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CLIMATE CHANGE AND GENDER BASED VIOLENCE: EXPLORING VULNERABILITIES AND IMPACT ON WOMEN IN MATAPATO SOUTH WARD, KAJIADO COUNTY, KENYA

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER'S OF DEVELOPMENT STUDIES, SUBMITTED TO THE SCHOOL OF EDUCATION AND SOCIAL SCIENCES ST. PAUL'S UNIVERSITY

MARCH 2026

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DECLARATION

This dissertation is the product of my work and not the result of any collaboration. It has not been previously presented to any other institution.

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DEDICATION

I dedicate this dissertation to the women and girls of Matapato South Ward and other climate-vulnerable pastoral communities, whose strength, resilience, and courage in the face of adversity inspired every aspect of this work. Your stories of perseverance guided the purpose of this study.

I also dedicate this work to my parents, Amos Orguba and Nicoleta Orguba, for their unwavering love, guidance, and support throughout my life and academic journey. Your belief in me has been my foundation and greatest source of strength.

I am also thankful to my colleagues, friends, and mentors for their encouragement, stimulating discussions, and unwavering support throughout the research process.

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ACKNOWLEGEMENT

I am profoundly grateful to all those who supported me throughout this journey. My deepest appreciation goes to my supervisors, Dr Daniel Muasya and Professor David Gichuhi, for their guidance, patience, and invaluable insights, which helped shape this research and refine my thinking.

I owe special thanks to the women, community elders, local administrators, healthcare workers, law enforcement officers, and NGO representatives of Matapato South Ward. Your willingness to share your experiences, perspectives, and knowledge made this study possible and meaningful.

Finally, I acknowledge the academic community and institutions whose resources, frameworks, and research guidance provided a foundation for this work. This dissertation is a product of collective inspiration, mentorship, and support, and I am deeply grateful to all who contributed.

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ABSTRACT

Gender-based violence (GBV) remains a critical social challenge in climate-vulnerable pastoral communities, where environmental stressors intersect with gender inequalities. This study, grounded in EcoFeminist Theory and Social Vulnerability and Resource Scarcity and Conflict Theory, examined how climate change outcomes influence GBV against women in Matapato South Ward, Kajiado County, Kenya. EcoFeminist Theory highlights how gendered power imbalances increase women's vulnerability, while Social Vulnerability and Resource Scarcity and Conflict Theory frames how environmental shocks compromise social and household stability. The study targeted women and key stakeholders, including community elders, local administrators, healthcare workers, law enforcement officers, and NGO representatives addressing climate change and GBV, with a total population of 194 women and 62 stakeholders. Using Yamane's formula, a sample of 131 women and 44 stakeholders was selected. Cluster and purposive sampling ensured balanced representation. Data were collected through structured questionnaires and key informant interviews. Quantitative data were analyzed descriptively, and qualitative data were analyzed thematically. Findings reveal strong theoretical and empirical links between climate stressors and GBV. Consistent with Feminist Theory, 95.9% of respondents reported that drought-related water scarcity leads to household conflicts, reflecting how resource scarcity exacerbates gendered power tensions. Pasture shortages were cited by 98.0% as increasing domestic violence, while 93.9% indicated that food insecurity intensifies household disputes. Supporting Vulnerability/Resilience Theory, 92.9% reported that drought-induced migration exposes women to sexual violence, highlighting how mobility under climate stress heightens vulnerability. Overall, 92.9% affirmed that climate stressors increase GBV in their communities. The study concludes that climate-induced water, pasture, and food scarcity, along with migration, intensify GBV risks, including household disputes, emotional abuse, sexual violence, and exploitative relationships. These findings underscore the gendered security implications of climate change and the need for targeted interventions to reduce GBV, enhance community resilience, and protect women in pastoralist settings.

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LIST OF ABBREVIATIONS

ASAL- Arid and Semi

GBV- Gender Based Violence

IDP- Internally Displaced Persons

IPV- Intimate Partner Violence

SGBV -Sexual Gender Based Violence

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Gender-Based Violence (GBV) is defined by the World Health Organization (WHO, 2021**)** as "any harmful act directed against individuals or groups of individuals based on their gender," encompassing physical, sexual, psychological, or economic harm. Similarly, UN Women (2020) specifies GBV against women as violence rooted in gender inequality, power imbalance, and discrimination, often manifesting in domestic abuse, sexual exploitation, forced marriages, and trafficking. GBV is both a human rights violation and a public health issue with long-lasting physical and emotional impacts.

Climate change, as defined by the Intergovernmental Panel on Climate Change (IPCC, 2022), refers to long-term shifts in temperatures and weather patterns primarily caused by human activities, such as the burning of fossil fuels. These shifts are contributing to an increase in the frequency and severity of weather events, such as droughts, floods, storms, and heat waves. Importantly, climate change interacts with existing vulnerabilities such as poverty, marginalization, and weak governance to exacerbate social and economic inequalities, including those related to gender.

The intersection between climate-induced vulnerability and GBV is gaining increasing global attention. Climate-induced vulnerability refers to the heightened exposure and sensitivity of individuals, especially women, to the negative impacts of climate change due to social, economic, and political disadvantage (IPCC, 2022). In the United States, climate disasters like Hurricane Katrina led to a 98% spike in intimate partner violence (IPV) in affected areas (Anastario, Larrance, & Lawry, 2009). Studies show that women, particularly those from low-income or Indigenous communities, face increased risks of GBV due to displacement, loss of income, and weakened social safety nets following environmental disasters (Fothergill & Peek,

2015; Houghton & Weitzman, 2021). Overcrowded shelters and a lack of privacy during such crises further expose women to sexual exploitation and abuse (McMichael, 2020).

In Europe, and specifically in the United Kingdom, similar trends have emerged. Flooding, heatwaves, and other climate shocks have resulted in job losses, homelessness, and displacements that disproportionately affect women. Reports indicate that following the 2013–2014 winter floods in the UK, domestic violence cases spiked due to increased household stress and displacement (Sims et al., 2018). Vulnerable women, especially migrants and low-income earners, face additional risks due to reduced access to legal aid, emergency accommodation, and mental health support (Walker et al., 2020; Lindley & O'Neill, 2021). These findings affirm that climate-induced stressors magnify pre-existing gender disparities and place women at greater risk of violence (Gibbs et al., 2021).

In Asia, the link between climate disasters and GBV is equally documented. After the 2011 Great East Japan Earthquake, there was a surge in IPV and sexual harassment in temporary evacuation shelters, particularly affecting women in rural and coastal areas (Shimizu & Clark, 2015). Traditional gender norms, limited income opportunities, and weak disaster preparedness contribute to these heightened risks (Tanaka, 2018). Research shows that financial hardship forces many women into precarious labour or unsafe migration, exposing them to human trafficking and abuse (Fujikura & Kawanishi, 2021; Yamamoto & Takahashi, 2020). These patterns confirm the need for gender-sensitive disaster responses and stronger protections for women in disaster-prone regions (Hashimoto & Yamazaki, 2022).

In Africa, climate change is worsening gender inequalities in fragile states such as Nigeria. Prolonged droughts and flooding have destroyed livelihoods, especially in agrarian and pastoralist communities. This environmental degradation intensifies competition for limited resources, often resulting in domestic violence, early and forced marriages, and sexual exploitation (Ajibade et al., 2020). In displacement camps, overcrowding and lack of security leave women and girls at high risk of trafficking and GBV (Okoli & Nnorom, 2021). Additionally, armed groups in the Sahel region have exploited climate insecurity to commit gender-based crimes, including rape and forced marriage (Oladipo, 2019). Socio-economic dependence, cultural norms, and weak institutional frameworks further marginalize women and

limit their ability to escape abusive environments (Ogunbode et al., 2022; Adelekan & Fadairo, 2021).

In Kenya, the impacts of climate change have become increasingly pronounced, particularly in arid and semi-arid lands (ASALs**)** such as Matapato South in Kajiado County. Erratic rainfall, prolonged droughts, and extreme weather events have led to widespread water and food scarcity, loss of livelihoods, displacement, and intensified household stress—all of which contribute to increased GBV against women. Studies show that in ASAL regions, climate-induced scarcity of water and pasture fuels conflict and economic insecurity, exacerbating domestic abuse, sexual violence, and early marriages (Omolo & Mafongoya, 2019; Mwangi & Wanjiru, 2021). Women and girls are often forced to walk longer distances in search of water, exposing them to risks of sexual harassment or assault. In displacement settings, overcrowded shelters and a lack of privacy increase vulnerability to GBV (Otieno et al., 2022). Additionally, economic hardship compels some women to engage in transactional sex for survival, further compounding their exposure to exploitation and health risks (Kariuki & Maina, 2020).

Despite growing recognition of these challenges, there remains a significant knowledge gap regarding the specific dynamics between climate change and GBV in local contexts like Matapato South. This study sought to bridge that gap by analyzing the extent to which climate-induced resource scarcity, displacement, and food insecurity contribute to the prevalence of GBV against women. The findings aim to inform gender-sensitive climate adaptation policies and strengthen GBV prevention mechanisms tailored to climate-stressed communities.

1.2 Statement of the Problem

Climate change has emerged as a critical global challenge with profound socio-economic consequences, particularly for women in developing countries. A growing body of empirical literature has established a strong relationship between climate-induced stressors such as prolonged droughts, water scarcity, food insecurity, displacement, and increased incidences of gender-based violence (GBV) against women. Studies across diverse contexts demonstrate that climate shocks intensify women's exposure to intimate partner violence, sexual exploitation, early marriage, and survival-driven transactional sex due to weakened livelihoods and social

protection systems (McMichael, 2020; Neumayer & Plümper, 2019; Rao et al., 2021). These findings confirm that climate change operates not only as an environmental crisis but also as a significant social risk multiplier that exacerbates gender inequalities and violence against women.

Despite this established evidence, limited attention has been given to localized pastoralist settings such as Matapato South in Kajiado County, where climate change impacts are both recurrent and severe. The area has experienced prolonged and repeated droughts, notably in 2016 –2017, 2020–2022, and 2023, resulting in acute water shortages, loss of pasture, livestock deaths, food insecurity, and climate-driven migration of households in search of grazing land and livelihoods. These conditions have disrupted traditional pastoralist livelihoods and household structures, increasing economic stress and dependence while heightening women's vulnerability to GBV. However, climate adaptation and disaster management policies at national and county levels largely prioritize livestock recovery, water infrastructure, and emergency relief, with limited integration of gender-responsive measures or GBV risk mitigation. The lack of coordinated climate adaptation, disaster response, and GBV protection frameworks means that women affected by drought-induced displacement and livelihood loss remain inadequately protected before, during, and after climate shocks.

At the local level, Matapato South records disproportionately high levels of GBV and teenage pregnancy, with a reported sexual violence prevalence of 16.9% and a teenage pregnancy rate of 22%, exceeding national averages reported in the 2022 Kenya Demographic and Health Survey. County health data further indicate an increasing trend in reported cases of sexual and gender-based violence between 2021 and 2023. Yet existing research and policy responses inadequately explain how slow-onset climate stressors such as water scarcity, pasture depletion, food insecurity, and climate-driven migration interact with socio-cultural norms, economic vulnerability, and institutional gaps to shape women's exposure to violence in pastoralist communities. Consequently, this study seeks to assess the interplay between climate change outcomes and gender-based violence in Matapato South, examine how climate-induced vulnerabilities influence women's exposure to violence, and establish strategies for effective gender-responsive climate adaptation and protection programming in pastoralist contexts.

1.3 General objective

To analyze the climate change and gender based violence: exploring vulnerabilities and impact on women in Matapato South Ward, Kajiado County, Kenya

1.3.1 Specific Objectives

i. To examine the influence of climate change-driven scarcity of water resources on the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya
ii. To assess the relationship of climate change-driven scarcity of pasture resources on the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya
iii. To analyze the effect of food insecurity due to climate change and the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya
iv. To investigate whether climate-driven migration influences the prevalence of women to gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya

1.4 Research Questions

i. How does climate change-driven scarcity of water resources impact the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya?
ii. How does climate change-driven scarcity of pasture resources affect the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya?
iii. What is the relationship between food insecurity due to climate change and the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County, Kenya?
iv. In what ways does climate-driven migration influence the prevalence of gender-based violence (GBV) in Matapato South, Kajiado County, Kenya?

1.5 Significance of the Study

Women and girls in Matapato South are among the most affected by the consequences of climate change, particularly in pastoralist communities where environmental stress leads to resource scarcity and increased vulnerabilities. The study highlighted how climate-induced factors, such as prolonged droughts and water shortages, force women and girls to travel long distances in search of resources, exposing them to risks such as sexual violence and harassment. Additionally, economic hardships caused by climate change often exacerbate domestic violence, child marriages, and other forms of GBV. By identifying these vulnerabilities, the study informed targeted interventions to enhance their protection, resilience, and access to support services, including safe shelters, legal aid, and economic empowerment programs.

Community leaders and elders play a central role in shaping cultural norms and conflict resolution in Matapato South. Their influence extends to decision-making processes related to marriage, land use, and resource allocation, making them key stakeholders in addressing GBV. This study provided evidence-based insights to encourage community leaders to advocate for protective measures and policies that reduce the risks of GBV, especially those stemming from climate-related stressors. Through sensitization and capacity-building programs, the findings helped shift traditional attitudes that may perpetuate gender-based violence, fostering a more supportive environment for women's rights and safety within the community.

Government institutions at both the local and national levels, including the Ministry of Gender, the Ministry of Environment, and the Kajiado County Government, will benefit significantly from the study's findings. The research provided crucial data to guide the formulation of gender-responsive climate policies that integrate GBV prevention strategies. By highlighting the link between climate change outcomes and increased violence against women, the study could support the development of policies that enhance resource allocation for climate adaptation programs, legal protection frameworks, and socio-economic empowerment initiatives aimed at reducing women's vulnerability in Matapato South.

The law enforcement sector, including the police and judicial system, is crucial in addressing gender-based violence, yet limited awareness of the link between climate change and GBV often hinders effective response mechanisms. This study provided critical data that can inform law

enforcement agencies and judicial bodies about the specific ways in which climate-related stressors contribute to violence against women. The findings supported better enforcement of existing GBV laws, encouraged the establishment of climate-related GBV response units, and promoted improved victim protection services such as emergency hotlines and gender desks in police stations.

