

**AN EVALUATION OF SECURITY EFFECTIVENESS ON FOOD SECURITY IN  
ISIOLO COUNTY.**

**RUKIA MOHAMED BORU**

**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF HUMANITIES AND  
SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY  
DEVELOPMENT OF GREYSA UNIVERSITY**

**OCTOBER 2025**

## DECLARATIONS

### DECLARATIONS

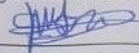
This Project work is my original and has not been presented for the award of a degree or for any similar purpose in any other institution

Signature:  Date: 21/10/25

RUKIA MOHAMED BORU

SSC-G-4-1042-20

Supervisor: This project has been submitted with my approval as University supervisor

Signature:  Date: 21/10/2025

Name of the supervisor Johnston Kuja

Department \_\_\_\_\_

Gretsa University

## **ACKNOWLEDGEMENT**

My thanks and humble gratitude goes to institution Grets University for their continuous and never ending support they have guided me in the composing of this research project from the concept paper I had presented earlier. The institution has experts that help shape and give direction where due, their guidance has promoted the shape of this study.

Amina Mohammed is not left out for her never ending financial and emotional support. which has made this research possible. Their contribution has acted as a pillar to pursue this important research endeavor.

My supervisor Dr. Johnston Kuya for his continuous encouragement and feedback throughout the preparation of this project thank you once more. His guidance was one of the keys in assisting me when it comes to refining my research objectives and methodology.

My family and friends thanks to them they have been offering me their additional assistance and understanding during this research process. Their encouragement has been a source of strength and motivation.

## TABLE OF CONTENTS

Table of Contents

<b>DECLARATIONS</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>iii</b>
<b>ABBREVIATIONS AND ACRONYMS</b> .....	<b>viii</b>
<b>Operational Definition of Terms</b> .....	<b>ix</b>
<b>ABSTRACT</b> .....	<b>x</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.0 Introduction .....	1
1.1 Background .....	1
1.2 Statement of Problem .....	3
1.3 Purpose of the study .....	4
1.4 Conceptual framework .....	5
1.5 Research question.....	6
1.6 Objective of the study .....	6
1.6.1 General objectives .....	6
1.6.2 Specific objectives .....	6
1.7 Significance of the study .....	6
1.8 Scope and limitation of the study .....	7
<b>CHAPTER TWO: LITERATURE REVIEW</b> .....	<b>8</b>
2.1 Introduction .....	8
2.2 Measures of insecurity (policies) .....	8
2.3 Trends of global insecurity (security factor) .....	9
2.4 Insecurity and its effects on pastoralism and agriculture (social economic factor) .....	10
2.5 Research Gaps .....	11
2.6 Theoretical framework .....	11
<b>CHAPTER THREE: RESEARCH METHODOLOGY</b> .....	<b>13</b>
3.1 Introduction .....	13
3.2 Research Design: .....	13
3.3 Study site .....	13
3.4 Target population .....	13

3.5 Sample size.....	13
3.6 Sampling Technique.....	14
3.7 Research Instruments .....	14
3.8 Validity of Instruments.....	14
3.9 Reliability of Instruments.....	15
3.10 Data Collection.....	15
3.11 Data Analysis .....	15
3.12 Logistics and Ethical issues. ....	15
<b>CHAPTER FOUR: FINDINGS AND DISCUSSION.....</b>	<b>17</b>
4.1 INTRODUCTION.....	17
4.2 Response Rate .....	17
4.2.1 Age.....	17
4.2.2 Gender .....	18
4.2.3 Locations .....	19
4.2.4 Educations .....	20
4.3 Isiolo Food security Variables from the studies.....	21
4.3.1 Measures of insecurity (policies) .....	22
4.3.2 Trends of global in security (security factor).....	25
4.3.3 Insecurity and there effects on pastoralism and agriculture (social economic factor) .....	28
4.3.4 Food Security .....	31
4.4 relationship on the Level of education against those who have responded .....	33
Measures of security and trends of global in security .....	34
Trends of global security with the in relations to Insecurity and it effects on the pastoralism and agriculture.....	35
Insecurity and its effects on pastoralism and Food security .....	36
Correlations against on the dependent variable and Independent variables .....	36
Regressions.....	37
<b>CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>41</b>
5.1 Introduction .....	41
5.2 Summary .....	41
5.3 Conclusion.....	42

5.4 Recommendation.....	42
5.5 Recommendation for further studies .....	43
<b>References .....</b>	<b>44</b>

**LIST OF TABLES AND FIGURES**

Figure 1 Conceptual framework ..... 5

## **ABBREVIATIONS AND ACRONYMS**

ASAL: Arid and Semi-Arid Land

UNP -: United Nation Report

### **Operational definition of terms**

The terms used in the study are as follows

*Household*- this can be defined as a group of individuals or person living in single house or under one roof and they share common items, shelter that is the house typically they can be family members

*Livelihood*-Can be explained as working to get access or obtain the basic needs that keeps a human life going like it can be the common necessity for human survival.

*Livelihood assets*-are example of a must needs for humans' survival like the basic items

1. Human capital – ways for getting some cash to get going
2. Social capital – connection to one individual to the other
3. Financial capital. Has access to money
4. Physical capital explained as ways to get more work done.
5. Natural capital – the resource available from earth ground

*Socio-economic process*- incorporated in doing business having knowledge to research through facts, having a source of daily income.

*Conflict*-refers to a disagreement between parties' communities due to competition on the natural occurring resources, getting influenced by political parties and it normally has very unwanted result such as displacement, precious lives lost environmental degradation.

## ABSTRACT

United Nation Report (2020) and the World Bank through there years of research has shown the global that the upcoming versions of extremely dangerous conflicts currently are more less become more sophisticated. More and more parties including non-state and far more state organization due to this major parties involvement that have resulted to extreme and more by unexplainable lives lost in the scramble to show who has the most power, communities, people and event wildlife have been had to relocate due to the now unfriend inhabitants, Investments such houses had to abandoned due to the war, the social life flashed down the drains due to wars the economic life not left aside had to restructure from scratch to cope survival difficult times. This Northern raging disagreements especially in the north eastern of Kenya, we have in Isiolo County one of the counties that from time to time has tried to solve the thing know as sustainable food growth, but it is still on it knees struggling. This study seeks find a way that this situation on food security can be tackles by the horn in Isiolo County and necessary conflict resolution measures taken in Isiolo County. Specifically, the researcher is to dig deep into the matters of hostilities; the after math of the insecurity on food security; and ways that can very effective to reduce the conflicts or to nullify it completely to return the community to the peaceful norms. The researcher majorly took inconsideration of the descriptive survey design to this study to gain more data to make the study a success. Study areas that the researcher choose was a location that mostly had seen the after result of continues disagreement between the communities and the wards are; Wabera, Bulla, Pesa, Chari and Cherab wards in Isiolo County. Coming to analysis the data for the study was collected on one-on-one interview session with the members of the affected community, active discussion in communities formed focus groups and captured chosen key statements in the interview sessions. We have this sample techniques known as the Systematic was used to choose the household that we used in the study to collect the data, a total of about 1000 of them. 100 households received the questionnaires distributed. For the interview session Stake holders who had valuable information were invited to participate in the research study, from number identified some community's ember randomly selected take part in the FDG session for inclusion purposes. The Qualitative data collected went through thematic analysis. Quantitative data were cleaned normalized and feed to analytic software know as SPSS and results were output table and graphics for at a glance view. Ethical and logistical consideration was sought from the school of humanity and social science of Gretsia University and research department to find a humble time with data collection permission from local community leaders for data collection purposes. The effectiveness of food security from the data that was analyzed showed vividly that the variables security policies for food that they had the huge impact on the due to some many households not adhering to some farming policies, it was also concluded that Trends of global in security also had a huge impact on food security in Isiolo county from the data that was analyzed in other words it did have much impact due to its nature of the global level. The researcher arrived at his conclusion and concluded that the that the Insecurity and major impact when it comes to pastoralism and agriculture had the most impact on the food security due to its nature of pastoralist moving from area to area and the unfavorable factors like the weather and the small land conflicts

## CHAPTER ONE: INTRODUCTION

### 1.0 Introduction

This chapter presents the following; background of the study, statement of the, problem the study wants to tackle, purpose of the study, study's conceptual framework, the research queries, Major and specific objectives of the research, hypothesis of the study, significance of the study, what is limitations of the study and assumptions of the study.

### 1.1 Background

Insecurity has been referred as dispute or contest over direction norms, future aspiration, interactions, groups, boundaries which results numerous of fatalities, having people flee from there countries, people properties get damaged, environment becomes deteriorated due to lack of good care that's according to (Ledlack, 1997)

Conflict from the global distance view, we encounter changes in the direction, prediction of the in the near coming times that we have haven't witness we have must bras ourselves. Major trials have been tracked and documented by researcher (Holsti, 1991) on the ways the conflict ways keeps evolving from time to time, it is becoming more tough to deal with it has it becomes more bitter as it traced from 1648 to 1989, by the researcher one mentioned as (Singer, 1982) another scholar follow a study from 1816 to 1980 siting the evolution of conflicts and how it continuously growing.

Research from some of researchers from World Bank and UN report (2020) rapid growth and breeding of dangerous conflicts are stabled upon for the last ten years in one or more of their studies they had done this wars cost those who lived in those places their lives, properties, their ancestral lands some result are far much beyond recovery but the NGO are still trying to put things together, As most report do gives and outcome on the majorly unexplainable conflicts transition to level of difficult from every individual seen angles, while including numerous NGO's from various countries and states, Agents are in those deployed by the agencies and states are facing difficulties from environment shifting of seasons from the normal course of nature, the breed up group that, stir the disagreement, from personal and groups interest for personal gains, inferences has bring brought making it very hard to come to the final touches of vision already put in places ongoing in our beloved country Kenya that reflects to the vision of 2030. Prominent organization like the Food and Agricultural Organization ( FAO,2016 ) stuck there into some research of the liking bring it to their attention on increase in unsettled dispute

that keeps on string up more conflict in the global regions as a whole, in the controversy that causes this those is the competitions for the earthly natural material that occur at very unrepresented areas and the local may also not be very welcoming.

When it comes something we do call food security, the World Food Program (WFP) report of (2021) may have given insights in regards to marginalized communities lets walk with Africa given the historical report from past scholar indicated that, this same communities day to day survival have been in this marginal regions for years has continues movement with the well know herding norm, in that context there migration is characterized by unavoidable circumstances like the prolonged drought, inadequate pasture sometime no pasture at all. Fasona, et al., (2016) the researcher indulged in a quest came up with facts that they often pick up fights due to land for grading and water wells and who will have more pasture than the other. The notion that this research came up with and it wide seen are some promoting factors that breed the never ending clashed between class in Africa we can use Kenya as good example. The mentioned researchers like (Mc Candless and Karbo, 2011) went on fact finding in Africa region came to feast there unbelieving eyes the unsettlement of secession, ethnic clashes, territorial borders determination and sustenance those being among the many that have most of the impacts that likely most countries in Africa on the major corrido of insecurities and we may call it uneasiness.

It is worthy to note this phenomenon is not exceptional in Kenya. It was concluded by the researchers for four decades in close proximity, North Eastern Region of Kenya, particularly Isiolo county, this region mentioned seeing it all is something that according to researched may see it as a heard because it has seen it all from fight over water table, rich lands that was being utilized to grow feeds for the cattle's, this natural occurring and due to climate uncertainty led to communities around each grow with rage as seen from early 1980 to 2024 and it still continues this according to ( Elfverson, 2016), (Chebii, 2015) ( Murkomen, 2015)

Being on the topic of researchers they notably just conducted few research and made publication on the constant argument that the unsettlement and unprecedented outcome from the occurrences herding regions been given deep attention as it was intended has been somethings else this is seen from numerous small action that as researcher could say bearing fruits seems no to be in there list of action, continuation of the shows in the regions can be the proof, Researcher

(Noriet.al. 2019) made his own personal conclusions as his research suggests, resolution that are being put in place have been one on one that showed weight to overlap level of un settlements in those regions and the focus on the key matters that is the concern about food security of ASAL areas. (Murkomen, 2015) the level of the mitigation that was taken was to bring some peace were included deployment armed officers take in custody, investigate, get information from the locals, get hold fire arm that were in wrong hands, illegal trades, do a sensitization to the community, this was a very unsearched resolution that had to near zero impact to the situation in the hostile regions.

