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INSTITUTE OF DIPLOMACY AND INTERNATIONAL STUDIES

M.A RESEARCH PROJECT

**CLIMATE VARIABILITY AND CATTLE RUSTLING AMONGST
PASTORALIST COMMUNITIES IN THE HORN OF AFRICA: A
CASE STUDY OF MARSABIT COUNTY IN NORTHERN KENYA**

BY

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DECLARATION

This research proposal is my original work and has not been presented for a degree or any other award in any other university.

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I confirm that the student under my supervision has developed this research project.

Signature Date:

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DEDICATION

I dedicate this work to my Parents and my Siblings who demonstrated patience and understanding during my busy times, when I was away for many hours working on the project.

ACKNOWLEDGEMENT

I want to thank the Almighty ALLAH for the health, fortitude, patience and strength he granted me during the research. Secondly, I want to thank the Institute of Diplomacy and International studies (IDIS) Lecturers with special regards to Dr. Shazia for her guidance all the way to my triumphant completion of this research project. Also, not forgetting my cousin Guyo, I would like to thank him for his endless effort and assistance he accorded me during the field work. Lastly, to my lovely family I am very much grateful for all the support you have accorded me.

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LIST OF ACRONYM

KNFP	Kenya National Focal point
ASAL	Arid and Semi-Arid Lands
UNEP	United Nations Environmental Programme
IPA	Interpretative Phenomenological Approach
ITCZ	Inter tropical Convergence Zone
ENSO	El Nino Southern Oscillation
IOD	Indian Ocean Dipole
NRT	Northern Rangelands Trust
GDP	Gross Domestic Product
IGAD	Inter Governmental Authority for Development
EDE	End Drought Emergencies
GoK	Government of Kenya

OPERATIONAL DEFINITIONS OF TERMS

Effectiveness is the ability to produce the desired results. It is the ability to accomplish a purpose or producing the intended expected results. In this case, there is creation of employment.

Community The setup where you find a group of people with the established facilities and amenities in the surrounding that is schools, chief camp, church and a market.

Cattle In this study cattle refers to a herd of Cows.

Raid Refers to an attack by the cattle rustlers or the bandits who usually come to steal away the cattle.

ABSTRACT

The disagreements, feuds and conflicts, which can be attributed to livestock's and culture among the pastoral communities in the Horn of Africa, have been occurring since pre-independence era. In the African traditions, various communities used these events as cultural practices and for different purposes like restocking of the herds by the different communities. The current study examined the issues of climate variability and cattle rustling amongst pastoralist communities in the Horn of Africa. The study was guided by the following objectives: first, to establish the consequences of climatic variability and cattle rustling in the Horn of Africa. Secondly, to find out the factors that lead to perpetuation of cattle rustling in Horn of Africa with specific focus on Marsabit County in northern Kenya. Finally, the third objective of the study was to establish the strategies that maybe used to bring a solution to Climate variability and the cattle rustling problems. The study adopted the mixed methods. Random sampling was adopted to identify the different respondents who took part in the study. The study found that there was a direct relationship between the climatic condition's dynamics and cattle raids (livestock-conflicts) that have been visited upon the pastoral communities. The blunt of the violent raids and attacks not only bring loss of lives and property but also makes an already situation worse. This is because these communities already face other natural calamities like drought and famine, flash floods and diseases, which are also a big challenge to the communities.

Keywords: Livestock, Violent conflict, Raiding, Pastoralism, Pokot, Turkana, Kenya

CHAPTER ONE

Introduction to the Study

1.1 Introduction

The Horn of Africa is a sub-region in the sub-Saharan Africa. In addition to the political volatility and national security problems, the Horn of Africa have also seen changes in the climatic conditions with extreme cases that is drought and famine. Even though, there have been severe cases of drought in the past few decades the worst case of drought took place in the year 2011, 2016, and 2017¹. Since the pastoral communities practice a specific lifestyle they appear to be more affected and vulnerable to the changes in climatic conditions because they dependent solely on livestock. This is because of some of the elements and features of the communities that are sensitive to the climatic changes.

The total estimated land of Kenya is composed of about 219,8sq miles; out of the entire piece of land there is a portion of 20% that is potential arable land for agricultural production. The remaining portion estimated at about 80% is made of land that is not potential for agricultural production. The raids and stealing of cattle are more prone in Northern & Eastern provinces of Kenya, these cases are not reported in other parts of Kenya. The cattle rustling activities and events that are experienced in these former provinces are also a negative externality to the neighbouring counties because they spill over to these localities.

The cattle rustlers are more attracted to the Northern parts of Kenya as opposed to the Southern, Rift valley, Lower eastern and the Coastal regions. The main reason why the attackers are attracted to these parts of Kenya can be attributed to things like; reduced government presence and reduced development of these regions also poor

infrastructure and lighting. If there were heavy government presence and infrastructure then there would be reduced attacks. The attackers are inspired by the fact that even after they have carried out the attacks it takes the government hours and sometimes days to send assistance for the locals. This is because the police are sent as far as Nakuru in the rift valley and sometimes assistance is sent from Nairobi, which gives the attackers a heads-up.¹

According to previous literature, cattle rustling is practiced more in North Rift than in other parts of Kenya. This may be contributed by the porous borders of the neighbouring countries that is Ethiopia, South Sudan and Uganda which is inhabited by the communities who practice the vice often.² Some of the communities living in North Rift parts of Kenya including the Pokot, Samburu, Turkana and the Marakwet have continued to perpetuate these activities, which are in most cases introduced to them by other communities from the neighbouring communities like the Karamojong, Sapei and Pokot from Uganda. Others are the Taposa and the Dong'iro of South Sudan and the Merile, Nyangaton and the Shangila of Ethiopia.³

Some of the communities that have continued the perpetuation of these raids across boarder into Kenya include the Karamojong and the Sapei of Uganda. In most cases the Pokot of Kenya against their counterparts conducts the attacks across the border. If the same does not give expected results the Pokot will extend their expedition and raid their fellow Kenyans. It is also important to note that the raids are in most cases inspired by lack of resources. Also, the climatic changes and contributes to the

¹ Amene, A. B. (2009). Cattle rustling: A leadership crisis civil society and community outreach, mifugo project retrieved on 10th April 2018 from: www.iss.co.za/pgcontent.php?UID=22706.

² Mkutu, Kennedy Agade (2008). Guns and Governance in the Rift Valley - Pastoralist Conflict and Small Arms. Bloomington, Indiana University Press.

³ Muiruri, K. J. (2009). Passports and Identity cards for livestock in east Africa. Pretoria: Institute for security studies.

reduced survival rate for the livestock which eventually succumb to the harsh conditions leaving the community members vulnerable.

In the event that the communities cannot provide for pasture and water for their animals during these dry seasons the cattle succumb to the drought. After the villagers have lost the elders to go and make the attacks and steal animals for the community bless so many of their animals the young men of the community. Some of the communities that carried out attacks between each other in northern Kenya includes the Marakwet and Pokot, Pokot and Turkana, Pokot and Samburu community. There were also reported in Baringo District between the Tugen and the Njemps, also in Baringo the Turkana and the Samburu raided Njemps.⁴ Even though Northern Kenya is an ASAL region, it is famous for livestock keeping which is the main source of income in the region.⁵

There are cultural values attached in these activities of cattle rustling which makes then difficult to run from. Given that the communities have an attachment to the raiding activities it's difficult to criminalize the cattle rustling even though the same have been abused by unscrupulous traders and businessmen. These pastoral communities also adopt the cattle rustling to enable them to get the cattle which are used as dowry or bride price. The different families in the community have since reduced their number of cattle as opposed to the numbers that were held traditionally. Therefore, it's not really possible for a family to get 200heads of cattle for bride price.

⁴ Saleh, A. (2013). Relative deprivation theory, nationalism, ethnicity and identity conflicts. *Geopolitics Quarterly*, 8(4), 156-174. Available at http://www.academia.edu/4282810/Relative_Deprivation_Theory_Nationalism_Ethnicity_and_Identity_Conflicts

⁵ Muhereza FE (2011) A de-briefing report on the mid-term evaluation of the International Rescue Committee (the IRC) cross border peace building project funded under the European Instrument for Democracy and Human Rights (EIDHR), Implemented in Karamoja, Pokot and Turkana. Kampala.

Thus, the young people would come together and plan raids in order to get these cattle.

The raids and attacks were also used as a way of showing the prowess of the young men who have gone through circumcision.⁶ Hungue stated that the communities also used these raids for replenishment and restocking of their herds.⁷ In the event that drought, pest and disease had wiped out the livestock then the community will organize for attacks on their neighbours with huge numbers of cattle so that they can replenish theirs for example the Samburu used to attack the Njemps.

In case a previous raid had reduced the numbers of cattle held by a community then the elders would sponsor the youths to carry out attacks on other communities so that to replenish or bring back the stolen animals.⁸ In some special circumstance, the raiders would take away both the women and livestock of the victim community. The Horn of Africa hosts communities that used to carry out the attacks/raids by use of crude weapons. In the African traditional society, the cattle rustling, raids and attacks were not meant to harm the victim community and cause loss of life. Also, the attacks were not very frequent and disruptive to the way of life of the victim community.⁹

A study by Muiruri found that these raids and attacks have affected the security status of towns inhabited by the pastoral communities like Marakwet and North Rift.¹⁰ The year 1992 saw one of the worst periods where Kenya experienced the largest number of cattle rustling attacks visited upon different pastoral communities.

⁶ Huka, H. (2013) 'Fights erupt as investors scramble for land in Isiolo', *East African Standard*, 19 January / http://www.hiiraan.org/news4/2012/feb/22748/fights_erupt_as_investors_scramble_for_land_in_isiolo.aspx#sthash.0FvtIoh9.dpbs [accessed 30 June 2018]

⁷ World Health Organization. (2014). Country Cooperation Strategies at Glance: South Sudan.

World Health Organization: Retrieved from http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_ssd_en.pdf.

⁸ Wamuyu, I. (2014). The effects of livestock rustling on livelihoods of pastoral communities in the Turkwel River belt along the Turkana/Pokot border. *Unpublished Master Thesis. UoN*

⁹ Ibid 7

¹⁰ Ibid 5

1.2 Statement of Research Problem

Unpredictable climate and long drought seasons have adversely affected the pastoral livelihood. The Horn of Africa region has experienced negative impacts of climate variability, the different climatic conditions and dynamics in the Horn of Africa cannot be defined as favourable at any time of the years. This is because all seasons around the clock the weather will either be dry and hot or hot and dry. Droughts have been causing deaths of livestock because of lack of pasture and water this in turn makes the communities engage in cattle rustling and raids in order to replenish their herds.

This is a problem because of raids many people are killed, others left with permanent physical damage that will change their lives completely; this in turn leads to retaliatory raids. If this problem is not addressed, then the raids will continue to flourish in Marsabit County, which will impede development, and even in long-term result in several devastating attacks because of the hatred that will be in the hearts of the participating communities. A good example of these kind of attack is the Turbi and Kokai Massacre in Marsabit County where many people lost their lives. Hence, this research work seeks to examine key issues in regard to climate variability/changes and cattle rustling in the Horn of Africa, with specific focus on Marsabit County, Kenya.

1.3 Research questions

- i) What are the consequences of climatic variability and cattle rustling in the Horn of Africa?
- ii) What are the major factors of cattle rustling in Horn of Africa, specifically in Marsabit County in Northern Kenya?

- iii) What are the strategies that maybe used to bring a solution to climate variability and the cattle rustling problems in the Horn of Africa?

1.4 Research Objectives

The main objective of the study is to examine the relationship between climate variability and cattle rustling amongst pastoralist communities in the horn of Africa.

1.4.1 Specific objectives

- i) To establish the consequences of climatic variability and cattle rustling in the Horn of Africa
- ii) To find out the factors that lead to perpetuation of cattle rustling in Horn of Africa with specific focus on Marsabit County in northern Kenya.
- iii) To establish the strategies that maybe used to bring a solution to Climate variability and the cattle rustling problems.

1.5 Literature Review

1.5.1 Introduction

This section will be composed of the review of literature that was conducted by the researcher on the various studies done on the study

1.5.2 Climate variability and cattle rustling in the Horn of Africa

During the past 30 years, Horn of Africa region has experienced a persistent decline in rainfall which has had a major consequence for regional food security, where agriculture and pastoralism largely depends on rainfall availability. These two different living styles becomes highly vulnerable to climate change. The countries mostly affected by these variabilities are Somalia, Djibouti, Eastern Ethiopia and Northern Kenya where the temperatures and aridity has increased.

The climate of Kenya as a Country varies like any other Country with seasons.

Kenya is one of the Countries located on the equator and experiences temperate climate in most cases, the coastal region experiences tropical climate while the north of Kenya is mostly arid climate.¹¹ According to a study by Kabubo-Mariara, Kenyans experience the highest temperatures in the Northern regions/areas of Kenya.¹² A study by Christensen et al, stated that the average temperature in Kenya have risen over the past 50 years by 1⁰C.¹³ According to the study by Wamuyu, the Kenya highlands usually experience a warm trends of 0.5⁰C from the 1970's.¹⁴

Lodwar is found in the County of Turkana northern Kenya, the town has the highest temperatures in Kenya. Christensen et al, found that the County of Turkana is warming at a rate of roughly 105times the global average. These changes or increase in temperature are projected to lead to an increase in temperatures of the entire east African region to 2.8⁰C in the year 2060 and about 4.5⁰C in the year 2100.

There are previous studies, which have studied the contribution of climatic and environmental factors to the conflicts between communities in Kenya. In most cases the studies fund that there was an indirect relationship or an inverse relationship between the climatic conditions and the environmental factors and conflicts/disagreements between the pastoral communities. According to a theory which was put forward by Homer –Dixon, the resources scarcity mostly contributed to the feuds and conflicts between the communities in a bid to scramble for the same.

¹¹CIA (Central Intelligence Agency) (2012) CIA world factbook – Kenya. Accessed 26 April 2018, <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

¹² Kabubo-Mariara J (2009) Global warming and livestock husbandry in Kenya: Impacts and adaptations. *Ecological Economics* 68(7): 1915–1924.

¹⁴ Wamuyu, I. (2014). The effects of livestock rustling on livelihoods of pastoral communities in the Turkwel River belt along the Turkana/Pokot border. *Unpublished Master Thesis. UoN.*

Some of the different resources, which leads to conflicts include livestock's water points and resources pastures.¹⁵

These factors or the scarcity of these factors increases the chances of likelihood of violence among the pastoral communities in Kenya. This is because these communities are forced by circumstances to scramble for the limited resources that are left after the drought sets in. Campbell et al concluded that the climatic change is one of the factors that leads to the natural resource scarcity, on the other hand the researcher also established that the scarcity of the natural resource is one of the range of factors causing conflicts.

According to the existing literature it has been reported that it is almost certain that there is always a change in the indicators that influence conflicts and violence when there is a change in the climatic conditions. It is most likely that the incidence of raiding and cattle rustling is attached to the climatic factors and the tribal and ethnic peace. The different communities and clans will plan raids and execute the same depending on the prevailing climatic conditions. In their study Berger and Molu found that there was a positive or direct relationship between the incidences of conflicts and the drought occurrence.

