According to Fr. Andrew Yakulula of Missionary Community of St Paul Apostle at Todonyang, by 2010, conflicts around the lake had claimed the lives of at least 61 Turkana in Todonyang alone, with no one in Kenya really knowing the true death toll for both sides. Clashes are sporadic and sometimes go unreported, and the Kenyan Dassanech casualty list is unknown to Kenyans due to assumptions that the attackers are Ethiopian.²²⁵ He notes that:

In 2009 war broke out after a family of five Turkana were killed and mutilated by Dassanech fishermen over a fish. Since then, many Turkana people have died in counter fighting. There were 10 incidences of fighting recorded by the mission in 2012 alone. The changing weather patterns and the Ethiopian government's multibillion-dollar construction of three hydroelectric dams along the river Omo have intensified and spread the fighting throughout the wider tribal areas. The completion of Gibe, I, II and III Dams in 2004, 2010 and 2015 has increase desertification and heavily reduced the area's already scarce water resources. It is this scenario of fewer fresh water rivers and their tributaries, less grazing and farming wetlands and the lake's reduced fishing potential that is pulling the tribes into closer contact, resulting in more conflict.²²⁶

Paul Agis, a local from the Todonyang reiterates that because of an increase in confrontations around the lake, every fisherman, trader or herder has acquired an AK-47. The conflicts in Somalia and South Sudan make it easy to get weapons. Someone can trade a goat for a high-powered rifle with ease. The problem is that while everyone has a gun, no one has been taught that the weapon should be primarily for defence rather than used as a means to solve disagreements. This has made the conflicts bloodier than before.

5.3.3 Trade-Related Conflicts

Conflicts and violence associated with commercial activities are not as many as pastoral, agro-pastoral and fishing-related disputes. However, there exist incidences of attacks on traders in market places and *en route* to markets. These conflicts mostly happen as retaliation for cattle raid or land-related conflict. Turkana argue that the

²²⁵Bill Corcoran, "In Kenya, Scarcity and Drought Are Driving Two Tribes to go to War: The Turkana and Dassanech Tribes on Lake Turkana are Fighting over Shrinking Resources", The Irish Times, Saturday, Jul 30, 2016. Available at, <https://www.youtube.com/watch?v=gHqNzzY8WD4>

²²⁶Ibid

Dassanech revenge on cattle raids by way laying and killing Turkana women headed to market. A case in point is the May 2nd, 2011 Todonyang massacre.²²⁷At the time, the Turkana and Dassanech were bartering on the Ethiopian side of the border because of food shortages caused by drought. When the mainly women and children Turkana traders were heading home, a Dassanech militia attacked and killed 28. Their mutilated bodies were left strewn across the dusty plains .A retaliation attack was launched against the militia by Turkana warriors resulting in over 46 deaths that day. This is one of the worst incidents of the conflict. It has left a lasting scar on the local Turkanas' psyche, prompting many to move further down the lake's shoreline away from the conflict zone. Fighting displaced dozens of people and stirred up local resentment against the Kenyan government seen to be complacent in solving the problem. Trade between the two communities in the area stopped for fear of attacks.²²⁸

The retaliatory attack happened only a few kilometres away from where the initial incident occurred, next to Missionary Community of St Paul Apostle and the Mission's Father and members of his community had to undertake the harrowing task of reclaiming the bodies from the scene of the attack. Fr. Yakulula notes:

We collected and buried dead at our mission cemetery. The Turkana don't bury those killed during enemy raids because they believe that touching the dead might transmit evil spirits to everyone in the community. Our graveyard now has 62 people in it, and all but one died in this conflict.²²⁹

Attacks on traders are usually indiscriminate and in most cases target innocent and vulnerable groups such as women and children.

5..3.3.1 Impact of Diversification into Trade on Conflict in the Area

Diversification into trade has affected the Turkana and Dassanech conflict in a number of ways. Firstly, there has been an increase in trade in firearms as some locals have taken up the illegal arms trade as a fulltime endeavour. They solicit for their wares from the volatile neighbouring countries of Uganda, Somalia, and South Sudan. Trade in

²²⁷“Turkana-Merille Fighting: A Deadly Cycle in Kenya and Ethiopia.” Sahel Blog. 6 May 2011. Web. 22 June 2011.<http://sahelblog.wordpress.com/2011/05/06/turkana-merille-fighting-a-deadly-cycle-in-kenya-and-ethiopia>

²²⁸Ibid

²²⁹Bill Corcoran,“In Kenya, Scarcity and Drought Are Driving Two Tribes to go to War: The Turkana and Dassanech Tribes on Lake Turkana are Fighting over Shrinking Resources”, The Irish Times, Saturday, Jul 30, 2016. Available at, <https://www.youtube.com/watch?v=gHqNzzY8WD4>

firearms has intensified cattle rustling as more people get heavily armed with the efficient AK47s. Intensification of trade activities has also opened up trade in rustled cattle. The trade routes and channels used by the commercial rustlers are reminiscent of the old East African Caravan trade extending from Kenya to Ethiopia to Sudan and finally to the Horn of Africa. The rustlers have established trade markets into the neighbouring countries where they hurriedly dispose stolen stock avoiding efforts to recover the herds.²³⁰

In addition, butcheries have also been established as efforts are made to encourage pastoralists to participate in market economy to reduce massive loss of livestock to droughts. The butcheries are, however, used to sell meat from stolen livestock especially by small-stock raiders. Raiding for commercial purposes has emerged replacing the traditional system which was aimed at raiding for restocking purposes following a drought or disease. The traditional rustling was reciprocal as raided stock could be recaptured in a counter raid. Recovering stolen herds in commercial-oriented raiding is hard as most rustled herds are disposed of easily, either by selling them across the border or slaughtering and selling them as meat.²³¹

The new market-based raids have no rules. The goal is acquisition of as many livestock as one can afford to. Enemy life matters less. This indicates a breakdown in social system and ethos regarding cattle rustling. Despite the fact that only a cross section of society participates in the commercial cattle raids, the resultant counter raiders often target innocent victims. This has intensified the conflicts in the area as attacks on women leads to a cycle of counter attacks that only pause with the occasional governmental interventions, only to resume later in a mutated, deadlier form. The case in point is the attacks that occurred between years 2002-2004. The conflicts began in the small village of Narakibuk, but spread to other localities as the communities counter attacked each other revenging the killing of women and children. The killing rampage ended in October 2004. By this time, there were over 100 recorded deaths, with a score of many men on both sides missing.

Analysis the new frontiers of conflict– commerce, fishing zones and agropastoralism - reveal that diversification of livelihoods has created new vistas for conflict that did not

²³⁰ Oral interview, Chuchu Nakonyi, Assistant Chief (rtd) Kalokol , Turkana County, 27th Julne, 2018

²³¹Ibid

exist in the past. For instance, conflicts over right of access to fishing points or arable wetland did not exist in the past as most Turkana and Dassanech relied on livestock for subsistence. Economic based conflicts were limited to water and pasturelands. The bases of discontent and conflict were, therefore, fewer. However, with diversification, cultivatable marshlands, marine resources and trade activities have emerged as new assets in the emerging economic system. These have expanded the conflicts to areas that previously did not experience conflicts. Thus, diversification of livelihoods has led to diversification of conflict by opening up new areas of interest and competition, especially in areas around the shores of Lake Turkana.