## **1.2 Statement f Problem**

Isiolo County is designated as an ASAL area, indicating it is a semi-arid region. The isiolo region I very small and as statistics show event in had a very small portion that. Be very suitable form producing very high yield. People in this communities are majorly lifestyle depends typically on an agro-nomadic-pastoral system. In this system, as they interact those into agriculture those owning very many heads of cattle's that migrate constantly often fight particularly land, pasture, and existing watering points and table lands (Fasona et al., 2016). As it is said some viewed scenarios of same conflicts were the resurgence of hostilities between 2021 and 2024, which resulted in severe consequences, including the 70 deaths and above from the fight and the displacement of more than 1000 people within just one month. Based on theoretical considerations and available evidence, factors such as population growth, demographic changes, and shifts particular on the conditions of the environmental we are at continually depletes the available resources, leading to increase in fight among community member.

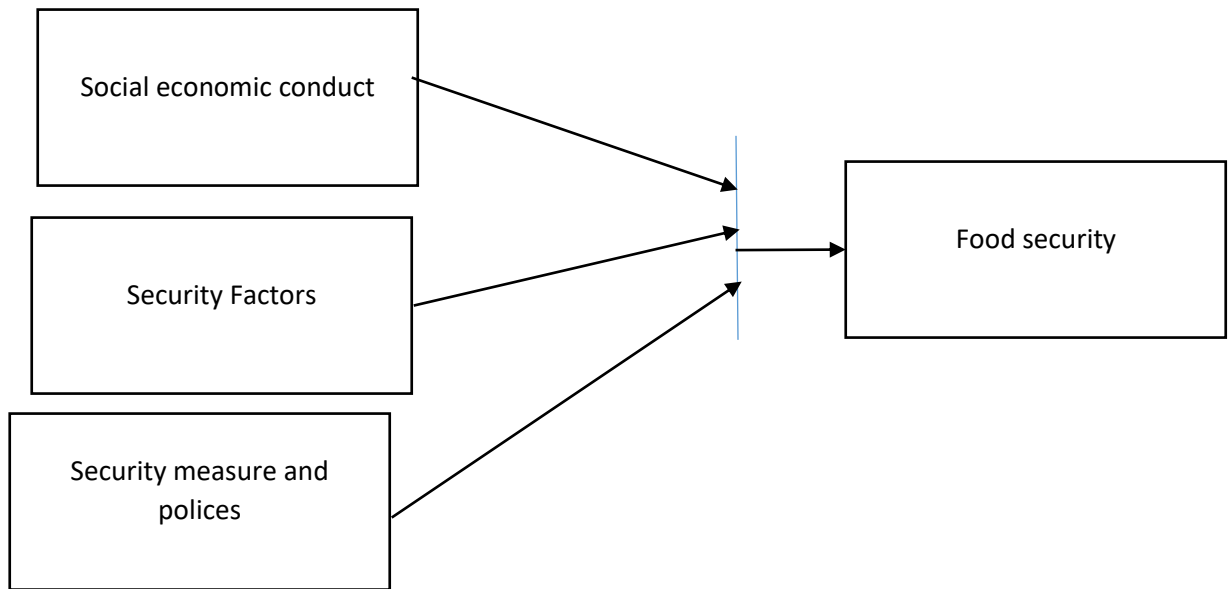
10 Year that can be taken into account from 2009 to 2019 Rate for settlement and growth shoot from 433,770 to 637,260 in Isiolo County sighted from the Kenya Census Report 2019. Within this population, likely that mostly 60% never attended school or has basic knowledge and does nor daily sustainable income. Situation of degree brought up trends in Isiolo County have resulted in escalating competition and conflicts. Notably, an average of 77 percent of the population are young individuals aging below 35.

This study therefore seemed were to evaluate pertaining effects of insecurity on food security in Isiolo County.

### **1.3 Purpose of the study**

Given the trend and ongoing hostility observed in this region, there is an urgent need dig deep and find and gain the outcome of the so-called prolonged conflict on both nomadism and agriculture. Specifically, this involved assessing the frequency and extent of insecurity, how this insecurity has impacted nomadism and agriculture (disruptions to nomadism and agriculture, and the precious live that have gone), and the perspectives of households on potential mitigation measures. Importantly, the recurrences of insecurity between 2021 and 2024 served as corner stone of the publication.

**1.4 Conceptual framework**  
**Independent variable**



*Figure 1 Conceptual framework*

## **1.5 Research question**

- i. How often is insecurity ramped in Isiolo County?
- ii. How extreme in nature, the nomadism and Agriculture of livelihood been interrupted by insecurity in Isiolo County?
- iii. How are the stakeholders handing the insecurity situation in Isiolo County?

## **1.6 Objective of the study**

### **1.6.1 General objectives**

The research seemed to evaluate the effects of insecurity on food security in Isiolo County Kenya

### **1.6.2 Specific objectives**

The study proposes to have three specific objectives

- i. To find which major zone promotes more conflicts among communities in Isiolo County.
- ii. To analyze the effects of insecurity on nomadism and Agriculture in Isiolo County
- iii. To investigate a working solution as they are implemented to mitigate insecurity in Isiolo County

## **1.7 Significance of the study**

To the extent insecurity negatively affects nomadism and agriculture, coming up with working plans and initiative outlines the ended product of insecurity in the marginalized area wonderful assisting the stakeholders finding a long solution to the hostile challenge cause by the communities in constant fight with each other.

The know outcomes of this study added to the existing data's available to researches and academician of prominent conflicts in the relation to communities' countries and regions.

The major result from the study will be used by some of the key players mention a few like national and county governments to mitigate the never-ending conflicts in marginalized areas.

The study also availed useful basic info that both NGOs/INGO can use as a reference point to find lasting solution and religious based action and fostering peace mission are not left out, they can use it for spreading the gospel to promote peace and proper community teaching to find resolution to Isiolo County community.

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

The research took the honor to conduct the experiment research in the areas surrounding Isiolo town and in the far northern of Isiolo sub-county. These zones and wards are having the frequent recurrence war that threatens lives and existence involving a massive group of three rival communities: namely Samburu, Gabra, Borana, Rendile, and Meru. Therefore, a high sensitization is security was to accompany collectors of research data, As conclude the research data collection was confined to five wards within the otherwise expansive Isiolo North Sub-County, namely Wabera, Bulla, Pesa, Chari, and Cherab.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

This chapter highlights scholarly review of the existing literature that discuss some the attention brought focus to the self-desire of more resources that brings uneasiness in return affect household's livelihood and agriculture, major focus has opened it eyes to know the level of conflicts, taken example of t perspective from global angle of uneasiness conflicts cattle reared zones, and the nature of disagreements, pastoral conflicts in Kenya, all this focus theory believed and facts side as researchers continues to search for the best proof.

### 2.2 Measures of insecurity (policies)

The focus on the conflict that seems to be forwarding moving was given more priority and recorded as so many parties took that to their personal interest on to resolve it and to contain it, the notion is brought about by the deep impact of its severity in as the research's look at of the deaths as the key drive for the need to bring an end to it and the environment comes as on the of the victims due to it unintended inability to produces very good haves and depletion of resources like water.

Fight to void deaths beat the threshold that was set to combat the unintended death of undeserving souls, Deaths that were largely brought due to lack of adequate meals supplies to , proper medical care and property been destroyed which the researcher wrote about to bring the numbers nearly 90 % related to social conflict brought those deaths (Gleditch ,et al . , 2005) for those who lost the ancestral homes and solid number of camps from there fleeing countries this accounts for the hostiles that destructs the entire established cities town and very good communities that soon turn to mere dead land with wailing winds and sand tornados .

The researched named (Marshall, 2002 ) came up with this index called “equivalent to the scale of Richter the show the Earthquakes patterns” to see if it can measure them range, worst case scenario and the eroding of the internal from the global perspective lead to discovery the unintended disappearance of need resource by a living being direct and indirect loss of precious lives, Led to eroding of peer to peer relationship due to very unmeaning fight and competition and loosing connection with those that one once cared about, the nature habitat are very much after with the aftermath giving no hopes for restoration and on the important part the faster eroding ways of key resources that are major necessary for a living being survival making even access to the very key entities becomes very difficult.

### **2.3 Trends of global in security (security factor)**

Researcher from very research center around the world have gained insight on the of global conflict more specifically than concerns resources for the conflicts. The researchers that focus on from the conflicts for the one to one talks had the view on the local conflicts as seen majorly they are related to by communities areas who scramble for common resource that is located in the regions and one wants to take control over it as community they evidenced that this rose across the global dated 1945 all the way 1950s, as major communities showed there full strength in 1993 to 1994 among those in the mix were the Bosnia, Soviet Blocks, Burundi, the Rwandans and South Sudan ( Glitch, et. al., 2005).

As referenced from the journal, and researcher writing, though the research findings about various countries unrest dated 1945 to 1950s and 1990s, those presence of the internal conflicts (or ethnic-resource unrest) were available under the hood, they build up faster that the with internal communities wars and it brought about the tool death of some many lives ranging to 16million given and comparison to the 3 million as reference by the researcher by the name (Fearon and Laitin, 2003 ). Something that seems to be amusing is that the previous researchers in the 1981s took into consideration that but in their eyes they saw this inter-communities war as something of small fight that were not seen able and manifest if a giant that it is right now, wars were breed with massive organization that were using the locals available conflicts to feed on the rage and make is worth there every penny the spent to groom, The researcher referenced for is data is (Hegre, 2012) a research continued to states giving it evidence as seen in publication, “*The Coming of Anarchy*”, by a researcher know as (Kaplan, 1994) from his quotes the research stated that the wars, the hostility of the communities, the climate change continues to bring earth to its knees and it gradually erodes the currently valuables lands that we have at our disposal. The research after facts finding of previous studies those who studies social conflicts converted there mindset to commence their deep research on the communities county based because they knew this were manifesting fast and could bring in balance to the resolution they have been working on for years, unrest from the studies had much greater impact to the county and could bring a could to be left in rubbles and there will be no proper ways to recover and it could take several years according to (Wimmer, 2004) with this conflict taken into consideration it cloud bring global peace.

Due to easily available Armory and weapons in Africa provided by the beneficial actors are the middle men to stir up more wars across Africa continent one country to the other and communities to communities this can be reference from a publication by (UCDP, 2016) and (ISS, 2016). These hostilities have brought casualties in Rwanda were numerous individuals lost their precious lives try to prove a fact that which community's is stronger than the other. Just their immediate neighbor the Democratic Republic of Congo counted very many innocents' souls than Rwanda because of the war that is continuing up to the instance of the researcher's reference. According to (Kieh, 2002) publication as the researcher has referenced literally a huge percentage of countries in the world have had its faces if conflicts and have tested the wrath of war and they have witnessed the outcomes first-hand, the percentage from thesis referenced become higher in this currently time major the percentage is more in Africa as a continent than another continent in the world.

#### **2.4 Insecurity and their effects on pastoralism and agriculture (social economic factor)**

As we have narrowed down to researchers that focus on Kenya conflicts various researcher has some of their conclusion that this conflicts major take place in marginalize like the Northern Kenya, this specifically has been promote by the never agreeing communities who level very close to hostile ones like we have as an example the communities called Marakwet, Tugens, Pokot and Karamojong (Gibbons, 2014) this communities continuously have been in a fight because of the land for grazing and who cattle theft competition who has more cattle heads. A Scholar by the name (Rohwerder, 2015) talked about the highest of unsettlement in this region haven brought about by whose boundaries should not be crossed and be interfered with, the scholar also mention something that goes with land as referenced from the scholar that focus in Africa it was a complete fight who get a bigger piece, they scholar did not left out water being one of natural resource that constantly stir war in the norther region. We have the Author know as (Dowd, 2013) came to a conclusion that maybe Kenya has the most hostiles communities in its region that are constantly fight than any other country in Africa, the scholar is drill deep into the unclear revel to see what can be encountered that makes it very hostile as seen also from other publication. Most conflicts a breaded by the need to be independent from colonial ruling that being the same to major African countries want to operate as single entity and not rely on any other parties for survival of protection.

Communities from the North part of Kenya areas and those cattle farmers were connected to disappearance of cattle, there may key of livelihood and, were not able to get settlement areas due to their unintended migration due to war making the loose the previous occupied lands they were seen in the study that was conducted by (IDMC, 2014). IDMC stated in his research explicitly that this conflicts that seems to never end were actual and can be categorized in different sector and acts of human right that are constantly being violated, this caused the same human to lose the freedom of living and eventually leading to their untimely demises. Floods and continuity of land losing it ability to yield produces has also being the roots cause of this conflicts because other community tend to escape this uncertainty and encroach the other communities regions leading to rises in constant conflicts as the data say it brings to conclusion that most of the migrations, food insecurity, beneficial actors tend to stir up the war the other organization want to bring to the end to bring peace.