Scholars and researchers in gender studies, climate change, human rights, and public policy benefited from the study's contribution to existing literature on climate-induced GBV. By examining the unique case of Matapato South, this research expanded academic discourse on the intersection of environmental stressors and gendered violence in marginalized communities. Future research can build upon these findings to explore long-term policy solutions, comparative studies in other regions, and innovative approaches to mitigating the impact of climate change on vulnerable populations. Additionally, academic institutions can use the study to inform curriculum development on gender and environmental sustainability.

1.6 Scope of the Study

This study focuses on the interplay between climate change outcomes and gender-based violence (GBV) against women in Matapato South, Kajiado County. It examines how climate-related stressors such as droughts, water scarcity, and resource depletion contribute to increased vulnerability to GBV, including domestic violence, sexual exploitation, and early marriages. The study analysed the socioeconomic and cultural dynamics that exacerbate these challenges, considering the roles of key stakeholders, including community leaders, law enforcement agencies, non-governmental organisations, and government institutions. Geographically, the study is limited to Matapato South, a predominantly pastoralist region in which climate change has significantly affected livelihoods. The research employed both qualitative and quantitative methods, using surveys, interviews, and case studies to gather data from affected women, local authorities, and other relevant stakeholders.

1.6 Limitations of the Study

GBV is a sensitive topic, and survivors were reluctant to share their experiences due to stigma, fear, or cultural norms that discourage discussing such issues. The study ensured confidentiality and anonymity in data collection, used trained female researchers where necessary, and engaged

trusted community leaders and women's organizations to encourage participation in a safe environment.

Some affected communities in Matapato South were difficult to access due to poor infrastructure, making data collection challenging. The place was accessed using a motorcycle. The study collaborated with local NGOs, community health workers, and local leaders who have established networks in the region to facilitate access to respondents. Virtual interviews were also conducted where physical access is impossible.

1.7 Assumptions of the Study

a) Climate change is a real and ongoing phenomenon. The study assumes that climate change is occurring and has observable effects on pastoralist livelihoods, including drought, resource scarcity, and displacement, which influence social and household dynamics.

b) Social and environmental stressors influence gender-based violence. The study assumes that gender-based violence is shaped by a combination of social norms, gender roles, and environmental stressors such as climate variability, which increase household vulnerability and tension.

c) Respondents have lived experiences and relevant knowledge. The study assumes that respondents, especially women, community leaders, and service providers, possess lived experiences and knowledge regarding climate change impacts and gender-based violence within their community.

d) Respondents will provide honest and accurate information. The study assumes that participants will provide truthful, accurate, and reliable information during data collection, despite the sensitivity of issues related to climate change and gender-based violence.

e) Social norms and gender roles shape women's vulnerability. The study assumes that existing socio-cultural norms and gender roles influence women's exposure and vulnerability to gender-based violence, particularly in climate-affected pastoralist settings.

f) Climate adaptation interventions are gender-neutral in design and implementation. The study assumes that many climate adaptation and disaster management interventions do not adequately address gender-specific risks, which may limit their effectiveness in reducing women's vulnerability to gender-based violence.

1.8 Operational Definition of Key Terms

Climate change - long-term alterations in temperature, precipitation, and atmospheric conditions, largely attributed to human activities such as greenhouse gas emissions and land-use changes (Intergovernmental Panel on Climate Change, 2021).

Drought -prolonged period of below-average precipitation that results in water shortages, reduced soil moisture, and adverse impacts on ecosystems and human activities (World Meteorological Organization, 2012).

Gender-Based Violence (GBV) -refers to harmful acts directed at individuals based on their gender, rooted in unequal power relations, social norms, and cultural expectations. It includes physical, sexual, psychological, and economic abuse (UN Women, 2021).

Water resources - natural sources of water such as rivers, lakes, groundwater, and man-made systems that are available for human and ecological use (United Nations Water, 2013).

Food Insecurity - Food insecurity refers to the lack of reliable access to sufficient, safe, and nutritious food necessary for an active and healthy life (Food and Agriculture Organization, 2008).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive review of existing literature on the interplay between climate change outcomes and gender-based violence (GBV) against women, with a specific focus on Matapato South, Kajiado County. The chapter is structured into five key sections. The theoretical review explores relevant theories that explain the link between climate change and GBV, providing a foundation for understanding the study. The empirical review examines past studies on climate change and its socio-economic impacts, particularly its influence on GBV. The conceptual framework illustrates the relationships between key study variables, highlighting how climate change-induced factors contribute to GBV. Finally, the summary and research gaps section synthesises the reviewed literature, identifying knowledge gaps that this study seeks to address.

2.2 Theoretical Review

The relationship between climate change outcomes and gender-based violence (GBV) against women is complex and multidimensional. No single theory can adequately capture the interplay of ecological degradation, resource scarcity, socio-cultural norms, and institutional weaknesses that shape women's vulnerabilities in pastoralist settings. For this reason, the study draws upon three complementary theories: Ecofeminist Theory, Resource Scarcity and Conflict Theory, and Social Vulnerability Theory to provide a holistic framework. Each theory was chosen for its unique explanatory power, as well as for the gaps it leaves that the others address.

2.2.1 Ecofeminist Theory

Ecofeminist theory was first introduced by Françoise d'Eaubonne in 1974 and later developed by scholars such as Karen J. Warren (1990), Vandana Shiva (1988, 2016), Maria Mies (1986), and Carolyn Merchant (1980). This theory asserts that the oppression of women and the exploitation of nature stem from the same patriarchal structures that promote hierarchy, control, and

dominance. It critiques capitalism and industrialization for prioritizing profit over sustainability, disproportionately harming marginalized communities, especially women in rural and indigenous settings.

At its core, ecofeminism explores the gendered impacts of environmental degradation, emphasizing how women, particularly in resource-dependent societies, bear the brunt of ecological crises. In places like Matapato South, where pastoralist women rely on natural resources for survival, environmental stressors exacerbate inequalities, forcing women into precarious situations, including GBV, sexual exploitation, and forced marriages (Shiva, 2016).

Ecofeminism was chosen because it highlights the structural link between environmental degradation and patriarchal oppression, showing how women's roles as caregivers and resource managers make them disproportionately affected by climate stressors. However, ecofeminism tends to emphasize ideology and global movements, sometimes overlooking the localized dynamics of resource competition and conflict. This gap necessitated the inclusion of a second theory.

2.2.2 Resource Scarcity and Conflict Theory

Resource Scarcity and Conflict Theory was developed by Thomas Homer-Dixon (1999), who explored the relationship between environmental degradation and social conflict. The theory argues that when essential resources such as water, arable land, and food become scarce due to factors like climate change, overpopulation, and poor governance, competition for these resources intensifies. This competition can escalate into economic hardship, political instability, and even violent conflict, especially in regions where resources are already scarce.

In Matapato South, climate change has worsened drought conditions, reducing access to water and grazing land, which are vital for pastoralist communities. As men struggle to provide for their families, financial stress often leads to domestic conflicts, intimate partner violence, and forced marriages. Women, who traditionally collect water and fuel, face increased risks of harassment, sexual violence, and economic exploitation as they travel longer distances in search of dwindling resources (Messer, 2009).

This theory was chosen because it explains the mechanisms of conflict and violence triggered by climate-induced scarcity. However, it focuses heavily on competition and conflict, and less on how pre-existing social inequalities shape vulnerability. This limitation justified the inclusion of a third theory.

2.2.3 Social Vulnerability Theory

Social Vulnerability Theory was developed by Susan Cutter et al. (2003) to explain how pre-existing social, economic, and political inequalities make certain groups more susceptible to environmental hazards. The theory emphasizes that vulnerability is not solely determined by exposure to disasters but also by factors such as poverty, gender, education, health, and access to resources.

In Matapato South, climate change has led to prolonged droughts, resource scarcity, and displacement, exacerbating existing vulnerabilities among women. Due to traditional gender roles, women have fewer economic opportunities and rely heavily on natural resources for survival, such as water and firewood. When these resources become scarce, women are forced to travel longer distances, increasing their exposure to sexual violence, exploitation, and GBV. Additionally, forced displacement due to extreme weather events such as floods or droughts heightens their risk of domestic violence, child marriages, and economic dependency (Cutter et al., 2003).

This theory was chosen because it explains the differentiated impacts of climate stressors based on social and economic inequalities, filling the gap left by the other two theories.

Why Multiple Theories Were Used

- **Ecofeminism** explains the *structural and ideological roots* of women's ecological vulnerability (Warren, 1990; Shiva, 2016).
- **Resource Scarcity and Conflict Theory** explains the *mechanisms of conflict and violence* triggered by climate-induced scarcity (Homer-Dixon, 1999; Messer, 2009).
- **Social Vulnerability Theory** explains the *differentiated impacts* of climate stressors based on social and economic inequalities (Cutter et al., 2003).

By combining these three theories, the study achieves a multi-layered analysis that captures both the macro-level drivers (patriarchy, capitalism, ecological degradation) and the micro-level realities (household conflict, migration, displacement, and social inequalities) shaping GBV in Matapato South.

2.3 Empirical Review

2.3.1 Introduction

This empirical review critically synthesizes the established body of evidence linking climate change stressors to increased Gender-Based Violence (GBV) against women, with a focus on pastoralist contexts. A robust global literature confirms that resource scarcity, food insecurity, and displacement amplify violence by exacerbating economic stress and gender inequalities. However, a significant gap remains in the contextual specificity of this research, as broad regional studies often overlook the unique sociocultural dynamics and intersectional vulnerabilities within localised pastoralist communities such as Matapato South. The review structures the evidence around key climate-stress pathways to assess their localised applicability critically. This analysis directly justifies the present study's aim to ground these global linkages in the ward's specific realities to generate actionable, context-specific insights.

2.3.2 Gender-Based Violence (GBV) Among Women

Essue, Chadambuka, and Perez-Brumer (2025) conducted a global scoping review of 195 empirical studies to examine how intersectional identities such as race, socioeconomic status, disability, migration status, and sexual orientation affect women’s access to gender-based violence (GBV) support services. While the review provides a broad and valuable synthesis of structural barriers like institutional bias, inequitable legal systems, and limited resources, it lacks discussion of methodological limitations, potential biases in data selection, and regional disparities in GBV response systems. The absence of critical engagement with how underreporting of GBV affects study outcomes, especially among marginalized populations, raises concerns about generalizability. Furthermore, the review does not compare conflicting findings or highlight gaps across geographic and socio-political contexts. This underscores the need for localised, context-specific studies such as the current research in Matapato South, which contribute by offering grounded evidence on how intersectionality and regional factors shape access to GBV services during emergencies.

Muluneh, Stulz, Francis, and Agho (2020) conducted a systematic review and meta-analysis of 58 cross-sectional studies to assess the prevalence and patterns of intimate partner violence (IPV) against women in Sub-Saharan Africa, reporting a high pooled IPV prevalence of 44%. Emotional violence was most common (29.4%), followed by physical (25.9%) and sexual violence (18.8%). While the study offers valuable regional insights, it lacks engagement with methodological limitations such as reliance on self-reported data prone to underreporting, especially in sensitive contexts like GBV and does not fully account for contradictions across different country-level findings. The absence of a nuanced analysis of how cultural, legal, and infrastructural differences affect generalizability limits its applicability to localized settings. These gaps point to the need for more context-specific research, such as the current study in Matapato South, which aims to address regional dynamics of IPV during emergencies and contribute grounded evidence to inform tailored intervention strategies.

A cross-national study was carried out by Katende-Kyenda and Ani (2025) investigates the prevalence and demographic correlates of gender-based violence (GBV) against women across 25 Sub-Saharan African countries using Demographic and Health Survey (DHS) data. The findings indicate that 44.9% of women reported experiencing at least one form of GBV, with the most vulnerable groups being rural women aged 25–29 and those with only primary education. The study highlights how socio-economic and geographic disparities intensify exposure to violence and limit access to support systems. The authors advocate for context-sensitive interventions, with a focus on improving educational attainment, strengthening rural protections, and addressing cultural norms that perpetuate gender inequality.

Ejakait (2014) carried out a cross-sectional study to investigate the prevalence and forms of gender-based violence (GBV) among university students at Masinde Muliro University in Kakamega, Kenya. The findings revealed an alarming trend, with 96% of GBV cases reported by female students. Physical and psychological abuse were identified as the most prevalent forms, highlighting the urgent need for institutional interventions to safeguard students' well-being. The study emphasized the influence of socio-cultural norms, inadequate reporting structures, and a lack of awareness in perpetuating GBV within academic settings.

Several studies highlight the prevalence and drivers of GBV among women. Essue et al. (2025) identify structural barriers to GBV support services but overlook methodological limitations and

regional disparities. Muluneh et al. (2020) report high IPV rates in Sub-Saharan Africa but fail to address cultural and legal variations. Katende-Kyenda & Ani (2025) emphasize socio-economic and geographic disparities in GBV exposure, while Ejakait (2014) reveals alarming GBV rates among Kenyan university students, linking them to socio-cultural norms and institutional failures. These studies collectively underscore the need for localized, context-specific research like the present study in Matapato South.

2.3.3 Climate change-driven scarcity of water resources

Hadley, Wutich, and Brewis (2020) explored the link between chronic water shortages, psychological distress, and gender-based violence (GBV) among women in water-scarce communities using a mixed-methods approach. Their findings indicated that prolonged water insecurity intensifies household stress, contributing to a rise in intimate partner violence (IPV), particularly against women who shoulder the burden of water collection. While the study provides valuable insights into the intersection of environmental stress and GBV, it does not adequately discuss methodological limitations, such as variability in water access metrics, potential reporting biases regarding IPV, or regional differences that may influence outcomes. The lack of comparative analysis across diverse geographic and cultural settings also limits the generalizability of its conclusions. These gaps underscore the need for localized studies like the present research in Matapato South, which contributes by investigating how water scarcity and socio-cultural dynamics interact to increase GBV risks during emergencies, offering context-specific evidence for targeted intervention.