1.5.3 Issues of Cattle rustling in Kenya

Cattle rustling activities have posed a risk to the serenity enjoyed by the people who depend on the livestock in the North Rift of Kenya. This is because the raids and rustling activities have evolved to encompass the violent confrontations with disruptions of live and communities at large. According to the KNFP cattle rustling have since become violent after the different communities acquired fire arms which,

¹⁵ Campbell I, Dalrymple S, Rob C & Crawford A (2009) Climate change and conflict – lessons from community conservancies in northern Kenya. Winnipeg: International Institute for Sustainable Development

when two communities have fire arms that is both the attacking and the defence communities it leads to increased loss of lives, property and livestock.¹⁶

These activities which were cultural with an intention of restocking and for pride turns to become criminal activities with defilement of women and children, assaults, robbery and rape of the victims. When cattle rustling and such raids become violent and leads to a blood shed then it reduces the growth and development of the communities which interferes with effective supply of essential services for the pastoral communities.¹⁷

These activities also lead to destruction of basic social amenities laid down by the government, because the same violent attacks lead to destruction and burning of government buildings. The cattle rustling in the different parts of Northern Kenya disrupts the different services and organization of these places and livelihoods. This leads to increase of communicable diseases, lack of water and famine which ends up affecting these communities.¹⁸ In most cases these areas end up channelling more resources which have been given by the national government to regulation of cattle rustling crimes and mitigation of these activities. These funds would have been used for development of these counties ends-up being used for reconstruction of facilities and services.

1.5.4 Changes in Climatic conditions and its influence on cattle rustling in Kenya

The changes of the climatic conditions in Kenya with the temperature being a varying element courtesy of the geographical placing of Kenya, which is located on the

¹⁶ Opcit 7

¹⁷ Oxfam Report, 2002

¹⁸ Kaimba, G, B Njehia, and A. Guliye. (2011). *Effects of cattle rustling and household characteristics on migration decisions and herd size amongst pastoralists in Baringo District, Kenya*. Pastoralism: Research, Policy and Practice 1 (1): 1–18.

Equator. Kenya experiences semi-arid and arid climatic weather in the North and fair tropical climate in the Coast of Kenya¹⁹. According to Mariara the Northern parts of Kenya experiences the most extreme temperatures across Kenya.²⁰ The changes in climatic conditions leads to the constraints and competition for the available pastures thus affecting peace and stability of the community.²¹

In the past few decades the climatic condition of arid northern Kenya has changed from bad to worse with the reduction of the period between the occurrence of droughts. Previously it was expected that these drought periods had a grass period of more than 10years. The same have now reduced to five years or less which spells doom for the pastoral communities.²¹ These changes in climatic conditions in West Pokot occurs more frequently than in any other part of Kenya manifested by droughts and flash floods. The drought and famines are now being experienced in an approximated span of four years.

The region has seen an occurrence of these phenomenal as follows in the past ten years: 1999, 2001, 2002, 2003, 2004-2006, 2007 and 2008-2011. These phenomenal have not only led to emancipation of the community living in the region but have also been the base of persistent poverty and suffering of the pastoral communities. According to the government of Kenya and the United Nation Environmental Programs (UNEP), in West Pokot poverty levels stood at a tune of 69.4% during the years 2006. The study by the two separate institutions also noted that it takes almost

¹⁹ CIA (Central Intelligence Agency) (2012) CIA world factbook – Kenya. Accessed 26 April 2012, <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>.

Department of Peace Studies, University of Bradford

²⁰ Kabubo-Mariara, J. (2009). Global Warming and Livestock Husbandry in Kenya: Impacts and Adaptations. *Ecological Economics*. 68: 1915-1924

²¹ Oxfam, (2011). Briefing on the Horn of Africa drought: Climate change and future impacts on food security. Oxfam. August 2011 issue

four years for recovery of at least a third loss of the available numbers of cattle on the other hand it took eleven years for recovery of a two third loss of cattle.

The loss of the herds to droughts inspires the conflicts and cattle rustling in the region, since the pastoralists do not have another form of economic activity they result to other means of fulfilling their needs.²² Meier et al and Yual also noted that even though the people on the ground perpetrate the conflicts the base for the same is scarcity and reduced pastures.²³ For instance the competition and scramble for water and pastures for the animals caused the inter-ethnic warfare between the Turkana and the Pokot in the year 1995 in Nadome, Lomelo and Napeiton. In this case alone more than forty-four pastoralists lost their lives and property.²⁴

According to the available literature by the previous scholars, the conflicts between the Pokot and the other communities in Northern Kenya are in most cases influenced by drought and famine. When some of these communities are unable to survive courtesy of persistent droughts, which affects the livelihoods of the pastoral communities. In the event that there are prolonged droughts the natural resources that is water, sources and green pasture become elusive in Northern Kenya. This inspires the communities living up in Northern Kenya to move to other areas and location across border or internally which ends up sparking conflicts and attacks between communities.

A possible example would be the attacks that happened in 2014 between the Kenya Pokot and the Sabei of Uganda, the same was influenced by the drought that took

²² Yual, D. (2012). The Complex Causes of Cattle Raiding in South Sudan. ISS Africa. Retrieved from <https://www.issafrica.org/iss-today/the-complex-causes-of-cattle-raiding-in-southsudan>.

²³ P., Bond, D. and Bond, J. (2007). Environmental influences on pastoral conflict in the Horn of Africa. In *Political Geography* (26) 716 -735.

²⁴ Zhukov, Y. (2013). Taking away the guns: Forcible disarmament and rebellion (Working paper, Department of Government, Harvard University, Cambridge, MA). Retrieved from http://scholar.harvard.edu/files/zhukov/files/yz_disarm4.pdf.

place in 2014 in Northern Kenya. The two communities were scrambling for the resources in Mt. Elgon and in Kapchorwa and Nakapiripit districts in Uganda, which left at least 10 people dead and scores injured. It was also reported by the previous scholars that the 2007 drought saw the migration of the Pokot pastoral communities to Mt. Kadama on the Kenya Uganda border, which sparked, and attacks between the Pokot and the Karamajong.

It was also found that other attacks and conflicts took place in Kenya in different years that is 2009, 2011 and 2012 courtesy of depletion of the resources by way of climatic/weather changes. According to a study by Pleijel et al, changes in rainfall patterns, which leads to unpredictable levels of water, and other resources in Sudan mostly influence conflicts and attacks. The authors also established that the main causes of conflicts and attacks were courtesy of water, pasture and such like resources.

1.5.5 Strategies to counter cattle rustling in Kenya

1.5.5.1 The Northern Rangelands Trust

The Lewa Wildlife Conservancy in in the North of Mt. Kenya sitting in Meru District, the conservancy was born out of the good intentions of the ranch owners. Their initial intention was to solicit land for a Rhino sanctuary, which ended up being a fully-fledged wildlife conservancy in the mid 90's. The conservancy continued attracting the attention of the pastoral communities during the drought seasons, which made the owners to rethink their strategy. The management of the conservancy agreed to the fact that the conservancy would need the support of the communities around in order to reduce the tensions between the communities around and the management of the same.

The tensions sparked by the needs to access land and water. The conservancy or management of the same inspired the development of conservancies for and by the communities around with an intention of reducing the pressure between the communities in northern Kenya. The conservancies grew to 15 with the help of Lewa. Since Lewa did not have the resources to dispatch for the management of the other conservancies, it attracted other partners from the private sector, the government and communities to form the Northern Rangelands Trust in 2004.

1.6 Research Gap

The researcher sets out to explore the relationship between climate changes and the effects of the same on the cattle rustling and conflicts in the horn of Africa. However, the issue of cattle rustling and insecurity in the horn of Africa have been attracting enough attention from scholars in the recent past. The researchers have not been able to fully explore the title of cattle rustling in the horn of Africa and Kenya as a country. This study will explore the effects of climatic changes and the influence it has on the cattle rustling. This means that the researcher will seek to know whether there is an association between the two.

1.7 Hypothesis

H₁; Climatic Variability influences the cattle rustling activities in the Horn of Africa generally and in Marsabit county in Northern Kenya specifically.

H₀; Climatic Variability does not influence the cattle rustling activities in the Horn of Africa.

1.8 Justification of the study

The study is on the investigation of the influence of climatic condition and climate change on cattle rustling in Marsabit County in Kenya. The same is a problem

because there is no known study in the existing literature, which has exclusively and comprehensively covered the influence of climatic conditions on cattle rustling in Marsabit County in the Northern parts of Kenya. This title is a gap in the existing literature because the findings of the research will bring valuable information to both the government and the private sectors on what causes the activity, which have since been assumed communal and cultural among the communities living in this region. If this problem is not addressed then more and more people will continue to succumb to death inflicted by the injuries garnered for the rustling activities by the different communities in Northern Kenya.

The government will also not be able to coin a solution to the problem of cattle rustling if the same is not addressed. The communities in this region and the economy of these people will remain weak and untapped because people are afraid of growing due to insecurity. The cattle rustling has been used in many cases as a scapegoat by criminals who want to raid and kill other people with an intention of harming and stealing from them.

The study is on the investigation of the climate change and cattle rustling in Kenya a case study of Marsabit County. There have been most studies done previously by different scholars with an aim of understanding the cattle rustling activities and the influence of climate change on the same. However, even though most of the studies have been done on the sub-Saharan Africa. The previous researchers have not adequately addressed the same especially in the Marsabit County in Kenya. This is why the same have become an interest to the researcher.

1.9 Theoretical Framework

In this section, the researcher covered the two theories that will inspire and guide the current study. The first theory is the scarcity theory followed by the conflict theory. These two theories are not only relevant to the current study but they are vital to the explanation of the influence of climate and climatic changes on cattle rustling and raids between the different communities in Northern Kenya.

1.9.1 Resource Scarcity Theory

According to a study by Doti the scarcity theory established by Homer-Dixon states that a scarcity in resources increases the chances or the likelihood of violence.²⁵ The theory summarized that the scarcity and limited natural resources is one of the factors that lead to conflicts. This study agrees with the findings of Theisen who established that there is a positive correlation between the harsh climatic conditions and cattle rustling attacks visited upon different communities both cross border and internally.²⁶

This study deviate from the findings of a study carried out by Witsenburg and Adano, the authors established that the attackers chose to execute their actions during rainy seasons.²⁷ The previous studies have explored the effects of climate changes and environmental factors and their effects on the conflicts witnessed in the North of Kenya. There are previous studies have found that there was an inverse relationship between the climatic change and the prevalence of violence and attacks on communities.²⁸

²⁵ Doti T (2010) Climate variability, pastoralists' vulnerability and options. In D Mwituru & J-A van Wyk (Eds) Climate change and natural resources conflicts in Africa. Pretoria: Institute for Security Studies.

²⁶ Ole M. Theisen, 'Climate clashes? Weather variability, land pressure, and organized violence in Kenya, 1989–2004', *Journal of Peace Research* 49, 1 (2012), pp. 81–96.

²⁷ Witsenburg, Karen M. and Wario R. Adano (2009). "Of Rain and Raids: Violent Livestock Raiding in Northern Kenya." *Civil Wars* 11(4): 514-538

²⁸ Campbell I, Dalrymple S, Rob C & Crawford A (2009) Climate change and conflict – lessons from community conservancies in northern Kenya. Winnipeg: International Institute for Sustainable Development

1.9.2 Conflict theory

The conflict theory states that as the individuals, groups or communities in a setting compete for resources and the limited facilities eventually the same leads to an inevitable conflict between the warring factions. This theory will be adopted by the study because cattle rustling in northern Kenya is mostly inspired by the changes in climatic conditions or climate change. The climate may change from good to worse, which leaves the environment, and the bushes cleared thus leaving nothing for the animals.

This study will therefore link the harsh climatic conditions to the reduction and constraint of resources leaving little for the communities in northern Kenya to scramble for. The scramble for the same may not really favour all which leads to the introduction of death of livestock in large numbers. In an effort to replenish their herd the different communities engage in these activities where they capture and drive away large herds of cattle belonging to other communities leading to retaliatory attacks and loss of lives and properties

1.10 Research Methodology

1.11 Research design

The study will use both qualitative and quantitative methods in a bid to establish the influence of climatic change on the cattle rustling activities by the communities in the Northern Kenya that is Marsabit. The mixed methods will allow the researcher to be able to account for both string and nominal variables that will be used in the study.

Creswell stated that where the objective of the study is obtained objectively basing the same in positivist paradigm.²⁹

In order to create provision for statistical analysis the data collection was conducted in numerical forms. This enables the researcher to draw an informed conclusion of the study based on a concise analysis. The quantitative research design is mainly adopted in studies that focus on hypothesis testing, making predictions or determining cause and effects of various variables. On the other hand, qualitative research design embraces a constructivist's paradigm that holds that reality can only be attained subjectively.³⁰

1.12 Target population

The target population of this study will be the people living in Chalbi sub-county. The researcher will select the representative sample from the population of Marsabit, which will be considered for this study. The population of this study consists of herders, Community elders and the general community members who will add up to a target of 200. The researcher concentrated on this group because they are the most appropriate and directly related to the research topic.

1.13 Sampling and sample size

The study selected a sample size of 131 respondents from the targeted 200 respondents by applying the following sampling formula by Mugenda & Mugenda. In obtaining the sample size, the researcher used Fishers formulae. The researcher will adopt the probabilistic sampling method that is the random sampling techniques to identify the said proposed members.

²⁹ Creswell, J.W. (2013). *Qualitative Inquiry & Research Design: Choosing Among the Five Approaches*. Thousand Oaks, CA: SAGE Publications, Inc. (pp. 77-83)

³⁰ Smith, J. Chudleigh, J. (2015) Research essentials: introduction to qualitative research. *Nursing Children and Young People*, 27 (2): 14;

Formula is expressed as below;

$$nf = n / (1 + n/N)$$

Where;

nf = Sample size (when the population is less than 10,000).

n = Sample size (when the population is more than 10,000); 384.

N = Estimate of the population size; 200

$$\text{Sample size} = 384 / (1 + 384/200)$$

Sample size = 131 Respondents

The data that will be collected from the sample members will be used for data analysis and findings of this study. In this study, the researcher will use two research tools in order to successfully get the information required to perform the analysis and make decisions on the findings of the study of the influence of climatic conditions on the cattle rustling activities in the horn of Africa. The researcher will use the interviews and questionnaires to be able to gather the necessary data from the responses in Marsabit County. In situation where a given family have moved from their place in search of green pastures the researcher will move with them and assist them to fill the questionnaires and administer the interviews on them as they go about their normal activities.

1.14 Data Analysis Technique

The data collected from the respondents was first cleaned so that to make it ready for coding. The coded in order to form the qualitative data. The coding process enables the researcher to convert or apply the nominal values to the otherwise string variables. The coding process transformed the data into data that is made of numerical varies ready for importation into the Statistical Packages for Social Sciences (SPSS). The

researcher conducted the descriptive statistics in order to get the feel of the usable data.

In order to assess the data and get the results of the study the researcher applied the different statistical techniques including the frequency distribution, Grounded theory and interpretative phenomenological. This was followed by frequency distribution analysis which was intended to show the distribution of the responses of the responses. These were conducted with an intention to identify the different categories in the responses and the interpretation of the outputs.

1.15 Chapter Outline

Chapter one

This chapter is composed of introduction, literature reviews and the methodology of the study. It covered the introduction of the study and the review of the existing literature of the same.

The same was followed by the literature review, which is composed of the review of previous scholars that are related to the study. The researcher also followed this up with the theories that will inform the current study. In the last section on methodology, the researcher covered the methods and research design that the researcher will adopt in the investigation of the climate change and cattle rustling amongst pastoralist communities in the horn of Africa.

Chapter two

This chapter will generally discuss the factors leading to the perpetuation of cattle rustling in Horn of Africa.

Chapter three

This chapter analyses the factors perpetuating cattle rustling in Marsabit county and strategies of curbing cattle rustling in the region.

Chapter four

This chapter examine the case study of Marsabit County in Northern Kenya and analyse the influence of climate Variability on Cattle rustling.

Chapter five

This chapter provides the summary of the key findings, conclusion and gives recommendations and suggestions on further areas of study.