## **2.5 Research Gaps**

Pertaining the studies that reflected to the Isiolo County has whole the research normally focus on the origin of the and cultural activities that takes in those region that sparks most of these interest and they are trying to join the dots on the origin of the wars that are currently making that northern region not suitable to settlement due to continues conflicts, this brings to light the little view that the research covering the after moth and longtime effects of this was that normally affects the county as a whole putting into consideration the economic sector of the county that has received retoured growth, social impact is not left behind in this scenario.

## **2.6 Theoretical framework**

One theoretical look around at was consider for looking and accessing the of conflicts, as the researcher state is the continues unrest.

*Socio-economic inequalities perspective* this part is formulated a researcher by the name (Tar, 2008) learning comparing the writings of (Hildy, 1999) and (Latti, 1962, Indication show true that this unrest is major caused by nonexistence of equality among the global range as seen also in Isiolo county, The theory points out clear as stated by the formulator of framework that taking a being that was comfortable with moving from point to point and the you decide to place the in a confined space that can bring a the point of this brings conflicts due to now every individual community tries to secure his boundaries, there social norms change very gradually and now result to due to les interaction and less view that the other neighbor is a friend of his and this

hostility is passed from generation to generation making it very hard to resolve, this is brought with how it routed into the culture now of the communities that fighting is the only solution.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter addresses the research design, location, population that is targeted, various procedure for sampling, research catalog, as well as data collection procedure data analysis, reliability and validity and ethical consideration.

### **3.2 Research Design:**

The study used the descriptive survey research design A descriptive survey design of the phenomenon under study. According to Creswell, (2013) descriptive survey research studies enable the researcher to obtain information about the current state of a phenomenon and whenever possible make general conclusions from the facts discovered.

Descriptive research was used to obtain information concerning the current status of the phenomenon to describe "what exists" with respect to variables or conditioning situation. A survey basically describes the status quo (Nardi,2014). This design chosen that the research was very much appropriate because it enabled the study to expose facts from their originality on the ground giving a vivid explanation to the situation without any manipulation from there searcher.

### **3.3 Study site**

Isiolo north is in Isiolo county-Kenya it is one of the largest sub-counties in this county. The sub county border Meru County on the east, Isiolo south on south and Samburu County on north. Settlers in Isiolo Sub-County sustain their way of living considering the economic factors via arrange of agro-pastoral to their value is what drive them. Isiolo County is the core of the study because it has the experience of the war in early year of 19s to the date but they keep on decreasing, Continuous repopulation of the area as it keeps on increase while the available resource cannot accommodate the increased mouth to feed has led to fight for the scare resources in that small county keeps pilling up.

### **3.4 Target population**

Target population involved the entire communities in that region, this referenced location came into consideration due to read studies of the historical situation in Isiolo county, the rates of insecurity in the region was overwhelming. Region consider for divided study were the words like Wabera, Bulla, Pesa, Chari and Cherab wards.

### **3.5 Sample size**

In areas where the population I very huge are where the sample size makes a great determinant putting characteristic being of value to be used to choose the entire population. In this respect,

the goal was to obtain representative samples; in which the sample research data correspond to the particulars, characteristics and experiences of the entire population (Scott Smith, 2013).

Isiolo County has more than 10,000 households, thus the formula by Fisher et al., (1925) was used to determine required sample size at 95% confidence level. This was to make a sample size of 384 individuals. However, based on preliminary assessment, the five identified locations had a total of 3170 households; that is, Wabera 683, Bulla 850, Pesa 657, Chari 400 and Cherab 580.

### **3.6 Sampling Technique**

Purposive sampling selected pioneered the selection of the locations in which conduct research by selecting the worst hit areas. Mugenda and Mugenda (2003) argued that purposive sampling technique allows the researcher to use cases that have the required information with respect to the objectives of his or her study. Snow balling sampling design was used in order to get respondents of the study

### **3.7 Research Instruments**

Tools designed for obtaining data on a given research topic (Mouton, 2001).

#### **Use of Questionnaire:**

According to Berr (2006). Questionnaires are of important because they enable the researcher obtain a lot of information within a very short period of time over a large population. The questionnaire was open ended and close ended.

Researcher include questions on demographics (age, gender, ethnicity, education level, and family structure),

#### **Focus Group Discussion Guide:**

The researcher organizes a focus group discussion with a cross section of all twelve prominent tribal leaders to develop deeper into their perspective's insecurity, its consequences, and potential interventions

### **3.8 Validity of Instruments**

Validity – comes as the degree on data generated by an instrument measure the phenomena under study (Drofe, 2011).

I ensured that the survey questionnaire and interview protocols cover a wide range of topics related to insecurity effects on food security Isiolo County.

Validate the measurement instruments by comparing self-reported data on effects of social conflict with objective measures such as characteristics of social conflict or livelihood extent of

affection assessments conducted by security agent professionals. This comparison helped establish the accuracy of self-reported information.

### **3.9 Reliability of Instruments**

According to (Tavakol & Dennick, 2011). Reliability is the extent to which an instrument yields consistent results or data repeatedly. In this study, ensuring the reliability of my measurement instruments is essential to ensure the accuracy and consistency of my findings. The researcher employed several strategies to assess and enhance the reliability of my measurements: Test Re-test Reliability: The Researcher administered the same survey questionnaire on effects of insecurity to the same group of population in Isiolo County on two separate occasions, with a specified time interval between administrations. This approach allowed the researcher to assess the consistency of responses overtime and evaluate the test-retest reliability of my instrument.

### **3.10 Data Collection**

The data collection techniques for my project on an evaluation how insecurity affects food security on in Isiolo County included a combination of surveys, questionnaire, focus groups, Surveys and questionnaire allowed the researcher to gather quantitative data on drug usage patterns, attitudes, and perceptions among are presentative sample of youth in the sub county. Interviews provided depth qualitative insights into personal experiences, motivations, and impacts of social conflict among selected individuals. Focus groups facilitated discussions to explore shared effects, understanding, and social dynamics surrounding the effects of social conflict on social economic aspect.

### **3.11 Data Analysis**

The data was analyzed using thematic and coding using quantitative software like SPSS

The researcher utilized tables and graphs to present descriptive statistics between socio-economic conducts, family dynamics, and community factors and Qualitative findings can be presented through textual summaries and visualizations.

### **3.12 Logistics and Ethical issues.**

Research Team: Ensure the project team consists of qualified researchers, possibly including socio-legists, and statisticians, to provide diverse expertise. Plan for efficient methods of collecting data, such as surveys, interviews, or focus groups, considering the sensitive nature of the topic.

Logistics: Arrange transportation, accommodations, and facilities for research activities, especially if conducting field work in remote areas.

**Ethical Considerations:** their involvement, and any potential risks or benefits.

Confidentiality: Safeguard the confidentiality of participants 'information, ensuring anonymity in reporting findings to protect their privacy and prevent potential stigma or discrimination.

## CHAPTER FOUR: FINDINGS AND DISCUSSION

### 4.1 INTRODUCTION

This chapter presents outcome from the field work that had been collected that on the evaluation of security effectiveness on food security as case study of Isiolo County. The findings are based on the data collected through interviews and are aligned with the study's objectives as outlined in first chapter.

### 4.2 Response Rate

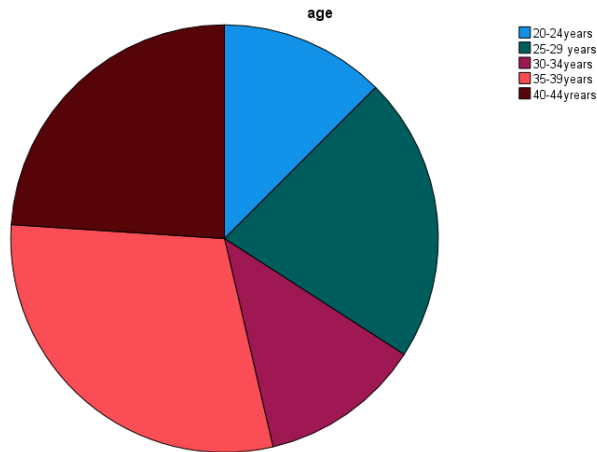
The study achieved a satisfactory response from the respondents with a hundred 100% due to collection of questionnaires from every house-holds that they were distributed to the tables bellows the demographics response per the level of education, age, location of responses with Isiolo county,

#### 4.2.1 Age

The age of the respondents is as show below

**age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-24years	48	12.5	12.5	12.5
	25-29 years	83	21.6	21.6	34.1
	30-34years	47	12.2	12.2	46.4
	35-39years	114	29.7	29.7	76.0
	40-44yyears	92	24.0	24.0	100.0
	Total	384	100.0	100.0	

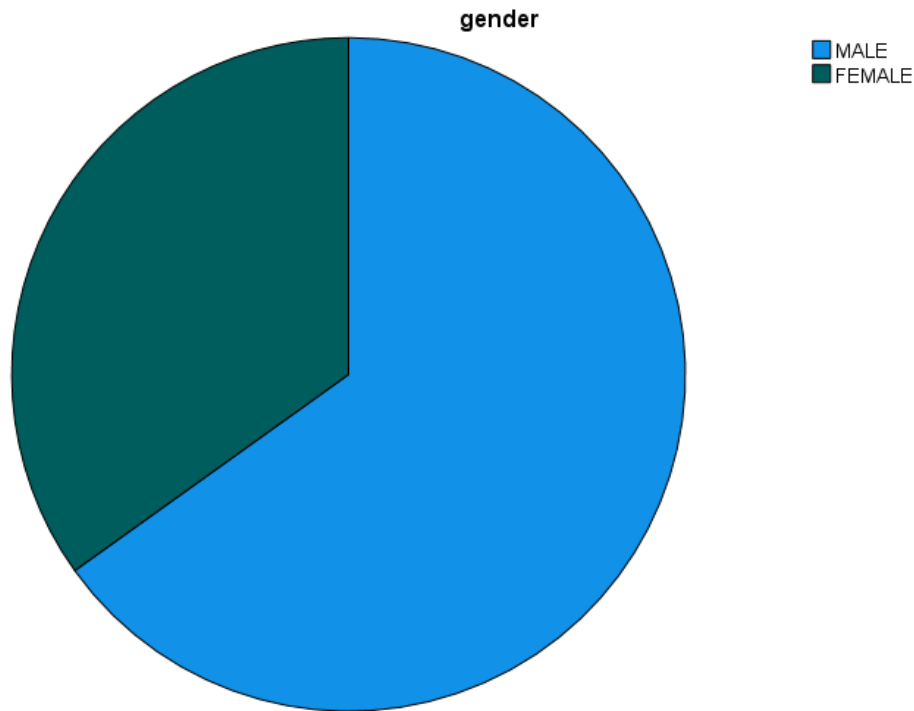


The response rate table that is show above from a quick view show that most of the respondents in Isiolo County were aged between 35-39 years (29.7%), followed by those aged 40-44 years (24.0%). The youngest group, aged 20-24 years, had the smallest representation at 12.5%. Overall, the distribution shows a significant participation from individuals in the middle age brackets (25-44 years), which could imply a strong representation of mature and potentially more experienced perspectives on food security within the county. With a total of 384 respondents, the data provides a comprehensive overview of the age distribution relevant to evaluating security effectiveness on food security.