5.4 The Centrality of Lake Turkana to the Turkana-Dassanech Conflict

The significance of the lake to the survival of the communities around it cannot be ignored. People derive various resources from the lake, including water for domestic and livestock use. Turkana County has a water poverty index of 43.5 with less than 20% of the population having access to 20litres per person per day .Water is mainly sourced from Lake Turkana, Kerio-valley, Turkwell and Sugita River. Other than the lake and Suguta, the rest of the sources are seasonal. The communities also get water from dams, borehole sand wells but these are not evenly distributed in the county, as most are located in the south.²³² This leaves the lake as the main source of water to communities in the area.

Also, the lake supports growth of *Maasai* reeds and Nile Cabbage whose roots and seeds are dried and ground respectively for food during dry seasons. The lacustrine communities along the lake shores also practice flood irrigation when waters of the lake flood. In addition, the lake is a constant source of fish to all the eight communities living around.

Lake Turkana is also important for tourism with Sibiloi National park on one side and the Koobi Fora archaeological site on the other. There are several culture sites with rich historic information suitable for cultural tourism. The lake is endowed with several

²³²Kenya Inter-Agency Rapid Assessment (KIRA), Turkana Secondary Data Review, March 2014, p. 5. Available at, https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Turkana%20Secondary%20Data%20Review_20141112.pdf

endangered/rare species of birds good for tourism. Tourist *en-route* the lake visit the communities living nearby and buy souvenirs. The lake is endowed with marine life and a robust wildlife population depends on it as both a habitat and a source of water. The lake has one of the highest numbers of Nile crocodiles, with some of the rare and endangered species. This wildlife has very important cultural values to the communities.²³³

The lake is a source of transport in the area. Boats on the lake are used as a mean of transportation avoiding the rather rough terrain and insecure road networks. It connects the people with Lodwar and Kalokol fish-markets. This is a preferred mode of transport because of lack of proper infrastructure. It is the most efficient way of crossing from the east side of the lake to the western side. Via road network, this 45minutes' journey might take three days and its way much costlier, tedious and time consuming. Additionally, for lack of any other recreational and sporting facilities for majority of the youth and children in surrounding areas, Lake Turkana turns out to be a major recreational area for people nearby.²³⁴

The lake also serves as a buffer zone. Each of the communities claims that the lake protects them against their dangerous enemies on the opposite side. While the Turkana says it protects them from the dangerous enemies in the east, the same communities believe that the lake protects them from rapid attacks by the dangerous Turkana on the western side. Thus, each of the communities sees the lake as a barrier from unwanted enemy. The area surrounding the lake is arid and semi-arid land where food is not easily available, leaving the lake's fish as the main source of food for the poor orphans, widows and destitute persons. The fish acts as nutritional supplement and a source of sustenance the down-trodden groups. For instance, during droughts, relief aid could take long to arrive, but the fish in the lake is usually available as the first line of relief for those who cannot afford to buy food. This highlights how the lake is essential to the survival of vulnerable groups in the area. The surrounding communities believe that the lake is their divine property and must not be tampered with. Any alteration on the flow of the water into the lake, therefore, greatly affects its dependents giving rise to conflicts as communities jostle for existence in the face of scarce resources. The

²³³ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

²³⁴Ibid

construction of Gibe I Dam and power station across Gilgel Gibe river (a tributary of river Omo), Gibe II Dam across river Omo at Gilgel northeast of Jimma in Oromia and Gibe III - west of Sodo have steadily interrupted the flow of river Omo into Lake Turkana.

Gibe III Dam is the third largest hydroelectric power plant in Africa with a power output of about 1870 Megawatt (MW). The dam is part of the Gibe cascade, a series of dams including the existing Gibe I dam (184 MW) and Gibe II power station (420 MW) as well as the planned Gibe IV (1472 MW) and Gibe V (560 MW) dams. The damming of river Omo has resulted in adverse desertification in Ethiopia and areas south. This was predicted right before Gibe III Dam began to generate electricity in October 2015. It's, therefore, not surprising that just months after the Plant became operational, Ethiopia recorded its worst drought in over 30 years. In a region where virtually everyone lives off land, the drought had devastating consequences on households. Crops failed and animals died. This left almost every household dependent on food parcels from the government and prompted many young men to migrate to Kenya while others undertook the dangerous voyages to Saudi Arabia, Europe and South Africa in search of work. The Dassanech migrating to Kenya often surge up the numbers of their brothers at Todonyang and Illeret from where they conduct attacks on Turkana fishermen, herdsman and traders. The attacks have engulfed the entire region around the lake in anguish, bloodshed and death.

The direct consequence of Ethiopian droughts and desertification to the Turkana tragedy is that whenever there is a drought in Ethiopia, the government and agencies in the country often establish flood irrigation programs that target portions of land around rivers Omo and its tributaries. The irrigation is often done at night to reduce evaporation. Farmers along the riverbeds also independently take up this practice. This eventually reduces the volume of water flowing southwards into river Omo and Lake Turkana.²³⁵ This has the net effect of causing the drying up of fertile riverbeds thereof, and affecting the quality and quantity of fish therein. The fact that Lake Turkana supports 8 communities notwithstanding, and that the lake receives over 90% of its water from river Omo, implies that a reduction in the River's flow, reduces marine and

²³⁵ Oral interview, Ekurchanait Momoh,, Loyo, Turkana County, 9th July, 2017

terrestrial resources in the lake intensifying competition and conflict as most of the households have no alternative economies to revert to.

The situation on Lake Turkana is symptomatic for the region along the Sahel belt as a whole. The shooting, bombing and killing is rampant wherever there is no education and no jobs, and wherever there is a perpetual, self-reinforcing cycle of poverty, hunger and desperation. The central governments of Kenya and Ethiopia have essentially abandoned the Ilemi Triangle region, leaving the marginalized to fend for themselves. There is no development and education and colonial enlightenment never arrived here in the first place. This has left the region to the mercy of Faith Based Organisations (FBOs) and charity institutions. The territorial representation of these organizations is limited. Their heavy presence in Turkana-land as opposed to Dassanech areas is a source of envy. According to Joseph Arbanish, a Dassanech youth schooling at Todonyang, the reason why they attack the Turkana is because they feel the Turkana have better resources than they. He explains the explosion of violence as:

This is how we see it. The Turkana have a church, they have education and they get food aid. We have none of that. As a Dassanech, you must kill a person - only then are you accepted as a man. We kill them because they are favoured and we're ignored.²³⁶

This highlights the significance of the interplay of economic factors and marginalization in the Turkana-Dassanech conflict. An attempt at understanding the conflict must start with an understanding of the economic needs of the inhabitants. The continual damming of river Omo by the Ethiopian government and inconsiderate agency-sponsored irrigation activities upstream are a recipe for chaos and skirmishes downstream, as they reduce the quantity of biological assets such as fresh water and fertile flood plains needed for economic production. Since Gibe III Dam and Power Plant became operational, coupled with the global warming trend of climate change, witnessed in the area, several catastrophic changes have been noted in Lake Turkana that have impacted on the current wave of violence. These detrimental changes are:

5.4.1 Shrinking of the Lake

This is the most visible effect. The lake has shrunk and its shores have moved inwardly exposing bare rock cover. It is the habit of the lake to recede during the non-rainy

²³⁶ Oral interview, Joseph Arbanish, Lodwar Township, Turkana County, 24th October, 2018

seasons at catchment areas and then refill beyond its level during the rainy season at the catchment areas. The catchment areas are upstream in Ethiopian highlands and in Pokot land from where rivers Omo, Turkwel and Kerio originate respectively. This behaviour enables various activities at the shores, including flood farming. Traditionally, the lake expanded in August to September and again in January. However, this no longer happens. The Elmolo bay settlement used to be engulfed by the lake during the month of September. This phenomenon has not been witnessed since 1998.