CHAPTER TWO

Climate Variability and Cattle Rustling in the Horn of Africa

2.1 Introduction

This chapter discusses the climate variability in the Horn of Africa region with specific focus of key issues such as rising temperature, changes in climate patterns, increased drought cycles, desertification, land degradation and water scarcity. The chapter also discusses the climate variability and cattle rustling in the region and finally on the non-climatic variables that influences cattle rustling.

2.2 Climate Variability in the Horn of Africa

2.2.1 Rainfall Variability

Horn of Africa is characterized by great topographical diversity with elevation that ranges below sea level in the northeast part of the rift valley system to high, rugged, and dissected mountains and flat-topped plateaus. This complex topography has created many local climatic conditions that range from hot deserts over the lowlands to very cold mountain ranges like the Simien Mountains and Arsi-Bale Highlands in Ethiopia and Eastern Arc Mountains in Kenya and Tanzania. Approximately 60% of the total land area of the region is classified as dryland, arid and semi-arid, receiving less than 500 mm of rainfall annually and frequently affected by drought hazards.³¹ Moreover, the area is generally warmer than the highlands and mountains, and is inherently an area of low and erratic precipitation not suitable for extensive pastoral livestock production.³²

³¹Matthew, R., Brown, O. and Jensen, D., (2009). From conflict to peace building: The role of natural resources and the environment. UNEP. Available at: <http://www.iisd.org/publications/pub.aspx?pno=1062>.

³²Amsalu, A. and Adem, A. (2009). Assessment of climate change-induced hazards, impacts and responses in the Southern Lowlands of Ethiopia. Addis Ababa: Forum for Social Studies.

The north-south oscillation of the Inter-Tropical Convergence Zone (ITCZ) is responsible for seasonal changes, and has created complex annual rainfall cycles in the region.³³ Annual oscillation of the ITCZ results in a bimodal rainfall pattern for the greatest part of Horn of African region. The extreme northward movement of the ITCZ provides the June-September rainfall season over the highlands of Ethiopia, as air masses carrying moisture from various oceanic sources and dry air from continental sources converge and ascend above the Ethiopian highlands.³⁴

The main rain in the region occur during the month of June–September which accounts for 50%–80% of the annual rainfall over the Ethiopian highlands resulting in the major cultivation season and a lot of water reservation in the country.³⁵ The development of the monsoon winds across the northern two-thirds of Ethiopia allows moist westerly winds originating from tropical Atlantic and sometimes from southern Indian Ocean to deliver rainfall over much of the Ethiopian highlands. The temperature over the highlands in the Horn Africa appears lower during the rainy season due to the effects of cloud cover.³⁶

During the short rains, the ITCZ migrates rapidly southward and the heavy rainfall is experienced for short duration. While during the long rains, the ITCZ moves slowly and heavy rainfall is experienced for several weeks in the region. The long rains in March-May, provides rainfall over the southern, eastern and north eastern part of Ethiopia, while the short rains which starts from September to November, provides secondary rainfall over the southern part of the country. Moist westerly wind from

³³Mutai, CC. and Ward, MN. (2000). East African rainfall and the tropical circulation/convection on intraseasonal to interannual timescales. *Journal of Climate* 13: 3915–3939.

³⁴World Health Organization. (2014). Country Cooperation Strategies at Glance: South Sudan. World Health Organization: Retrieved from http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_ssd_en.pdf.

³⁵ Viste, E., Korecha, D. and Sorteberg, A. (2013). Recent drought and precipitation tendencies in Ethiopia. *Theoretical and Applied Climatology* 112: 535–551.

³⁶Oxfam, (2011). Briefing on the Horn of Africa drought: Climate change and future impacts on food security. Oxfam. August 2011 issue.

Atlantic and the southern Indian Ocean that cross equatorial Africa around March and September allows the equatorial East and Horn African countries (Kenya, Tanzania, Uganda and southern Ethiopia) to receive the long-awaited rainfall during March-May and during the short rain in the September/October-November/December season.³⁷ The extreme southern location of the ITCZ between December and March, and the northeast monsoon brings dry continental air, which results in dry surroundings over a large part of East and Horn of Africa.³⁸

The climate in the Horn of Africa is largely known for its inter-annual and inter-decadal variability. The variability over this region is significant during the short rain season in comparison to the long rainy season, while it is the belg rains that show higher inter-annual variability than kiremt over Ethiopia.³⁹ Attribute the inter-annual variability during kiremt rainfall over Ethiopia and short rains over equatorial East Africa can in most cases to the SST anomaly. The same coupled with El Niño–Southern Oscillation and the Indian Ocean dipole (IOD) contribute significantly to the climate variability.⁴⁰

2.2.2 Rising Temperatures

The region experiences complex temperature conditions due to the effects of its varying topography, which can rise to the detrimental level. Temperature in the region ranges from very hot (>40°C) at the Afar depression, Ethiopia, Djibouti, Eritrea and some part of other horn of Africa region that lies to the southern part.⁴¹ The

³⁷ Dinku, T., Connor, SJ., Ceccato, P. and Ropelewski, CF. (2008). Intercomparison of global gridded rainfall products over complex terrain in Africa. *International Journal of Climatology* 28: 1627–1638.

³⁸ Black, E., Slingo, J. and Sperber, KR. (2003). An observational study of the relationship between excessively strong short rains in coastal east Africa and Indian Ocean SST. *Monthly Weather Review* 131: 74–94.

³⁹ Ibid 40

⁴⁰ Speranza, CI. (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.

⁴¹ Scheffran, J, PM Link, and J Schilling. (2012). Theories and models of climate-security interaction: framework and application to a climate hot spot in North Africa. In *Climate change, human security and violent conflict*:

temperature gets very cold at night. This raise in temperature is experienced throughout the year thus being a being problem to the people in these areas are constantly affected with the raise of temperature levels. The vegetation can hardly thrive in these areas that experience raise in temperatures. In Ethiopia, the mean annual temperature varies between less than 10° Cover the Northwest, Central and Southeast highlands to about 40°C in the lowlands of Afar, eastern and south-eastern regions.⁴²

The temperature variations in Kenya range between 15°C that is coolest in central highlands and highest at the 29°C in Coastal region. This variation in temperature conditions across Horn of Africa determines evaporation and hence available soil moisture reduces. Thus, creating hard surfaces that can hardly support meaningful vegetation cover that will force the pastoralist's communities living in these harsh areas to relocate to other favourable places. The migrations are inspired by the search for pasture and water for their animals these later results into contact with indigenous people leading to conflict.

2.2.3 Frequent Drought

The climate changes in this region for many decades has resulted in frequent drought hazards.⁴³ The main causes of drought events over the region are associated with ENSO-South Oscillation climate variability and anomalies of the wind flow over the Indian Ocean.⁴⁴ The warming phase of ENSO/ El Niño and Indian Ocean cause below normal rainfall/ drought events over the Horn of African region mainly country like

challenges for societal stability, ed. J Scheffran, M Brzoska, HG Brauch, PM Link, and J Schilling, 91–131. Berlin: Springer.

⁴² Opcit

⁴³ Salesa, H. (2012) 'Isiolo hopefuls sign peace accord', *The Star*, 12 December / <http://www.the-tar.co.ke/news/article-99254/isiolo-hopefuls-sign-peace-accord> [accessed 18 september 2018].

⁴⁴ Schilling J, Akuno M, Scheffran J, Weinzierl T. (2011). On Arms and Adaptation: Climate Change and Pastoral Conflict in Northern Kenya. Paper presented at conference Climate change and conflict: Where to for conflict sensitive climate adaptation in Africa? 15-16 September 2011, Durban.

Ethiopia during June to September season.⁴⁵ Over the southern part of the region that overlaps with east Africa region, normal rainfall and drought is associated with the cooling phase of ENSO/ La Niña and occurs during the short rainfall season.⁴⁶

Currently in the region, the drought is very common during the short rainfall period over eastern, north-eastern, and main rainfall over southern Ethiopia due to warming SST over West Indian Ocean. Ethiopia is one of the Horn countries harshly affected by drought during the past decades.

Drought has been common environmental problem in Horn countries, especially Ethiopia, and this has been documented since 250 BC.⁴⁷ In 1888, a huge portion of Ethiopian population succumbed to famine resulting from crop failure, and 90% of the animals perished due to drought and drought related impacts.⁴⁸ On the other hand, during the last five decades drought has occurred in 1965, 1972, 1973, 1978, 1984, 1991, 1994, 1999 and 2002, 2004, 2009, 2011 and 2016.⁴⁹

In 1984 drought hazard that occurred over the larger part of Ethiopia affected over 8 million people; resulting in an estimated 1 million deaths and significant livestock loss. The drought in 2002/03 also affected over 14.5 million people across the country. Similarly, Kenya experienced many drought hazards during the last few decades.⁵⁰ According to some sources, the worst drought in the last one hundred years

⁴⁶ McHugh, M.J. (2006). Impacts of south pacific circulation variability on east African rainfall. *International Journal of Climatology* 26: 505–521.

⁴⁷ Block, Paul, J. (2008). *Mitigating the Effects of Hydrologic Variability in Ethiopia: An Assessment of Investments in Agricultural and Transportation Infrastructure, Energy, and Hydroclimatic Forecasting*. CPWF Working Paper 01 The CGIAR Challenge Program on Water and Food, Colombo, Sri Lanka. 53pp.

⁴⁸ Edossa, DC., Babel, MS. and Gupta, AD. (2010). Drought analysis in the Awash River Basin, Ethiopia. *Water Resource Management* 24: 1441–1460.

⁴⁹ Mulugeta, G., Ayonghe, S., Daby, D., Dube, OP., Gudyanga, F., Lucio, F. and Durrheim, R. (2007). *Natural and human-induced hazards and disasters in sub-Saharan Africa*. The International Council for Science Regional Office for Africa (ICSU ROA). Science plan approved by the ICSU Regional Committee for Africa, on 5–6 March 2007 in the Seychelles.

⁵⁰ Huho, JM. and Kosonei, RC. (2014). Understanding extreme climatic events for economic development in Kenya. *IOSR Journal of Environmental Science* 8: 14–24.

occurred in 1999-2001 that killed approximately 60-70% of livestock in the arid and semi-arid areas, caused massive crop failures, drying up of water resources.

2.2.4 Water scarcity

In the region, Water is the other major environmental sector that has been impacted greatly by climate variability. Due to the impacts of climate variability, Horn of Africa water resource showed greater spatio-temporal variability and extreme events such as drought and floods.⁵¹ Evidences has showed the presence of many waters related problems such as drying up of rivers, springs, lakes and wetlands and water shortage in rivers and reservoirs. The pastoral communities have been affected by regular chronic water shortages, which have made them to relocate regularly in search of pasture and water. Consequently, this situation has forced women, young boys and girls are usually to walk for many kilometres in search for water.

The water sources are always prone to contamination from human waste as the majority of the households have stable facilities as well as animal wastes, particularly at earth dams. High cases of water related diseases reported are mainly attributed to lack of access to safe drinking water and poor hygiene practices. The water resources sector and water dependent development plans as well as the socio-economic and political relation among the riparian countries are vulnerable to the effects of climate change.⁵²

2.3. Climate Variability and Cattle rustling in the Horn of Africa region

The changes in the climatic conditions in most areas of the Horn of Africa have also been mentioned by many studies as a reason for the conflicts and a cause of the feuds

⁵¹Kenya Human Rights Commission [KHRC]. (2010). *Morans no More: The Changing Face of Cattle-rustling in Kenya*.

⁵² McCartney, MP. and Girma, MM. 2012. Evaluating the downstream implications of planned water resource development in the Ethiopian portion of the Blue Nile River. *Water International* 37: 362– 379.

experienced between these communities. Even though many studies have expressed varying reasons as to what causes the conflicts, the extreme weather events that is present in the horn of Africa region has created serious problem on the already bad situation.

The climatic conditions in most of these areas is no favorable, is rather extreme meaning that when the weather is sunny it becomes unbearable and bring with it pests and disease. If the climatic condition is cold, it goes to extremely cold which also poses a bog threat to the livestock because of pest and diseases. According to a study by Huho et al. it was established that there is significant evidence suggesting that the Arid and Semi-Arid Lands (ASAL's) experience droughts 1960 to 2010.⁵³ According to a report by the Government of Kenya (2010) in Kenya the ASAL's cover approximately 84% of the landmass, supporting 30% of the human and 0% of the livestock population and provide employment to about 90% of the local population.

During the drought and famine, the pastoral communities usually move with their livestock in search of green pastures. This means that these herders move their livestock to other areas that have a little vegetation for their livestock this in turn create commotion with the indigenous communities that were occupying the areas as a result conflict erupts. Some of the pastoralists end up driving their livestock's in people farms and garden, this escalates the conflicts to enmity with actual casualties. It is in this in mind that the people who conceptualized the conservancies were acting.

They established the conservancies with an intention of reducing these conflicts between the pastoral communities and the non-pastoral communities. A conservancy can be defined as a protection, management and protective utilization of the plants,

⁵³ Opcit

animals and the ecosystem (International Institute for Sustainable Development and Safer world, 2009). The conservancies are therefore a haven for the pastoralists when the drought sets in but the same must be used sparingly and with regulation so that all the members have equal access of the facility and the resources therein. One of the earliest conservancies that was started in the region was Lewa Wildlife Conservancy. The conservancy was established back in the 1980's when the owners of local cattle ranch converted their land into a Rhino Sanctuary. The Sanctuary was later to be expanded in the mid-990's.

After some time, the Lewa management soon realized that the conservancy cannot continue with minimal disturbances from the herders who would break in for pasture and water for their animals. Soon tensions were high between the management and the local communities who wanted full access to graze their herds in the Sanctuary. The tensions were also influenced by the previous relationships and grievances between the pastoralists and large-land owners. This brought about the idea and development of the new conservancies managed by the neighboring communities. After the establishment of the conservancies the idea became popular to the local communities and more community conservancies in the region grew to more than 10units.

The management of Lewa soon realized that it did not have the capacity to manage these facilities which led partnership agreements between Lewa, the Government, Community and the Private sector and the establishment of Northern Rangelands Trust (NRT) in 2004. Other conservancies established in Northern Kenya include Lekurruki Group ranch Conservancy which was created in 1999 and the Sera community conservancy registered in the year 2002.

It was also customary for the young warriors to conduct raids in a bid to restock and replenish their herds after a drought season or after an outbreak of a disease. According to Opiyo et al. (2003) the form of pastoralism that is engaged in by the majority of the Turkana and Pokot communities in northern Kenya is mainly transhumance which allows the pastoral communities to spread the risks and flexible mechanisms like communal land ownership, herd splitting and separation.⁵⁴

The Turkana and the Pokot communities believe that some of the livestock's that enable these communities to diversify and reduce the risk of loss include cattle, Goats, Sheep and Donkeys. The ownership of these livestock has significant cultural, social and economic benefits. These animals are considered sacred and are part of the community, these communities use these animals as food, source of ornaments and other items, the animals are also sold for cereals, education and health care. According to Behnke (2011) the livestock are also adopted as payments for dowry, compensation for injuries caused to other members of community during raids.

The livestock are also used for offering and carrying out cultural sacrifices. In the event that a young man has impregnated someone's daughter without marrying her then it called for elders to do cleansing and by slaughtering goats and also the boy's family would be required to pay fine and penalties which were composed of goats and cows as punishment. Apart from being a storage of wealth and being security against drought and diseases, in traditional African societies, these animals were also a symbol of prosperity and prestige. The livestock are therefore a fundamental pillar of pastoral community's livelihoods besides providing the means of transport, storage and productions and transfer of wealth.