#### 4.2.2 Gender

**gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	250	65.1	65.1	65.1
	FEMAL E	134	34.9	34.9	100.0
	Total	384	100.0	100.0	

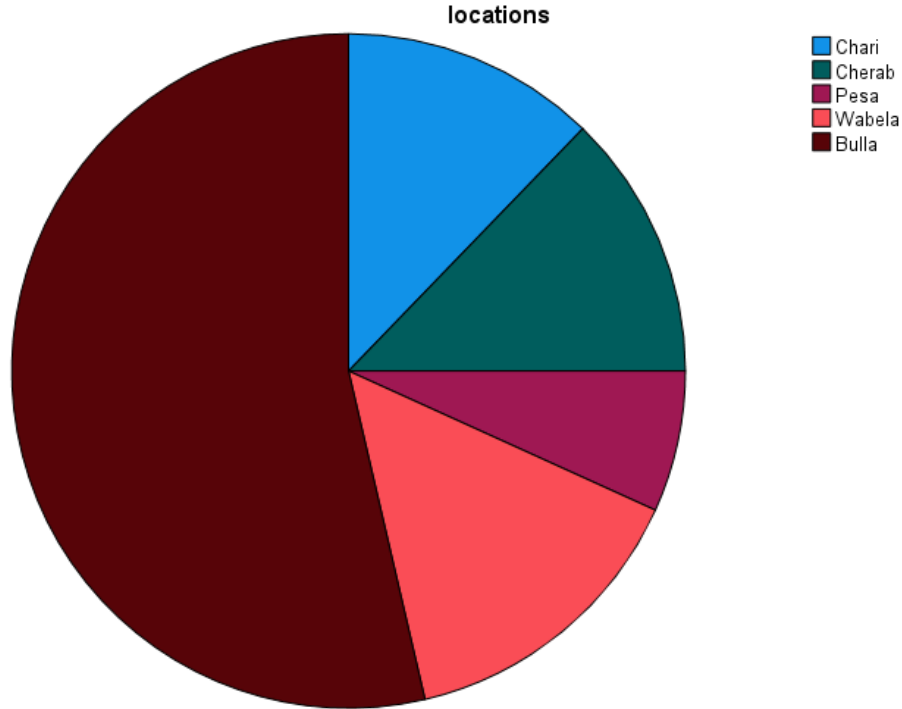


The gender distribution table shows a higher representation of males compared to females among the respondents in Isiolo County. Specifically, 250 respondents are male, accounting for 65.1% of the total, while 134 respondents are female, making up 34.9%. This indicates that males are nearly twice as likely to participate as females in the survey concerning security effectiveness on food security. The total number of respondents remains consistent at 384, reflecting a significant gender disparity that could influence the insights and conclusions drawn from the data, potentially highlighting the need for more balanced gender representation in future evaluations

### 4.2.3 Locations

#### locations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chari	47	12.2	12.2	12.2
	Cherab	49	12.8	12.8	25.0
	Pesa	26	6.8	6.8	31.8
	Wabela	56	14.6	14.6	46.4
	Bulla	206	53.6	53.6	100.0
	Total	384	100.0	100.0	



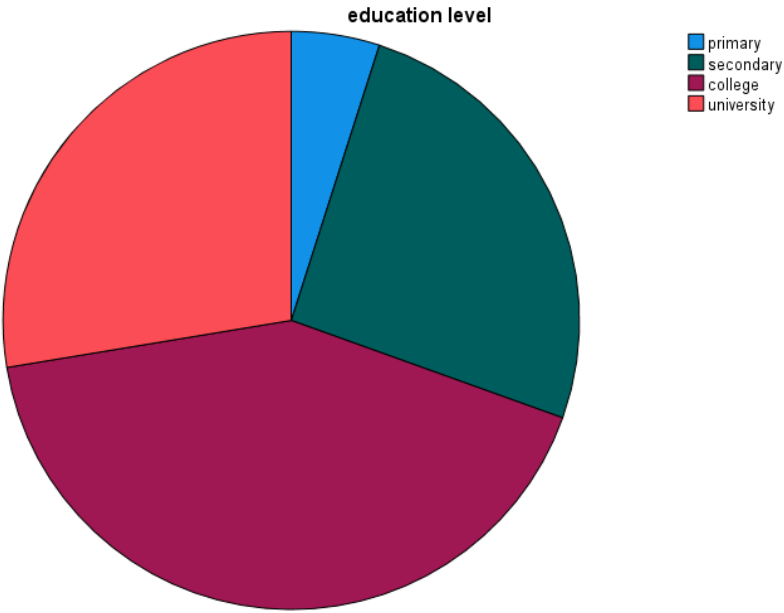
The table outlining the distribution of respondents across different locations in Isiolo County reveals significant variations in participation. Bulla has the highest representation, with 206 respondents making up 53.6% of the total, indicating a strong response from this area. Wabera follows with 56 respondents (14.6%), and Cherab with 49 respondents (12.8%). Chari has 47 respondents (12.2%), while Pesa has the least representation with 26 respondents (6.8%). The total number of respondents remains 384, ensuring full data coverage. This distribution suggests that Bulla's input heavily influences the overall findings, while the perspectives from Pesa may be underrepresented, which could affect the comprehensiveness of the evaluation on security effectiveness and food security across all locations in Isiolo County

#### 4.2.4 Educations

##### education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	primary	19	4.9	4.9	4.9
	secondary	98	25.5	25.5	30.5

college	161	41.9	41.9	72.4
university	106	27.6	27.6	100.0
Total	384	100.0	100.0	



The table on education levels of respondents in Isiolo County give a very wide range of educational backgrounds, with a notable concentration at higher education levels. The largest group comprises those with a college education, accounting for 41.9% (161 respondents) of the total. University-educated individuals make up the second largest group at 27.6% (106 respondents). Respondents with a secondary education represent 25.5% (98 respondents), while those with only a primary education form the smallest group at 4.9% (19 respondents). With all 384 respondents accounted for, this distribution highlights that the majority of participants possess post-secondary education, which could contribute to more informed and knowledgeable perspectives on security effectiveness and food security issues in the county. However, the relatively low representation of individuals with only primary education suggests that the views of less formally educated community members may be underrepresented.

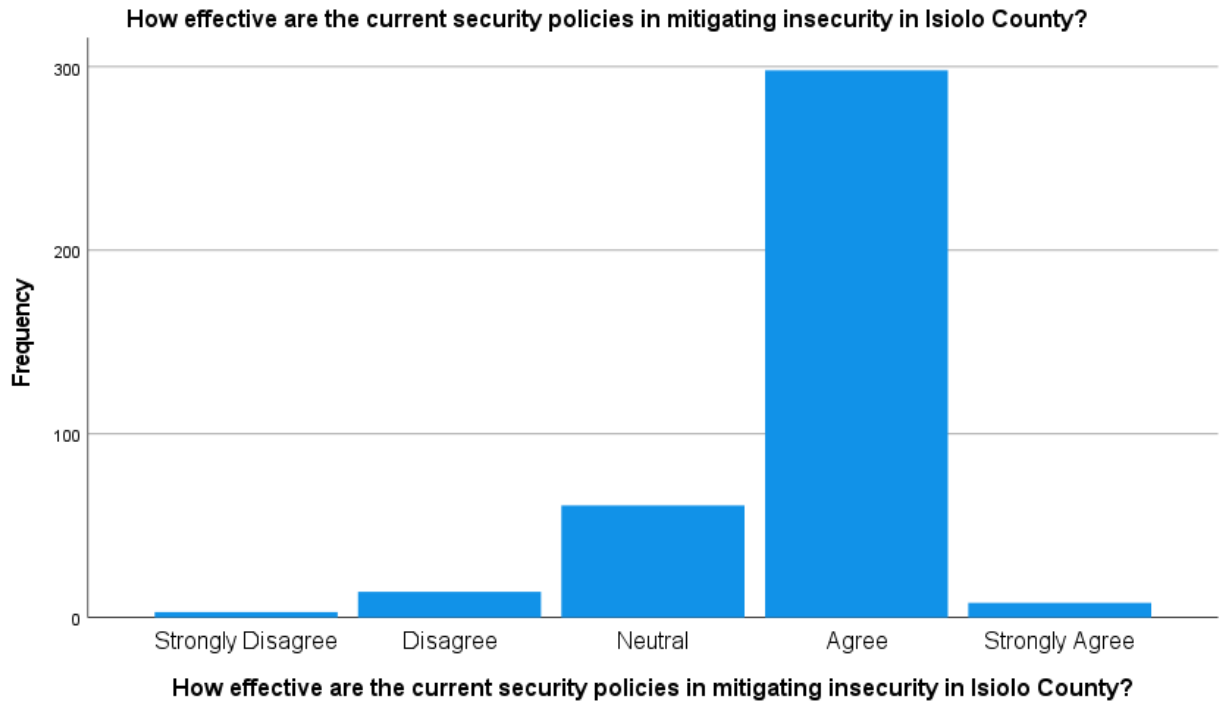
**4.3 Evaluation on security effectiveness on Isiolo’s Food security Variables from the studies**

This section was discussing about each variable that was analyzed from the findings studied from the county of isiolo five regions as stated in chapter

### 4.3.1 Measures of insecurity (policies)

#### How effective are the current security policies in mitigating insecurity in Isiolo County?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	.8	.8	.8
	Disagree	14	3.6	3.6	4.4
	Neutral	61	15.9	15.9	20.3
	Agree	298	77.6	77.6	97.9
	Strongly Agree	8	2.1	2.1	100.0
	Total	384	100.0	100.0	

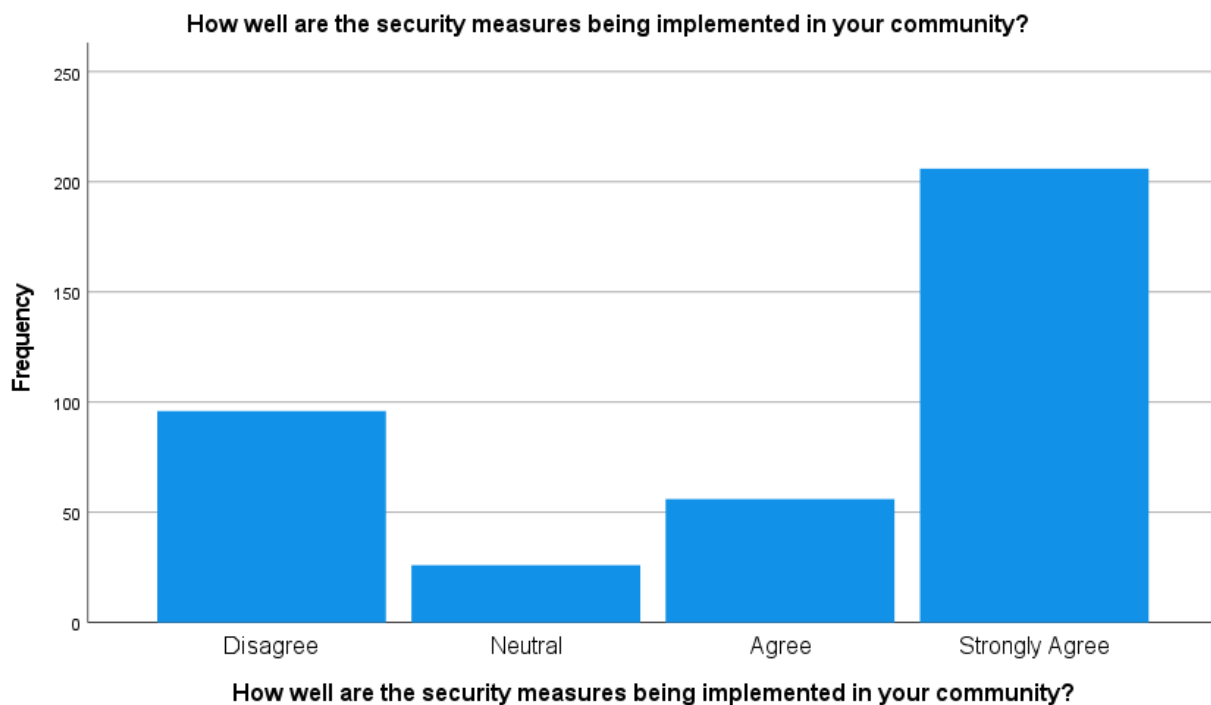


The table assessing the effectiveness of current security policies in mitigating insecurity in Isiolo County shows overwhelmingly positive feedback from respondents. A significant majority, 77.6% (298 respondents), agree that the policies are effective. A smaller portion, 15.9% (61 respondents), are neutral, neither agreeing nor disagreeing. Only a minimal number of respondents disagree, with 3.6% (14 respondents) and 0.8% (3 respondents) strongly disagreeing. Furthermore, 2.1% (8 respondents) strongly agree with the effectiveness of the policies. This distribution indicates that the current security policies are largely perceived as

effective by the community, though the given % pertaining as long the population remains unconvinced or neutral about their impact.