At Kalokol, the lake has receded several kilometres inwardly. As the lake recedes and the shores get muddy, weak animals often get stuck in the mud as they follow the receding waters to drink clean water. The amount of water in domestic wells has also dropped, shallow wells are receding and some have dried up, since wells somehow are connected to the levels of water on the lake.²³⁷

With the decrease in the lake's quantity of water, comes a decline in the amount of fish. Additionally, as the lake recedes and the vegetation along the shores dries up, the breeding grounds for fish are lost. The fish migrate to the deeper sections of the lake making it difficult to fish without boats. This has affected women and orphaned children who use simple fishing methods like arrowed sticks to catch fish in the shallow ends. Reduction in quality and quantity of fish and drying up of fertile shore-lands has inspired conflict especially in Todonyang and Narakibuk.²³⁸

5.4.2 Change in Water Colour

Due to increase farming activities along the riverbeds of river Omo upstream, there is much sedimentation flowing downstream causing the lake's water to have brownish colour at the upper end, close to river Omo delta. This is mostly evident when there are rains in Ethiopia. This signifies that there is much soil erosion at the catchment areas and along the riverbeds. Soil erosion occurs when there is much cultivation along the riverbeds and the lakeshore. The ground loosens up and the top layer fertile soil is carried away easily either by water during the brief rainy seasons or strong winds which create small smooth of sand on land, but deposits huge amounts of sand into the lake. This situation is worsened every day and every season by the destruction of the vegetation cover by goats, charcoal burning and firewood harvesters. Cutting down of

²³⁷ Oral interview, Paul Ekuro, Kalokol, Turkana County 28th June, 2018

²³⁸ Ibid

trees has led to mass wasting and soil erosion. More soil sediments are carried into the lake in recent years than before.²³⁹

Due to overgrazing and extensive farming along the lower Omo Valley, there is lots of pollution getting into the river especially along watering routes. Human and livestock wastes are also drained into the lake. The pollution has altered the colour of water. The changes in the lake have caused the disappearance of certain species of fish. There are certain fishes that need fresh water during the breeding cycle, yet there are others that cannot survive when the water pH becomes too high. Certain species of fish are no longer seen nor caught and the explanation for extinction or migration is the increase salinity of the waters. In addition, there has been a reduction in sizes of some fish and general unavailability of fresh water species of fish.²⁴⁰

5.4.3 Drying up of Fertile Flood Plains

Loss of recession cultivation has been experienced in the lake deltas. Because of flooding, the waters would cover quite some distance of the shore and as it retrieved seasonally, it would leave behind wet ground suitable for farming. The Turkana and Dassanech living nearby planted food crops such as millet and sorghum. However, by 2015 recession farming activities had gradually reduced as most of the previously arable plains had gone dry. This is because the damming of river Omo by the government of Ethiopia has reduced the amount of water flowing into the lake.

The lake provides diverse hub for livelihoods and employment. Activities such as fishing, livestock keeping, trading, transport and cultivation rely on it. Thus, the interference with the lake's water level through inimical development programs in Ethiopia is a threat to the survival and coexistence of the over 300,000 people living around. As more households abandon pure pastoralism due to the grave impacts of droughts and desertification in the Ilemi Triangle, there is every probability that diversification-induced conflicts will continue to rise as Lake Turkana gets crowded with more dependants, and its resources plummets by the day.²⁴¹

²³⁹ Kaijage, A.S. and Nyagah, N.M. 2009, "Socio-Economic Analysis and Public Consultation of Lake Turkana Communities" – Draft Report, PP.170-171

²⁴⁰Ibid

²⁴¹ Amoni, Amfry., Sept 2013. Kenya/Ethiopia: Conflict between Kenya's Turkana fishermen and Ethiopia's Dassanech peoples causing humanitarian crisis. Minority voices newsroom 19.09.2013

5.5 Some of the Recorded Timelines of the Turkana-Dassanech Conflict

December 19th, 1957: There was a surprise attack that was launched by the Dassanech. New York Times reported that in the attack, 164 Turkana were killed and 5000 livestock raided.²⁴² The Turkana claimed that in the attack, the government of Ethiopia aided the Dassanech by arming them with firearms following a dispute over the northern limit of their grazing lands in the upper Ilemi Triangle.

June 6th, 1963: The Dassanech warriors attacked and killed 32 Turkana tribesmen. During this time, the Dassanech still enjoyed an advantage because they possessed firearms, something the Turkana did not, until the 1970s.²⁴³

2000: Known as the ‘I-Lokorichie’s Small Stock War,’ it is estimated that between the groups, more than 100 people died and many more were wounded. The war started from a series of small raids by the Turkana and resulted in a retaliation attack mounted by the Dassanech.²⁴⁴

January 2002-November 2004: at least 100 people were killed from both sides and an unspecified number of livestock were taken away during combat. Most of these battles were coordinated and involved several hundreds of militia from both factions.²⁴⁵

October 2005: Dassanech attacked Turkana villagers twice; first when Dassanech warriors attacked a Narakibuk village, and second when Dassanech warriors attacked Turkana herders in the fields. The number of mortalities was never mastered though large herds were driven away.²⁴⁶

May 4th, 2011: Affected by drought, about 40 Turkana men, women and children headed north of Todenyang and crossed the lake to buy food at a Dassanech market near River Omo. On their way back, they were ambushed and killed by Dassanech

²⁴² New York Times Reporter, “Kenya Battling Tribe on Border.” New York Times, 19 December 1957: Web American University Library. 22 June 2011.

²⁴³ “32 Tribesmen Slain.” The Washington Post. 7 June 1963. Web. American University Library. 22 June 2011.

²⁴⁴ Toru, S., 2010, 22, Op cit.