Onyango and Arup (2020) examined the relationship between prolonged droughts, forced migration, and the heightened risk of gender-based violence (GBV) among women in East Africa. Findings indicate that women who migrate in search of water face increased exposure to sexual violence, particularly in overcrowded and insecure displacement settlements. The study highlighted how displacement exacerbates women's vulnerability due to inadequate security, lack of basic services, and economic instability. Using qualitative and quantitative data, the research underscored the urgent need for gender-sensitive climate adaptation policies, improved security measures in migration routes and refugee camps, and sustainable water management strategies.

Addressing these challenges is critical to mitigating GBV risks and enhancing the resilience of women affected by climate-induced migration.

Wodon, Tsimpo, and Coulombe (2018) investigated the relationship between water insecurity and increased risk of sexual violence in Kenya, revealing that prolonged droughts force women and girls to traverse unsafe areas in search of water, thereby heightening their exposure to gender-based violence (GBV). Using both qualitative and quantitative data, the study explored how socio-economic and cultural factors amplify women's vulnerability, showing that inadequate access to water not only intensifies household stress but also entrenches gender inequalities. However, the study does not critically address methodological limitations such as the reliability of self-reported GBV data, regional variability within Kenya, or potential contradictions between qualitative and quantitative findings. Additionally, it lacks a comparative lens across studies and does not explicitly identify research gaps or limitations in generalizability. These omissions highlight the need for more localized, in-depth studies like the current research in Matapato South, which aims to contextualize how environmental stressors, mobility patterns, and traditional gender roles interact to escalate GBV risks, thereby contributing more precise and actionable insights to the field.

A study by Thomson, Adams and Murray (2020) investigated the link between prolonged water shortages and the rise in domestic violence, particularly intimate partner violence (IPV), in Kenya and Ethiopia. Using a mixed-methods approach, the research examines how economic hardships and household stress associated with water insecurity contribute to increased aggression among men. Findings indicated that as families struggle with limited access to water, tensions within households escalate, leading to higher incidences of IPV. The study further highlighted that women bear the brunt of these challenges, as they are primarily responsible for water collection and household management.

Schilling, Akuno, Scheffran and Weinzierl (2019) explored the intersection of water insecurity, inter-communal conflicts, and gender-based violence (GBV) in pastoralist communities of Kenya and Tanzania. The research found that competition over dwindling water sources frequently leads to violent clashes, forcing the displacement of vulnerable populations, particularly women. As a result, displaced women face increased risks of sexual exploitation,

forced marriage, and other forms of GBV. In addition to water-related pressures, the study noted that climate change-driven food insecurity—exacerbated by recurrent crop failures—further intensified competition over natural resources and deepened household vulnerabilities. Food scarcity placed added pressure on women, who are traditionally responsible for feeding their families, pushing some into risky survival strategies and amplifying their exposure to GBV. Using qualitative case studies and field data, the study highlights the structural inequalities that exacerbate women's vulnerability in conflict-prone regions. The findings emphasized the urgent need for conflict-sensitive water and food security management policies and targeted interventions to protect women and girls in pastoralist communities facing both water and food insecurity.

Nyaberi, Kimani, and Omondi (2021) examined the impact of prolonged droughts on women's safety and vulnerability in Kajiado County, Kenya. Their study found that as water resources became increasingly scarce, women experienced heightened economic distress, leading some to engage in exploitative relationships with men who controlled water access. This resulted in increased incidences of transactional sex and sexual exploitation, highlighting a direct link between environmental stress and gender-based violence (GBV). Additionally, the researchers reported that drought-induced crop failures and rising food insecurity further intensified women's vulnerability as they sought alternative means to sustain their households, often at personal risk. The study's findings are directly relevant to the current research, particularly to the objective of examining how environmental and socio-economic stressors contribute to increased vulnerability to GBV in rural and arid regions. Moreover, although the study was conducted in Kajiado County, the thematic issues identified—such as scarcity of basic resources, economic desperation, and gendered power imbalances—mirror the conditions in Matapato South. By linking structural environmental challenges to GBV, this empirical evidence underscores the importance of contextualizing policy interventions and aligns with the current study's aim to explore locally specific factors influencing GBV vulnerability during emergencies in Matapato South.

Research indicates that water scarcity exacerbates GBV. Hadley et al. (2020) link water insecurity to increased IPV but lack a comparative analysis. Onyango & Arup (2020) find that drought-induced migration heightens sexual violence risks, while Wodon et al. (2018) highlight

unsafe water-fetching routes in Kenya. Thomson et al. (2020) and Schilling et al. (2019) further connect water conflicts and food insecurity to GBV in pastoralist communities. Nyaberi et al. (2021) specifically examine Kajiado County, showing how resource scarcity leads to transactional sex and exploitation, reinforcing the need for localized interventions.

2.3.3 Climate change-driven scarcity of pasture resources

Tavenner and Crane (2019) explored the socio-economic and security challenges confronting women in climate-stressed pastoralist regions of East Africa, revealing that as men migrate in search of pasture, women face increased domestic burdens and heightened risks of intimate partner violence (IPV), sexual assault, and community harassment. Employing ethnographic research, household surveys, and key informant interviews, the study established a clear link between pasture scarcity and the rise in gender-based violence (GBV). However, the study does not sufficiently address potential methodological limitations, such as the representativeness of ethnographic data or reporting biases related to sensitive issues like GBV. It also lacks comparative analysis across regions or identification of contradictory findings from similar studies, which limits the broader applicability of its conclusions. These gaps highlight the need for more context-specific, methodologically rigorous research. The current study in Matapato South seeks to fill this void by examining how localized climate stressors intersect with gender dynamics to intensify GBV during emergencies, thereby contributing evidence-based insights to inform targeted policy and intervention efforts.

Watson, Lokot, and Bantebya (2020) explored the relationship among declining grazing lands, economic distress, and the rising prevalence of early marriages in pastoralist societies in Uganda and Kenya. The findings indicated that as livestock losses increase, families resort to marrying off their daughters at younger ages as a survival strategy, often in exchange for dowry or financial relief. Consequently, young brides face higher risks of marital violence, limited access to education, and severe reproductive health complications. Utilizing a mixed-methods approach, including household surveys and in-depth interviews, the study highlights the urgent need for policy interventions to protect girls from early and forced marriages. Strengthening economic support programs, improving access to education, and implementing legal frameworks to prevent

child marriage are critical in mitigating the gendered impacts of climate change in pastoralist communities.

Climate change-induced pasture scarcity has exacerbated resource conflicts in pastoralist communities, leading to severe socio-economic and security challenges. Schilling, Opiyo and Scheffran (2020) examined the relationship between declining grazing lands, inter-ethnic conflicts, and gender-based violence (GBV) in northern Kenya and Tanzania. The findings revealed that as competition for pasture intensifies, violent confrontations between pastoralist groups increase, often resulting in mass displacements. Women in displaced communities face heightened risks of sexual violence, forced marriages, and exploitation in conflict-prone areas. The study employed a mixed-methods approach, combining qualitative interviews and quantitative data to assess the direct and indirect consequences of pasture scarcity on women's safety. The research underscored the need for conflict-sensitive climate adaptation policies, enhanced security measures for displaced populations, and gender-responsive interventions to mitigate the risk of GBV in pastoralist regions. Addressing the intersection of climate change, resource conflicts, and GBV is essential for promoting resilience and social stability in affected communities.

Kipury and Ridgewell (2018) investigated the link between declining grazing resources, economic stress, and intimate partner violence (IPV) in pastoralist communities of Kenya. The findings revealed that as livestock losses mount due to inadequate pasture, household financial instability intensifies, leading to heightened frustration among men. This frustration often manifests in increased physical and emotional abuse toward spouses. In addition to pasture scarcity, the study acknowledged that climate change-driven food insecurity and recurrent crop failures compound economic hardships in pastoralist households, especially those practicing agro-pastoralism. The inability to grow or purchase sufficient food places further pressure on women, often held responsible for feeding the family, making them more susceptible to IPV and other forms of GBV. Using a combination of household surveys and in-depth interviews, the study highlighted the critical role of economic hardship in exacerbating IPV in resource-scarce environments. The research underscored the need for targeted interventions, including alternative livelihood programs, mental health support, and community-based GBV prevention strategies, to

reduce the impact of climate-induced economic and food stress on domestic violence in pastoralist households.

Omolo and Mafongoya (2021) examined the relationship between diminishing grazing lands, livestock losses, and the increased risk of sexual exploitation among women in pastoralist communities in Ethiopia and Kenya. The findings revealed that as pasturelands decline, many households experience economic distress, forcing women to seek alternative means of survival. In some cases, women engage in transactional sex with herders or local authorities who control access to the remaining grazing areas. The study also noted that climate change-induced crop failures and food insecurity exacerbate the situation by eliminating key supplementary food sources, such as maize and legumes, that women traditionally cultivate. As food shortages worsen, women often bear the responsibility of securing meals for their households, exposing them to exploitation and abuse. The study employed qualitative interviews and field observations to document the growing prevalence of gender-based violence (GBV) linked to resource scarcity. The research highlighted the urgent need for gender-responsive climate adaptation strategies, economic empowerment programs, and strengthened legal protections to mitigate the exploitation of women in climate-affected pastoralist regions.

A research study by Deering, Hassan, and Muhumed (2019) examined the intersection of pasture scarcity, migration, and gender-based violence (GBV) among Maasai women in Kenya and Tanzania. Their findings revealed that as pastoralist families migrate in search of grazing land, women experience heightened exposure to trafficking, coerced sex work, and domestic violence, primarily driven by economic hardship and social dislocation. The study also noted that climate change-induced displacement disrupts access not only to pasture but also to cultivated farmlands, intensifying chronic food insecurity. This scarcity of resources pressures families—especially women—to adopt harmful coping mechanisms, including survival-based exploitation in both rural and urban areas. While the study focused broadly on the Maasai communities across national boundaries, its themes are directly relevant to the current study, particularly in Matapato South, where similar climate-induced migration patterns and resource scarcity prevail. These findings align with the research objective of assessing how displacement and environmental stressors increase women's vulnerability to GBV during emergencies. Furthermore, the call for gender-sensitive climate adaptation policies and legal protections strongly supports this study's

goal of identifying strategic interventions that can mitigate GBV risks in arid and semi-arid local contexts. Thus, the study by Deering et al. reinforces the necessity of localized, gender-responsive approaches to emergency response and development planning in regions like Matapato South.

Pasture scarcity intensifies GBV risks in pastoralist communities. Tavenner & Crane (2019) link male migration to increased domestic burdens and IPV for women. Watson et al. (2020) show how livestock losses lead to early marriages and marital violence. Schilling et al. (2020) and Kipury & Ridgewell (2018) link pasture conflicts to displacement-related GBV, while Omolo & Mafongoya (2021) and Deering et al. (2019) highlight sexual exploitation stemming from economic distress. These findings stress the need for gender-responsive climate policies in pastoralist regions.

2.3.4. Climate change-driven food insecurity

Alami and El-Kak (2020) investigated how hunger and migration exacerbate vulnerabilities for women in conflict-affected countries such as Syria, Yemen, and Sudan. Through qualitative interviews and secondary data analysis, the study found that displaced women living in refugee camps and informal settlements were disproportionately exposed to sexual violence, human trafficking, and intimate partner violence (IPV). A key driver of this vulnerability was the absence of stable food sources and economic opportunities, which compelled many women to resort to exploitative survival strategies such as transactional sex and forced labour. The study called for integrating food security interventions with GBV prevention strategies in humanitarian aid responses. While the study provides valuable insights into the intersection of displacement, food insecurity, and GBV, its generalizability to non-conflict contexts, such as semi-arid rural regions like Matapato South in Kenya, is limited. Additionally, the reliance on qualitative interviews and secondary data, while rich in narrative, presents challenges in measuring prevalence or establishing causal relationships. The study does not engage deeply with the issue of underreporting of GBV, a common limitation in research involving sensitive topics, which can lead to data distortion and an underestimation of the true scale of the problem.

Moreover, regional differences in social structure, cultural norms, and state responses to GBV call into question the direct applicability of findings from conflict zones to relatively stable regions affected by environmental stress rather than armed conflict. This gap reinforces the need for localized, empirical studies that address how climate-induced migration, food insecurity, and gender roles interact in specific Kenyan contexts such as Matapato South. The current study addresses this gap by focusing on GBV vulnerabilities during emergencies in a non-conflict yet climate-stressed setting. By using a mixed-methods approach and engaging directly with affected communities in Matapato South, the study aims to generate context-specific insights that complement existing literature while addressing issues of underreporting, methodological transparency, and policy relevance. In doing so, it contributes both empirically and practically to the growing field of gender and humanitarian studies, especially within the East African context. (Alami and El-Kak, 2020).

The Sahel region, particularly Niger and Chad, has been severely affected by persistent droughts and food insecurity, exacerbating socio-economic vulnerabilities among rural communities. This study by Diallo, Coulibaly and Traore (2020) explored the impact of food scarcity on early and forced marriages as a coping mechanism for struggling families. Through field surveys and interviews with affected households, the research found that food-insecure families increasingly resorted to marrying off young daughters to reduce household expenses and obtain bride price payments. These early marriages exposed girls to heightened risks of intimate partner violence (IPV), reproductive health complications, and limited access to education. The findings highlighted the urgent need for policy interventions, including food assistance programs, girls' education initiatives, and economic empowerment strategies, to break the cycle of forced marriages and gender-based violence driven by climate-induced food insecurity. The study called for integrating gender-sensitive policies into climate adaptation and food security programs to protect vulnerable girls and women.

Food insecurity remains a significant challenge in Sub-Saharan Africa, exacerbated by climate change-induced crop failures and erratic rainfall patterns. Hatcher, Gibbs and Jewkes (2019) examined the relationship between food insecurity and intimate partner violence (IPV) across multiple countries in the region. Using a mixed-methods approach, the study analyzed household survey data and conducted in-depth interviews with affected women. The findings revealed that

economic hardships arising from food shortages significantly increase IPV cases, as men experience heightened stress and frustration, leading to emotional and physical abuse of their spouses. Women in food-insecure households were also more likely to experience coercion in exchange for food or financial support.