**How well are the security measures being implemented in your community?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	96	25.0	25.0	25.0
	Neutral	26	6.8	6.8	31.8
	Agree	56	14.6	14.6	46.4
	Strongly Agree	206	53.6	53.6	100.0
	Total	384	100.0	100.0	

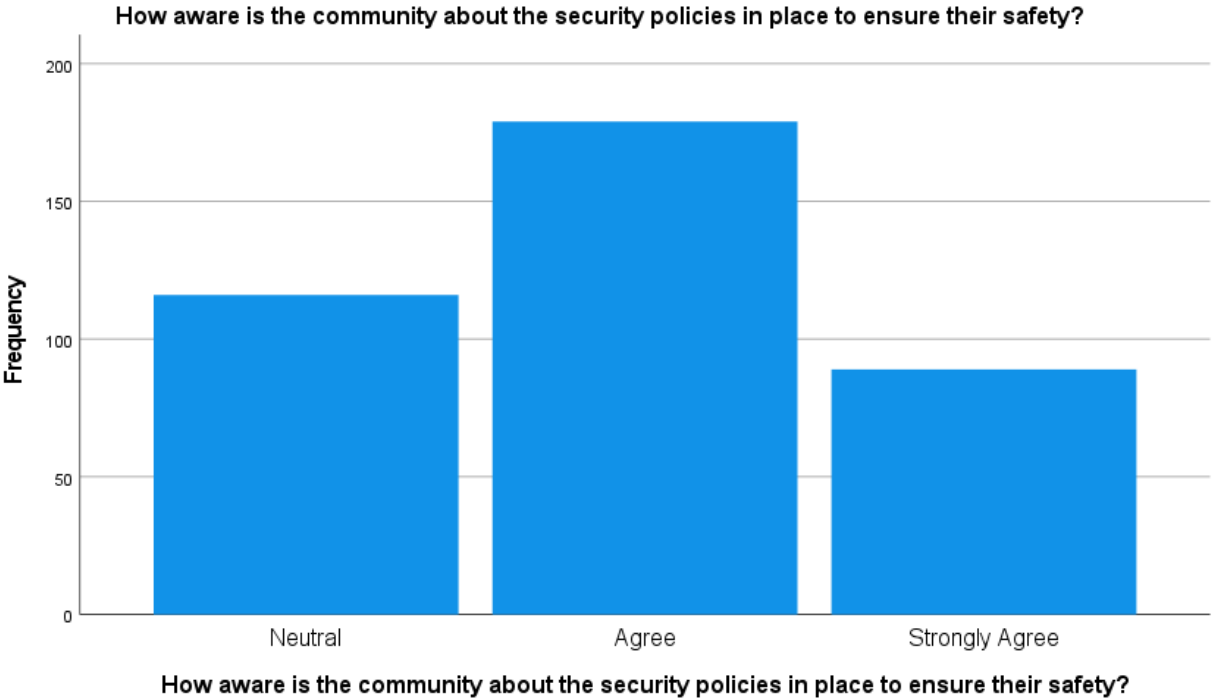


The table evaluating the implementation of security measures in the community reveals mixed but predominantly positive opinions among respondents in Isiolo County. A majority of 53.6% (206 respondents) strongly agree that security measures are well implemented, while an additional 14.6% (56 respondents) agree. This indicates that approximately 68.2% of respondents view the implementation positively. However, a significant minority, 25.0% (96 respondents), disagree, suggesting notable concerns or dissatisfaction among a quarter of the population. Only

6.8% (26 respondents) remain neutral. This distribution highlights a general approval of the security measures but also underscores the need to address the concerns of the dissatisfied minority to ensure comprehensive community support and effective implementation.

**How aware is the community about the security policies in place to ensure their safety?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	116	30.2	30.2	30.2
	Agree	179	46.6	46.6	76.8
	Strongly Agree	89	23.2	23.2	100.0
	Total	384	100.0	100.0	



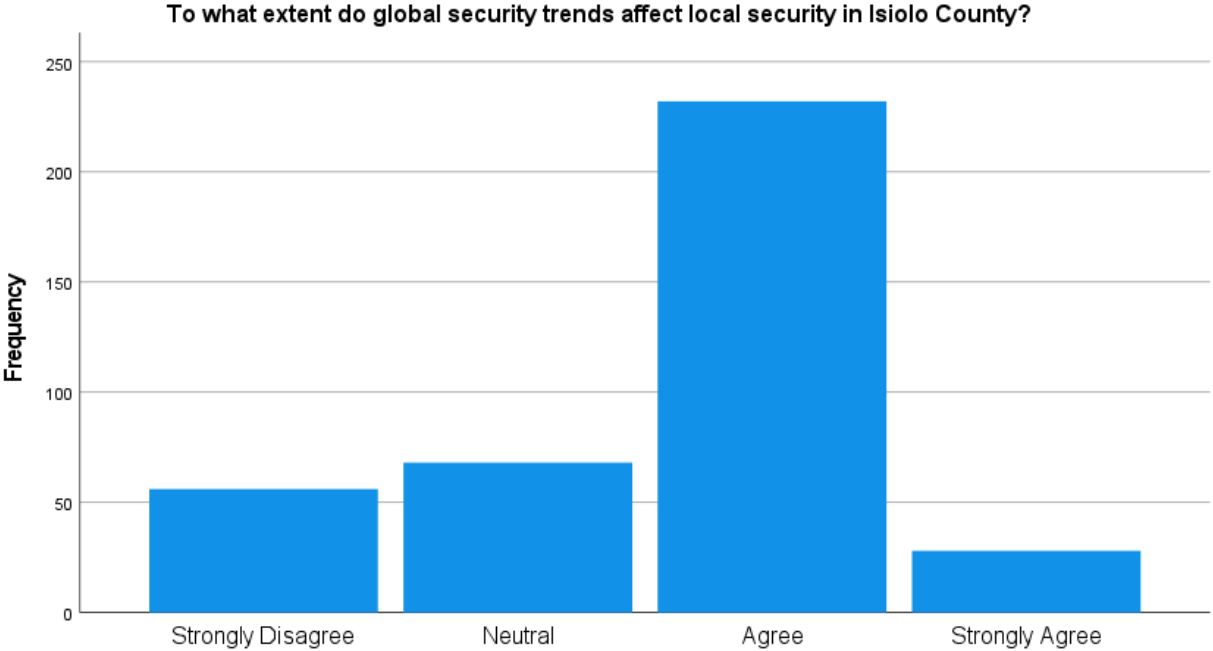
The table assessing community awareness of security policies in Isiolo County indicates varying levels of awareness among respondents. The majority, 46.6% (179 respondents), agree that they are aware of the security policies in place, while 23.2% (89 respondents) strongly agree, collectively suggesting that nearly 70% of the community feels informed about the policies. However, a significant portion, 30.2% (116 respondents), remains neutral, neither agreeing nor disagreeing. This suggests that while most of the community feels aware of the security policies,

there is still a considerable segment that is uncertain about their awareness, highlighting the need for improved communication and education about these policies to ensure comprehensive community understanding and engagement.

**4.3.2 Trends of global in security (security factor)**

**To what extent do global security trends affect local security in Isiolo County?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	56	14.6	14.6	14.6
	Neutral	68	17.7	17.7	32.3
	Agree	232	60.4	60.4	92.7
	Strongly Agree	28	7.3	7.3	100.0
	Total	384	100.0	100.0	



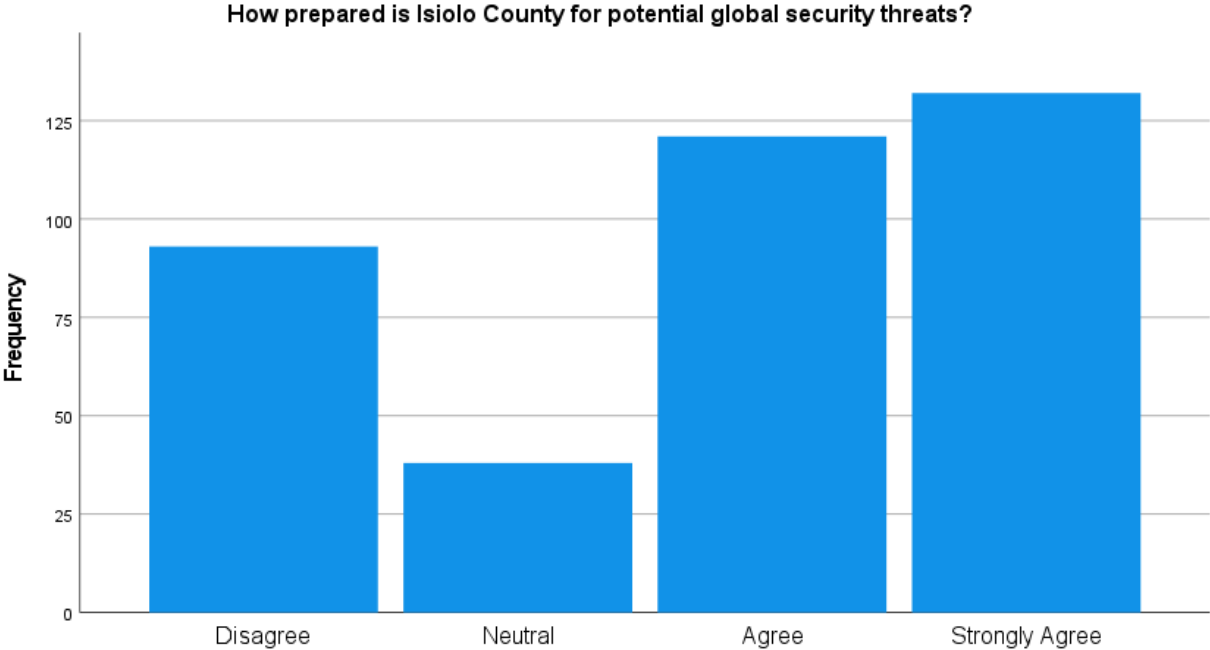
**To what extent do global security trends affect local security in Isiolo County?**

The table assessing the extent to which global security trends affect local security in Isiolo County presents a predominantly affirmative view among respondents. A significant majority, 60.4% (232 respondents), agree that global security trends impact local security, while an additional 7.3% (28 respondents) strongly agree. This indicates that nearly 68% of respondents recognize the influence of global trends on local security conditions. However, 17.7% (68

respondents) remain neutral, suggesting some uncertainty or lack of opinion on the matter. Meanwhile, 14.6% (56 respondents) strongly disagree, indicating a notable segment of the population does not perceive a connection between global and local security issues. This distribution highlights the general consensus on the impact of global security trends while also pointing to a significant minority that either disagrees or is uncertain, suggesting areas where further information and education might be beneficial.

**How prepared is Isiolo County for potential global security threats?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	93	24.2	24.2	24.2
	Neutral	38	9.9	9.9	34.1
	Agree	121	31.5	31.5	65.6
	Strongly Agree	132	34.4	34.4	100.0
	Total	384	100.0	100.0	



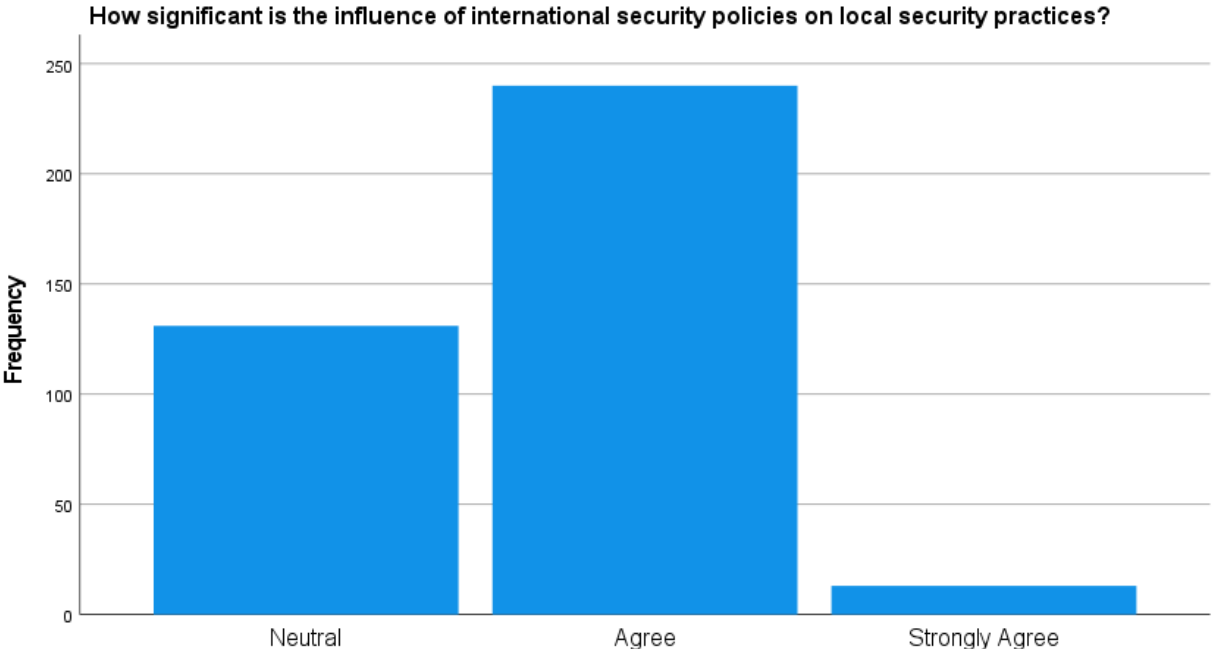
**How prepared is Isiolo County for potential global security threats?**

The table assessing Isiolo County's preparedness for potential global security threats reveals a generally positive outlook among respondents. A combined 65.9% (253 respondents) either agree (31.5%) or strongly agree (34.4%) that the county is prepared, indicating a majority

confidence in the local readiness for global security challenges. However, 24.2% (93 respondents) disagree, highlighting a significant portion of the population that perceives a lack of preparedness. Additionally, 9.9% (38 respondents) are neutral, neither agreeing nor disagreeing. This distribution shows that while there is a majority belief in the county's preparedness, there is still a substantial minority expressing doubts or uncertainty, pointing to considerable sectors of pulling up some few strings make things get going in communication and readiness strategies to bolster overall community confidence.