⁵⁴ Opiyo FEO, Mureithi SM and Ngugi RK (2011). The influence of water availability on pastoralist's resource use in Kitui and Mwingi districts of Kenya. *J. of Hum Ecol.* 35 (1): 43-52

Traditionally the raiding and attacking of neighboring communities involved limited manageable force with minimum or no injuries. In the event of a raid there were no casualties or deaths and when such happened then there would be punishment and penalties in form of livestock awarded to the injured family.⁵⁵ According to a study by Molu, the Turkana and the Pokot communities have used raids to restock their herds, expand grazing land and get access to water holes for nearly 9000years.⁵⁶ However, as opposed to the kind of raids, the Turkana conducted that and Pokot warriors in the past, the recent raids are characterized by violence and loss of lives and properties. The invisible hands of the politicians and leaders who want to amass resources and use these communities for political gains may have influenced these raids, which have since turned to be violent.⁵⁷

2.4 Non -Climatic variables and cattle rustling amongst pastoralist communities

One of the main theories which have been put forward to explain the competition and rivalry between individuals and communities for the limited resources have shown that in most cases these conflicts or struggles eventually leads to conflict. According to an observation by Edossa et al (2010), the conflicts escalated mostly when the customary practices and traditional events were considered illegitimate. Other causes that escalated the conflicts between the different communities was envy by other communities and members of a different tribe for example if the interest and needs of

⁵⁵ Mkutu, K. (2008) *Guns and Governance in the Rift Valley: Pastoralist Conflict and Small Arms*. Oxford: James Currey

⁵⁶ Moru, ERJ. 2010. *Adaptation to climate variability among the dry land population in Kenya: a case study of the Turkana pastoralists*. Wageningen: Wageningen University.

⁵⁷ Kumssa A, Jones JF, Williams JH (2009). Conflict and human security in the North Rift and North Eastern Kenya. *International Journal. Soc. Econ.* 36 (10): 1008-1020.

people or entities which are foreign or not part of the community was given priority while the interests of the community have not been addressed.⁵⁸

The limited resources and inaccessibility of the same leads to conflicts and unrest in most communities especially the pastoral communities in Kenya. According to a study by Wesonga et al. (2010), the researcher established that the conflicts between the different communities are in most cases contributed by inequalities in accessing or controlling the available resources, which are supposed to be at the disposal of the communities in equal measures.⁵⁹

In the event that the government does not have strong institutions that are able to operate independently and with adequate resources, the different pastoral communities will continue to experience disharmony, distress and conflicts every time that there is occurrence of drought and famine. This is because in the periods of drought and famine the resources that is water and grazing-fields (grass) becomes too limited for the available animals. In case there is scarcity of resources and deprivation then the drought will in addition to causing conflict, affect the livelihoods of the local communities who practice pastoralism.⁶⁰

The available literature has shown that the limitation of resources and has the ability to make a society or a community slide into a state of lawlessness, institution dysfunction and social fragmentation.⁶¹ Even though there are numerous factors, which can be attributed to the social unrest and conflicts among the pastoral

⁵⁸ Edossa DC, Babel MS, Gupta AD, Awulachew SB (2005). Indigenous systems of conflict resolution in Oromia, Ethiopia. Paper presented at conference on African Water Laws: Plural Legislative Frameworks for Rural Water Management in Africa, 26-28 January 2005, Johannesburg.

⁵⁹ Wasonga VO, Kambewa D, Ngece N (2010). Community-Based Natural Resource Management. In: Ochola W, Sanginga P, Bekelo I. (Eds.). *Managing Natural Resources for Development in Africa: A Resource Book*. University of Nairobi Press

⁶⁰ African Union, 2010.

⁶¹ Amutabi, M. N. (2010). Land and Conflict in Ilemi Triangle of East Africa. *Kenya Studies Review*, 1 (2), pp 22

communities in the Horn of Africa the extreme whether events have in most cases compounded the already worse situation.

The pastoral communities have inhabited mostly the scarcely populated parts of Kenya for grazing purposes; even though these are just pastoral communities, they have a significant contribution to the national economy growth in Kenya (GDP). The areas inhabited by these pastoral communities is mostly plagued by lack of waters, harsh climatic conditions and insecurity due to limited resources and degradation. In most cases, these violent attacks are inspired by lack of resources and revenge attacks planned against invading communities and villages.⁶²

Among these communities, wealth is measured not in terms of financial ability but by the heads of cattle one has in their possession, this makes livestock a very special part of the pastoral communities. The pastoral region of the areas and counties that have been marked with grazing and pastoralism as the main economic activity the governments in respective countries in sub-Saharan Africa have done little in ensuring that these communities have infrastructural developments. This is because the people in power assume that these people living in this region would not need such development. In the same light the fact that there have been little or no infrastructural developments in the pastoral community's areas or counties.

This also increases or encourages the perpetuation of the cattle rustling and intercommunity attacks in the horn of Africa because these people assume that since there is no development or government presence in their areas then they are on their own and can carry out attacks when they so wish. The reduced infrastructure makes it difficult for the disciplined forces to follow up on the culprits when an attack happens. It is also difficult for any government agents to process any criminals when they know

⁶² Huho, J. (2012). Conflict resolution among pastoral communities in West Pokot County, Kenya: a missing link, *Journal of Social Sciences and Humanities*, Vol. 3, No. 3, pp.2-22.

that they will be attacked later in their home because they do not have the right support, which is far away in the city.

The raiding was done even before the pre-colonization era. However, back then they attackers understood it as a way for the communities to show might and strength. According to the available literature, the conflicts and attacks did not have as any casualties and destructions as the ones, which are carried in the 21st century. Over the past decades, many pastoralists have lost thousands of livestock and many people have died because of these community raids and conflicts.⁶³ Drought, conflicts and range degradations are linked in way that they are destructive to both resources and pastoralists in the Horn of Africa. According to a study by Macharia & Ekaya (2005), land degradation and conflicts are a major challenge to the lives of the pastoralists; they directly contribute to the decreases resource and supplies of these communities which makes them attack each other with an aim of replenishing their supplies.⁶⁴

2.5 Historical perspective of cattle rustling in the Horn of Africa region

The cattle rustling activities and events have been practiced in the Horn of Africa since time immemorial. The same have for many years been considered as a way of life for the communities living in the Horn of Africa and the larger African continent. According to Edossa et al., the central premise of conflict theory is that as intensity of the struggle and competition for the share of the available limited resources it becomes inevitable to avoid conflicts between the competing factions.⁶⁵ In their study the authors concluded that the conflicts arose when the customary practices are no longer viewed as legitimate or consistent with the national policies.

⁶³ Ibid 38

⁶⁴ Macharia, P. N. and W. N. Ekaya. 2005. The impact of rangeland condition and trend to the grazing resources of a semi-arid environment in Kenya. *Journal of Human Ecology*, 17: 143.” In: *Journal of Human Ecology*, 17: 143. ARCHWAY Technology Management Ltd; 2005.

⁶⁵ Ibid, p. 35

The main reason for the conflicts even in the African traditions were the inequalities of resources experienced by the different groups who would then plan attacks to replenish their supply (Wasonga et al., 2010). Therefore, the initial causes of conflicts were the limited resources among the different pastoral communities. The warriors would attack the neighboring communities with intentions of driving away big herds of cattle that would make them famous among the local people in their village. If these young men would carry out a successful raid they would not only be famous but will also get enough cattle to pay for bride price. As time went by these raids became more frequent with revenge attacks being carried out by the affected communities. If an artificial scarcity, drought and deprivation can be applied on these communities, it may not only cause conflicts and feuds but may also compromise the livelihoods of these communities.⁶⁶

2.6 Conclusion

Interesting features characterize the horn of Africa region; it faces cyclic droughts, great climatological compounded with variability as caused by the complex topography, latitudinal location and effects from regional and global atmospheric circulation. Rainfall and temperature are the two most important climate elements displaying high levels of variability across a range of spatial and temporal scales in East and Horn of Africa, and create diverse ecological and livelihood zones. Rainfall variability is more significant than temperature over the region in terms of impacts and risks. This climate variability has marked impacts on spatio-temporal ecological services such as surface and ground water availability, biological resources, soil resource through erosion by affecting agricultural productivity, food security, human livelihood and countries economic development in general.

⁶⁶ Ibid, p. 36

CHAPTER THREE

Cattle Rustling and the Strategies to curb Cattle Rustling in the Horn of Africa

3.0 Introduction

This chapter will discuss the overview of Marsabit County, climate variability in Marsabit County by focusing on the following aspects of climate variability changes in temperatures, drought, flash flooding and desertification and land degradation. The chapter will also venture into discussing the climate change adaptation and mitigation, also look at the climate variability and cattle rustling in Marsabit County.

3.1 An overview of Marsabit County, Kenya

Marsabit County is set in the upper Eastern region of the Republic of Kenya, it is the second largest county in Kenya with approximate land area of 70,961 sq. km which is about 11.2% of the total landmass of Kenya after Turkana County which is the largest. Marsabit County borders three counties; Wajir to the east, Turkana to the west and Isiolo to the south. It also borders Ethiopia to the North. The county comprises of four sub-county which are North Horr, Saku, Moyale and Laisamis. These sub-counties are also the constituencies in the county. The county's population is approximately 291,166 people.⁶⁷ It is inhabited by people of diverse culture ranging from the Cushitic Gabbra, Rendile, Borana, Burji, Somali, Sakuye, and Watta to the Nilotic speakers like Samburu and Turkana.

The county is part of the approximately 80% of the country's landmass that is classified as arid and semi-arid land (ASAL) that is mainly in the Northern part of the country, the livelihood of people living in this county are much dependent on the Pastoralism where they herd cattle, goats, sheep, camels and donkeys. The

⁶⁷ Kenya Population Census report, 2009

pastoralism way of life sustains them with their daily food as the people are very much dependent on their animals which gives them product like Milk, Meat, hide and skin, and even used as means of carrying heavy loads. But a small section of the people also practices farming as an additional activity to supplement their diets.

The people living in this area are very much dependent on their animals where they view it as a prestige and source of wealth. It is estimated that 95% of ASAL households derive their income from the livestock sub-sector where they sell it in exchange of currency and also use the animal products as a dietary supplement, it is estimated that the county is holding 70% of the livestock produced in the country and 30% of the country's human population lives in the ASAL regions.

The county's terrain comprises of low plains between 530-760 m above sea level, with elevations of mountain ranges that has dotted the county such as the Ndoto Mountains at 2500 m, Mt Nyiru at 3010m, Mt. Marsabit at height of 1707 m and Mt Kola at 2430 m in the west. Other features are volcanic plateaus, sedimentary plains, volcanic and hills. The county is also home to Chalbi desert the smallest desert in Northern Kenya. The soil texture varies with the diverse terrain that is different across the county.

3.2 Climate variability and change in Marsabit

3.2.1 Changes in temperature

The temperature within Marsabit County varies with the kind of landscape and vegetation the area has, in Marsabit town because of the dense vegetation in the surrounding Marsabit forest the temperature ranges from 27 to 32 degree Celsius at the highest, lowest can be around 10 to 12 degrees Celsius. Areas around Chalbi desert experience different kind of temperatures, because of the bare lands and desert

effects, the highest temperature through the area is around 40 degrees Celsius which is very dangerous for the animals and people living in the areas.⁶⁸

The County of Marsabit experiences extreme temperature that is from 10.1⁰ C to a maximum of 30.2⁰C. The county experiences an average of 20.1⁰C, with an annual rainfall of between 200 and 1000mm. However, the reliability and amount increase with an increase in attitude. The North Horr with an average of 150mm is 550m above sea level, Moyale enjoys about an average of 700mm annually and Mt. Marsabit and Mt. Kulal receives 800mm.

The lowest temperatures are experienced throughout the night. Throughout the year Marsabit county experience high temperatures as compared to other highlands in the country. Increase in temperature has impacted greatly on the type of animals that are to be reared in this area. The animals that can survive in this region is Boran or Zebu cattle, camels, goats and sheep, donkey.

3.2.2 Rainfall variability

Marsabit County varies in landscape which also impact on the rainfall distributions in the areas. The annual rainfall distribution in the low areas of the county experience rainfall less than 200 mm while in the higher areas around Mt. Marsabit, it experiences annual rainfall of approximately 800 mm. the county short rains are experienced in month of October and November while long rains are mainly experienced in March, April and May. The reliability in terms of amount and durations mainly depend on the elevations of the areas, the higher the altitude the higher the rainfall, the lower the elevation the low rainfall experienced. Drought as a

⁶⁸ Hoffman, 2010 Climate change and the characterization, breeding and conservation of animal genetic resources

phenomenon is common in many parts of the county, putting severe stress on the fragile and arid ecosystem.

Within the county, there are other high-altitude areas like Mt. Kulal and Hurri hills that really contribute to crop farming and animal rearing which provides enough pasture for the animals. But those other arid areas limit crop production but provide large areas for pastoralism which is the predominant activity that utilizes the vast rangelands that experience low rainfalls with increase in drought seasons which are the intrinsic features of the Northern Kenya ASALs Region. Arable farming only utilizes 3% of the county's land mass.

3.2.3 Droughts

Drought is climate phenomenon that occurs naturally affecting large population globally and is considered to be a widespread and costliest natural disaster.⁶⁹ A study by UNISDR (2009) indicated that drought accounts for more than 80% of the population affected but accounts for less than 20% of natural disasters. It has been reported that droughts in the ASALs of Kenya are a common phenomenon with 28 major droughts recorded in northern Kenya for the past 100 years observed that mature cattle and calves are more vulnerable to the negative effect of drought.⁷⁰

During the drought season, those who face the brunt are majorly the pastoralists because they lose most of their herds to scavenging drought. The drought most of the time are severe and its frequency. Really affects or hinder the replenishing period as the herds face different levels of drought without any break to multiply. The problem

⁶⁹ Sheffield, J., and E. F. Wood, 2011: Projected changes in drought occurrence under future global warming from multi-model, multi-scenario, IPCC AR4 simulations. *Climate Dynamic.*, 13, 79–105, doi:10.10

⁷⁰ Mureithi SM and Opiyo FEO (2010). Resource Use Planning Under Climate Change: Experience from Turkana and Pokot Pastoralists of North-western Kenya. In *Proceedings: 2nd International Conference on Climate, Sustainability and Development in Semi-Arid Regions*, Fortaleza, Ceara, Brazil 16th – 20th August 2010

has been the limited grazing lands which have led to overgrazing of the ecosystem thus putting a lot of pressure on the dilapidated lands which eventually leads to environmental degradation.

The excessive pressure on already dilapidated ecosystem because of the population struggle to get share of the scarce water and pasture for their livestock makes the resource insufficient thus many animals succumb to the situation as their shares are not available. This scenario leads to loss of three quarter of the livestock in the region which really impacts negatively on the people living in this region as their lives predominantly rely on their animals for survival this will eventually lead to even death of the people due to starvation.

After such a devastating drought, Food shortages is experienced this leads to many people to opt for other ways of survival, others settled around Marsabit and Moyale towns where the conditions are favorable for farming and where security is relatively assured. The drought has had a severe impact on the nutritional status of households where children suffer from malnutrition.

3.2.4 Flash flooding

Floods and drought are key challenges to sustainable livestock development in Kenya. Even though these flash floods may bring good fortunes to the land in form of soil minerals and the needed moisture for the vegetation of the land. These flashfloods are also the main causes of most disasters that happens in Marsabit. These flashfloods kill livestock's and people when they come unexpectedly. The erratic nature of rainfall occurrence has since changed and is not as predictable like it used to be many years ago. This makes it difficult to tell when it's going to rain as opposed to traditional rainfall which had predictable patterns.