Bhattacharya and Das (2021) investigated the link between food scarcity and gender-based violence, focusing on sexual exploitation. Through qualitative interviews and household surveys, the research finds that women from lower-income households are disproportionately affected, often resorting to transactional sex or exploitative labour conditions to secure food for their families. Additionally, food shortages increase women's vulnerability to human trafficking and forced marriages as families struggle to cope with economic distress. The study emphasized the need for economic empowerment programs, social safety nets, and gender-sensitive climate adaptation policies to mitigate the impact of food insecurity on women's safety and well-being.

A study by Gonzalez and Ramirez (2018) examined the relationship between food scarcity and gender-based violence (GBV) in farming communities. Through household surveys and qualitative interviews, the research found that women in food-insecure households were more likely to experience intimate partner violence (IPV) due to increased financial dependence on male partners. Additionally, some women resorted to transactional sex or experienced sexual coercion in exchange for food or financial assistance. The findings highlighted the urgent need for integrated policies that address both food security and GBV prevention, including economic empowerment initiatives, social protection programs, and community-based interventions.

Omolo and Mafongoya (2021) investigated the relationship between erratic rainfall, agricultural decline, and gender-based violence (GBV), focusing on how food shortages exacerbate domestic violence and sexual exploitation. Using a mixed-methods approach—comprising household surveys and key informant interviews—the study revealed that frequent droughts and crop failures significantly reduced agricultural productivity, intensifying financial stress within households. This economic strain was directly linked to a rise in intimate partner violence (IPV), as tensions mounted over limited resources. Furthermore, the burden of food provision, which traditionally falls on women, led some to adopt harmful survival strategies such as transactional sex to access food and water. This greatly increased their risk of sexual violence and

exploitation, especially in patriarchal settings with entrenched gender power imbalances. These findings are thematically aligned with the current study's objective of examining how environmental and socio-economic stressors contribute to increased vulnerability to GBV during emergencies. Although Omolo and Mafongoya's study was not limited to Matapato South, the climatic patterns and social dynamics described are consistent with the lived experiences of women in this region. The study underscores the relevance of integrating climate-resilient agricultural policies and targeted social protection programs—an approach that supports the current study's aim of identifying context-specific strategies to reduce GBV risks in climate-affected areas such as Matapato South.

Food insecurity worsens GBV through economic stress and survival strategies. Alami & El-Kak (2020) examine conflict zones but lack applicability to stable regions. Diallo et al. (2020) link food scarcity to early marriages in the Sahel, while Hatcher et al. (2019) and Bhattacharya & Das (2021) associate food insecurity with IPV and sexual exploitation. Gonzalez & Ramirez (2018) and Omolo & Mafongoya (2021) further confirm that crop failures increase women's vulnerability, calling for integrated food security and GBV prevention policies.

2.3.5 Climate-driven displacement due to migration

Jain and Singh (2021) examined the intersection between climate migration, economic instability, and gender-based violence (GBV) in India. Through interviews and case studies conducted in informal settlements, the research found that women in displaced communities face heightened risks of domestic violence, sexual harassment, and forced labour. Economic hardships and overcrowded living conditions contribute to increased intimate partner violence (IPV), while a lack of legal protection exposes migrant women to exploitation by employers and landlords. The study emphasized the urgent need for gender-sensitive policies in climate adaptation strategies, improved social protection for displaced women, and legal frameworks to prevent GBV in urban migration hubs.

Alami and El-Kak (2021) examine the prevalence of GBV among women displaced by severe droughts in Syria and Iraq. Findings revealed that women in refugee camps experience heightened risks of intimate partner violence, sexual exploitation, and early marriages, often driven by economic desperation and lack of protective structures. Overcrowded and insecure

living conditions further increase their vulnerability to physical and psychological abuse. The study emphasized the need for gender-sensitive policies in humanitarian aid programs, including targeted protection measures, access to legal and psychosocial support, and economic empowerment initiatives for displaced women. Addressing these risks is crucial in mitigating GBV and ensuring the safety and well-being of climate refugees.

Taukolo (2019) examined how rising sea levels and prolonged droughts in Fiji and Tuvalu have forced families to relocate to informal settlements, exacerbating intimate partner violence (IPV). Findings indicate that economic stress, food insecurity, and the loss of cultural identity contribute to increased domestic abuse against women in these displaced communities. Additionally, social disintegration and limited access to legal and psychosocial support further heighten women's risk of GBV. The study underscores the importance of community-based interventions, including economic empowerment programs, legal protections, and culturally sensitive GBV prevention strategies, to safeguard displaced women.

Climate-induced displacement is an escalating crisis in Sub-Saharan Africa, particularly in the drought-prone Sahel region, where extreme weather conditions force communities to migrate in search of water and pasture. A research study by Gemenne (2019) investigates the link between climate migration and the prevalence of sexual violence against displaced women. Using qualitative interviews and field observations across migration corridors in Niger, Chad, and Mali, the research highlights that women face heightened risks of sexual assault by human traffickers, armed groups, and even local authorities. Vulnerability is exacerbated by the lack of legal protection, inadequate humanitarian support, and economic hardships that push women into exploitative survival strategies. The findings underscored the urgent need for gender-sensitive policies, enhanced security in transit zones, and the inclusion of GBV prevention measures in climate adaptation frameworks.

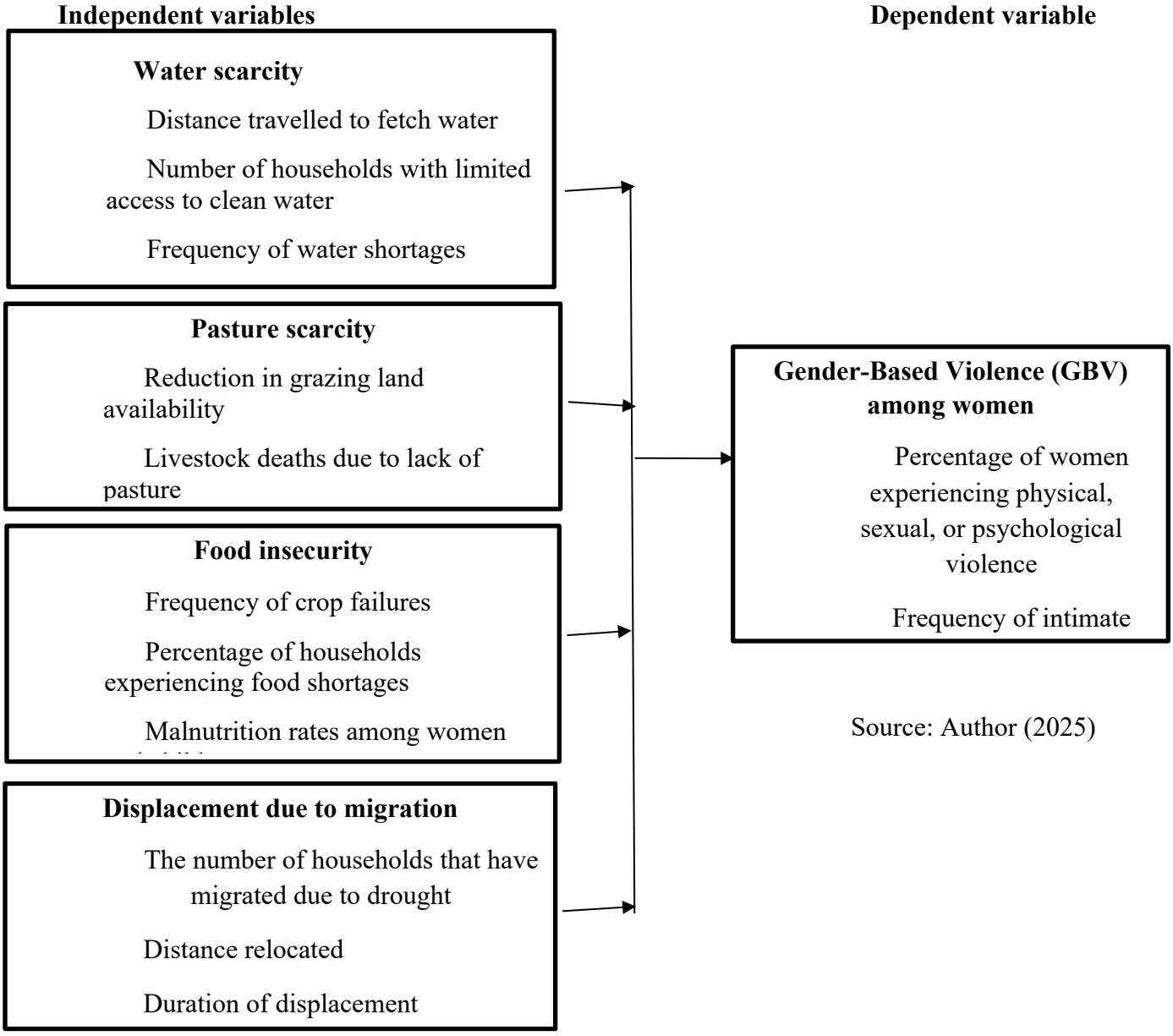
A study by Martinez and Delgado (2020) explored the link between extreme drought, migration, and human trafficking. The research found that as rural families migrate to escape crop failures and economic hardship, women face heightened risks of sexual exploitation and forced domestic labour. Many are lured into trafficking networks under the guise of employment opportunities, while others become vulnerable to coercion due to financial desperation. The study highlighted

the urgent need for stronger anti-trafficking policies, enhanced border protection, and support services tailored to climate refugees.

A research study by Omolo and Mafongoya (2022) examines the impact of climate-induced migration in Kenya and Ethiopia, where water scarcity has forced communities to relocate to displacement camps. Findings indicated that women in these camps frequently face coercion into transactional sex to access essential resources such as food, water, and shelter. Additionally, the breakdown of social support structures increases their vulnerability to sexual exploitation and intimate partner violence. The study highlighted the urgent need to integrate gender protection measures into climate adaptation and humanitarian response programs.

Displacement heightens GBV risks due to economic instability and weak protections. Jain & Singh (2021) and Alami & El-Kak (2021) find increased IPV and exploitation in migrant settlements. Taukolo (2019) links displacement to cultural disintegration and domestic abuse, while Gemenne (2019) and Martinez & Delgado (2020) highlight trafficking risks. Omolo & Mafongoya (2022) reveal transactional sex in Kenyan displacement camps, emphasizing the need for gender-sensitive humanitarian responses.

2.4 Conceptual Framework



Source: Author (2025)

The framework posits a dynamic, interconnected relationship in which climate change stressors (Independent Variables) do not operate in a vacuum. Instead, their impact on women's exposure to GBV (Dependent Variable) is channeled and amplified through the specific contextual filters of Matapato South.

The primary pathway is direct: acute water scarcity forces women and girls to travel longer, more dangerous distances, physically increasing their risk of sexual violence. Similarly, pasture

loss and food insecurity create severe economic stress within households, which can manifest as increased frustration and intimate partner violence.

However, the *severity* and *form* of this GBV outcome are not automatic. They are critically determined by the moderating factors. For instance:

- **Socio-cultural norms** dictate that women bear the burden of resource collection, directly exposing them to the risk pathway created by water scarcity. These same norms may normalize IPV or discourage reporting.
- **Economic vulnerability** means families have fewer coping mechanisms, making harmful strategies like early marriage for dowry or women engaging in transactional sex for resources more likely outcomes of food insecurity.
- **Institutional gaps** ensure that when displacement occurs, women lack safe shelters and legal recourse, leaving them unprotected in new, unstable environments.

Therefore, the conceptual framework illustrates that the climate-GBV nexus in Matapato South is not a simple cause-and-effect chain. It is a process where environmental shocks interact with pre-existing social inequalities and institutional failures. The moderating variables explain why the same climate stressor (e.g., a drought) leads to differentiated GBV risks for women based on their age, marital status, or economic position, and why the outcomes in this pastoralist ward may differ from those in a refugee camp or an urban settlement. This study seeks to empirically trace and analyze these specific interrelationships to inform targeted interventions.

2.5 Summary and Research Gaps

This chapter has synthesized the theoretical and empirical foundations for analyzing the nexus between climate change and gender-based violence (GBV) in pastoralist contexts, specifically Matapato South. It established that, while the broad links between resource scarcity, displacement, and increased GBV risks are well documented, the application of this knowledge to specific local settings remains superficial. The integrated theoretical framework and conceptual model highlight how socio-cultural and institutional factors critically mediate this relationship. Consequently, a critical analysis reveals significant deficiencies in the existing

literature regarding context, methodology, and policy application. The following sections summarize the chapter's core arguments and explicitly detail these research gaps to precisely position the current study's contribution.

2.5.1 Summary

This chapter examines the link between climate change outcomes and gender-based violence (GBV) among women in Matapato South, Kajiado County. It begins with a theoretical review that explores Ecofeminist Theory, Resource Scarcity and Conflict Theory, and Social Vulnerability Theory to explain how environmental stressors exacerbate gender inequalities and GBV. The empirical review evaluates previous studies on climate change-induced resource scarcity and its socio-economic effects, particularly on GBV. The conceptual framework illustrates the relationship between climate-driven displacement and the prevalence of GBV. Finally, the chapter identifies research gaps, highlighting the need for gender-responsive climate policies to mitigate the risks of GBV.

2.5.2 Research Gaps

While studies highlight the link between water scarcity and gender-based violence (GBV), there is a lack of research on the long-term psychological trauma faced by women and girls due to repeated exposure to GBV in water-insecure regions. Existing research does not sufficiently explore how economic empowerment initiatives can mitigate the risk of GBV related to water scarcity. Most studies focus on adult women, leaving a gap in understanding how adolescent girls, particularly those in school, are affected by water scarcity-related risks, including dropout rates and early marriages. While several studies call for gender-sensitive water management policies, there is limited research evaluating the effectiveness and implementation of existing policies in reducing GBV in drought-affected regions. There is a need for comparative studies analysing how water scarcity affects women in different socio-cultural contexts to identify region-specific intervention strategies. Research primarily focuses on women’s vulnerabilities but lacks an exploration of the role men can play in mitigating GBV and supporting water resource management.