²⁴⁵ “Turkana-Merille Fighting: A Deadly Cycle in Kenya and Ethiopia.” Sahel Blog. 6 May 2011. Web. 22 June 2011. <http://sahelblog.wordpress.com/2011/05/06/turkana-merille-fighting-a-deadly-cycle-in-kenya-and-ethiopia>

²⁴⁶ “Ilemi Triangle: A Theatre of Armed Cattle Rustling.” Practical Action. 2005. Web. 22 June 2011. http://www.itcltd.com/peace6_elemi

militia. Turkana tribesmen later mounted revenge leading to over 46 deaths on both sides. The Turkana had attacked and killed 5 Dassanech fishermen the previous day.²⁴⁷ In the same month, in a small village along the waters of Lake Turkana in the north, two fishermen were murdered as they were putting out their nets. A cascade of retaliatory violence between the Turkana and Dassanech led to the death of at least four Dassanech and 20 Kenyans though Kenyan government officials placed the Turkana death toll at 69.²⁴⁸

July-August 2013: During these months, the two communities attacked each other four times resulting in 14 deaths and loss of property including fishing gear like boats and nets. Several retaliatory raids were carried out by fishermen from both sections. According to the Turkana District Assistant Chief, Pius Chuchu Nakonyi, the attacks left the two communities vulnerable and in dire need of humanitarian assistance especially for women and children.²⁴⁹

Analysing violent conflicts between the two communities, Jesse Creedy Powers notes that the frequency of such conflicts has increased rapidly since year 2000. He argues that between 1957 and 2000, there were only two reported violent conflicts between the two communities. About 192 people died and over 7000 heads of cattle rustled. However, since 2000 the frequency has increased tremendously. From 2011, at least four confrontations take place monthly around the lake resulting in heavy losses to human life and massive destruction of property.

5.6 Impact of the Conflict on the Communities

The conflict between the Turkana and the Dassanech has had several effects on the locals and the region at large. First, it has undermined trust and created an omnipresent perception of insecurity in the region. Recent conflicts target groups such as women, children and the elderly – a forbidden trend in the past conflicts. During raids, rustlers often enter schools along the raiding routes during learning time and scare pupils. This

²⁴⁷ “Turkana-Merille Fighting: A Deadly Cycle in Kenya and Ethiopia.” Sahel Blog. 6 May 2011. Web. 22 June 2011. <http://sahelblog.wordpress.com/2011/05/06/turkana-merille-fighting-a-deadly-cycle-in-kenya-and-ethiopia>

²⁴⁸ Water Conflict: Violence Erupts Along Ethiopia-Kenya Water-stressed Border. Daily Nation, Tuesday, 21 June, 2011.

²⁴⁹ Amoni Amfry. Sept 2013. Kenya/Ethiopia: Conflict between Kenya’s Turkana fishermen and Ethiopia’s Dassanech peoples causing humanitarian crisis. Minority voices newsroom 19.09.2013. <http://www.minorityvoices.org/news.php/fr/1493/kenyaethiopia-conflict-between-kenyas-turkana-fishermen-and-ethiopias-dassanech-peoples-causing-humanitarian-crisis>

has created an array of fear and anxiety among the population due to the indiscriminate nature of the recent conflicts. Unlike in the past, raiders no longer target livestock alone; they also raid homesteads for maize, sorghum and beehives and fishing gear. The motive of attacks has, therefore, changed, encompassing areas, assets and zones that were never targeted in the past. This has caused migration from conflict-ridden areas as was the case in the Todonyang Massacre of May 2011 in which horrified Turkana abandoned their homes in the north and moved southerly. These migrations often put pressure on resources in the areas where the migrants move to, resulting in a wave of resource-based secondary conflicts.

Turkana and Dassanech conflict has retarded economic development in the area. Due to the endemic nature of conflict, the region has witnessed very little development. Turkana is the largest but also poorest and least developed county in Kenya with an estimate of 94% of its residents living in absolute poverty.²⁵⁰ The insecurity poses an obstacle for development and demarginalization of the region. For example, the connection of the electricity wires in some areas like Kainuk and Todonyang has repeatedly had to stop as the security of the electrical workers could not be assured. The lack of secure markets also limits the ability of the pastoralists to sell livestock prior to, or during dry periods and hence contributes to heavy loss of livestock during droughts. The options to sell livestock to traders are limited due to fear of attacks on the traders. Entry of grains and manufactured goods into the interior areas is also negatively affected by insecurity.²⁵¹

In 2015, only 4% of homes in Turkana County had either brick or stone walls. 27% of homes had mud/wood or mud/cement walls. 31% had wood walls. Additionally, only 1% of the houses had corrugated iron walls with 28% having grass/thatched walls while 9% had tin. None of the residents had homes with concrete roofs at the time, while only 12% had corrugated iron roofs. Grass and *makuti* roofs constitute 72% of homes with less than 1% of houses having mud/dung roofs. By the same period, only 7% of residents had homes with cement floors, while 91% had earth floors; 1% had wood and less than 1% of houses had tile floors. Also, less than 1% of residents used liquefied petroleum gas and 1% use paraffin. 87% households use firewood and 11% used

²⁵⁰ Omari Emman, "Named: Kenya's Richest and Poorest Countries", Sunday Nation Nairobi, 2011: 4-5. Available at, <https://www.nation.co.ke/17072>

²⁵¹ Ibid

charcoal. Some of these figures underlines the underdevelopment among the communities in Turkana County *vis avis* other groups in Kenya.

Conflict and violence have also curtailed investment in education in the interior areas of the region. In the northern belt of Lake Turkana, there is only a single school in an area stretching about 10Km on the borderline with Ethiopia. The mission school is run by the Missionary Community of St Paul Apostle and serves children from Turkana and Dassanech communities. School teachers and students in the region most times need to be protected by military and police during national exam periods. This has led to high illiteracy rates in the region.²⁵² Most schools are closed when conflicts intensify as teachers seek transfers to safer areas. Several schools have bullet holes as evidence of the dire impact of violence on schooling in the area.²⁵³

As a result, Turkana County has the highest level of illiteracy in Kenya with 82% of her residents unable to read or write. Only 3% of the residents have a secondary level of education or above, with a mere 15% having a primary level of education. Individuals living in the county are seven times less likely to access secondary education than the average Kenyan. This is attributed to a number of factors, with insecurity ranking high. The county's proportion of population with no education is eight times that of the highest ranked county, Nairobi. At constituency level, Loima Constituency in Turkana has the highest share of individuals with no education – at 93 per cent – compared to Makadara Constituency in Nairobi with the least at 8.2 per cent. Education levels in the county seem to be positively correlated with the number of people working. The proportion of population working for pay in Turkana stood at 0.06 per cent by 2014. It is no coincidence that this county with the highest proportion of its population without work is the poorest in Kenya.²⁵⁴

The conflict has resulted in death and displacement of many people since 2000. The Todonyang Massacre, attacks in Narakibuk, Illeret and other attacks combined results in several hundred recorded deaths. However, the real figure of the death toll is

²⁵² Oral interview, Police Reservist, PT, Loyo, Turkana County, 10th July, 2017

²⁵³ Oral interview, John Loyapat, Lodwar Township, Turkana County, 15th June, 2018

²⁵⁴ Mark Kapchanga, "Turkana and Wajir Counties have Highest Levels of Illiteracy", The Standard Digital, Published online on Tuesday, November 26th, 2013.

Available at, <https://www.standardmedia.co.ke/article/2000098680/turkana-and-wajir-counties-have-highest-levels-of-illiteracy>

unknown as many attacks often go unreported especially in interior areas. Internally displacement is also rife with most of the victims becoming “Invisible IDPs”- being integrated in with relatives. Others flee to safe zones like Lodwar town and Kakuma refugee camps. It is here that induced environmental degradation occurs as the displaced jobless often resort to charcoal burning for survival. They cut down trees exposing the ground to soil erosion.