**How significant is the influence of international security policies on local security practices?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	131	34.1	34.1	34.1
	Agree	240	62.5	62.5	96.6
	Strongly Agree	13	3.4	3.4	100.0
	Total	384	100.0	100.0	



**How significant is the influence of international security policies on local security practices?**

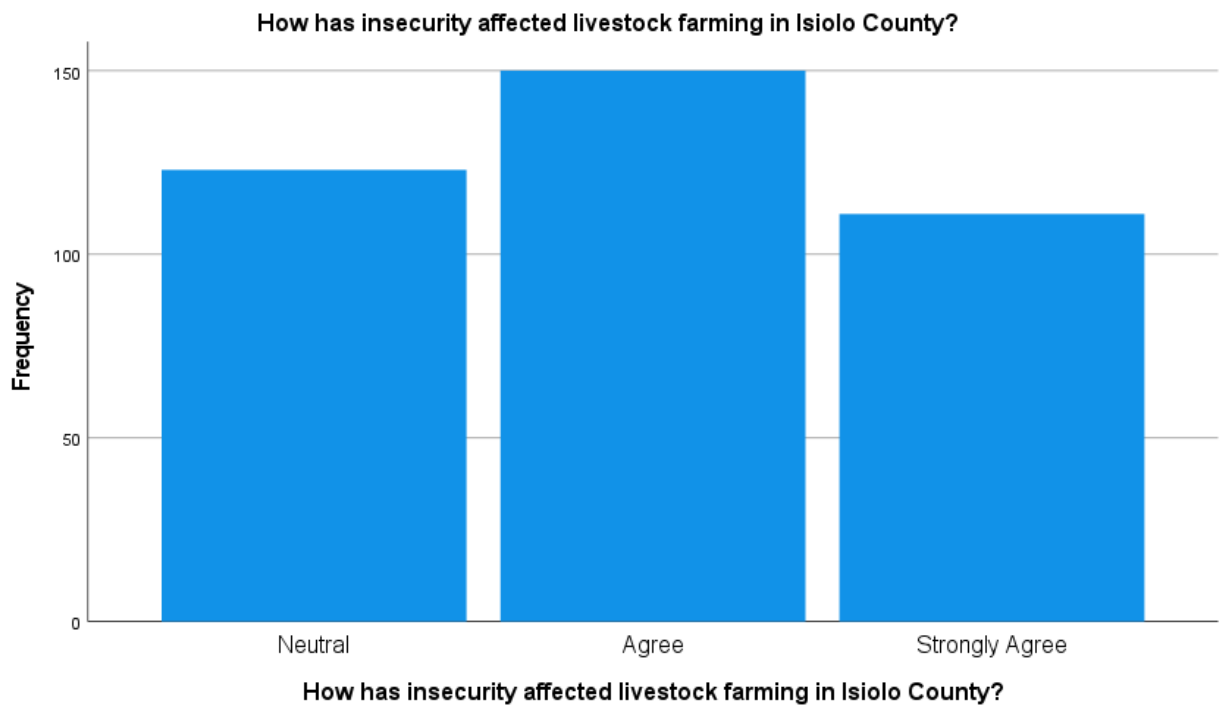
The table assessing the significance of international security policies on local security practices in Isiolo County shows a strong agreement among respondents on the influence of these policies.

A majority of 62.5% (240 respondents) agree that international security policies significantly impact local practices, while 3.4% (13 respondents) strongly agree, totaling approximately 66% in favor of the significant influence. However, 34.1% (131 respondents) remain neutral, indicating that a substantial portion of the population neither agrees nor disagrees with the statement. This distribution suggests a general recognition of the importance of international security policies in shaping local practices, but also highlights the need for increased awareness and understanding among the neutral respondents to ensure a more cohesive perspective on the matter.

### 4.3.3 Insecurity and their effects on pastoralism and agriculture (social economic factor)

#### How has insecurity affected livestock farming in Isiolo County?

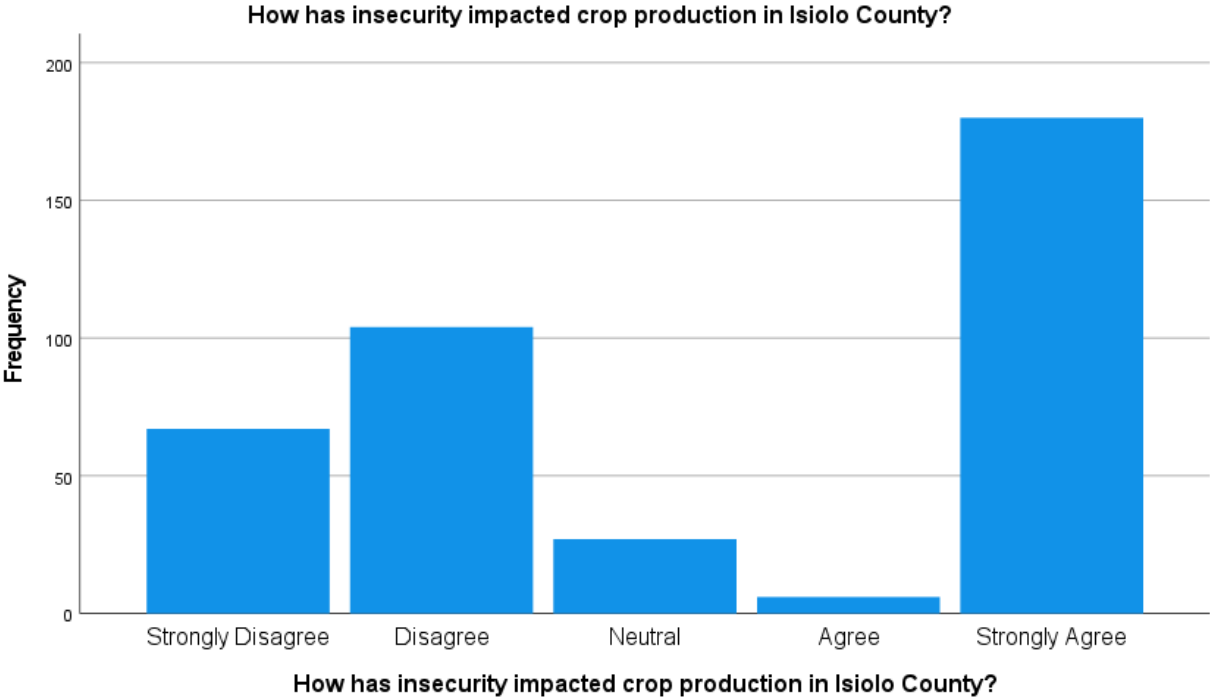
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	123	32.0	32.0	32.0
	Agree	150	39.1	39.1	71.1
	Strongly Agree	111	28.9	28.9	100.0
	Total	384	100.0	100.0	



The data reveals that insecurity is perceived to have a considerable impact on livestock farming in Isiolo County, with 68% of respondents (Agree and Strongly Agree combined) indicating a clear negative effect. This indicates that addressing security issues could be crucial for the improvement and stability of livestock farming in the region. The high level of agreement highlights the importance of targeted interventions to enhance security and support the agricultural sector in Isiolo County.

**How has insecurity impacted crop production in Isiolo County?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	67	17.4	17.4	17.4
	Disagree	104	27.1	27.1	44.5
	Neutral	27	7.0	7.0	51.6
	Agree	6	1.6	1.6	53.1
	Strongly Agree	180	46.9	46.9	100.0
	Total	384	100.0	100.0	

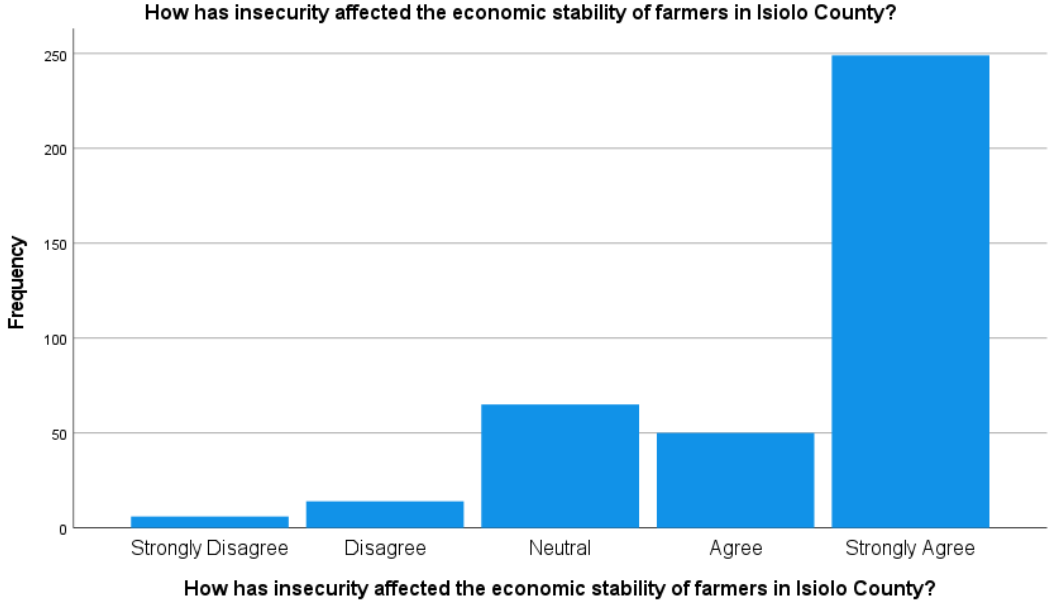


The data on the impact of insecurity on crop production in Isiolo County shows a diverse range of opinions among respondents. A significant 46.9% strongly agree that insecurity has affected

crop production, highlighting a major concern among nearly half of the respondents. Additionally, 1.6% conclude that they agree to notion, bringing the total to 48.5% who acknowledge a negative impact. Conversely, 17.4% strongly disagree, and 27.1% disagree, indicating that 44.5% of respondents do not see insecurity as a major issue affecting crop production. Only 7.0% are neutral, reflecting uncertainty or mixed feelings. The cumulative data suggest a divided perspective, with a slight majority recognizing insecurity's detrimental effects on crop production, underscoring the need for improved security measures to enhance agricultural productivity and food security in Isiolo County.