There is limited research on how women and men in pastoralist communities adapt differently to pasture scarcity and on its impact on GBV. Studies focus on immediate conflicts caused by

pasture scarcity but fail to provide long-term analyses of how these conflicts evolve and their lasting impact on women's safety. Research does not sufficiently address the experiences of displaced pastoralist women who migrate to urban areas due to pasture scarcity and how they navigate new GBV risks. Although some studies suggest economic alternatives for women, there is limited research assessing the success and sustainability of such programs in reducing GBV in pastoralist communities. While conflicts over pastureland are well-documented, research lacks an analysis of how indigenous dispute resolution methods impact women's safety and GBV outcomes. There is a gap in understanding of how changes in pasture availability influence shifts in gender roles and responsibilities across generations in pastoralist communities.

Existing research does not fully explore how food insecurity affects maternal health, including pregnancy-related risks and access to reproductive healthcare in food-insecure regions. Most studies focus on women within households but fail to analyze how female-headed households specifically navigate food insecurity and its link to GBV. There is a gap in research on how food scarcity increases the risks of exploitation, trafficking, and child marriages among young girls. While food insecurity is linked to IPV and GBV, research does not adequately evaluate whether climate-resilient agricultural practices effectively reduce food insecurity and its associated risks for women. Limited research exists on how existing food assistance and social protection programs impact GBV prevalence among food-insecure populations. Research primarily focuses on women as victims but lacks an exploration of strategies to engage men in reducing IPV and addressing stress-related violence in food-insecure households.

Existing studies highlight the vulnerability of displaced women to GBV but do not extensively analyze the effectiveness of legal protections and enforcement mechanisms in mitigating these risks. Further research is needed to evaluate the implementation and impact of legal frameworks in different displacement settings. While some studies explore human trafficking risks among climate migrants, there is limited research on the specific trafficking routes, recruitment tactics, and the role of digital platforms in exploiting displaced women. A deeper investigation into these aspects could inform targeted anti-trafficking interventions. The studies acknowledge economic hardships as a driver of GBV but lack in-depth analysis of economic empowerment programs for displaced women. Research is needed on the effectiveness of income-generating initiatives and microfinance interventions in reducing GBV vulnerability. Most research focuses on

displacement camps and informal settlements but lacks comparative insights into how GBV risks differ between rural and urban displaced populations.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlined the methodology employed in the study, detailing the systematic approach used to achieve the research objectives. It described the research design, target population, sampling techniques, and data collection methods. Additionally, it addressed the validity and reliability of the research instruments, ensuring the accuracy and consistency of the data. The chapter also presented the data analysis methods used to interpret the findings and highlighted the ethical considerations adhered to throughout the research process.

3.2 Research Design

This study adopted a mixed-methods research design to examine the relationship between climate change and gender-based violence among women in Matapato South, Kajiado County, integrating quantitative and qualitative approaches to capture both measurable patterns and contextual realities. Quantitative data were collected through structured household surveys to assess the prevalence, forms, and frequency of GBV and their associations with climate-related stressors such as drought, livelihood loss, and displacement, with descriptive statistics used for analysis. Qualitative data were gathered through key informant interviews with GBV survivors, community leaders, healthcare providers, and NGO representatives to explore socio-cultural norms, power relations, and lived experiences, with thematic analysis applied. The mixed-methods approach enabled triangulation, enhanced reliability, and ensured a comprehensive understanding of both the extent and underlying drivers of GBV in a climate-stressed pastoralist context, while strict ethical safeguards were observed to protect participants.

3.3 Study Area

The study was conducted in Matapato South Ward, Kajiado Central Sub-County, Kajiado County. The area is predominantly inhabited by the Maasai community, whose primary livelihood is pastoralism, particularly the rearing of cattle, goats, and sheep. The region is

characterized by a semi-arid climate with low and erratic rainfall, frequent droughts, and limited water resources, conditions that significantly affect pastoral livelihoods and household stability.

Climate variability in the area has led to reduced pasture and water availability, which in turn contributes to livelihood stress, resource competition, and increased household vulnerabilities. These environmental pressures often intersect with existing sociocultural norms and gender roles, shaping the experiences and vulnerabilities of women in pastoralist communities.

The area was considered appropriate for this study because it frequently experiences climate-related shocks that affect pastoral livelihoods and social dynamics. Examining these conditions in Matapato South provides important insights into how climate change impacts interact with gender relations and may contribute to gender-based vulnerabilities within pastoralist settings.

3.4 Target Population

The target population for this study comprised 194 women from climate-affected households in Matapato South, Kajiado County, as well as key institutional stakeholders involved in climate adaptation and gender-based violence (GBV) response. Institutional stakeholders include community elders, local administrators (chiefs and assistant chiefs), healthcare workers, law enforcement personnel, and representatives from NGOs addressing climate resilience and GBV prevention. These participants were selected for their practical knowledge, lived experiences, or professional roles in mitigating or witnessing the intersection of climate change and GBV in the region.

Table 3.1: Quantitative Target Population

Category	Population
Women	194
Total	194

Source: Naboisho Action Network

Table 3.2: Qualitative Target Population

Category	Population
Community elders	12
Local administrators (chiefs, assistants)	2
Healthcare workers	16
Law enforcement officers	14
NGO representatives (working on climate change & GBV)	18
Total	**62**

Source: Census report

The qualitative target population was determined by first identifying key stakeholder categories relevant to the study, then extracting their official counts from the census report, which records the number of elders, administrators, healthcare workers, law enforcement officers, and NGO representatives in the area. These groups were purposively selected because they hold critical knowledge, influence, or roles in community health, governance, and social issues. The figures reflect the actual number of individuals available in each category rather than a statistical sample, ensuring that diverse perspectives are represented. Finally, the totals were summed across categories to arrive at 62 participants, providing a comprehensive qualitative base.

3.5 Sampling

3.5.1 Sample Size

The Yamane (1967) formula was used to determine the sample size:

$n= N/1+N(e^2)$

Where:

- n = Sample size
- N = Total population (256)
- e = Margin of error (0.05 for 95% confidence level)

n=194/1+194(0.052)

n=194/1+194(0.0025)

n=194/1+0.485

n=194/1.485

n=131

Table 3.3: Quantitative Sample Size Distribution

Category	Population (N)	Sample Size (n)
Women	194	131
Total	194	**131**

Source; Researcher; 2025

$n=N/1+N(e^2)$

Where:

n = sample size

N = population size

e = margin of error (0.05 at 95% confidence level)

Here:

N=62

e=0.05

n=62/1+62(0.052)

n=62/1+62(0.0025)

n=62/1+0.155

n=62/1.1556

=54

Table 3.4: Qualitative Sample Size Distribution

Category	Population (N)	Sample Size (n)

Community elders	12	10
Local administrators (chiefs, assistants)	2	2
Healthcare workers	16	14
Law enforcement officers	14	12
NGO representatives	18	16
Total	62	54

Source; Researcher; 2025

3.5.2 Sampling Techniques

Cluster sampling at a two-thirds ratio was used for all stakeholder categories, except for local administrators (chiefs and assistant chiefs), who were selected through purposive sampling. For women, cluster sampling ensured proportional representation. Random selection within each stratum minimizes bias, ensuring diverse yet accurate insights into the relationship between climate change and GBV.

The sampling strategy combined cluster and purposive approaches to ensure balanced representation of stakeholders. Cluster sampling at a two-thirds ratio was applied across most categories, providing proportional inclusion while maintaining manageability. Local administrators were purposively selected due to their limited numbers and unique roles in governance. For women, cluster sampling safeguarded proportional representation of experiences. Random selection within each stratum further reduced bias, ensuring diverse yet credible insights into the climate change – GBV relationship.

3.6 Data Collection Tools

Structured Questionnaires -Structured questionnaires were used to collect quantitative data from women in Matapato South, Kajiado County. The questionnaires contained closed-ended questions designed to capture information on the prevalence, forms, and frequency of GBV, as well as climate change–related stressors such as water and pasture scarcity. This tool enabled the collection of standardized data that could be easily coded and analyzed statistically. It also ensured consistency in responses across all participants.

To identify participants, the researcher employed a multi-stage, non-stigmatizing approach. This involved initial collaboration with trusted local community health workers and leaders from

women's groups who had established rapport and knowledge of community members. Potential participants were then approached sensitively through these intermediaries, during which the study's purpose, confidentiality guarantees, and the voluntary nature of participation were carefully explained.

Key Informant Interview (KII) Guides-Key Informant Interviews were conducted using semi-structured interview guides with community elders, local administrators, healthcare workers, law enforcement officers, and NGO representatives. The interviews generated qualitative data on community norms, institutional responses, policy enforcement, and service provision related to climate change and GBV. This tool allowed flexibility for probing and clarification, enabling respondents to share detailed experiences and expert insights. The KIIs complemented questionnaire data by providing contextual depth and explanatory perspectives.

3.6.1 Questionnaire

The study employed a researcher-administered questionnaire. Since the majority of women in the study area cannot read or write, a trained local female research assistant, familiar with the community and its cultural norms, administered the questionnaire and recorded responses. This approach ensured both cultural sensitivity and effective communication.

3.6.2 Validity and Reliability

Validity refers to the extent to which the data collection instruments accurately measure what they are intended to measure. To enhance content validity, the study instruments were developed based on existing literature, expert reviews, and consultations with relevant stakeholders to ensure they effectively capture the relationship between climate change and GBV. Face validity was assessed by piloting the questionnaires with a small sample from the target population to ensure the clarity and appropriateness of the questions. Additionally, construct validity was ensured by structuring the instruments to align with the study’s conceptual framework, ensuring that key variables such as climate-induced stressors, economic vulnerability, and cultural influences were well represented. Feedback from subject matter experts and pretesting helped refine the instruments to improve accuracy and relevance.

Reliability refers to the consistency and dependability of the research instruments in yielding stable results over repeated applications. To ensure reliability, the study employed the test-retest method, where the questionnaires were administered twice to a small subset of the sample at an interval, and the correlation between the two sets of responses was analyzed. Additionally, Cronbach's Alpha coefficient was used to assess the internal consistency of the questionnaire items, with a reliability coefficient of 0.7 or higher considered acceptable. Furthermore, inter-rater reliability was maintained by training research assistants on standardized data collection procedures to minimize inconsistencies in administering surveys and conducting interviews. These measures ensured that the data collected were dependable and could be reproduced in similar studies.

Table 3.5: Reliability Tests

Category	**Cronbach Alpha**	**No. of Items**	**Remarks**
Scarcity of water resources	0.836	5	Accepted
Scarcity of pasture resources	0.861	5	Accepted
Food Insecurity	0.779	5	Accepted
Climate-driven migration	0.749	5	Accepted
Average	0.806	5	

Source: Researcher (2025)

The results in Table 4.2 show that all four categories achieved Cronbach's Alpha values above the commonly accepted threshold of 0.7, indicating strong internal consistency of the measurement scales. The highest reliability score was recorded for the scarcity of pasture resources, with an alpha value of 0.861, followed closely by the scarcity of water resources at 0.836. These high values suggest that the items measuring these variables were well-correlated and consistently captured the intended construct.

Food insecurity recorded a Cronbach's Alpha of 0.779, while climate-driven migration had the lowest reliability score of 0.749. Although slightly lower than the other categories, these values still fall within the acceptable range, meaning that the measurement items were dependable in assessing the respective variables. The variation in alpha values may be attributed to differences in response homogeneity or in the complexity of the concepts being measured.

The reliability test results confirm that all the measurement instruments used in the study were internally consistent and dependable. This high reliability supports the credibility of the findings, indicating that the data collection tools effectively captured the underlying constructs without significant measurement error. Consequently, the study's subsequent analyses can be conducted with confidence in the robustness of the measurement framework.

3.6.3 Pre-testing

A pilot study was conducted involving 13 respondents, representing 10% of the total sample size of 131 in Kajiado West sub-county. The purpose of the pilot study was to assess the reliability and clarity of the research instruments, identify any ambiguities, and ensure the questions were appropriately structured for the target population. The pilot respondents were drawn from populations similar to those in the main study but located outside the actual study area to prevent bias. Their feedback helped refine the questionnaire in terms of language, flow, and timing, ensuring it was well-adapted for full-scale data collection. A pilot study was then conducted in Kajiado West Sub-county involving 13 respondents. Kajiado West was selected because it shares key socio-economic, cultural, and climatic characteristics (semi-aridity, pastoralist livelihood) with the target study area of Matapato South, but is a distinct administrative unit.

3.7 Data Analysis

The study employed both quantitative and qualitative data analysis methods to comprehensively examine the interplay between climate change outcomes and gender-based violence (GBV) against women in Matapato South, Kajiado County.

Qualitative data obtained from key informant interviews were analyzed using thematic analysis. Responses were transcribed, coded, and categorized into key themes that emerge from the data,

such as economic vulnerability, socio-cultural influences, and institutional response mechanisms to GBV. Manual coding techniques was used to organize and interpret narratives, allowed for a deeper understanding of the lived experiences of affected women and the perceptions of various stakeholders. Digital storytelling captured the lived experiences of women in their own voices, fostering narrative ownership and a deeper qualitative understanding.

Quantitative data collected through structured questionnaires were analysed using descriptive and inferential statistics. Descriptive statistics such as frequencies, percents, means, and standard deviations were used to summarize data on the prevalence and trends of GBV in relation to climate-induced stressors such as drought, resource scarcity, and displacement.

The proposed data analysis plan effectively incorporated SPSS for quantitative analysis and thematic analysis for qualitative data, providing a sound framework for examining the relationship between climate-induced stressors and gender-based violence (GBV). Descriptive statistics summarized patterns.

To enhance the robustness of the analysis, a clear strategy for managing missing data was adopted. Specifically, data cleaning procedures such as multiple imputation or listwise deletion was considered, depending on the extent and pattern of missingness, to ensure that the results are not biased or compromised. Furthermore, triangulation techniques were employed to enhance the validity and credibility of the findings. This involved methodological triangulation, whereby quantitative survey results were cross-validated with qualitative insights from key informant interviews and focus group discussions. The use of multiple data sources and analytical approaches helped to reduce potential bias and provide a more comprehensive understanding of the relationship between climate-induced stressors and GBV. Addressing these aspects significantly strengthens the analytical rigour, transparency, and overall credibility of the study.