Poverty and food insecurity resulting from loss of livelihoods due attacks have led to increased incidences of early marriages and polygamy. With no source of livelihood parents easily marry off their underage daughters to wealthy rustlers. Thus, youths who engage in commercial raids tend to marry early and have many wives. This has resulted in high number of widows and orphaned children when husbands and fathers get killed in the intensified conflicts. Due to polygamy, a death of one husband results in several widowhoods. The widows and orphans are also increasingly becoming victims whenever raiders come into the villages. This has led to continuous experience of trauma by those who witness such atrocious murders. The early girl child marriages and pregnancies limit their access to education and contribute to high illiteracy levels.

Insecurity has also negatively affected the inter-communal relations. Both Turkana and Dassanech community members have strong feelings of distrust towards each other. The distrust decreases the motivation and the capability of the communities to choose a cooperative path which is a prerequisite for peaceful and effective conflict resolution and common resource exploitation in the region. The perception of insecurity has led to inefficient utilization of natural resources such as pasturelands that have been abandoned for fear of attacks. Villages and livestock markets in insecurity zones remain unused or are not even officially opened like the one in Lokirama and Amolem.

Successive incidences of conflict have substantively affected environmental degradation, hunger, water shortages, migration patterns and religious activities in the area. It has also led poor health and sanitation as health facilities are abandoned whenever conflicts ensue. Available health facilities have inadequate healthcare personnel. The ratio of Doctor to population in the county stand at 1:52,434. Infant mortality rate is 60/1000/day while the rate of children under 5 years mortality rate is

12/1000/day.²⁵⁵ Only 9% of residents use improved sanitation facilities. 22% and 18.3% of children have medium stunting growth in Central and West Turkana, respectively, while Turkana South has a high stunting rate of 30.2%.²⁵⁶

5.7 Efforts toward Resolving the Conflict

Various efforts have been undertaken to address the conflict between the Turkana and the Dassanech. There have been community sensitization meetings, intercommunity peace and dialogue initiatives, peace preaching by local church leaders, establishment of peace committees, disarmament of combatants and occasional inter-communal marriages to deal with the conflict in the area. Conflict resolution mainly occurs after an attack, though, at times, peace efforts occur during an attack, especially if the conflict is protracted. Most of the resolution efforts are locally initiated. Majority of the peace efforts are headed by churches and charity organisations working in the area, government institutions and indigenous elder-led mechanisms.

5.7.1 Role of the Church and Charity Organisations in the Conflict Resolution

Religious institutions have for decades been involved in peace making and peace building activities in Turkana County. One such institution is the Missionary Community of St. Paul Apostle situated in Todonyang. The Missionary runs a mission school that hosts children orphaned by the conflict from the Turkana and the Dassanech communities. The Dassanech children include those across the border in Lower Oromia region of Ethiopia. The mission is often invited in the warring villages to foster peace. The respect accorded to the church stems out of its impartial approach to resolving conflicts in the area. The second factor is that it serves as a safe zone for orphaned children regardless of their ethnicity. The mission heads negotiations regarding resource conflicts and acts as an arbiter. It enjoys trust from both factions – a privilege not accorded to any institution – not even the government. It resolves conflicts from fishermen, herders and agro-pastoralists around Todonyang area, although some of cases redressed emanate from Ethiopia and in the Eastern side of the lake in Illeret. The purpose of taking the orphans into the mission school is to foster peace between the communities. Fr. Yakulula, the Mission's priest reiterates that:

²⁵⁵<http://www.myaspirantmyleader.com/10-counties/65-turkana-county.html>

²⁵⁶Kenya Inter-Agency Rapid Assessment (KIRA), Turkana Secondary Data Review, March 2014, p. 5. Available at, https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Turkana%20Secondary%20Data%20Review_20141112.pdf

We hope bringing them (the opposing tribe members) together when they are young will break down the distrust that exists between these people.²⁵⁷

Fr Yakulula's religious order has also built 20 small fresh water dams throughout the area so that the Turkana herders do not have to gather at the rivers, which have always been flash points between the communities.

Another organization involved in resolution of the Turkana-Dassanech conflict is Shalom Center for Conflict Resolution and Reconciliation established by Irish priest Fr. Patrick Devine. The organization has been active in the area since 2011, where it has been working with tribal leaders to re-establish peace. In relation to their peace building role after the Todonyang massacre of 2011, Shalom Program Manager, Peterlinus Odate surmises that:

We conducted workshops with the local leaders in 2011 from each community to enhance their skills in conflict management. The training focused on non-violent strategies for effectively resolving conflicts, effective communication strategies, the use of third-party mediators, and the exploration of alternatives to conflict.²⁵⁸.

But the grinding poverty affecting the local communities and the ongoing difficulties both communities have in adapting to their fast-changing environment means tensions remain high. This has made conflict between the tribes inevitable. Pastoralist lifestyle is no longer sustainable, since the area's ecosystems cannot withstand the unpredictability of the changing weather patterns. This has forced many former pastoralists diversify. However, the impact of the Gibe Dams in Ethiopia on the people's resource base is challenging the sustainability of the adopted economies like fishing and cultivation resulting in anxiety and new conflicts.

Rather than advocating that these tribes give up their centuries-old lifestyle, Trócaire–Kenya, however, is trying to help the Turkana and Dassanech to adapt. Trócaire–Kenya is an organization involved in helping vulnerable communities to develop sustainable livelihoods, support victims of gender based violence and those living with HIV/AIDS, promote democracy and peaceful co-existence and help communities prepare for and

²⁵⁷Fr. Andrew Yakulula, *The Irish Times*, Saturday, Jul 30, 2016, op cit.

²⁵⁸Bill Corcoran, "Climate change Drives Tribal Conflict in Kenya: Church and Charities Ease Tensions over Scarce Resources," *The Irish Times*, Sunday, Jul 31, 2016. Available at, <https://www.irishtimes.com/news/world/africa/climate-change-drives-tribal-conflict-in-kenya-1.2740952>

respond to natural disasters. The organization has sponsored the laying of fodder along the pastoralists' and agro-pastoralists' migration routes, which also reduces inter-communal competition; it provides veterinary services for the goat, camel and donkey herds that struggle to stay healthy in the area's high temperatures. Paul Healy, head of Trócaire-Kenya, believes that the pastoralists have a right to make their own choices regarding livelihood and must be supported in this, rather than being forced to abandon certain activities.²⁵⁹ The church and charity organizations have been successful in halting conflicts especially those involving small groups of individuals or families in the area.

5.7.2 Application of Traditional Inhibitions and Negotiated Peace

Various indigenous, elder-led efforts have been advanced in a bid to redress the causes of conflict between the Turkana and the Dassanech. Turkana people have indigenous legal and moral mechanisms that guide the management of resources and conflicts. The legal system corrects defiant behaviour and forms the basis upon which disputes that arise over resource-use can be settled. The Turkana pre-colonial legal system categorized laws or moral guidelines relating to preservation of the environment, accessibility of pastoral resources, and resolution of conflicts arising over resource use and disposal of property and inheritance. Laws that relate to, for example, the preservation of the environment ensures that certain trees and animals that have intrinsic value to the community are protected. These moral guidelines are born out of the community's belief that nature, comprising of the lake, rivers and pastures are divine and ought to be preserved.²⁶⁰

Birds such as open hill, stork, marabou, and horn hill crow play an important role in the removal of ticks from animals and are, therefore, not supposed to be killed. Ecological conservation is engrained in religious beliefs and aimed at protecting areas regarded as sacred. These include places of worship located near rivers or water points. They also include areas where diviners reside such as sacred mountains or hills (such as Loima). Because of their religious beliefs, the Turkana maintain restrictions over resource use in such places.