This have also had a negative effect on the farming activities because some of the locations can experience rainfall while other are still dry and dusty. Also, the incidences of heavy rainfall have also been experienced in mountainous areas. This results low rains for example in Northern Horr town, in Maikona, Kargi, along the Chalbi and Malgis. The floods experienced afterwards leads to destruction of corps and destruction of livestock's and people. The most recent example is an incidence where the flash floods destroyed a lot of agricultural produce, schools, markets places and roads. Further, ten people were confirmed to have lost their lives as a result of these flash floods.⁷¹

3.2.5 Desertification

Even though there are no permanent rivers and lakes in Marsabit County the farmers and the residents at large have continued to depend on rainfall and at times the flashfloods from the other parts of the country and highlands/mountains in Marsabit. There are also drainage systems which were laid down to control the flow of water and reduce the disasters that may cause by the same. The issue of desertification has also been contributed by global warming which has manifested itself especially in Marsabit County. The disorganization of rainfall patterns has also led to the loss of biodiversity and destruction of vegetation's in Northern Kenya.

3.2.6 Land degradation

In Northern Kenya mostly, the drought that take place season after season makes it impossible for the environment to heal and for the resources to regenerate. The limited resources have also made human to encroach on reserves and forest lands causing serious environmental degradation to the places they have encroached. The

⁷¹ United Nations Office for the Coordination of Humanitarian Affairs accessed online in July 2018.

degradation can also be attributed to the vegetation of trees, soil and stones which leaves the land destroyed and vegetation disrupted.

3.3 Climate change adaptation and mitigation in Marsabit

In recent times, there has been increased concern and discussion on global climate change and its consequences. The climatic conditions have not been as forgiving in the northern Kenya especially in Marsabit County. According to a report by the government of Kenya, the ability of the communities in Marsabit who are pastoralist to adapt to the climatic changes is reduced and affected by the climatic, biophysical and institutional factors.⁷² Also, the fact that there is low rainfall patterns agricultural productivity in Marsabit County limited and also pressure on natural resources.

The County is also arid and semi-arid which reduces the chances for agricultural or livestock farming. These harsh climatic conditions limit the options available for farmers to diversify their crop or livestock's courtesy of lack limited breeds that can adopt in these conditions. However, with the continuation of practicing these farming practices the resilience and persistence are able to adapt to these conditions and the offspring's and produce they bring forth becomes the breeds that are able to survive in these conditions. The act of overstocking is also a common factor in Marsabit County, this is because the herds are regarded as a form of wealth. Also, the cultural and traditional beliefs restrict the disposal or sale of livestock even in the harsh climates or during harsh weathers.

Many scientists concur that global climate has been changing. This has been attributed to the increased gases in the atmosphere especially carbon dioxide, methane, nitrous oxides, and chlorofluorocarbons, among many others. These gases,

⁷² Government of Kenya, 2014

have been as a result of human activities that has really created climate change challenges. To the pastoralist communities living in the Marsabit County the effect of climate change has been a devastating one, because most of this people highly depend on their animals which are really affected by the change in climate.

The consequences of Global warming and climate change are a reality in Marsabit County. There are changes in weather patterns that have fast-tracked the rate at which rangelands are turning into deserts. Rains have been periodic and unpredictable, causing loss of biodiversity and struggle to the pastoralist communities whose livestock die due to the lack of pasture and water. This really impacts greatly on their livelihood. IGAD member states have also come up with the programme to End Drought Emergencies (EDE) in the wake of the 2008-11 droughts in the Horn of Africa region where they hold a summit of heads of state and government in Nairobi in September 2011, still they are in the progress of coming up with better strategy of mitigating the climate change in its member countries.

3.4 Climate variability and cattle rustling in Marsabit: key issues

The harsh climatic conditions reduce chances for reliable rainfall leads to reduced and limited chances for agricultural activities to thrive in Marsabit County. The same climatic conditions and difficult terrain makes it almost impossible for the security forces who have no experience in this terrain to get the culprits after they have drove away with hundreds of cattle. The world over cattle rustling is attributed to power, politic and organized violence manifesting in certain scales across different countries in the world.⁷³ These manifestations can be categorized in three different types: the first one is where the cattle rustling is traditional and meant for communal gains, it is

⁷³ Gueye, A.B. (2013). Organized crime in the Gambia, Guinea-Bissau and Senegal. In E.E.O. Alemika (Ed.), *The impact of organized crime on governance in West Africa*. Abuja: Friedrich-Ebert-Stiftung. (Abuja Regional Office, Nigeria).

conducted for replenishment and participants are mostly the locals. Secondly, the type where the raids are done for commercial purposes and for maximization of finances (capital accumulation). This is done by locals and allies.

The last one is composed of non-traditional effects, the same is characterized by ruthless mercenaries who know nothing about the traditions of these communities. They are in most cases ruthless in order to instil fear in the community so that nobody follows the cattle into the bushes. The third one is a new breed of rustling that is perpetrated by non-locals and meant for financial and economic gains. It is organized and executed from the city by powerful people in cartels, merchants and foreign accomplices.⁷⁴

The issue of commercialization comes in when the people in power and leadership end up making artificial shortages which leads to community feuds so that they can be able to gain economically. Some of the said leaders in northern Kenya and the former politicians who were once in power have big ranches which houses hundreds or even thousands of heads of cattle. Therefore, a community conflict which ends is at times tailored to benefit some of these ranch owners economically.

This means that these people have commercialized the cattle rustling and community conflicts so that they can be able to gain economically from the same. In most cases the perpetrators of cattle rustling steal hundreds of cattle and these castles disappear without a trace. These cattle's do not end up in the hands of other communities, these cattle's end up on people's plates in the city. The former politicians and leaders betray the community by giving guns and ammunitions to young able-bodied men who rob

⁷⁴ Okoli, A.C and Okpaleke, F (2014). Banditry and Crisis of public safety in Nigeria: Issues in national security strategies. *European Scientific Journal*, 10(4), pp.350-362.

their cattle in the middle of the night under the disguise of cattle rustling yet its pure rural criminal enterprises.

According to a study by Smith organized crime groups have continued to form in rural areas exploiting the farmers. In most cases the community members with big cattle heads are assumed to be the victims of crime. However, the perpetrators are mostly identified as urban-based marauders, whose origin can be traced from traditional crime families of the organized-crime-groups. The fact that these perpetrators are urban based shows that they have a link or a connection with powerful business people in the city. These people will order large heads of cattle and these perpetrators will do anything to deliver including taking lives of innocent community members. The fact that these crimes are disguised as community feuds and conflicts increases the perpetuation of the same by these criminal groups.

According to the United Nation, organized crime groups can be defined as a group composed of more than three members, executing some actions/plans in concert with an intention of committing a serious criminal offense in exchange of some financial benefits. According to a study by Smith & McElwee, these crimes cannot really take place without some coordination from the rural area by the agents of these criminal groups.⁷⁵ According to McElwee & Smith despite the efforts by the government to curb the cattle rustling in northern Kenya, the farmers continue to lose up to Kshs. 3 billion annually. This much money shows the attraction and the force with which these whole criminal enterprises continue to be glued to the vice.

Even though there has been little evidence in the available literature suggesting that cattle rustling is executed and controlled by traditional community members, there is

⁷⁵ Smith & McElwee 2013, The rise of illicit rural enterprise within the farming industry

emerging evidence that the crime is becoming more organised and sophisticated and that the same is planned and implemented by networks of entrepreneurs sitting in the city.

In the traditional African societies, the Cattle rustling was purely a traditional ‘spot’ with an intention of restocking their herds and not for commercialization as it appears currently.⁷⁶ However, the serious and organized crimes have been known to be associated with the urban centres and cities. There is growing evidence that shows an increase in the appetite for the resources in the rural areas, which appears more lucrative, and less risky.⁷⁷ There are no studies and no evidence on the agents of these crimes but there must be a relationship, an existing web, and a communication network between the ranch owners, slaughterhouse owners, Police, farm owners and the headers. These is because the execution of these raids is mostly effective and very efficient such that thousands of cattle can disappear within few hours and the police or the pursuing teams will not find them.

These means that the agent’s participants and the criminal web goes beyond the community and the police yet the participants and the players of this market are still within these groups hence difficult to find them. According to McElwee & Smith argued that in order for a group of people to successfully conduct such a raid and make away with hundreds or even thousands of cattle so much have to be involved. On have to be in possession of rural social capital and working knowledge of the rural practice for a successful raid to be conducted. In the case of cattle rustling the people conducting such a crime would have to have serious influence and capital, the same

⁷⁶ Kaprom, T. P. (2013), *“Effects of Cattle Rustling on Economic Development: A case of Masol Location, West Pokot County,”* unpublished MA dissertation, University of Nairobi

⁷⁷ Ibid 76

people must be involved and have knowledge of the people from the rural background.

The team on the ground must have mastery of the terrain, good knowledge of the markets for resale and knowhow of the rural geographical landscape. This is because the team will have to go through forests and difficult terrain together with hundreds of cattle at fast speed to avoid being caught. These people must be from the 'land' they must also have some connections with the market where they will release these animals because it can be very expensive to get storage to hide such a big number of animals and supply them with the necessities. According to Tonnie's rogues are criminals who get into crime for financial gains and maximization of profits.

Tonnie's suggested that the majority of rogues operate from the urban centres where they have access to all the channels of markets and finances and the tools needed to execute these vices. Some of the facilities, which are acquired by these criminals from the urban centres, include the communication devices, which they use when driving the herds of cattle through mountains and forests, the guns and ammunitions, and the food stuffs needed for the teams. These criminal networks and group are mostly composed of individuals from the rural residents who work with cartel who are based in the towns and cities where there is ready market for the cattle in meat form.⁷⁸ Some of the powerful politicians and political leaders who engage in these raids and cattle rustling for commercial purposes include the police, former politicians and the administrators who have certain levels of influence and connections in the government.

⁷⁸ Ibid 77

3.5 Conclusion

In the interest of the pastoralist communities and the contribution brought by these communities in the growth of the country's economic standing. It is important to find ways and strategies of curbing these vices which are only beneficial to a few individuals. The government and other stake holders that is the community and the judiciary need to start taking cattle rustling for what it truly is that commercial crime and not cultural events. These communities need also to be sensitized and educated on the same so that there is an agreed way of dealing with the same.

The activity of cattle trade and commerce is a network of businesses and an industry with key players that is community members, business people and police who are all benefiting financially from these activities and thus they must protect it with their life if that's what it takes. The main problem facing the efforts applied to eradicate the vice is that the practice is so entrenched and organized that it becomes difficult and almost impossible to interdict the perpetrators. Also, the legal system does not make it easy for the law to punish perpetrators in the way that is punitive enough to make aspiring criminals to avoid the same.

The government needs to put in measures and punitive laws that will make it unattractive for more people to join these crimes. As it stands today there are no serious laws in Kenya that will make people fear of joining these criminal gangs which means that the vice remains lucrative and attractive to those who are may be unemployed in both the rural and urban area.

The government and the relevant authorities should ensure that it is not easy to get unlicensed guns as it is currently. This means that the riders will not be ruthless to the villages and as such the villagers can also be able to defend themselves and their

properties. Apart from education and sensitization the government should ensure that the perpetrators are not able to hide under the cultural beliefs and norms in the name of cattle rustling. The vice that is cattle rustling a thing of the past and a negative cultural activity if it takes away the commercial ability and the empowerment of the community.

CHAPTER FOUR

Data Analysis, Presentation and Interpretation

4.1 Introduction

This chapter presents the data analysis and interpretation. The same also shows the different methods of presentation of the results and findings that were adopted in this study. This includes the graphs, tables and figure. The researcher adopted the use of combined methods in order to present the output so that to show the distribution and the exact information there in the figures.

4.2 Household demographics⁷⁹

Table 1 : How Many people live in this household?

	Frequency	Percent	Valid Percent	Cumulative Percent
	3	2	9.5	10.0
	4	1	4.8	15.0
	5	2	9.5	25.0
	6	3	14.3	40.0
Valid	7	2	9.5	50.0
	8	4	19.0	70.0
	9	2	9.5	80.0
	10	3	14.3	95.0
	11	1	4.8	100.0
	Total	20	95.2	100.0
Missing	System	1	4.8	
Total		21	100.0	

⁷⁹ Survey conducted in Maikona division, 2018

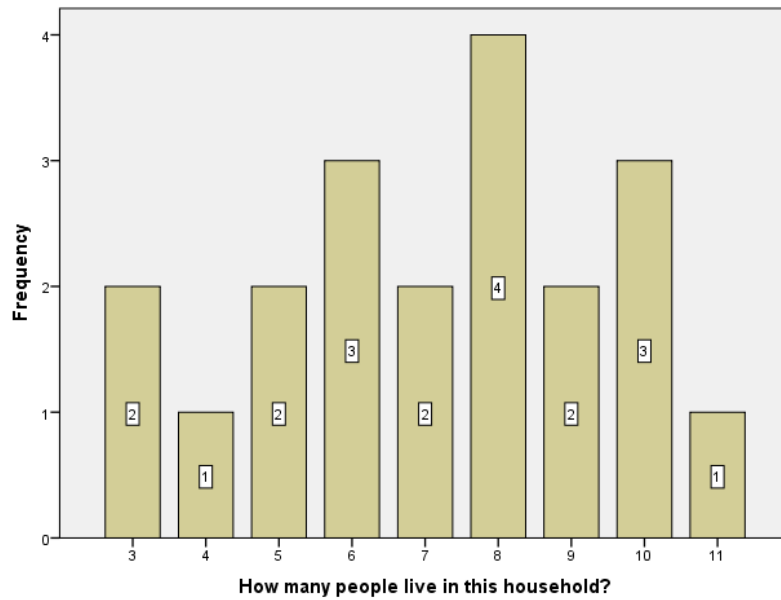


Figure 1

The findings above shows the number of household members in each family according to the respondents. The house with the largest number of house-hold members was that of 11 people, that is only one household had 11 people as members in the same. The figure above shows an almost normal distribution on the question of household members among the respondents.

Table 2: What is the gender of respondent?⁸⁰

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	9	42.9	45.0	45.0
Valid Female	11	52.4	55.0	100.0
Total	20	95.2	100.0	
Missing System	1	4.8		
Total	21	100.0		

⁸⁰ Ibid 79

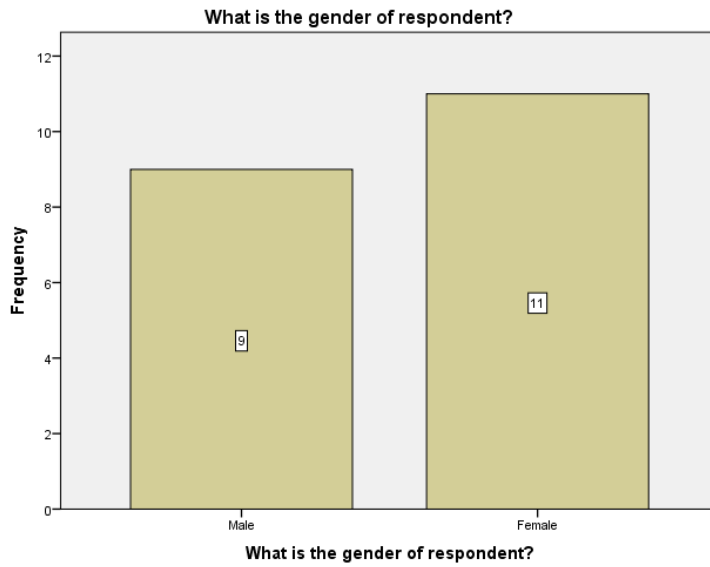


Figure 2

In the table above that is atable2 the results shows that there were more female than male respondents at a high of 52.4%. On the other hand, the male respondents were at a low of 42.9%.