3.8 Ethical Considerations

Ethical approval and oversight-Prior to initiating fieldwork, the researcher obtained all necessary approvals to ensure institutional and legal compliance. These included a postgraduate introduction letter from St. Paul's University, an Ethical Clearance Certificate from the

Institutional Scientific and Ethical Review Committee (ISERC), and a research license from the National Commission for Science, Technology and Innovation (NACOSTI). These clearances were essential for validating the study's ethical soundness, particularly given the sensitive focus on gender-based violence (GBV). All research activities complied with the ethical principles outlined in the Belmont Report: respect for persons, beneficence, and justice, as well as the ethical guidelines for conducting research with vulnerable populations in Kenya.

Informed consent procedures-The researcher ensured that all participants provided informed consent prior to data collection. Participants were thoroughly briefed on the purpose of the study, the nature of their involvement, potential risks (such as emotional discomfort), anticipated benefits, and measures taken to ensure confidentiality. Consent was obtained either in written or verbal form, depending on the participant's literacy level and cultural context. A special effort was made to use simple, culturally appropriate language to facilitate understanding. Participants will also be informed of their right to ask questions, decline to answer specific questions, or withdraw from the study at any time without any consequences.

Confidentiality, Anonymity, and Data Security- To uphold participant confidentiality, all identifiable information was anonymized during transcription and reporting. Names, locations, and other personal details were either removed or coded to ensure they cannot be traced back to any individual. Digital data was stored in password-protected devices, and physical documents were kept in locked cabinets. Only the core research team had access to the data. In interviews discussing GBV, utmost discretion was observed to ensure that participation does not expose individuals to further stigma, retaliation, or emotional harm. These measures were critical to building trust and credibility with participants, especially those from vulnerable groups.

Protection from harm and psychosocial safeguards- Recognizing the sensitive nature of GBV-related discussions, the researcher adopted a trauma-informed and gender-sensitive approach throughout the study. All research assistants underwent training on how to recognise signs of distress, respond to disclosures empathetically, and refer participants to appropriate support services (e.g., health centres or psychosocial counsellors) if needed. Interviews was conducted in private, safe environments chosen in consultation with the participants to avoid public exposure or danger. Emotional debriefs was offered at the end of each session, and

referral contacts to local GBV support organizations was provided. Ensuring voluntary participation, participant dignity, and emotional safety was central to the ethical integrity of this research, particularly in a context like Matapato South where GBV intersects with structural inequalities and climate vulnerability.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the empirical findings of the study and discusses their implications in relation to the research objectives. The analysis is structured to systematically address the research questions by examining collected data through appropriate statistical techniques. The chapter begins by assessing the response rate and ensuring the reliability of the measurement instruments. Subsequently, it explores the demographic characteristics of respondents, followed

by descriptive statistics to summarize key variables. Further, correlation and regression analyses are conducted to examine relationships and predictive effects among variables.

4.2 Response Rate

Table 4.1: Response Rate

Response	Frequency	Percent
Completed questionnaires	127	97
Incomplete questionnaires	4	3
Total	**131**	100

Source: Researcher (2025)

The findings from Table 4.1indicate a high response rate for the study. Out of the 131 questionnaires distributed, 127 were successfully completed, representing 97% of the total. Only 4 questionnaires, equivalent to 3%, were incomplete. This high return rate reflects the effectiveness of the data collection strategy, suggesting that respondents were cooperative and engaged with the research process. The high percentage of complete questionnaires enhances the credibility and reliability of the data collected. It implies that the sample obtained is representative of the target population, thereby reducing the risk of non-response bias. Such a strong response rate also suggests the appropriateness of the chosen data collection methods and the relevance of the research topic to respondents, which likely motivated their participation. In conclusion, the 97% response rate is a strong indicator of data quality and sufficiency for meaningful statistical analysis. With only 3% of questionnaires incomplete, the minimal non-response rate is unlikely to have a significant impact on the generalizability of the study's findings, thereby increasing confidence in the validity of the research outcomes.

4.3 Demographic Data

The demographic data section provides essential background information on the composition of the study population. It profiles respondents based on gender, age, and educational attainment, which are standard demographic variables in social research. Age is organized into clearly

defined and consistent cohorts to ensure analytical clarity and methodological rigour, while gender distribution captures potential differences in perspectives and experiences. Educational attainment further contextualizes respondents' socio-economic positioning, thereby strengthening the interpretation and validity of the study findings.

Table 4.3: Age Bracket

Category	Frequency	Percentage
18 to 24 years	20	16
25 to 31 years	47	37
32 to 38 years	41	32
39 years and above	19	15
Total	**127**	**100**

Source: Researcher (2025)

Table 4.3 presents the age distribution of the 127 respondents. The largest proportion of respondents falls within the 25–31 years category, representing 37 % of the sample. This is followed closely by the 32–38 years group, which accounts for 32 %. Respondents aged 18–24 years make up 16%, while those aged 39 years and above form the smallest group at 15%.

The results show that the majority of respondents are between 25 and 38 years, making up 69% of the sample. This indicates that the study largely captured views of individuals in their early to mid-adulthood, an age range often characterized by active participation in professional and social activities. The relatively smaller percentages of respondents in the 18–24 years and 39 years and above categories suggest limited representation of the youngest and oldest groups.

The age distribution demonstrates that the study primarily reflects the perspectives of young and middle-aged adults. This enhances the relevance of the findings to the active working population, though it may provide fewer insights from both the younger and older sections of the community.

Table 4.4: Level of Education

Category	Frequency	Percentage
No formal education	13	10
Primary education	51	40
Secondary education	43	34
Tertiary education	20	16
Total	**127**	**100**

Source: Researcher (2025)

Table 4.4 presents the educational levels of the 127 respondents. The majority attained primary education, accounting for 40% of the sample. Those with secondary education follow this at 34%, while 16% had achieved tertiary education. A smaller proportion, 10%, reported having no formal education at all.

The findings indicate that most respondents had at least some basic education, with 90% having completed primary, secondary, or tertiary levels. However, the fact that primary education forms the largest category suggests that a considerable portion of the population has limited formal academic progression beyond the basic level. The relatively small proportion with tertiary education suggests that fewer respondents had access to advanced learning opportunities, which may affect their skills, employability, and capacity to engage in complex socio-economic activities.

The distribution shows that while education is present among the majority of respondents, it is concentrated at the lower levels, particularly primary education. This pattern points to possible educational challenges, such as limited access or progression opportunities, while also highlighting the need for strategies to expand higher learning participation in the population.

Table 4.5: Gender

Category	Frequency	Percentage

Male	47	37
Female	80	63
Total	**127**	**100**

Source: Researcher (2025)

The gender distribution of respondents indicates that females constituted the majority of the study participants at 63% (n = 80), while males accounted for 37% (n = 47). This composition is analytically significant given the focus of the study on climate change and gender-based violence (GBV), as women are disproportionately affected by both climate-induced stressors and GBV in pastoral and semi-arid contexts such as Matapato South Ward. The higher female representation enhances the credibility and relevance of the findings, as it allows for richer insights into women's lived experiences, including exposure to climate-related vulnerabilities such as water scarcity, food insecurity, displacement, and increased care burdens, which have been empirically linked to heightened risks of GBV. At the same time, the inclusion of male respondents provides an important comparative and contextual perspective on community norms, power relations, and gender dynamics that influence the manifestation of violence during periods of climatic stress.

In conclusion, the gender composition of the sample aligns well with the study's objectives and enhances its analytical depth. The predominance of female respondents ensures that women's voices—central to understanding the intersection between climate change and GBV—are adequately captured, while male participation supports a more holistic interpretation of gender relations within the community. Overall, this distribution supports valid and gender-responsive conclusions on how climate change exacerbates vulnerabilities and shapes the nature and intensity of GBV against women in Matapato South Ward, thereby providing a sound basis for recommending targeted, inclusive, and context-specific interventions.

4.4 Analysis of the Study Variables

The study requested respondents to provide their opinions on the interplay between climate change outcomes and gender-based violence against women in Matapato South Ward, Kajiado, Kenya. In particular, it sought to examine the relationship between factors such as drought, food insecurity, resource scarcity, and displacement with incidences of gender-based violence. A structured questionnaire consisting of "Yes" and "No" responses was administered to capture the perceptions and experiences of the respondents. Their responses were assessed and analyzed, and in this section, the findings with respect to the aforementioned variables are presented. As a local administrator, "*I see myself as the first point of contact between the government and the community. I have served in this role for over seven years, during which I have been deeply engaged in addressing emerging issues such as climate change and gender-based violence. My responsibility includes coordinating community awareness, mobilizing resources, and working with other stakeholders to mitigate the adverse effects of droughts and floods that often escalate vulnerabilities to violence, particularly among women and girls"*.

This aligns with stakeholder theory (Freeman, 1984), which emphasizes the centrality of community actors in bridging diverse interests for collective problem-solving. Literature also supports the idea that local administrators are crucial in building resilience to climate shocks and ensuring community protection (Nyahunda, 2022). My long service has allowed me to gain trust, which is essential for implementing policies effectively.

4.4.1 Climate Change–Induced Water Scarcity and Gender-Based Violence among Women in Matapato South, Kajiado County

The first objective of the study was to examine the influence of Climate Change-Driven Scarcity of Water Resources on the Prevalence of Gender-Based Violence among Women in Matapato South, Kajiado County. The results were as shown in Table 4.6

Table 4.6: Scarcity of Water Resources

Statement	Yes	No	I Don't Know
Has water scarcity from droughts increased household conflicts?	95.9%	2.0%	2.0%
Do women face higher risks of harassment/assault when walking	94.9%	2.0%	3.1%

long distances for water?			
Has the lack of water led to transactional sex for water access?	95.9%	2.0%	2.0%
Have water disputes increased GBV cases in the community?	89.8%	4.1%	6.1%
Has water scarcity led to more emotional abuse at home?	93.9%	3.1%	3.1%

Source: Researcher (2025)

The analysis of water scarcity and its link to gender-based violence (GBV) shows a strong relationship between limited access to water and increased household and community challenges. A significant 95.9% of respondents indicated that drought-related water scarcity has led to household conflicts, reflecting the strain that resource shortages place on domestic harmony. Similarly, 94.9% acknowledged that women face higher risks of harassment and assault when walking long distances for water, highlighting how water scarcity exposes women to physical insecurity.

The data further reveal that 95.9% of respondents associated water scarcity with transactional sex, suggesting that women and girls are forced into exploitative survival strategies when water is unavailable. Meanwhile, 89.8% agreed that water disputes contribute to GBV cases in the community, showing that competition for scarce resources often escalates into violence. Additionally, 93.9% reported that water scarcity increases emotional abuse at home, indicating that the stress of scarcity translates into psychological violence against women.

From this interpretation, it is clear that water scarcity not only threatens basic survival but also amplifies vulnerabilities to GBV, especially for women and girls. The consistently high percentages (mostly above 90%) emphasize the severe impact of water scarcity on gender dynamics, with both private and public spaces becoming sites of abuse and exploitation.

Local administrators*:* *"During the dry season, women in Matapato South walk for hours in search of water, sometimes leaving before dawn and returning late. This exposes them to attacks on the way. They also lose time for income-generating activities".*

Healthcare workers*:* *"I notice that women suffer from dehydration and exhaustion, and maternal health becomes riskier during the dry season. Girls also face more absenteeism from school, and in some cases, they are married off early as families cannot provide for them. The*

lack of water also impacts maternal health, as pregnant women struggle to access clean water for hygiene.".

Law enforcement officers:" *When water points become crowded, I see more disputes and fights. Women are often harassed or assaulted at these points. Also, long distances create opportunities for bandits and perpetrators of sexual violence to prey on women".*

NGO representatives *my experience, women face water shortages, malnutrition, and heavy workloads. They are also pressured into harmful coping strategies, such as child marriages or exchanging sex for basic commodities".*

The challenges resonate with Maslow's hierarchy of needs, where scarcity of basic resources undermines security and dignity, pushing women into risky situations. UN Women (2020) notes that in many pastoralist regions, seasonal droughts increase the burden on women and directly correlate with heightened risks of GBV. The feminist political ecology theory also emphasizes how unequal power relations shape women's vulnerability to environmental stress.

4.4.2 Relationship between Climate Change-Driven Scarcity of Pasture Resources and the Prevalence of Gender-Based Violence among Women in Matapato South, Kajiado County

The second objective of the study was to examine the relationship between Climate Change-Driven Scarcity of Pasture Resources and the Prevalence of Gender-Based Violence among Women in Matapato South, Kajiado County. The results were as shown in Table 4.7

Table 4.7: Scarcity of Pasture Resource

Statement	Yes	No	I Don't

			Know
Has grazing land shortage increased domestic violence in pastoralist homes?	98.0 %	1.0%	1.0%
Has livestock loss from pasture shortage caused financial stress leading to IPV?	97.0 %	2.0%	1.0%
Are women sexually exploited when seeking grazing resources?	98.0 %	1.0%	1.0%
Do pasture conflicts increase GBV risks for displaced women?	98.0 %	1.0%	1.0%
Has pasture decline disrupted gender roles, increasing tension?	91.8 %	5.1%	3.1%

Source: Researcher (2025)

The results reveal a strong relationship between pasture scarcity and gender-based violence (GBV) within pastoralist communities. An overwhelming 98.0% of respondents affirmed that grazing land shortages have increased domestic violence in pastoralist homes, while only 1.0% denied or were uncertain. Similarly, 97.0% reported that livestock loss from pasture shortages has caused financial stress, leading to intimate partner violence (IPV), suggesting that economic insecurity is a major driver of conflict in households. Furthermore, 98.0% indicated that women are sexually exploited when seeking grazing resources, highlighting a severe protection risk. The same percentage (98.0%) confirmed that pasture-related conflicts increase GBV risks for displaced women, showing how displacement compounds women's vulnerabilities. Additionally, 91.8% stated that pasture decline disrupts gender roles and increases household tensions, while a small minority of 5.1% disagreed and 3.1% were unsure.