**How has insecurity affected the economic stability of farmers in Isiolo County?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	6	1.6	1.6	1.6
Disagree	14	3.6	3.6	5.2
Neutral	65	16.9	16.9	22.1
Agree	50	13.0	13.0	35.2
Strongly Agree	249	64.8	64.8	100.0
Total	384	100.0	100.0	

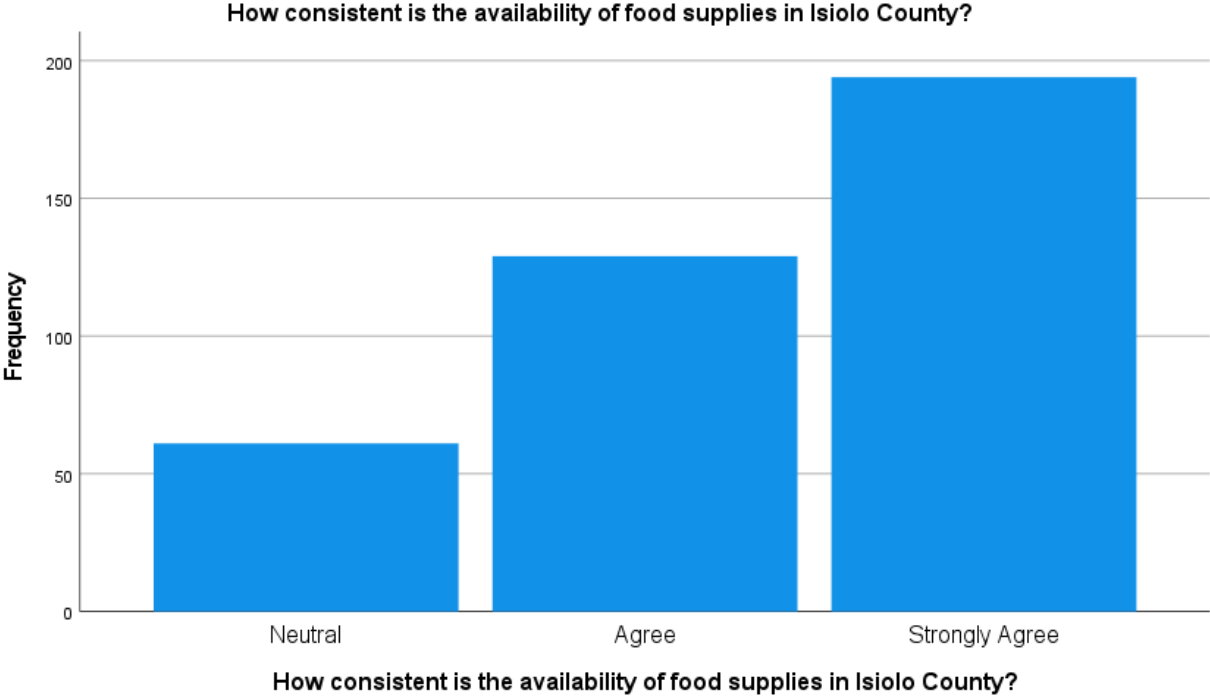


The data indicates a clear consensus that insecurity has significantly affected the economic stability of farmers in Isiolo County, with 77.8% of respondents agreeing or strongly agreeing, and 64.8% strongly agreeing. Only a small fraction (5.2%) disagrees or strongly disagrees, while 16.9% are neutral. This strong agreement highlights that insecurity poses a substantial threat to farmers' economic well-being, underscoring the urgent need for interventions to improve security and support the economic resilience of the farming community in the region.

**4.3.4 Food Security**

**How consistent is the availability of food supplies in Isiolo County?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	61	15.9	15.9	15.9
	Agree	129	33.6	33.6	49.5
	Strongly Agree	194	50.5	50.5	100.0
	Total	384	100.0	100.0	

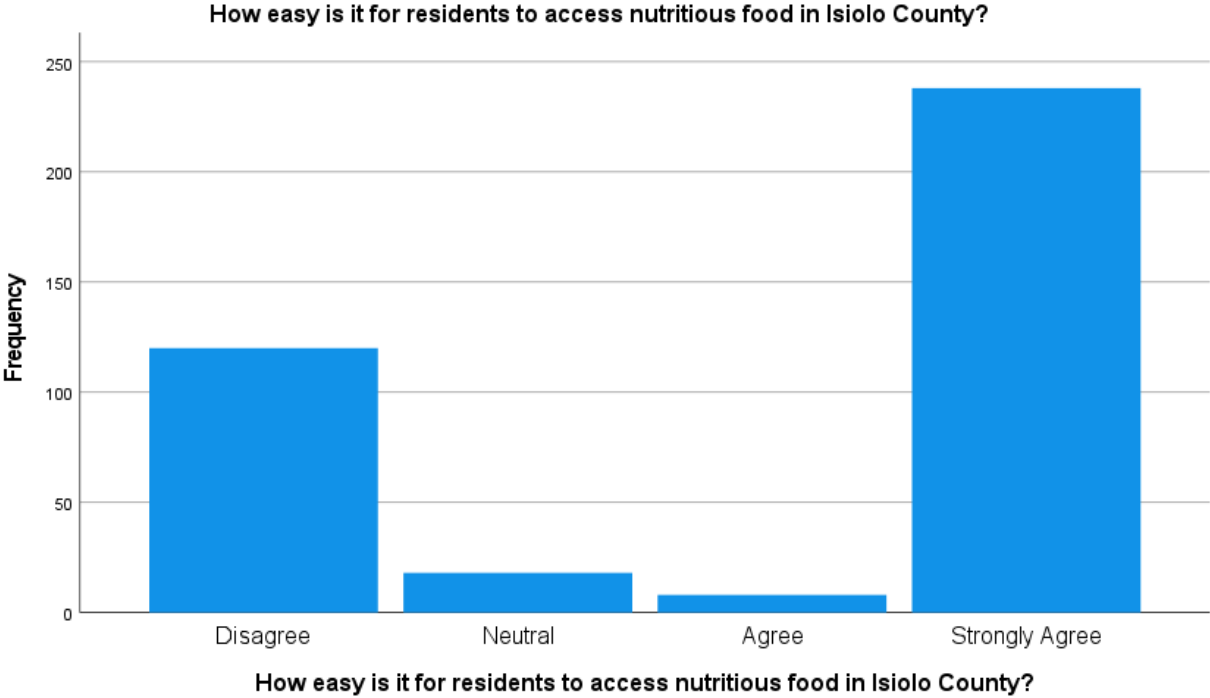


The data indicates that the majority of respondents (84.1%) agree or strongly agree that food supplies are consistently available in Isiolo County, with 50.5% expressing strong agreement.

Meanwhile, 15.9% of respondent are rated neutral in the scale, showing major variance in experiences or perceptions. Overall, the prevailing belief is that food supply reliability in the region is positive, though a smaller portion remains uncertain.

**How easy is it for residents to access nutritious food in Isiolo County?**

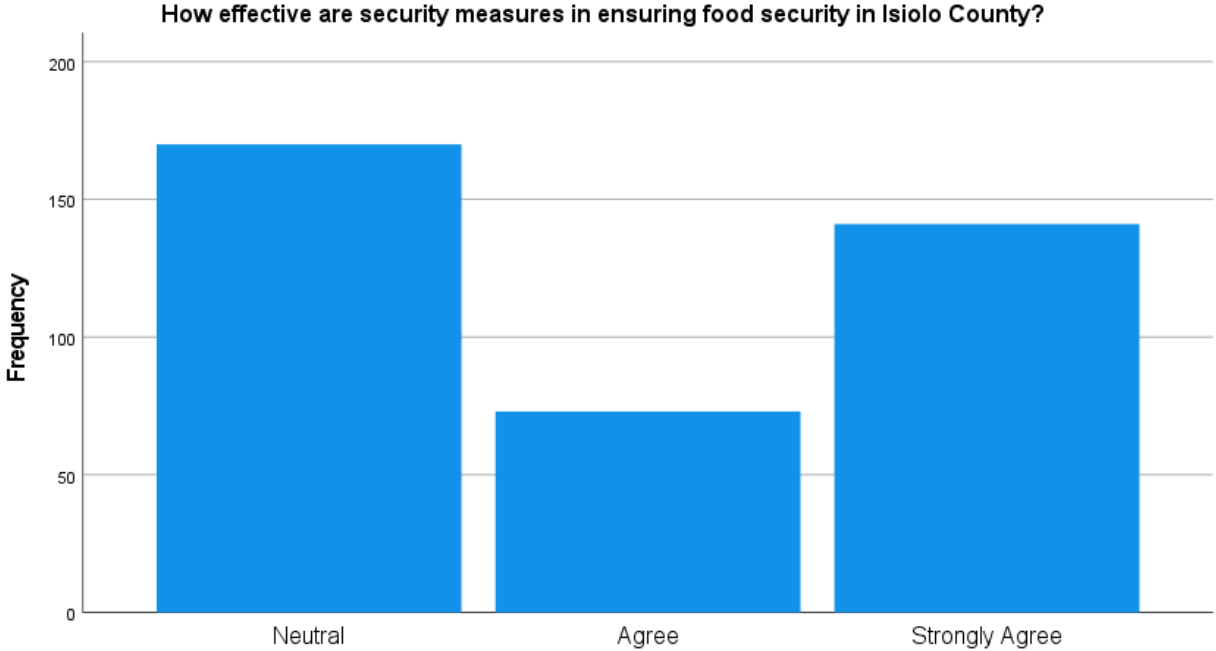
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	120	31.3	31.3	31.3
	Neutral	18	4.7	4.7	35.9
	Agree	8	2.1	2.1	38.0
	Strongly Agree	238	62.0	62.0	100.0
	Total	384	100.0	100.0	



The data indicates that accessing nutritious food in Isiolo County is generally perceived as difficult, with 31.3% of respondents disagreeing and a significant 62.0% strongly agreeing that it is easy. Only 2.1% agree, and 4.7% are neutral. This suggests that while a small minority finds it easy to access nutritious food, the overwhelming majority believes it is a challenge.

**How effective are security measures in ensuring food security in Isiolo County?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	170	44.3	44.3	44.3
	Agree	73	19.0	19.0	63.3
	Strongly Agree	141	36.7	36.7	100.0
	Total	384	100.0	100.0	



**How effective are security measures in ensuring food security in Isiolo County?**

The data indicates that perceptions of the effectiveness of security measures in ensuring food security in Isiolo County are mixed. A significant portion of respondents (44.3%) are neutral, suggesting uncertainty or mixed experiences regarding the impact of security measures. However, a combined 55.7% of respondents view security measures as effective, with 19.0% agreeing and 36.7% strongly agreeing. This suggests that while a large number of residents are uncertain, a majority believes that security measures positively contribute to food security in the region.

**4.4 relationship on the Level of education against those who have responded**

**Correlations**

		education level	Measures of insecurity
education level	Pearson Correlation	1	.966**
	Sig. (2-tailed)		.000
	N	384	384
Measures of insecurity	Pearson Correlation	.966**	1
	Sig. (2-tailed)	.000	
	N	384	384

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The correlation data indicates a very strong positive relationship between the level of education and measures of insecurity, with a Pearson correlation coefficient of 0.966. This high correlation is statistically significant at the 0.01 level, as indicated by the significance value (Sig. (2-tailed)) of 0.000. The sample size for both variables is 384. This suggests that higher levels of education are strongly associated with higher awareness or perception of insecurity measures among the respondents.

### Measures of security and trends of global in security

#### Correlations

		Measures of insecurity	Trends of global in security
Measures of insecurity	Pearson Correlation	1	.842**
	Sig. (2-tailed)		.000
	N	384	384
Trends of global in security	Pearson Correlation	.842**	1
	Sig. (2-tailed)	.000	
	N	384	384

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The correlation data reveals a strong positive relationship between measures of insecurity and trends of global insecurity, with a Pearson correlation coefficient of 0.842. This correlation is statistically significant at the 0.01 level, as indicated by the significance value (Sig. (2-tailed)) of 0.000. The sample size for both variables is 384. This strong correlation suggests that local measures of insecurity are closely related to global trends in insecurity, indicating that perceptions or occurrences of insecurity at the local level may reflect broader global security trends.

### **Trends of global security with the in relations to Insecurity and its effects on the pastoralism and agriculture**

#### **Correlations**

	Trends of global security	Insecurity and its effects on pastoralism and agriculture
Trends of global in security	1	.898**
Pearson Correlation		
Sig. (2-tailed)		.000
N	384	384
Insecurity and its effects on pastoralism and agriculture	.898**	1
Pearson Correlation		
Sig. (2-tailed)	.000	
N	384	384

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The analysis reveals a very strong positive correlation ( $r = 0.898$ ) between "Trends of global insecurity" and "Insecurity and its effects on pastoralism and agriculture," with a significance level of 0.000. This indicates a highly significant relationship, meaning as global insecurity trends increase, the negative impacts on pastoralism and agriculture also significantly rise. The large sample size of 384 supports the reliability of these results. This strong correlation underscores the importance of considering global insecurity when addressing challenges in pastoralism and agriculture, highlighting the need for targeted policies and further research to mitigate these effects.

## Insecurity and its effects on pastoralism and Food security

### Correlations

		Insecurity and its effects on pastoralism and agriculture	Food security
Insecurity and its effects on pastoralism and agriculture	Pearson Correlation	1	.942**
	Sig. (2-tailed)		.000
	N	384	384
Food security	Pearson Correlation	.942**	1
	Sig. (2-tailed)	.000	
	N	384	384

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The correlation table shows a very strong positive correlation ( $r = 0.942$ ) between "Insecurity and its effects on pastoralism and agriculture" and "Food security," with a significance level of 0.000. This indicates a statistically significant relationship, meaning that as insecurity negatively impacts pastoralism and agriculture, food security also deteriorates significantly. The large sample size of 384 lends credibility to these results, underscoring the profound effect of insecurity on food security and highlighting the importance of addressing these issues to improve overall food security.