²⁵⁹Paul Healy, Head of Trócaire, "Warring Tribes: Church and Charities Ease Tensions Over Scarce Resources," Sun, Jul 31, 2016. Available at <https://www.irishtimes.com/news/world/africa/climate-change-drives-tribal-conflict-in-kenya-1.2740952>

²⁶⁰ Oral interview, Chuchu Nakonyi, elder, Kalokol, 27th June, 2018

There are also legal mechanisms regulating access to pastoral resources. Firstly, one has to belong to the territorial section that claims exclusive rights, or this group has to grant permission for entry. Secondly, as regards water, if a man digs or clears a waterhole (locally known as *aker*), under Turkana customary laws, he assumes ownership. Others have to seek permission before using such waterholes. But water from natural springs or ponds (*kanamat*) is used on the basis of first come first served, because rights of ownership are vested in entire community.

In the dry season, pasture and water are scarce. Disputes often arise over access to pastures, salt licks and watering points. Fighting over scarce pastoral resources between individuals/ clans or communities sometimes lead to injury or death of some of those involved. Where disputes lead to death, the offender, if caught at the first instance would be killed, usually by a member or group of men from the community of the slain member. If the person responsible escapes, the case would be taken up by the stock group of the victim and presented to the council of elders.

Efforts have been made to apply such traditional ethos in resolving modern conflicts especially those dealing with distribution of farming deltas and fishing zones. However, the applicability of these mechanisms on the Turkana-Dassanech conflict is constrained by the fact that the two communities have different approaches to conflict resolution. The Turkana argue that they do not recognise the killing of women and children as a legitimate revenge tactic in war, yet the Dassanech kill. Secondly, these taboos are designed to address pastoral related conflicts where fines could be paid in heads of cattle and goats. This poses a challenge when the dispute is between fishermen/cultivators without livestock or who may not value livestock as much as the pastoralists. Meting sentences and punishment in such cases is challenging due to contradiction of resource interests and value among the differing households.

There are, however, cases in which indigenous peace negotiations have born fruits. In some areas, local peace initiatives have been used as an alternative to the governments' top-down disarmament approach. These bottom-up approaches including meetings between conflicting communities that rely on traditional conflict mitigation methods and restorative justice, have at times, led to a sustained reduction in conflict. In a number of cases, the elders from the two communities met in the past to resolve

conflict. The case in point is the 2002 meetings aimed at ending a rampage of violent raids and counter raids that started in 2000 and ended in 2002 costing the communities over 100 lives. These meeting supported by churches and relief agencies helped to bring about peace that lasted for over two years.²⁶¹

5.7.3 Government Approaches in Resolving the Conflict

Other than religious and charity institutions, the Kenyan government has also deployed security personnel – soldiers and police – to the isolated area to provide a calming presence. Due to its control over national resources and security forces, there is reason to expect the government to be a key player in managing this conflict. The security forces are deployed in order to halt the violence; sometimes, such deployment comprises a longer-term operation to disarm the conflict parties and monitor the situation after calm has been restored. At other times, or in conjunction with security force deployment, government representatives mediate in the conflict or cooperate with local actors in arranging talks or peace conferences.

The state's relationship to this communal conflict is often very complex and at times highly problematic. In many cases, the response of the state has aggravated the situation rather than help to resolve it. For instance, it has been noted that the deployment of security forces in reaction to communal conflict is often associated with human rights abuses. The government often responds, in extreme cases, by bombing the hideouts of the alleged perpetrators. This results in innocent casualties, something that aggravates the situation as the victims assume that the government is siding with their opponents. This supposed bias only makes counter conflicts severe.

There have been several attempts by the central government to bring peace in the area. There have been a number of initiatives to rid the area of arms and to pacify warring groups. Government responses to armed violence in north-west Kenya have however, largely focused on attempts to disarm local communities, both voluntarily and forcefully, but have been largely unsuccessful. Local communities continue to be unwilling, for various reasons, to give up their weapons. In the absence of formal security provision in the area, small arms are considered necessary for the protection of

²⁶¹ Oral interview, Chuchu Nakonyi, elder, Kalokol, 27th June, 2018

the community and its assets; guns are seen as symbols of power and masculinity among many of the people. Moreover, as these arms have a monetary value, people have been unwilling to hand them over without receiving compensation or other benefits in return. Forceful disarmament campaigns have been responsible for gross human rights violations in the past, which have worsened relations between the communities and the state and made talk of disarmament a very sensitive issue. Furthermore, these campaigns have often not been carried out impartially and simultaneously across the different peoples in the region leaving (partially) disarmed communities vulnerable to attacks from their armed neighbours.

Government's habit of using officials from Nairobi to make peace in the region's periphery have not born results due to lack of understanding of the conflict dynamics on the side of the conflict resolvers who end up compromising their impartiality or imposing resolutions on the local people. A solution to the conflict between the Turkana and the Dassanech cannot be reached through enforcement approach. There is need for negotiations aimed at addressing resource scarcities brought about by environmental, climatic and structural factors.

5.8 Conclusion

This chapter sought to evaluate how economic diversification has influenced the Turkana-Dassanech inter-communal conflict. The conflict between the two tribal communities along the lake is a tit-for-tat war rooted in climate change and the fight for scarce resources. The adoption of agriculture, fishing and trade, due to the unsustainability of pastoralism in light of the prevailing ecological changes, has paved way for new types of conflict and modes of conduct that are indiscriminate, bloodier and hard to predict.

While in the past conflicts were limited to cattle-related factors and needs, the adoption of the new economic activities has brought about new interest in assets like flood farmlands, fishing zones and trade commodities, thereby, diversifying the conflict. The new conflicts are mostly confined to the shores of Lake Turkana where majority of the new activities are undertaken. There have been several local and national efforts to resolve the conflict. Several factors including contradictory communal ethos and

government's brutish approaches such as impartial forceful disarmaments have led to limited success in the resolution efforts prompting a steady continuation of the conflict.

CHAPTER SIX

CONCLUSION

Africa contains a substantial portion of the world's arid and semi-arid rangeland, extending over three million square kilometers. These arid zones support millions of both pastoral populations and their livestock. Despite their marginal productive capacity, lands are highly diverse in landforms, climate, vegetation, and soil types. The rangelands are characterised by high spatial and temporal variability in precipitation, which directly affects plant productivity. Traditionally, pastoral nomadism, the major land use system of the region was adapted to variable forage supplies and water distribution. The ability of nomadic people to survive in these marginal lands was attributed to their opportunistic mobility and diversified livestock husbandry.

Other than spatial variability in precipitation, recurrent droughts and famines are the other common features of arid and semi-arid rangelands. Overgrazing, sedentarisation of formerly nomadic communities, water development without sound ecological considerations, exclusion of the nomads from vital drought reserves and their compression onto smaller and more fragile land have all contributed to the deterioration of African rangelands. The people most affected by recurrent drought are the pastoral nomads. Their livestock are decimated and reports at the time of drought often reveal horrifying human suffering and massive deaths.