Local administrators (chiefs, assistants): *"As a chief, I have observed that pasture scarcity in Matapato South has placed a heavy burden on women and girls. They are the ones who must walk long distances in search of pasture, often in unsafe areas. This exposes them to harassment and even sexual assault. Their livelihoods, particularly in pastoralist households, are also*

affected because when livestock die, women have to bear the pressure of feeding children with limited resources".

Healthcare workers: *"In my work, I see women coming to the health facilities suffering from malnutrition and stress-related illnesses due to scarcity of pasture, therefore there is no milk and meat nutrients. Girls often drop out of school because they are needed at home to help in caring for the livestock".*

Law enforcement officers: *"From my policing perspective, I notice that women become more vulnerable to physical and sexual assault when moving long distances for pasture. Conflicts between communities over scarce pasture also escalate, creating insecurity. Women and girls are often caught in these conflicts".*

NGO representatives:*" As an NGO worker, I see that scarcity disproportionately affects women because of gendered roles. They become the first to suffer when there is no pasture, yet they are the least consulted in decision-making around resource management. These experiences align with eco-feminist theory, which explains that women's lives are deeply tied to natural resources and environmental change".* Studies by Opiyo et al. (2018) show that climate shocks disproportionately impact women in pastoralist regions, undermining their safety and livelihoods. Similarly, Gender and Development Theory highlights how structural inequalities expose women to greater vulnerabilities during climate crises.

Local administrators:*" I have witnessed that when men lose livestock due to drought, they feel disempowered, and some direct their frustrations toward women, leading to intimate partner*

violence. Scarcity also triggers conflicts over resources, and women are often victimized in the process".

Healthcare workers: *"Many of the GBV cases I treat are indirectly linked to climate stress. For example, when households face pasture scarcity, tensions rise, leading to domestic violence. Some women are also coerced into exploitative relationships just to access resources".*

Law enforcement officers: "In *my experience, climate stress worsens insecurity. Resource conflicts create displacement, and displaced women are at higher risk of sexual violence. Even within households, men use violence as a way to cope with the stress of losing livelihoods".*

NGO representatives: *"I have seen an increase in reports of survival sex, early marriages, and domestic abuse linked to climate-related hardship. Women are forced to make desperate choices to secure resources, which puts them in exploitative situations".* These observations reflect the strain theory, which explains that stressors such as poverty or scarcity increase the likelihood of violence in households. According to CARE International (2021), climate change has intensified GBV in pastoralist communities by heightening economic stress and social instability. The social ecological model also shows that environmental pressures interact with social and individual factors to drive GBV.

4.4.3 Effect of Food Insecurity Due to Climate Change on the Prevalence of Gender-Based Violence among Women in Matapato South, Kajiado County

The third objective of the study is to analyze the effect of food insecurity due to climate change and the prevalence of gender-based violence (GBV) among women in Matapato South, Kajiado County. The results were as shown in Table 4.8

Table 4.8: Food Insecurity

Statement	Yes	No	I Don't Know
Have food shortages increased household disputes?	93.9 %	3.1%	3.1%
Do women face sexual violence when getting food aid/supplies?	97.0 %	1.0%	2.0%
Does lack of food increase emotional abuse against women?	93.9 %	3.1%	3.1%
Has food insecurity forced women into abusive relationships for survival?	93.9 %	3.1%	3.1%
Has the pressure to find food made women more vulnerable to GBV?	91.8 %	5.1%	3.1%

Source: Researcher (2025)

The results demonstrate a strong correlation between food insecurity and increased risks of gender-based violence (GBV) within households and communities. A significant 93.9% of respondents indicated that food shortages have increased household disputes, showing how scarcity fuels domestic tensions. Additionally, 97.0% reported that women face sexual violence when seeking food aid or supplies, making this the most severe finding and highlighting the vulnerability of women in aid distribution contexts. The same proportion of 93.9% agreed that lack of food leads to emotional abuse against women, reflecting how economic stress translates into psychological harm. Similarly, 93.9% confirmed that food insecurity forces women into abusive relationships for survival, indicating that scarcity pushes women into exploitative arrangements. Finally, 91.8% noted that the pressure to find food makes women more vulnerable to GBV, while 5.1% disagreed and 3.1% were unsure, suggesting a near-universal acknowledgement of the risks.

"As a local administrator, I have seen how food shortages caused by poor rainfall patterns create tension within households. Women often bear the burden of providing food, and when they

fail, they face verbal and sometimes physical abuse. In extreme cases, some women are forced into transactional sex to secure food for their children". This aligns with Agarwal's (1997) feminist political ecology framework, which highlights how environmental stressors deepen gendered vulnerabilities. Similarly, the ecological model by Heise (1998) illustrates that structural stress, like hunger, exacerbates interpersonal violence.

"As a healthcare worker, I witness women and girls arriving at health facilities with signs of physical abuse linked to food-related conflicts. Malnutrition also weakens their health, and when coupled with GBV, it worsens maternal and child health outcomes". Empirical studies, such as those by FAO (2021), show that food insecurity disproportionately affects women's well-being and increases their exposure to violence.

"As a law enforcement officer, I observe that food scarcity fuels domestic violence cases reported at the station. Men, frustrated by economic stress, often turn their anger on women". This pattern is consistent with strain theory (Agnew, 1992), which argues that stressors like hunger or poverty increase the likelihood of deviant behavior, including violence.

"As an NGO representative, I have interacted with women who confess to resorting to negative coping mechanisms such as early marriage of daughters or survival sex due to food scarcity". These survival strategies mirror findings by UN Women (2020), which link climate-induced food insecurity to increased risks of GBV across sub-Saharan Africa.

4.4.4 Influence of Climate-Driven Migration on the Prevalence of Gender-Based Violence among Women in Matapato South, Kajiado County

The four objectives of the study are to investigate if climate-driven migration influences the prevalence of women to gender-based violence (GBV) among women in Matapato South, Kajiado County. The results were as shown in Table 4.9

Table 4.9: Climate-Driven Migration

Statement	Yes	No	I Don't Know
Has drought migration exposed women to sexual violence?	92.9%	4.1%	3.1%
Are displaced women at higher GBV risk due to weak protections?	97.0%	1.0%	2.0%
Does displacement increase IPV and emotional abuse?	91.8%	5.1%	3.1%
Are displaced girls more likely to face early/forced marriage?	93.9%	3.1%	3.1%
Has climate migration increased the trafficking/exploitation of women?	96.9%	1.0%	2.0%

Source: Researcher (2025)

The findings indicate that climate-driven migration significantly heightens women's vulnerability to gender-based violence (GBV). A majority of respondents (92.9%) confirmed that drought-induced migration exposes women to sexual violence, highlighting the heightened risks during mobility and settlement transitions. Furthermore, 97.0% agreed that displaced women are at higher GBV risk due to weak protection structures in displacement settings, pointing to critical gaps in safeguarding mechanisms. Similarly, 91.8% of participants reported that displacement increases intimate partner violence (IPV) and emotional abuse, reflecting the compounded household stress experienced during crises. The survey also shows that 93.9% believe displaced girls are more likely to face early or forced marriage, signalling the prevalence of harmful coping strategies among affected families. Lastly, 96.9% indicated that climate migration has increased trafficking and exploitation of women, making it one of the gravest threats identified. The percentages demonstrate overwhelming agreement, with minimal disagreement or uncertainty, underscoring the severity of the problem.

Local Administrators (Chiefs, Assistants)

"I have seen that when families are displaced due to drought, women and girls are at greater risk of GBV because they are forced to live in temporary shelters where privacy is limited. In Matapato South, displacement weakens traditional social structures that usually protect women, leaving them exposed to exploitation. To mitigate this, we try to mobilize community policing and support women's groups to provide some level of protection. This experience is supported by theories of social disorganization, which argue that weakened community networks increase vulnerability to violence". Literature also shows that displaced populations, especially in rural

Africa, often face heightened risks of sexual exploitation due to resource scarcity and lack of protection mechanisms (IDMC, 2022).

Healthcare Workers

"In my role, I have treated women and girls who suffered violence after being displaced by drought. Displacement increases stress within families, and many men resort to violence as a way of coping with the loss of livelihoods. At the same time, women who must seek food or water far from settlements are targeted by perpetrators. We sometimes collaborate with humanitarian actors to provide psychosocial support and referral services, but coverage is limited". This aligns with the ecological model of GBV, which shows how individual stressors, family breakdown, and community instability interact to heighten risks. Empirical studies confirm that displaced women often experience higher incidences of intimate partner violence and sexual assault during crises (UN Women, 2021).

Law Enforcement Officers

"From my perspective, displacement has increased GBV cases because people move to new areas without adequate security arrangements. For example, in makeshift camps, there are few patrols and limited law enforcement presence, making women easy targets for assault. We try to respond by setting up patrol schedules and community policing units, but our resources are overstretched". Conflict theory also explains this situation, as competition for scarce resources leads to power imbalances and violence, often directed at women. Research indicates that in displacement situations, limited state presence often leaves women unprotected and at the mercy of perpetrators (Amnesty International, 2020).

NGO Representatives

"I have observed that displacement due to drought significantly worsens women's vulnerability to GBV, as they lose access to land, livestock, and traditional safety nets. In camps or new settlements, they often depend on aid distributions, where sexual exploitation can occur. Our organization has put in place awareness programs, safe spaces, and reporting channels to protect displaced women, though uptake is sometimes low due to stigma. The protection gaps I

see reflect the feminist theory of GBV, which views gendered power imbalances as intensified in crises". Literature on humanitarian crises also highlights that displaced women and girls face heightened risks of sexual exploitation, early marriage, and domestic violence (UNHCR, 2021).

4.4.5 Gender-Based Violence at Matapato South Ward, Kajiado, Kenya

The four objectives of the study sought to examine the influence of climate change outcomes on the prevalence of gender based violence against women in Matapato South Ward, Kajiado, Kenya. The results were as shown in Table 4.10.

Table 4.10: Gender-Based Violence (GBV)

Statement	Yes	No	I Don't Know
Have climate stressors increased GBV in your community?	92.9 %	4.1%	3.1%
Are women more vulnerable to GBV during droughts?	96.9 %	1.0%	2.0%
Have IPV cases risen with food/water shortages?	91.8 %	5.1%	3.1%
Has displacement increased GBV cases here?	91.8 %	5.1%	3.1%
Have cultural practices failed to protect women from GBV during climate crises?	95.9 %	2.0%	2.0%

Source: Researcher (2025)

The data highlights the strong link between climate stressors and increased gender-based violence (GBV) in affected communities. A total of 92.9% of respondents acknowledged that climate stressors have increased GBV in their communities, showing the pervasive effect of environmental shocks on social safety. Additionally, 96.9% agreed that women are more vulnerable to GBV during droughts, confirming the heightened risks when households struggle for scarce resources. Regarding intimate partner violence (IPV), 91.8% reported that food and water shortages have driven a rise in IPV cases, indicating that scarcity significantly escalates household tensions. The same percentage (91.8%) stated that displacement has led to increased GBV, underlining how forced migration leaves women and girls at risk of exploitation and abuse. Finally, 95.9% believed that cultural practices have failed to protect women from GBV

during climate crises, exposing the inadequacy of traditional mechanisms in safeguarding women's rights during emergencies.

"As a local administrator, I mainly rely on community barazas, household surveys, and direct reporting from village elders to gather information on GBV during climate-related crises. These tools are accessible and culturally acceptable, though sometimes limited in detail". Literature indicates that community-driven methods are crucial in fragile contexts (UNDP, 2022), but they often lack disaggregated data. This aligns with Stakeholder Theory (Freeman, 1984), which stresses involving grassroots actors in decision-making.

"As a healthcare worker, I use patient intake forms, case management systems, and occasionally mobile reporting tools to track GBV incidents during drought. These tools ensure confidentiality and accuracy". However, studies (WHO, 2021) highlight that health-based reporting is often underutilized due to stigma and underreporting. This fits within the Health Belief Model, as survivors' willingness to disclose depends on perceived safety and support.

"As a law enforcement officer, I depend on formal case files, police occurrence books, and mobile reporting apps where available. These methods allow evidence gathering but often miss unreported cases". Empirical research (UN Women, 2020) shows that most GBV cases remain invisible due to fear of retaliation. This aligns with the Routine Activities Theory (Cohen & Felson, 1979), which explains the occurrence of GBV in contexts of weakened guardianship, such as displacement camps.

"As an NGO representative, I apply mixed methods surveys, focus group discussions, and digital platforms to collect both quantitative and qualitative data. These approaches provide a broader perspective but demand resources and skilled personnel". Literature (CARE, 2021) emphasizes participatory approaches as effective in capturing survivor voices, supporting the Theory of Change by demonstrating how interventions rely on sound data.

"As a local administrator, the main challenge I face is underreporting, since survivors often fear stigma or reprisal. To address this, I encourage confidential reporting channels through trusted elders". This challenge is consistent with studies by Amnesty International (2022), which show

that cultural norms hinder open reporting. From a Social Ecological Model perspective, these barriers exist at community and societal levels.

"As a healthcare worker, I encounter challenges such as a lack of standardized tools, survivors' reluctance to disclose violence, and limited training of staff in GBV-sensitive data collection. I try to overcome this by building trust and ensuring confidentiality during consultations". Literature (WHO, 2021) confirms that survivor-centered approaches increase disclosure rates. This reflects Trauma-Informed Care Theory, which emphasizes safety and trust in data collection.

"As a law enforcement officer, challenges include intimidation of victims, lack of digital infrastructure, and interference from powerful perpetrators. I address these by providing safe interview spaces and using mobile reporting apps when possible". Research (Human Rights Watch, 2020) highlights how weak enforcement systems perpetuate silence. This challenge aligns with Conflict Theory, in which unequal power relations shape reporting outcomes.

"As an NGO representative, I often struggle with logistical constraints, language barriers, and ensuring data validity. Survivors sometimes provide incomplete information due to fear or fatigue. To address this, I integrate participatory rural appraisal methods and employ female enumerators to increase comfort". Literature (CARE, 2021) stresses that gender-sensitive methodologies improve accuracy. This aligns with Participatory Action Research (PAR) theory, which emphasizes involving affected populations in shaping knowledge.