Table 3: What is the highest level of education attained by the household head

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
None	13	61.9	65.0	65.0
Primary	6	28.6	30.0	95.0
Secondary	1	4.8	5.0	100.0
Total	20	95.2	100.0	
Missing				
System	1	4.8		
Total	21	100.0		

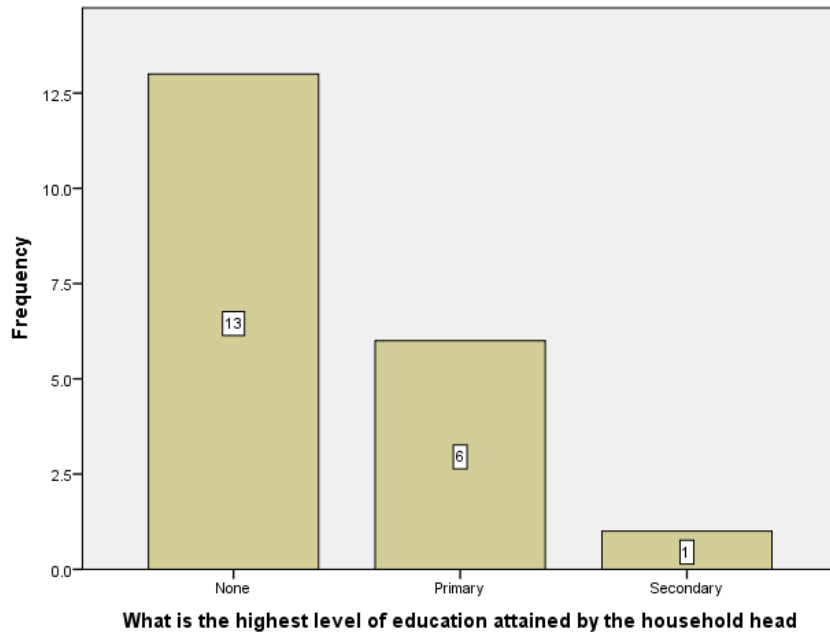


Figure 3:

The findings in the table above demonstrate the results of the question on the education level of the respondents. The same shows that part of the sample members did not have education. This is shown by the respondents who said ‘none’ on the question of education level.⁸¹ Those respondents who were found to have had no education at all were at a high of 61.9%. This is true because it may not be possible for people from the migrating communities to go to school and finish their studies. The people who said that they had a primary education were at a high of 28.6%. The people with the best or those who were seen to have had enough education were secondary school leavers who were at low of 4.8%.

⁸¹ A respondent interviewed in one of the Hola in Maikona

Table 4: What is the household main source of income

	Frequency	Percent	Valid Percent	Cumulative Percent
Sale of Livestock	13	61.9	65.0	65.0
Sale of livestock product	2	9.5	10.0	75.0
Casual Labour	3	14.3	15.0	90.0
Employment	2	9.5	10.0	100.0
Total	20	95.2	100.0	
Missing System	1	4.8		
Total	21	100.0		

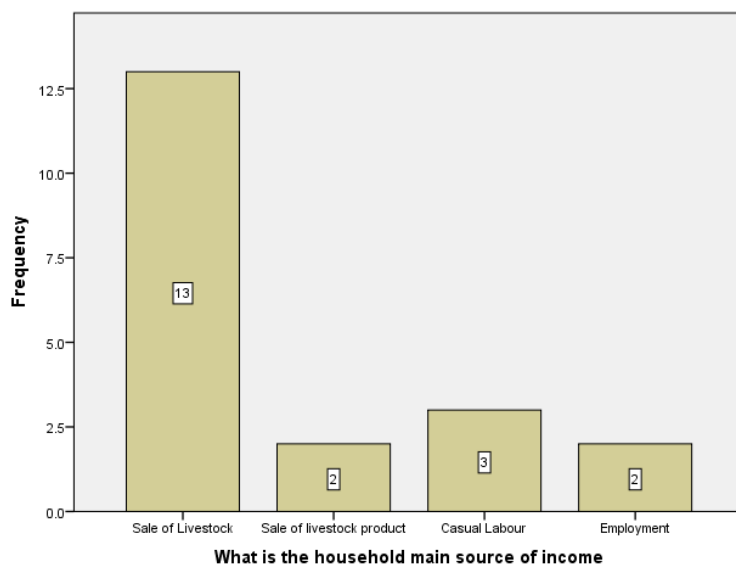


Figure 4

Table 5: Does your household own any livestock

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	18	85.7	90.0	90.0
Valid	No	2	9.5	10.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

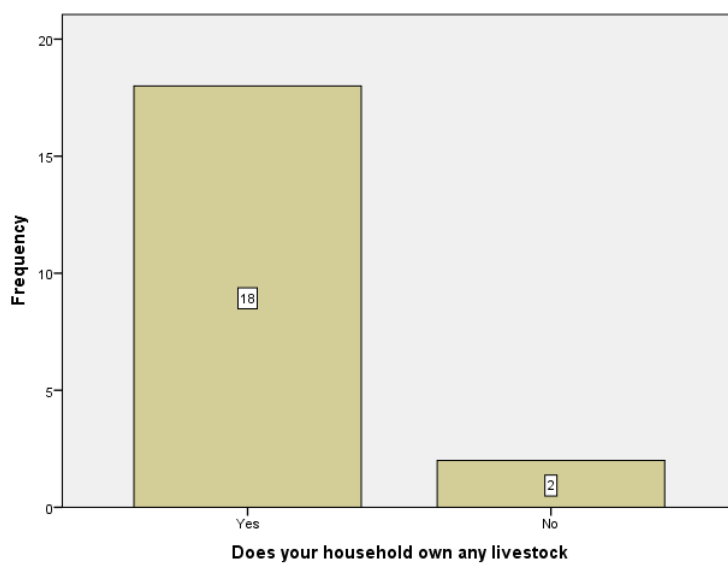


Figure 5

Table 6: Have you been victim of cattle rusting?

		Frequency	Percent	Valid Percent	Cumulative Percent
	Yes	14	66.7	70.0	70.0
Valid	No	6	28.6	30.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

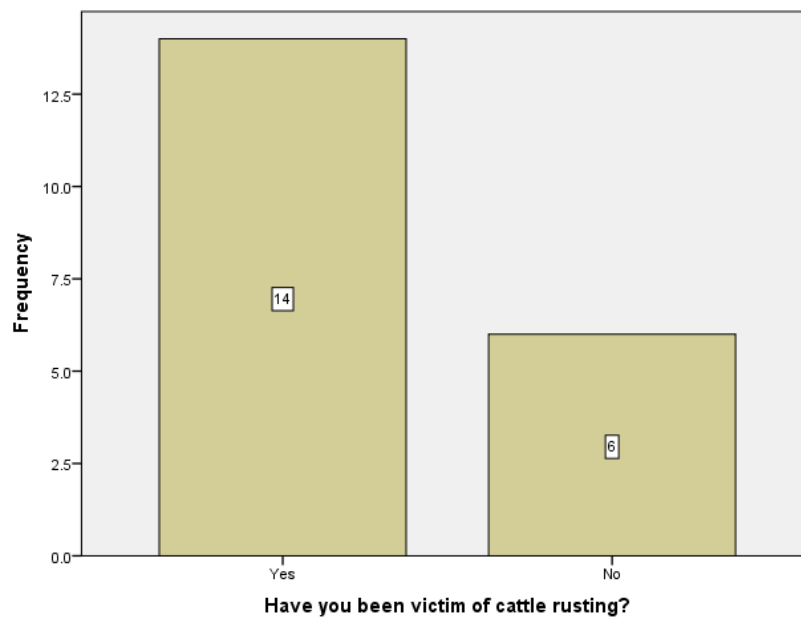


Figure 6

Table 7: Dry season

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	15	71.4	75.0	75.0
	1	4	19.0	20.0	95.0
	2	1	4.8	5.0	100.0
Total		20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

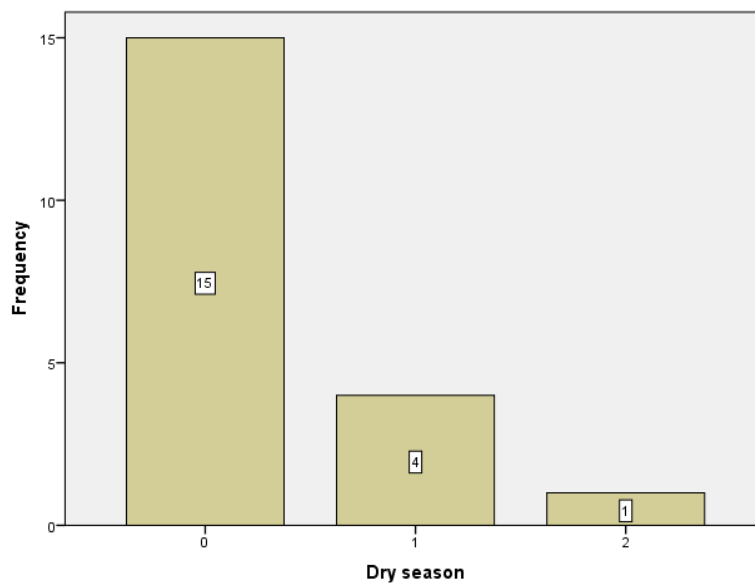


Figure 7

Table 8: **Rainy season**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	9	42.9	45.0	45.0
	1	2	9.5	10.0	55.0
	2	6	28.6	30.0	85.0
	3	2	9.5	10.0	95.0
	4	1	4.8	5.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

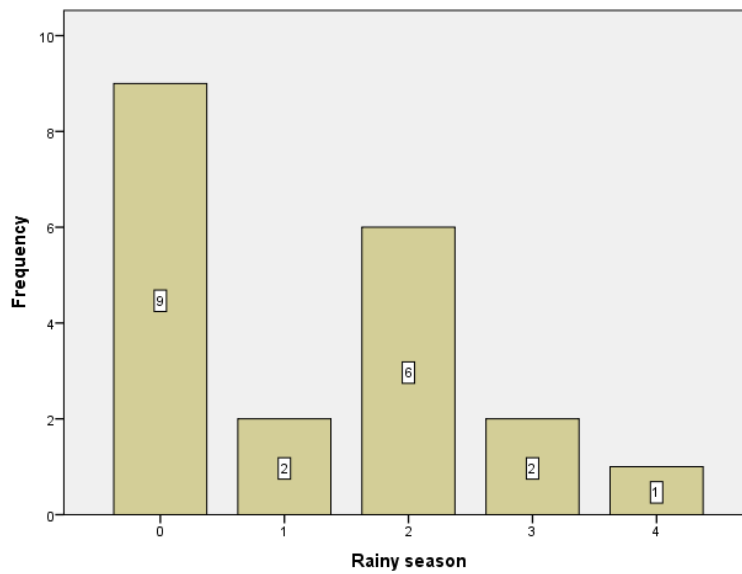


Figure 8

Table 9: **Did you retaliated during any of those attack?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	28.6	46.2	46.2
	No	7	33.3	53.8	100.0
	Total	13	61.9	100.0	
Missing	System	8	38.1		
Total		21	100.0		

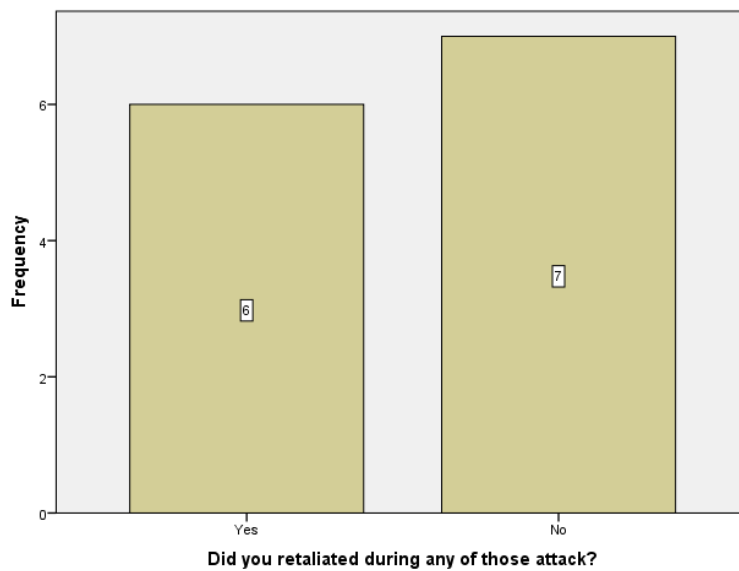


Figure 9

Table 10: **If yes, how many times?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	1	3	14.3	50.0	50.0
Valid	2	3	14.3	50.0	100.0
	Total	6	28.6	100.0	
Missing	System	15	71.4		
Total		21	100.0		

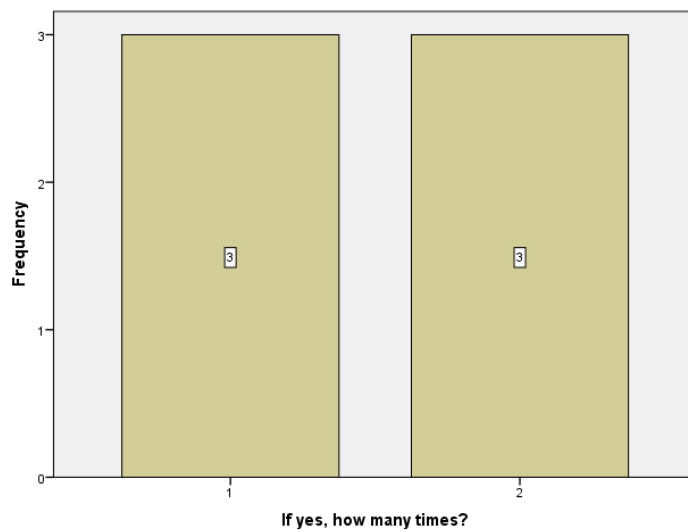


Figure 10

Table 11: What made it easy for you to retaliate?