Drought is however not a new phenomenon to the nomads though. Historically, they have suffered many such disasters. Their survival is attributed to a wide spectrum of coping mechanisms and strategies. Some of the strategies are ecologically based while others depend upon cultural and socio-economic mechanisms. Literature depicts that in some recent instances, the drought strategies have broken down making more pastoralists seek outside help more than ever before. Areas most susceptible to drought problems are those that are subject to erratic seasonal variation in precipitation. Drought on these rangelands reduces forage production and water supplies placing serious pressure on the herds.

Turkana County is one of the forty-seven counties in Kenya. It is geographically the largest and economically the poorest county in Kenya. The natural endowment of Turkana County is meagre and unevenly distributed and large parts of it are not fit for

settled habitation. Locals' adaptation to it has for long been premised on incessant movement. Thus, the history of inhabiting communities is marked by extensive migrations and population shifts, the constant jostling and shoving of people in search of land, pasture and water. Scarcity remains a harsh reality of life in the region. Much of the county is arid with an average precipitation rate of less than 550mm and a moisture index of minus 50. Nature's parsimony in the county is accentuated with a pattern of recurring drought which inevitably results in massive famines. Population growth of both human and animals have cumulatively increased pressure on already scarce marine and terrestrial resources.

Recent developments like discovery of oil and movement towards privatisation of formerly communal lands have reduced both human and livestock mobility. As mobility has increasingly been constrained, the need for it remained an economic imperative and the remaining nomads continued to shift about and press against their neighbours in a constant search for pasture and water. This has increased scarcity of pastoral resources triggering mobility which in turn made conflict inevitable.²⁶²In addition to mobility constraints, are scarcities in water, pasture and browse. To maintain their existence in such a marginal environment, the area's ecology have to be finely tuned to take advantage of every resource, and almost all other factors had to be subordinate to this.²⁶³ Shrewd adaptive mechanisms have traditionally been made use of to live with the eco-stresses and variability in resource endowment. Because of natural resource scarcity, arid and semi-arid lands are marked by intense competition that often results in conflicts. The net effect of the competition is that such areas have hardly known peace or development.

The Turkana and Dassanech people live in the most arid region with the average annual rainfall in most areas being less than 300mm. Rainfall is concentrated in three to four-month period with April the month which rainfall is most likely to occur. However, as is characteristic of arid areas, the rainfall is extremely variable from year to year, and there are periodic droughts during which there is little or no plant productivity and even the deep-rooted trees along river courses shed their leaves. This lack of grazing and

²⁶²Michael, L., 1977. *Why People Stay Poor. A study of Urban Crisis in World Development*, London: Temple Smith.

²⁶³KNAC/DC/LDW/1/1/36, Special Districts, 1951

browse leads to low productivity of milk and blood and to high mortality in the livestock herds and causes great hardship to the people.

The economic adaptation to the environment found in the county, in the past, was traditionally mainly based on herds of domestic animals like camels, goats, sheep and cattle kept for meat, milk blood and hides, and donkeys for transport. The Turkana and Dassanech also practiced cultivation in limited areas and limited periods when it was possible.²⁶⁴ However, for the Turkana, the main aim and delight was the ownership of livestock especially cattle though for most of their region, goats and camels were more suited to the environment. Property was synonymous with livestock and other possessions were simply conveniences.

Due to the nature of their economy, and several prevailing factors, the Turkana and her neighbours have hardly lived a peaceful co-existence. Because of their sentimental attachment to livestock, the most painful act that could be done to a Turkana is to take away his cattle. This exposes him to poverty, which is responsible for misery and thus a draw back to his socio-economic status. Therefore, cattle raid and rustling perpetuated against them often resulted in counter-activities of such nature. Communities that constantly raided Turkana's stock in the Ilemi Triangle include Toposa, Karamajong, the Dassanech, Pokot, Rendile and Samburu.²⁶⁵

Cattle rustling and raids have contributed immensely to the underdevelopment that characterises the county. Because cattle are the main measure of wealth and source of livelihood to the people of Turkana, cattle rustling had been a nuisance long before the advent of colonialism. As a result, very limited socio-economic development could take place in an environment where pastoralists were exposed to constant loss of their wealth and source of livelihood.

Like many pastoralist neighbours in East Africa, Turkana and Dassanech communities of Ilemi Triangle have been in conflict for many decades. The real period for the beginning of the conflict is unknown or maybe forgotten, but current conflicts have been traced to 1950s when the Kenyan Dassanech in conjunction with their Ethiopian brothers raided the Turkana repeatedly. Both communities are historically nomadic

²⁶⁴KNA/DC/LDW/1/1/113, Post-War Development Plan Turkana, 1944-1956.

²⁶⁵KNA/DC/LDW/1/1/104, Turkana Rehabilitation and Development, 1963-1964.

given the geography of the land. In order to survive in the hot, arid and semi-arid land, they constantly moved in search of better pasture and water. This nomadic nature is what caused these groups to clash in the past. The porous nature of the border did not help matters much as the Dassanech often crossed the border to rejoin their tribesmen in Woreda District, south of Ethiopia from where they launched attacks on the Turkana. In most major conflicts, the Dassanech fight as a unit with the Kenyan core spying on the movements before combining for a full assault in Woreda area in Ethiopia. The Turkana respondents during this study surmised that they attack the Dassanech in Kenya not necessarily due to direct rivalry between them but because in most instances, the Dassanech collude with the Ethiopians to instigate violence against the Turkana. Dassanech act as spies for the Ethiopian rustlers, monitoring the movement of Turkana herders, farmers and fishermen, after which they relay such information to Ethiopian militia who conduct the raids.

The porous nature of the Kenya-Ethiopia border and the contention regarding the actual boundary of Ilemi Triangle has complicated the conflict situation as Dassanech can commit atrocity in Kenya and then cross the border into Ethiopia. This hinders efforts to administer justice as the real perpetrators of violence are very mobile and elusive. This is what causes revenge attacks on innocent victims as angry Turkana often go on revenge rampage killing whomsoever they meet in enemy territory. Pastoralists in Kenya, Ethiopia and South Sudan freely traverse the borders looking for pastures and instigating violence since the border is poorly demarcated and hardly policed. This intensifies trade in illegal arms, commercial raiding and inter-communal conflict.

Drought is one of the main catalysts of food insecurity and malnutrition in Turkana rangelands. The impacts of droughts on local population were manifested mainly through livestock mortality, water scarcity and land degradation. The protractedness of pastoral conflicts, recurrent drought, environmental degradation and competition over scarce biological assets have led to decline of pastoral yields to below levels needed for subsistence. Increasing human population, privatization of communal lands and the associated sedentarisation, and reduced adaptive capacity of the households, has amplified the drought impact. These factors jointly heighten the vulnerability of pastoral communities, with increased poverty as a lone outcome. The poverty, which in

itself is an obstacle to effective adaptation has increased vulnerability as households have no economic buffers against drought-induced famines.