### 4.5 Correlations against on the dependent variable and independent variables

#### Correlations

		Food security	Measures of insecurity	Trends of global security	Insecurity and its effects on pastoralism and agriculture
Pearson Correlation	Food security	1.000	.800	.822	.942
	Measures of insecurity	.800	1.000	.842	.843

	Trends of global in security	.822	.842	1.000	.898
	Insecurity and its effects on pastoralism and agriculture	.942	.843	.898	1.000
Sig. (1-tailed)	Food security	.	.000	.000	.000
	Measures of insecurity	.000	.	.000	.000
	Trends of global in security	.000	.000	.	.000
	Insecurity and its effects on pastoralism and agriculture	.000	.000	.000	.
N	Food security	384	384	384	384
	Measures of insecurity	384	384	384	384
	Trends of global in security	384	384	384	384
	Insecurity and its effects on pastoralism and agriculture	384	384	384	384

The correlation matrix reveals strong positive relationships between all variables examined: "Food security," "Measures of insecurity," "Trends of global insecurity," and "Insecurity and its effects on pastoralism and agriculture." Specifically, "Food security" correlates strongly with "Insecurity and its effects on pastoralism and agriculture" ( $r = 0.942$ ) and moderately with "Trends of global insecurity" ( $r = 0.822$ ) and "Measures of insecurity" ( $r = 0.800$ ). "Measures of insecurity" and "Trends of global insecurity" also show a strong positive correlation ( $r = 0.842$ ), and "Trends of global insecurity" is highly correlated with "Insecurity and its effects on pastoralism and agriculture" ( $r = 0.898$ ). All correlations are statistically significant ( $p < 0.01$ ), indicating that increased insecurity across various dimensions is closely related to worsening food security and impacts on pastoralism and agriculture. The consistent significance and strong correlations across all variables emphasize the interconnected nature of these issues.

#### 4.6 Regressions

##### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	292.603	3	97.534	1047.385	.000 <sup>b</sup>
	Residual	35.386	380	.093		
	Total	327.990	383			

a. Dependent Variable: Food security

b. Predictors: (Constant), Insecurity and its effects on pastoralism and agriculture, Measures of insecurity, Trends of global in security

The ANOVA table assesses the overall fit of the regression model predicting "Food security" based on "Insecurity and its effects on pastoralism and agriculture," "Measures of insecurity," and "Trends of global insecurity." The regression model explains a substantial amount of variance in food security, with a Sum of Squares for Regression of 292.603 and a Mean Square of 97.534. The F-value of 1047.385 with a significance level of 0.000 indicates that the model is highly significant, suggesting that the predictors collectively have a significant impact on food security. The small Residual Sum of Squares (35.386) and the high F-value underscore the model's strong explanatory power, affirming that the predictors are highly effective in explaining variations in food security.

### Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.269	.083		15.244	.000	1.105	1.432		
	Measures of insecurity	.071	.038	.062	1.847	.066	-.005	.146	.252	3.974
	Trends of global in security	-.168	.046	-.150	-3.648	.000	-.258	-.077	.169	5.926

Insecurity and its effects on pastoralism and agriculture	.814	.033	1.024	24.942	.000	.750	.879	.168	5.942
---	------	------	-------	--------	------	------	------	------	-------

a. Dependent Variable: Food security

The coefficients table reveals the effects of predictors on "Food security." The constant term is significant ( $p = 0.000$ ), indicating a strong base level of food security when predictors are zero. "Measures of insecurity" has a positive but marginally significant effect ( $\beta = 0.062$ ,  $p = 0.066$ ) on food security, with moderate collinearity (Tolerance = 0.252, VIF = 3.974). "Trends of global insecurity" negatively impacts food security significantly ( $\beta = -0.150$ ,  $p = 0.000$ ), with notable collinearity (Tolerance = 0.169, VIF = 5.926). The predictor "Insecurity and its effects on pastoralism and agriculture" has the strongest positive influence ( $\beta = 1.024$ ,  $p = 0.000$ ) on food security, also showing considerable collinearity (Tolerance = 0.168, VIF = 5.942). Overall, these predictors demonstrate varying impacts on food security, with significant collinearity present.

### Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Measures of insecurity	Trends of global security	Insecurity and its effects on pastoralism and agriculture
1	1	3.943	1.000	.00	.00	.00	.00
	2	.044	9.514	.53	.00	.01	.09
	3	.008	22.318	.34	.95	.02	.31
	4	.006	25.663	.13	.05	.97	.60

a. Dependent Variable: Food security

The collinearity diagnostics table assesses the multicollinearity among the predictor variables in relation to the variable that are dependent, food security. The model includes four dimensions, with eigenvalues and condition indices indicating the extent of collinearity. Dimension 1, with an eigenvalue of 3.943 and a condition index of 1.000, shows no significant collinearity issues.

Dimension 2 has a low eigenvalue (.044) and a high condition index (9.514), indicating some degree of collinearity between the predictor variables. Dimension 3 exhibits a moderate eigenvalue (.008) and a condition index of 22.318, suggesting substantial collinearity, particularly affecting the "Measures of insecurity" variable. Dimension 4, with an eigenvalue of .006 and a condition index of 25.663, demonstrates severe collinearity, especially between "Insecurity and its effects on pastoralism and agriculture" and the other predictors. Variance proportions show that, for Dimension 3, the "Measures of insecurity" has the highest contribution to the variance, while for Dimension 4, "Insecurity and its effects on pastoralism and agriculture" is predominant. Overall, dimensions 3 and 4 highlight significant collinearity concerns that could impact the model's reliability.

## **CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter summarizes the findings of the study on evaluation of security effectiveness on food security in Isiolo County including security policies, global security trends, and socio-economic factors on food security. It draws conclusions based on the analysis and provides recommendations for addressing identified issues. Additionally, it suggests areas for future research

### **5.2 Summary**

#### **5.2.1 Measures of Insecurity (Policies)**

The study revealed that the majority of respondents perceive the current security policies in Isiolo County as effective, with a significant proportion believing that these policies are contributing positively to mitigating insecurity. However, there remains a small segment of the population that is either neutral or unconvinced about the effectiveness of these policies. While the implementation of security measures was viewed positively by many, there were notable concerns from a portion of the community regarding their execution. Awareness about security policies was generally high, but there is room for improvement to ensure that all community members are fully informed.

#### **5.2.2 Trends of Global Security (Security Factor)**

Respondents generally agreed that global security trends have a significant impact on local security conditions in Isiolo County. Most believe that global trends influence local insecurity, with some perceiving that the county is adequately prepared for global security threats. Nonetheless, there is a segment of the population that is either neutral or does not perceive a strong connection between global trends and local security. International security policies were also seen as having a substantial effect on local practices, though there is a need for enhanced understanding among those who are neutral or uncertain.

### **5.2.3 Insecurity and Its Effects on Pastoralism and Agriculture (Socio-Economic Factor)**

Insecurity's impact on pastoralism and agriculture was a major concern among respondents. The study indicated that insecurity has a significant adverse effect on livestock farming and crop production in the region. The economic stability of farmers has been notably affected, underscoring the critical need for improved security measures to support the agricultural sector. The correlation between insecurity and its effects on food security was strong, indicating that addressing insecurity could improve food security outcomes.

### **5.3 Conclusion**

The study concludes that while security policies and measures in Isiolo County are generally viewed as effective, there are areas needing improvement, particularly in implementation and community awareness. Global security trends and international policies are perceived to influence local security, suggesting that broader security contexts should be considered in local policy formulation. Insecurity significantly impacts pastoralism, agriculture, and food security, highlighting the urgent need for targeted interventions to support the agricultural sector and improve overall food security.

### **5.4 Recommendation**

To address the findings of the study, several key recommendations emerge. Firstly, there is a need to enhance the implementation and communication of security policies. Improving the execution of these measures and ensuring comprehensive communication helped ensure that all community members are well-informed about the policies and their benefits. Additionally, strengthening local security measures is crucial; addressing the concerns of those who are dissatisfied with current measures and increasing community engagement fostered better support and effectiveness.

Another important recommendation is to integrate global security trends into local policy-making. By considering the influence of global trends, local authorities can better prepare for and mitigate their impact on local security conditions. In terms of supporting the agricultural sector, targeted interventions should be developed to protect pastoralism and agriculture, with a focus on improving security to enhance economic stability and food security for farmers.

Improving food security should be a priority by ensuring the consistent availability and accessibility of nutritious food, which requires addressing the challenges posed by insecurity. Overall, these recommendations aim to create a more secure and stable environment for the community, with particular attention to the sectors most affected by insecurity.

### **5.5 Recommendation for further studies**

**Detailed Analysis of Policy Effectiveness:** Conduct in-depth studies to assess the specific aspects of security policies that are perceived as effective or ineffective, and explore ways to improve policy implementation.

**Impact of Global Trends on Local Security:** Investigate how different aspects of global security trends affect various local security dimensions and identify strategies for mitigating these effects.

**Longitudinal Study on Socio-Economic Impacts:** Perform longitudinal research to track changes in the socio-economic impacts of insecurity over time and evaluate the long-term effectiveness of interventions.

**Community Perceptions and Awareness:** Explore in greater detail the factors influencing community perceptions and awareness of security policies to develop more effective communication and education strategies.

**Sector-Specific Security Measures:** Examine the needs and challenges faced by specific sectors, such as pastoralism and agriculture, in relation to security, to design more targeted and sector-specific security measures.

## References

- Adenle, A. A., Wedig, K., & Azadi, H. (2019). Sustainable agriculture and food security in Africa: The role of innovative technologies and international organizations. *Technology in Society, 58*, 101143
- Autio, A., Johansson, T., Motaroki, L., Minoia, P., & Pellikka, P. (2021). Constraints for adopting climate-smart agricultural practices among smallholder farmers in Southeast Kenya. *Agricultural Systems, 194*, 103284
- Autio, A., Johansson, T., Motaroki, L., Minoia, P., & Pellikka, P. (2021). Constraints for adopting climate-smart agricultural practices among smallholder farmers in Southeast Kenya. *Agricultural Systems, 194*, 103284.
- Gakuria, A. R. (2013). *Natural resource based conflict among pastoralist communities in Kenya* (Doctoral dissertation, University of Nairobi)
- Gil, J. D. B., Reidsma, P., Giller, K., Todman, L., Whitmore, A., & van Ittersum, M. (2019). Sustainable development goal 2: Improved targets and indicators for agriculture and food security. *Ambio, 48*(7), 685-698
- Johnson, H. (2018). *International agricultural law and policy: a rights-based approach to food security*. Edward Elgar Publishing.
- Khainga, D. N., Obare, G., & Nyangena, J. (2018). Estimating pastoralists willingness to pay for artificial insemination in arid and semi-arid lands of Kenya. *Journal of Development and Agricultural Economics, 10*(8), 262-270.
- Kinyanjui, R., & Obare, G. (2020). Land conflicts and their impact on agricultural productivity in Isiolo County, Kenya. *Land Use Policy, 99*, 104944.
- Limiri, M. G. (2022). *Natural Resources Conflict in Kenya the Case of Meru and Borana in Isiolo County, 2008-2019* (Doctoral dissertation, University of Nairobi).

- Ma, W., Jiang, G., Chen, Y., Qu, Y., Zhou, T., & Li, W. (2020). How feasible is regional integration for reconciling land use conflicts across the urban–rural interface? Evidence from Beijing–Tianjin–Hebei metropolitan region in China. *Land Use Policy*, 92, 104433.
- Mutie, S. S. (2017). *Household Characteristics, Farm Use Practices and Effect on Household Food Security in Kathonzweni Sub-county, Makueni County* (Doctoral dissertation, University of Nairobi).
- Mutungu, E. (2023). Farmers' vulnerability to climate variability and extreme climate events in different agro-ecological zones in Kitui County, Kenya. <https://repository.seku.ac.ke/handle/123456789/7228>
- Nyangena, J. (2018). *Drought, Land Use Change and Livelihood Diversification among Pastoral Communities in Oltiasika, Kajiado County, Kenya*. <https://ir-library.ku.ac.ke/handle/123456789/19856>
- Yu, J., & Wu, J. (2018). The sustainability of agricultural development in China: The agriculture–environment nexus. *Sustainability*, 10(6), 1776...