	Frequency	Percent	Valid Percent	Cumulative Percent
I lost everything	5	23.8	38.5	38.5
Was the only option	3	14.3	23.1	61.5
Valid				
Was at the scene	5	23.8	38.5	100.0
Total	13	61.9	100.0	
Missing				
System	8	38.1		
Total	21	100.0		

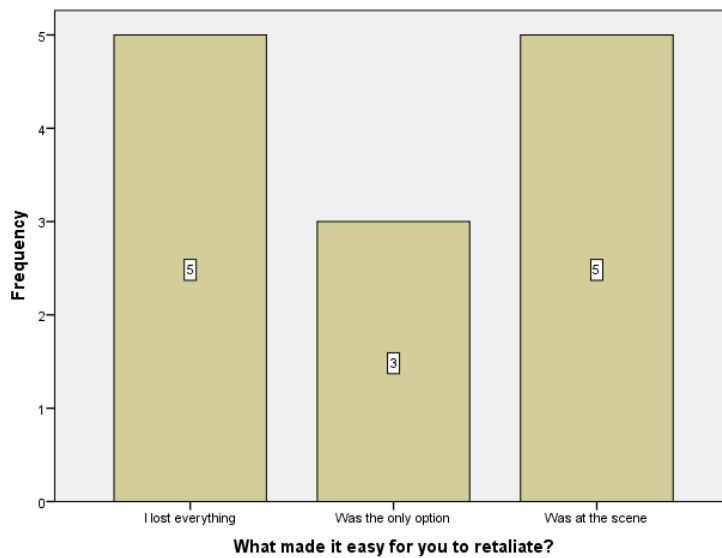


Figure 11

Table 12: The time that you were not able to retaliate what made it difficult

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not at the scene	5	23.8	38.5	38.5
Was not aware	4	19.0	30.8	69.2
Did not have a weapon	4	19.0	30.8	100.0
Total	13	61.9	100.0	
Missing System	8	38.1		
Total	21	100.0		

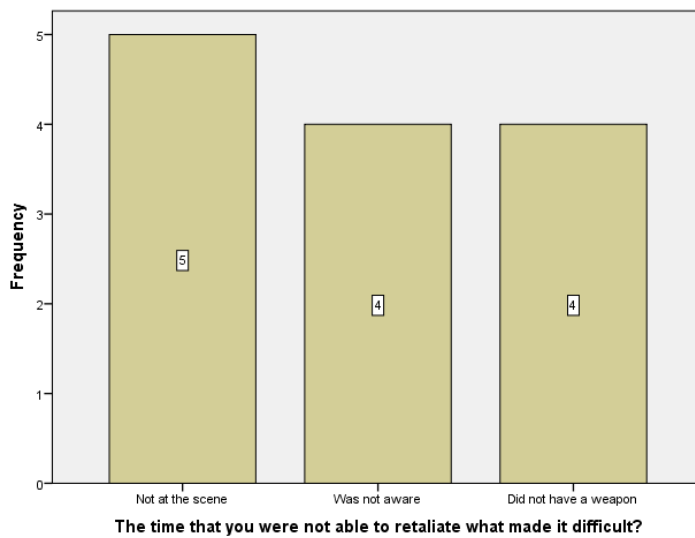


Figure 12

Table 13: How was the government security agent's response to act during Dry season

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	8	38.1	40.0	40.0
	Good	1	4.8	5.0	45.0
	Poor	11	52.4	55.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

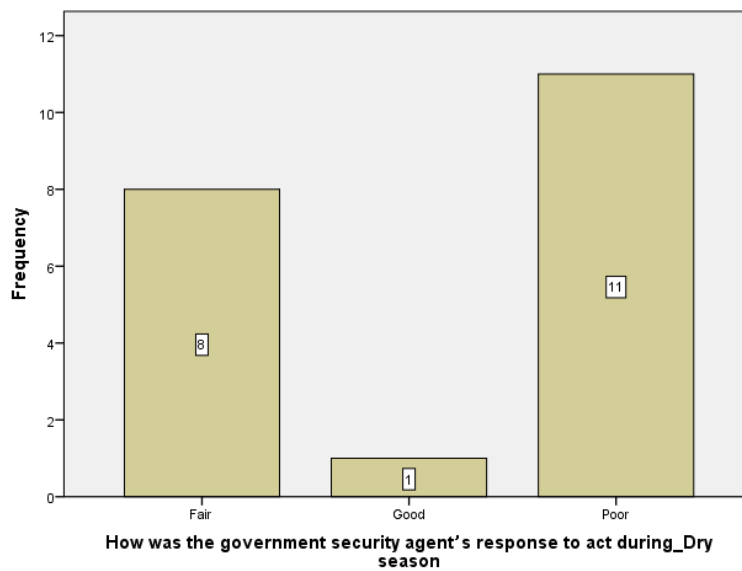


Figure 13

Table 14: **How was the government agent's response to act during Drought season**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	7	33.3	35.0	35.0
	Not so good	1	4.8	5.0	40.0
	Poor	12	57.1	60.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

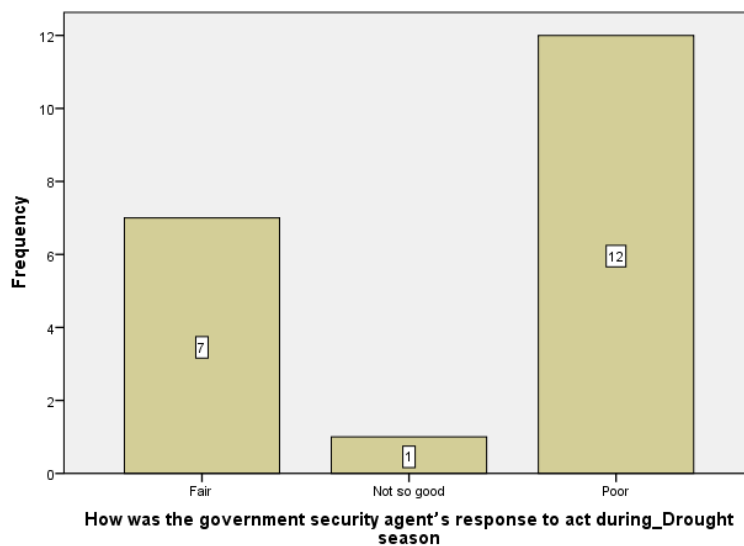


Figure 14

Table 15: How was the government security agent's response to act during Famine

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Fair	6	28.6	30.0	30.0
	Worse	1	4.8	5.0	35.0
	Poor	13	61.9	65.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

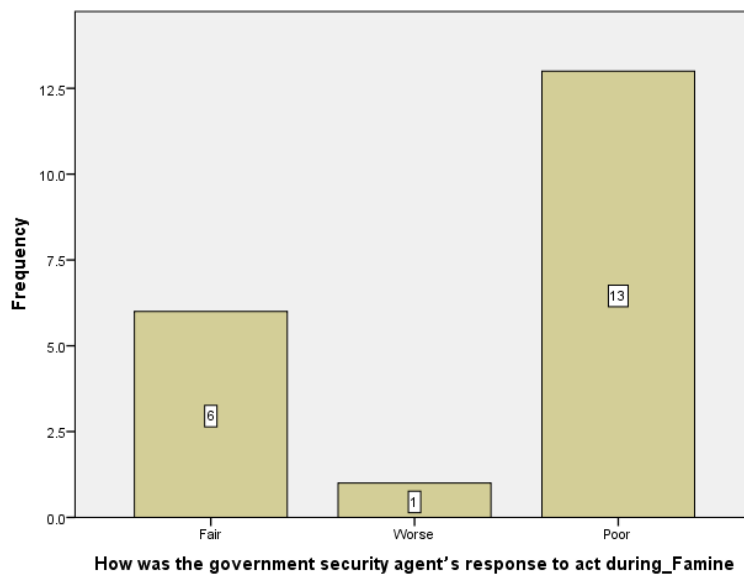


Figure 15

Table 16: how do you rate the frequency of cattle rusting in the region during rainy seasons

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Most frequent	5	23.8	25.0	25.0
	Frequent	10	47.6	50.0	75.0
	Less frequent	5	23.8	25.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

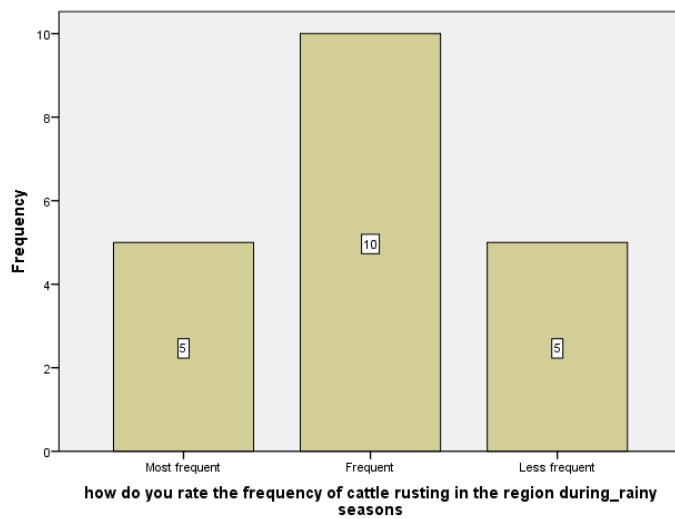


Figure 16

Table 17: how do you rate the frequency of cattle rusting in the region during drought seasons

		Frequency	Percent	Valid Percent	Cumulative Percent
	Most frequent	1	4.8	5.0	5.0
	Frequent	3	14.3	15.0	20.0
Valid	Less frequent	11	52.4	55.0	75.0
	Not at all	5	23.8	25.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
	Total	21	100.0		

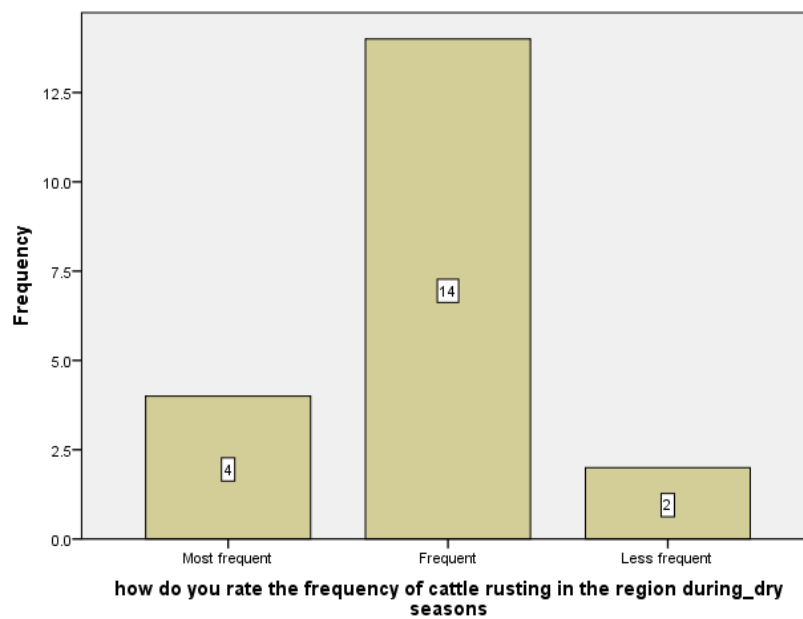


Figure 17

Table 18: how do you rate the frequency of cattle rusting in the region during famine seasons

		Frequency	Percent	Valid Percent	Cumulative Percent
	Most frequent	1	4.8	5.0	5.0
	Frequent	1	4.8	5.0	10.0
Valid	Less frequent	9	42.9	45.0	55.0
	Not at all	9	42.9	45.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

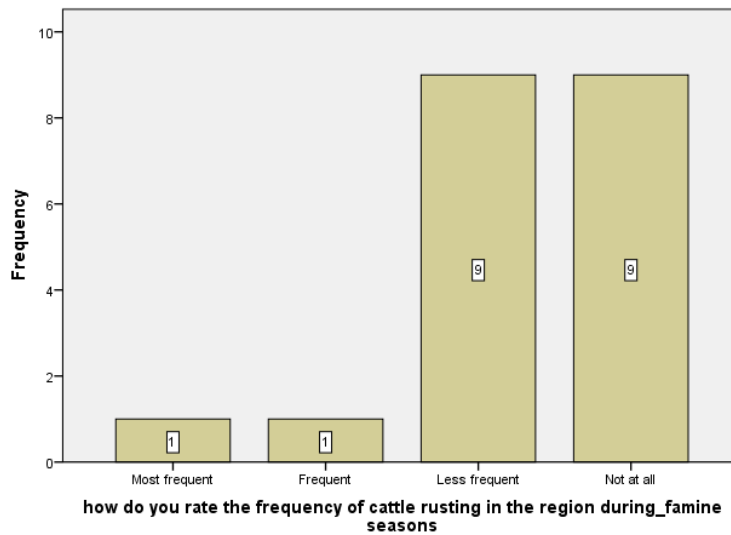


Figure 18

Table 19: What makes your livestock vulnerable to attack during the following seasons rainy seasons

		Frequency	Percent	Valid Percent	Cumulative Percent
	Less people	7	33.3	35.0	35.0
	Distance	8	38.1	40.0	75.0
	Poor roads	2	9.5	10.0	85.0
Valid	No attacks	1	4.8	5.0	90.0
	Competition	1	4.8	5.0	95.0
	Pasture Conflict	1	4.8	5.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

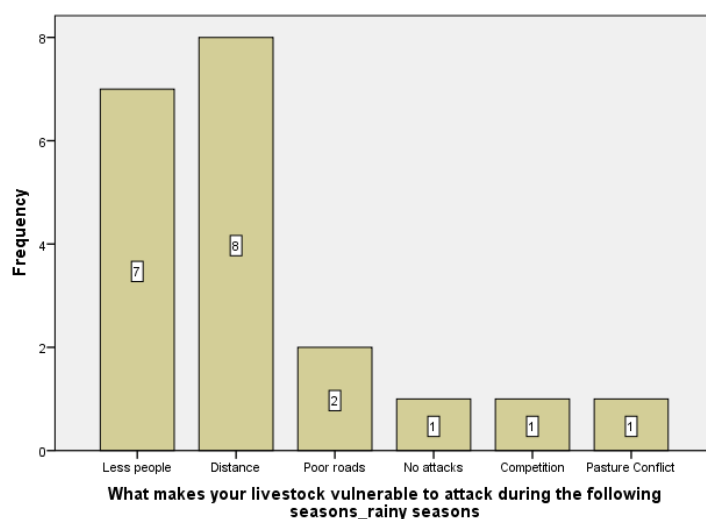


Figure 19

Table 20: What makes your livestock vulnerable to attack during the following season's dry seasons

		Frequency	Percent	Valid Percent	Cumulative Percent
	Pasture shortage	6	28.6	30.0	30.0
	Competition	4	19.0	20.0	50.0
Valid	Conflict	8	38.1	40.0	90.0
	Distance	2	9.5	10.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

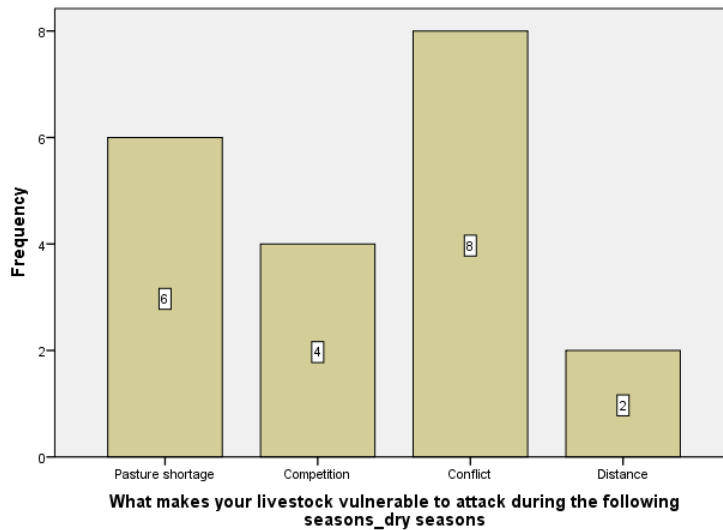


Figure 20

Table 21: What makes your livestock vulnerable to attack during the following seasons drought

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pasture shortage	14	66.7	70.0	70.0
	Conflict	4	19.0	20.0	90.0
	Competition	2	9.5	10.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

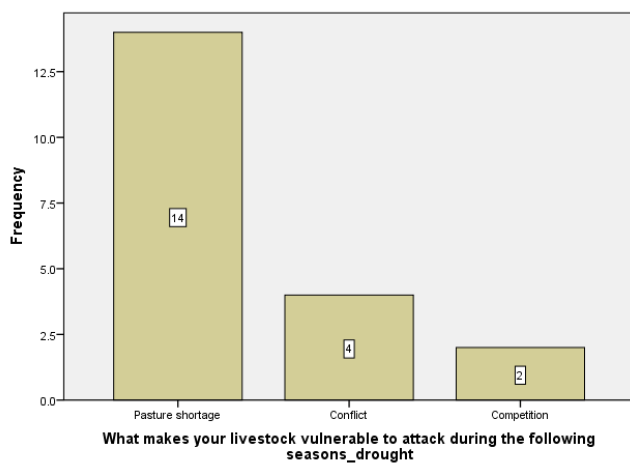


Figure 21

4.3 Security agents response to attacks

Table 22: How was the government security agent's respond to attack during rainy seasons⁸²

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	9.5	10.0	10.0
	Fair	9	42.9	45.0	55.0
	Good	9	42.9	45.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

The findings on the table above shows the results of the question of the response time by the security forces during the rainy seasons. The same shows that there were more respondents who believed that the security forces or the security apparatus respondents was good and those who believed that the same was fair (42.9%). There was also a portion of the respondents who said that the response by the police during attacks were poor at a low of 9.5%.