Over the years, starting in the 1970s, the Turkana devastated by the droughts of 1969-73 and 1979-81, relied on relief aid. However, the relief portions have proven unreliable as the poor terrain often hinders the aid agencies from accessing the interior areas. As a result, and overwhelmed by the frequency of droughts, several Turkana and Dassanech households opted for less-climate sensitive livelihoods. Therefore, the impacts of environmental degradation, cattle raids and unreliability of the relief aid as coping mechanisms have cumulatively driven some of former nomadic pastoralists to diversify livelihoods, adopting agriculture, commerce, fishing, pursuit of formal/casual employment, hunting and gathering, charcoal burning and fire wood sale as permanent economies.

In areas like Lokitaung, Illeret, Kalokol, Loima, Lodwar, Todonyang, Turkwel and Kerio, livelihood diversification has been one of the main strategies for living with climate variability and other environmental stressors. Diversification of income sources has become a central strategy in a bid to survive in both rural and urban environs. Households engage in farm-based, off-farm and limited pastoral income generating livelihoods. Livelihood diversification by the Turkana and the Dassanech is based on necessity and not choice. Households generate income from a number of activities including sale of livestock and livestock products such as milk, meat, hide and skins, fishing, crop production, salaries, wages and sale of charcoal and firewood and entrepreneurial activities including shop keeping and basketry.

Diversification has impacted positively on the households by reducing vulnerability as strategies such as wage labour or employment do not rely on climatic conditions to earn a living. The art of practising mixed such as crop production and animal husbandry complements each other resulting in improved yields in both areas. For instance, livestock dung and droppings serve as manure to crops while crop residues are used as food to livestock during dry season. There is a positive correlation between diversification and household welfare. Families that engage in off-farm activities such as wage labour have better living standards with a better access to social amenities such as education and healthcare. Rural households with the ability to diversify tend to

perform better economically than those that depend wholly on farm-based activities. Agro-pastoralists also have a better nutrition than pure pastoralists as their diet contains fruits, grain and meat and milk products, all locally produced.

Despite having numerous positives, diversification has been a source of conflicts in a number of ways. Some of the diversification strategies are unavailable to the poor people who lack the requisite assets such as farming land and capital for venturing into crop production and business. The poor households are prevented from taking up better livelihood strategies due to a number of entry barriers including low asset endowment, access to formal credit, information or markets, and demographic factor such as level of education, sex or age of the household head. These barriers have constrained several households from taking up more lucrative livelihood strategies. To the poor, diversification is, therefore, a coping strategy that households use to maintain their level of welfare and ensure food security rather than a welfare improvement scheme.

Diversification has also resulted in increased trade in fire arms, commercial raiding, and extended raiding activities from grazing fields and water points to homesteads where raiders steal food crops, fishing boats and nets which they sell. With adoption of fishing, has come new methods of fishing which often catch fish before they reach they reproductive age. This has reduced the quantity of fish in the lake.

Therefore, diversification has been a curse in disguise as its adoption has coincided with increased conflicts in the area. The Turkana and Dassanech have traditionally clashed over natural resources. However, by opening up new sources of livelihood, diversification has created new areas of interest and competition and hence conflicts. In an area with a history of cattle rustling and banditry, the creation of new vistas of interest has, therefore, created new conflicts that have overwhelmed existing conflict resolution mechanisms resulting in intensification of conflict. As a result, Turkana is classified as a high hazard probability (HHP) zone due to conflict, flood and drought.

The recent conflicts, mostly occurring since 2009 have been witnessed in areas around the shores of Lake Turkana. The lake supports many people who farm its shores, fish its waters and trade in its marine resources. Most of the inhabitants' activities are ecosystem-based. The lake has however, been experiencing changes since the launch of Gibe II and Gibe III Dams IN 2006 and 2015 respectively. The changes have

affected the quality and quantity of resources around the lake. Such detrimental changes are attributed to the damming of river Omo which has reduced the volume of water flowing downstream. The significance of the lake to the inhabitants is such great that during this study, a number of respondents expressed willingness to go to Ethiopia to pull down Gibe III dam, which they blame for the much of their problems.

The findings of this study have challenged some of the prevailing notions regarding economic diversification, which erroneously assume that economic diversification increases economic mobility, breeds economic freedom, stability and peace. The findings illustrate that while economic diversification has reduced instances of famine and malnutrition among diversifying Turkana and Dassanech households, it has also created new need for certain scarce biological assets amplifying the existing natural resource competition. The adoption of agricultural activities and fishing has extended the formerly pasture and water-confined conflicts to the farming areas of the lake's shore. However, the livelihood breeding most conflicts is fishing which has heavily been affected by increased agricultural activities in the south of Ethiopia. Conflicts have moved from the interior plains to the homesteads of settled farmers and transhumance agro-pastoralists as raiders raid for agricultural produces and fishing gear which they sell off. The new conflicts are brutally conducted, indiscriminately executed and are unbearably costly in terms of losses to human life and destruction of property, necessitating an urgent need for a durable solution.

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- Oral interview, Chuchu Nakonyi, elder, Kalokol, 27th June, 2018
- Oral interview, Constable PT, police officer, Lodwar town, 7th July 2017
- Oral interview, Corporal John Lomorkai (rtd), Lodwar Town, 10th July, 2017
- Oral interview, Ekwe Loote, fisherman, Lokwa Kalokol, 28th June, 2018
- Oral interview, Ekurchanait Momoh, former herder, Loyo Lodwar, 9th July, 2017
- Oral interview, Emeto Loyeye, herder, Nawoitong, 15th July, 2017
- Oral interview, Godfrey Aarii, agropastoralist, Illeret Division, 10th July, 2018
- Oral interview, Hellena Lokoro, civil servant, Lodwar Town, 7th July, 2017
- Oral interview, James Lodome, resident, Lodwar town, 9th July, 2017
- Oral interview, John Ekuwom, fisherman, Lokwa Kalokol, 28th June, 2018
- Oral interview, John Loyapat, Businessman Lodwar Town, 8th June, 2018
- Oral interview, John Nakonyi, elder, Lodwar town, 10th July, 2017
- Oral interview, Joseph Kipsiine, Businessman, Illeret Village, 10th July, 2018
- Oral interview, Kamar Imana, trader, Lokwa Kalokol, 26th June, 2018
- Oral interview, Lokoe Kamar Imana, farmer, Illeret village, 8th June, 2018
- Oral interview, Lore Aruani, trader, Nawoitong, 15th July, 2017
- Oral interview, Mary Abenyo, herder, Kanamkamer, 18th July, 2017
- Oral interview, Michael Ome, agropastoralist, Illeret Location, 7th July, 2018
- Oral interview, Pius Chuchu, LPDP Project Secretary, Lodwar Township, 7th July, 2017
- Oral Interview, Lodome Tulele, elder, Nakwamekwi Village, Lodwar, 13th July, 2017
- Oral interview, Nalemkori Sule, trader, Illeret Division, 10th July, 2018
- Oral interview, Paul Ekuro, driver, Kalokol, 28th June, 2018
- Oral interview, Police Reservist, PR Kanamkamer, 18th July 2017
- Oral interview, Police Reservist, PT, Loyo, 10th July, 2017
- Oral interview, Robinson Lopenyang, fisherman, Kalokol, 26th June, 2018
- Oral interview, Ruth Imekwi, trader, Nakwamekwi Village, 14th July, 2017

Oral interview, Steven Eregae, fisherman, Kalokol, 27th June, 2018

Oral interviews, Nancy Lomer, shopkeeper, Naiwatorong, 15th July, 2017

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