⁸² Interview carried on both the local population and security apparatus in the county, 2018

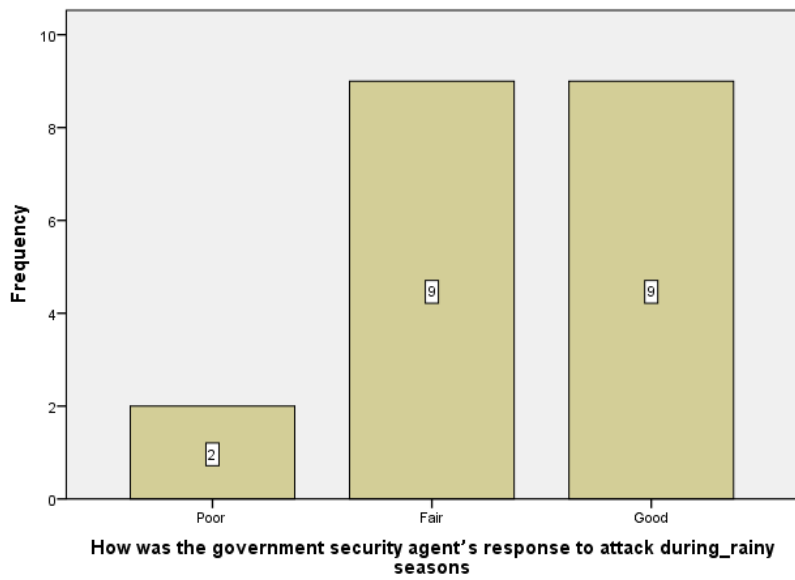


Figure 22

Table 23: How was the government security agent's response to attack during dry seasons

		Frequency	Percent	Valid Percent	Cumulative Percent
	Fair	10	47.6	50.0	50.0
Valid	Good	10	47.6	50.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
Total		21	100.0		

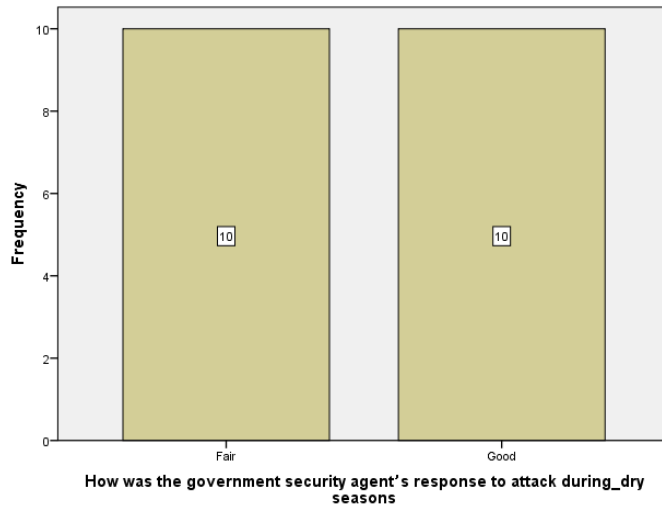


Figure 23

Table 24: How was the government security agent's response to attack during drought

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Poor	1	4.8	5.0	5.0
Fair	11	52.4	55.0	60.0
Good	8	38.1	40.0	100.0
Total	20	95.2	100.0	
Missing				
System	1	4.8		
Total	21	100.0		

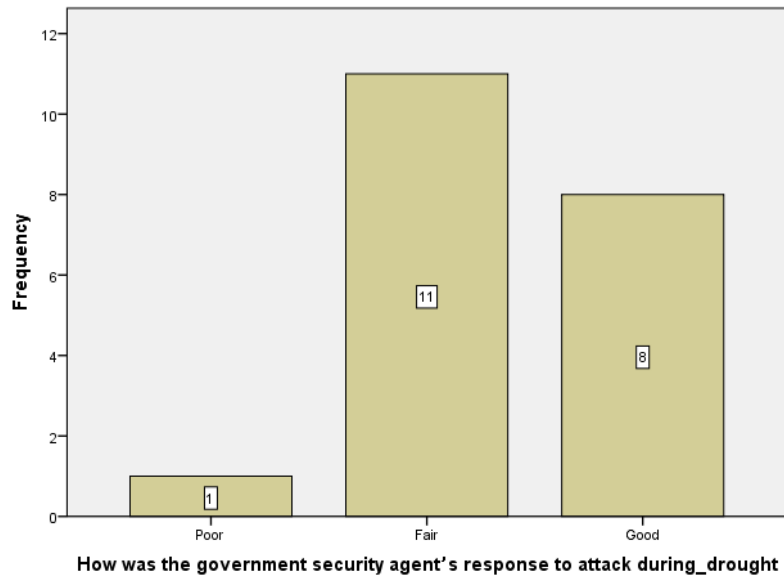


Figure 24

Table 25: How was the government security agent's response to attack during famine

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Poor	2	9.5	9.5	9.5
Fair	10	47.6	47.6	57.1
Good	9	42.9	42.9	100.0
Total	21	100.0	100.0	

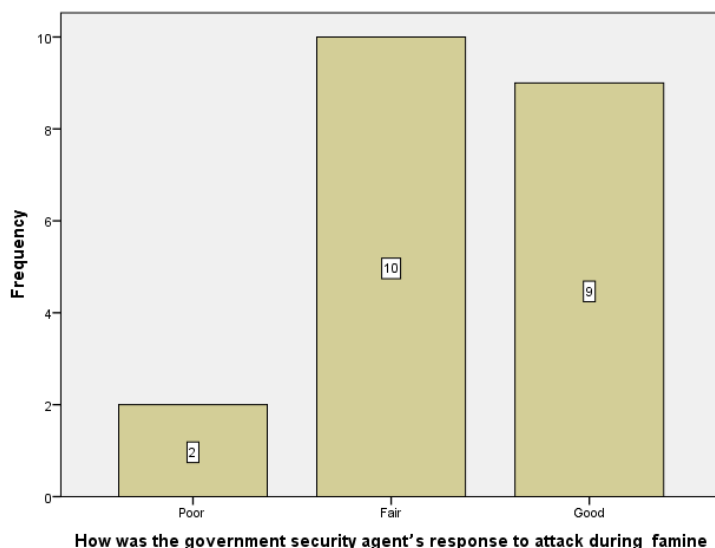


Figure 25

The response by the security forces during the famine seasons was also assessed. The study found that the largest portion of the respondents stated that the response by the police during attacks which took place during famine was fair (47.6%). This was followed by those people who said that the same was good, meaning that they were satisfied by the police response time during attacks that took place when there was famine (42.9%). Finally, the smallest portion of the respondents who answered the question on police response during famine seasons said that the response was poor; the same was at a low of 9.5% of the total respondents or sample members.

Table 26: **During what time of the season is the attack rampant in the county?**

		Frequency	Percent	Valid Percent	Cumulative Percent
	Dry season	9	42.9	45.0	45.0
	Rainy season	8	38.1	40.0	85.0
Valid	Both dry and Rainy season	3	14.3	15.0	100.0
	Total	20	95.2	100.0	
Missing	System	1	4.8		
	Total	21	100.0		

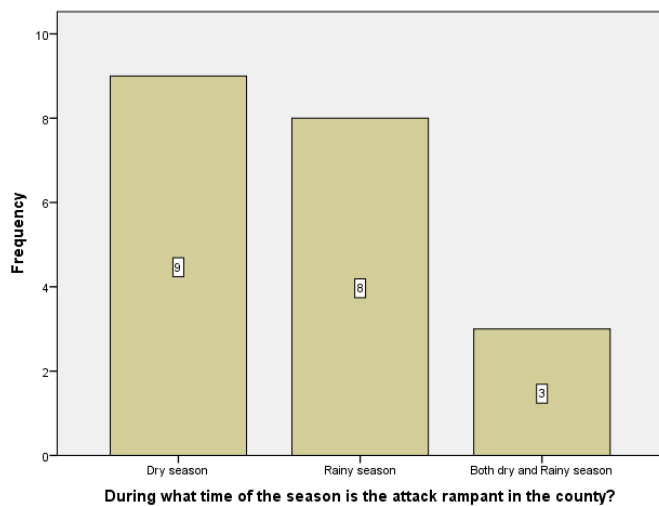


Figure 26

The findings on table27 below shows that second largest portion of the people who took part in the study said that the attacks were most rampant during the rainy seasons at a high of 38.1%. On the other hand the highest portion of the people at a high of 42.9% said that the attacks were more rampant in Dry season. However, there was also a small portion of the respondents who said that the attacks were rampant in both the rainy and dry seasons.

CHAPTER FIVE

Summary, Conclusion and Policy Implications

5.1. Introduction

This chapter addressed the summary findings, conclusion and the implications on policy formulation of this study which explores the climate change and cattle rustling amongst pastoralist communities in the horn of Africa.

5.2 Summary findings

The study found that there was a positive relationship between cattle climatic change and cattle rustling. The results of the study also showed that there was a correlation between dry seasons and the shift in the series of attacks and conflicts for pastures. Further, the researcher established some of the factors that contributed to the factors that contributed to the perpetuation of cattle rustling included the changes in climatic conditions, conflict among communities and the shortage in pastures. In this study it was also noted that the attacks and conflicts did not only take place during the dry seasons.

The attacks were also carried out during rainy seasons because it was believed that the animals were more vulnerable because they were left with fewer headers. In the horn of Africa region, it was established that in most cases the rainfall distribution are not proportional. As such the areas that are endowed with enough rainfall tend to have enough pastures and water for the herds therefore attracting scores of herders to the place. In case the rain falls mostly in a given location the herders are attracted to such a place with their cattle in order to have them feed. In such a scenario both the cattle and the headers are at a risk of attacks because the attackers are aware that the herders

are far away from home and as such they cannot be able to receive any reinforcements or help in case of attack by bandits.

Most respondents agreed that the attacks that took place during the dry seasons were because of the shortage in the available pastures in the fields. If the pasture and water is scarce or limited it means that the people cannot be able to supply enough feed for their herds which eventually leads to some of the cattle succumbing to the droughts and famine. According to the respondents of the attackers strike in such a season it means that these people are only doing it with an intention of replenishing their herds. Other respondents also stated that the attacks that take place during the rainy seasons are because of the impassable, poor roads which enable the attackers and bandits to take advantage.

The researcher also sorts to know the response time or the response by the security apparatus to the alarm by the residents. The researcher found that most of the respondents avoided answering the question with confidence because they were not very comfortable with the respondents of the security organs to their plight. Therefore, most of the respondents who took part in the study said that the response by the police can be rated between poor and fair. The findings by the study are in accordance to the findings by Nembrini, the researcher found that the pastoral communities have been fighting for 10years because of reduced pastures and water access for their animals.⁸³ These fights broke out between the different communities that is the Pokot, Turkana and the Marakwet community's because of access to water and pasture for their animals.

⁸³ Nembrini, P.G. Vergain, J. and Kamau, M. (2005). Water and conflicts: Emerging challenges and opportunities. Water conflicts in Tana River district Kenya. In Pleijel, E. Edstroem, G. Kioi, S. and ICRC/SRC/KRC (eds) Update: water and sanitation. A newsletter for NETWAS international vol 12 (2): 6-7.

5.3 Conclusion

The study revealed that there is a positive relationship between the climate variability and cattle rustling amongst pastoralist communities in the horn of Africa. This is because these events are more prevalent during the dry seasons perpetrated by the young people mostly a mixture of people from within the community and outsiders. Even though most people reported that the attacks are more prevalent during the dry seasons there were a portion of the respondents who believed that the attacks are spread out between the dry and rainy seasons. The study established that the climate variability informed the cattle rustlers on when, where and how to carry out the attacks/raids. In a situation where the individuals do not have enough or large numbers of cattle the raiders will collect all the cattle from the individual farmers so as to make a big herd.

This means that the whole community is robbed of their main source of income, economic activity and source of livelihood. Some of these areas in northern Kenya are very remote with poor road networks, which makes it difficult for the security forces to follow the raiders through thick forests, which are only well known, by these raiders. The fact that the terrain and track of these forest, plains are only known to the raiders puts the lives of the security personals in dangers. There have been cases where Kenya have lost more than 30 police officers who were following up on stolen cattle in Kapedo.

The government also needs to put more effort and some level of seriousness on these operations. This is because if the police could have facilities like Helicopters then they would be able to cover more ground and recover stolen cattle. Further, police officers who are posted from areas, which are notorious for cattle rustling must be

from these places. If there is a large group of police officers following up on stolen cattle then the operation must be conducted by people who were raised from these places and have good knowledge of the terrain.

5.4 Policy implications

The study found that there was a significant correlation between the dry seasons, reduced pastures and cattle rustling. The study explored the factors that cause conflicts and cattle rustling in Northern Kenya. The study therefore meant to find out the relationship between the cattle rustling and the changes in climatic conditions in northern Kenya. The findings of this study are ideal for policy formulation if they can be adopted by the policy makers in both the private and public sectors. It is not a must that the same are adopted in policy formulation as they are but they can be changed to accommodate the existing situation in future.

5.5 Recommendation for further study

The researcher was careful to explore climatic change and cattle rustling amongst pastoralist communities in the horn of Africa. Even though the researcher was effective on the whole process in order to assess the relationship between the changes in the climatic conditions and its effects on the cattle rustling and conflicts in Northern Kenya. The researcher could not have exhaustively explore the problem of the study. Therefore, the researcher recommends the study for the future scholars and researcher who might want to concentrate on other countries or countries. This is because the finding of this study might not apply to other countries or counties in the region.

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APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

RESEARCH QUESTIONNAIRE

Section 1

Introduction

Dear Participant,

Hallo! My name is Isaak Mamo from the University of Nairobi pursuing masters in International Conflict Management. Your participation is voluntary and your name will not be recorded without your consent.

Section 2

Household Demographic

2.1 What is the gender of respondent?

Male

Female

2.2 How many people live in this household?.....

2.3 What is the highest level of education attained by the household head.....

2.4 What is the household main source of income

Sale of Livestock

Sale of livestock product

Casual Labour

Employment

Business

2.5 Does your household own any livestock

Yes

No

2.6 If yes list

.....

.....

.....

Section 3

3.1 Have you been victim of cattle rusting?

[Yes]

[No]

3.2 If yes, how many times?

.....

.....

3.3 Of those time, how many attacks occurred during dry season and how many took place during rainy season. Give in Numbers

.....

.....

3.4 Did you retaliate during any of those attacks?

.....
.....

3.5 If yes, how many times?

.....
.....

3.6 What made it easy for you to retaliate?

.....
.....

3.7 The time that you were not able to retaliate what made it difficult?

.....
.....

3.8 How was the government security agent's response to act during

a) Rainy season

.....

b) Dry seasons

.....

c) Drought

.....

d) Famine

.....

3.9 In your opinion how do you rate the frequency of cattle rusting in the region during the following seasons

a) During Rainy seasons

Most frequent

Frequent

Less frequent

Not at all

b) During dry seasons (Normal dry periods; between rainy seasons)

Most frequent

Frequent

Less frequent

Not at all

c) During Drought (prolonged dry seasons; Failure of one rainy season e.g. period between one long rain to another with no rain in between)

Most frequent

Frequent

Less frequent

Not at all

d.famines (Prolonged drought)

Most frequent

Frequent

[] Less frequent

[] Not at all

3.10 What makes your livestock vulnerable to attack during the following seasons

a) Rainy seasons

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

b) Dry seasons

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

c) Droughts

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

Security apparatus

1. How was the government security agent's response to attack during?

a. Rainy season

.....

b. Dry seasons

.....

c. Drought

.....

d. Famine

.....

2. During what time of the season is the attack rampant in the county?

Thank you for your participation