"As a local administrator, I work with the county government and relief agencies to ensure the timely distribution of food aid during crop failures. I also mobilize community barazas to sensitize households about fair food distribution". These interventions reduce household conflicts and help mitigate the risk of GBV. This resonates with resilience theory (Folke, 2006), which emphasizes community adaptation in the face of shocks.

"As a healthcare worker, I participate in programs that provide nutritional supplements to expectant mothers and children. By reducing the burden of hunger, these programs indirectly lower the likelihood of violence at home". Empirical evidence from the Kenya Red Cross (2022) supports that targeted food interventions enhance family stability and reduce GBV triggers.

"As a law enforcement officer, I collaborate with relief organizations to ensure that food aid distribution is safe and free from exploitation. By monitoring these processes, I help reduce instances where women might otherwise face harassment or abuse in exchange for food". This reflects social protection theory (Devereux & Sabates-Wheeler, 2004), which posits that safety nets reduce vulnerability to exploitation.

"As an NGO representative, I implement women-led livelihood initiatives, such as poultry and kitchen gardens, which enhance women's autonomy in securing food. Empowering women economically has been shown to reduce their vulnerability to GBV, as supported by Kabeer's (1999) theory of women's empowerment. These programs give women a stronger voice and bargaining power at both the household and community levels.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of key findings, conclusions, and recommendations derived from the study. It consolidates the research objectives, methodology, and major outcomes discussed in previous chapters. The summary provides a concise overview of the study's findings, while the conclusion reflects on their implications in addressing the research problem. Additionally, this chapter offers practical recommendations for stakeholders and suggests areas for further research to expand on the study's findings. By integrating these components, the chapter aims to reinforce the significance of the research and contribute to the broader discourse on the subject matter.

5.2 Summary of Findings

The findings reveal that water scarcity is closely linked to increased risks of gender-based violence, both within households and in the wider community. Limited access to water was found to fuel domestic conflicts, heighten women's vulnerability to harassment and assault when travelling long distances to fetch water, and drive exploitative practices such as transactional sex. Competition for scarce water resources also emerged as a trigger for disputes that escalate into violence, while the stress of scarcity was associated with emotional and psychological abuse in homes. Overall, the analysis underscores that water scarcity not only undermines survival but also intensifies gender inequalities, exposing women and girls to heightened insecurity and exploitation in both private and public spaces.

The findings show that pasture scarcity is a significant driver of gender-based violence in pastoralist communities. Shortages of grazing land were linked to rising domestic violence, as the resulting livestock losses and financial strain heightened household conflicts. Women were found to be particularly vulnerable, facing sexual exploitation when seeking grazing resources and increased risks of abuse during displacement caused by pasture-related conflicts. The decline in pasture was also shown to disrupt traditional gender roles, creating further tensions within

families. Overall, the results highlight that pasture scarcity not only threatens livelihoods but also deepens women's vulnerability to violence and exploitation.

The findings indicate that food insecurity significantly contributes to gender-based violence within households and communities. Shortages of food were shown to intensify domestic disputes and create an environment of heightened tension, while women were especially vulnerable to sexual violence when seeking aid or supplies. Economic stress linked to scarcity also translated into emotional abuse and pushed many women into exploitative or abusive relationships as a survival strategy. The pressure to secure food further exposed women to various forms of violence, underscoring how scarcity undermines both household stability and women's safety. Overall, the results highlight that food insecurity not only threatens basic survival but also amplifies women's vulnerability to abuse and exploitation.

The findings reveal that climate-driven migration greatly increases women's exposure to gender-based violence. Displacement linked to drought and resource scarcity was shown to heighten risks of sexual violence, particularly during migration journeys and in settlement areas where protection structures are weak. Household stress in displacement settings was also associated with increased intimate partner violence and emotional abuse. In addition, displaced girls were found to be more vulnerable to early or forced marriages, reflecting harmful coping strategies adopted by affected families. The results further highlight that climate migration has fueled the trafficking and exploitation of women, making it one of the most serious threats faced in such contexts. Overall, the analysis underscores that climate-induced migration not only disrupts livelihoods but also amplifies women's vulnerability to multiple forms of violence and exploitation.

5.3 Conclusion

In conclusion, water scarcity is not just an environmental and economic issue but also a gendered security challenge. It drives household conflicts, exposes women to harassment, fuels transactional sex, and contributes to both community-level disputes and emotional abuse within homes. These findings confirm that GBV is a critical consequence of climate-induced water shortages.

Scarcity of pasture resources is strongly linked to heightened GBV risks and household instability among pastoralist communities. Shortages not only lead to domestic violence and intimate partner conflicts but also expose women to sexual exploitation and assault, particularly when they are forced to engage in resource-seeking activities. Moreover, conflicts over grazing land trigger displacement, which further exacerbates vulnerabilities for women. The disruption of traditional gender roles due to pasture decline creates additional tension in households, worsening emotional and physical abuse. These outcomes underscore the urgent need for interventions that address both the resource scarcity and its gendered impacts.

Food insecurity is a critical driver of GBV in the community. Household disputes, emotional abuse, sexual violence, and exploitative relationships are all intensified by the struggle to access food. Women bear the greatest burden, facing exploitation during aid distribution, pressure to engage in transactional or abusive relationships, and increased domestic violence within households. The results underscore that food insecurity is not only a humanitarian concern but also a protection issue with serious implications for women's safety and dignity.

Climate-induced migration is a major driver of GBV in affected communities, exposing women and girls to sexual violence, trafficking, forced marriage, and domestic abuse. The weak protection systems in displacement areas leave women especially vulnerable, while harmful cultural practices, economic pressures, and social breakdown further exacerbate risks. These findings suggest that migration caused by drought and other climate stresses not only threatens livelihoods but also undermines women's safety, rights, and dignity.

GBV is a critical consequence of climate stressors, affecting women and girls disproportionately. Droughts, resource scarcity, and displacement create conditions where women face heightened risks of IPV, sexual violence, and exploitation. Cultural practices that might otherwise provide protection appear to collapse under crisis conditions, leaving women exposed. This underscores the urgent need to address GBV as both a humanitarian and a climate-resilience issue, with an emphasis on prevention, response, and systemic change.

5.4 Recommendations

The governments and development actors should integrate GBV prevention into water resource management and climate adaptation programs. Expanding access to safe and sustainable water

sources through boreholes, rainwater harvesting, and piped systems would reduce women's exposure to risks. Second, community awareness campaigns should be implemented to address both GBV and water-use conflicts, promoting dialogue and peaceful coexistence. Third, protective measures such as community policing and safe water collection points should be established to reduce harassment risks. Lastly, alternative livelihood and support programs should be introduced to mitigate dependence on harmful coping mechanisms such as transactional sex. Together, these interventions can reduce both the burden of water scarcity and its associated risks of GBV.

To mitigate these risks, there is a need for integrated resource management strategies that promote sustainable pasture use and alternative livelihoods, reducing dependence on scarce grazing lands. Humanitarian and development agencies should prioritize protection programs for women, including safe access to natural resources, awareness campaigns, and the establishment of community watch groups to curb exploitation. Governments and NGOs should strengthen conflict resolution mechanisms to address disputes over grazing resources before they escalate into violence. Additionally, economic empowerment programs targeting both men and women could help alleviate financial stress that fuels IPV. Finally, interventions should include community dialogues on evolving gender roles to ease household tensions and promote shared responsibilities in times of resource scarcity.

There is a need for gender-sensitive food security interventions that ensure equitable and safe access to aid. Humanitarian agencies should strengthen protection mechanisms during food distribution, such as female-led committees, safe distribution sites, and confidential reporting systems for abuse. Governments and NGOs should expand social protection programs such as cash transfers and food vouchers to reduce women's exposure to exploitation when seeking aid. Community awareness campaigns should also be implemented to challenge harmful practices like transactional sex and abusive survival relationships. Additionally, empowering women through livelihood initiatives can reduce dependency and vulnerability, while psychosocial support services should be expanded for survivors of food-related GBV.

Humanitarian and government actors should prioritize the integration of GBV prevention and response mechanisms within migration and displacement programs. Establishing safe spaces for women and girls, strengthening camp security, and deploying trained protection officers are

critical. Community sensitization campaigns should be conducted to discourage harmful practices such as early marriage, while survivors of trafficking and exploitation should have access to legal, medical, and psychosocial support. Livelihood and skills training programs should be introduced to reduce dependency and vulnerability among displaced women. At the policy level, climate adaptation strategies must incorporate gender-sensitive protection frameworks to ensure women's safety during and after displacement.

5.5 Suggestion for Further Studies

1. Future studies should examine the long-term impacts of climate-driven migration on women's safety, resilience, and socio-economic empowerment. While this study focused on immediate and short-term gender-based violence risks, there is a need to understand how prolonged displacement affects women's access to justice, availability of livelihood opportunities, and inclusion within formal and informal social protection systems over time.
2. Further research should assess the effectiveness of existing community-based and institutional mechanisms in protecting women during and after climate-induced migration. Such studies could evaluate the capacity of local leadership structures, humanitarian actors, and government institutions to prevent and respond to gender-based violence, as well as identify sustainable and gender-responsive strategies for reducing vulnerabilities and strengthening women's resilience against exploitation and abuse in climate-affected settings.

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APPENDIX 1: INFORMED CONSENT OF THE WOMEN

My name is Edna Orguba, a Master's student in Development Studies at St. Paul's University. My study focuses on the intersection of gender, climate change, and the impact on women in Matapato South, Kajiado. This study is a component of my class assignment in the Research Methods unit.

This is to request your participation in this study. If you agree to participate, you will be asked to complete a questionnaire that will take approximately 15-20 minutes. Your participation is entirely voluntary, and while no financial compensation is provided, your thoughtful responses will be invaluable. All responses will be kept confidential and anonymized to ensure your privacy. In addition, your name or any other identifying information will not be used. Instead, the interview will be identified by a code number.

Do you consent to proceed with the completion of the survey questions – YES /NO

If you have any questions or concerns about this study, you can contact the Chair / Secretary of St Paul's University Scientific and Ethical Review Committee (ISERC) via iserc@spu.ac. ke; or 0714-029098

I certify that I have consented to participate in this research.

The participant (code no) …… Signature: …….

Researcher's name: ……

APPENDIX 2: INFORMEND CONSENT OF THE OTHER STAKEHOLDERS

My name is Edna and participate in a research study on the interplay between climate change outcome and gender-based violence (GBV) against women of Matapato South, Kajiado. The study seeks to explore how the impacts of climate change, including droughts, resource scarcity, and environmental degradation, exacerbate gender-based violence within pastoralist communities. By examining the intersections of climate stress and GBV, the research aims to better understand how changing environmental conditions heighten vulnerabilities for women in pastoral community. Your participation will contribute valuable insights to inform policies and interventions aimed at addressing both climate change and gender-based violence in these communities.

The 45–60-minute interview will be guided by open-ended questions resting on your observations, experiences and the way you felt about the topic. I will audio record the conversation and use it in data analysis.

This study is voluntary and no risks are anticipated to your participation. Your responses will help inform the research focused on helping young mothers succeed academically. Your responses are confidential. You can refuse to participate or withdraw from the study at any time, for any reason, without explanation and penalty.

If you have questions about this study or your rights as a participant, you may contact the principal researcher:

Participant Signature: _____

Participants code: _____

Date: _____

Researcher Signature: _____

Date: _____

Audio Recording Consent

☐ I consent to having my interview audio-recorded.

□ I do not consent to having my interview audio-recorded.

Participant Initials: _____

APPENDIX 3: QUESTIONNAIRE FOR WOMEN

SECTION A: DEMOGRAPHIC INFORMATION Please tick appropriately.

1. What is your age bracket?
   o 18 to 24 years
   o 25 to 31 years
   o 32 to 38 years
   o 39 years and above
2. What is the level of education?
   o No formal education
   o Primary education
   o Secondary education
   o Tertiary education

3. What is gender?
   o Male
   o Male

SECTION B: WATER SCARCITY AND GBV

Do you think the following statements about water scarcity and GBV are true?

No.	Statement	Yes	No	I Don't Know
8.	Has water scarcity from droughts increased household conflicts?	□	□	□
9.	Do women face higher risks of harassment/assault when walking long distances for water?	□	□	□
10.	Has the lack of water led to transactional sex for water access?	□	□	□
11.	Have water disputes increased GBV cases in the community?	□	□	□
12.	Has water scarcity led to more emotional abuse at home?	□	□	□

SECTION C: PASTURE SCARCITY AND GBV

Are these statements about pasture scarcity and GBV correct?

No.	Statement	Yes	No	I Don't Know
13.	Has grazing land shortage increased domestic violence in pastoralist homes?	☐	☐	☐
14.	Has livestock loss from pasture shortage caused financial stress leading to IPV?	☐	☐	☐
15.	Are women sexually exploited when seeking grazing resources?	☐	☐	☐
16.	Do pasture conflicts increase GBV risks for displaced women?	☐	☐	☐
17.	Has pasture decline disrupted gender roles, increasing tension?	☐	☐	☐

SECTION D: FOOD INSECURITY AND GBV

Are these statements about food insecurity and GBV accurate?

No.	Statement	Yes	No	I Don't Know
18.	Have food shortages increased household disputes?	☐	☐	☐
19.	Do women face sexual violence when getting food aid/supplies?	☐	☐	☐
20.	Does lack of food increase emotional abuse against women?	☐	☐	☐
21.	Has food insecurity forced women into abusive relationships for survival?	☐	☐	☐
22.	Has the pressure to find food made women more vulnerable to GBV?	☐	☐	☐

SECTION E: CLIMATE-DRIVEN MIGRATION AND GBV

Do you agree with these statements about migration and GBV?

No.	Statement	Yes	No	I Don't Know
23.	Has drought migration exposed women to sexual violence?	☐	☐	☐
24.	Are displaced women at higher GBV risk due to weak protections?	☐	☐	☐
25.	Does displacement increase IPV and emotional abuse?	☐	☐	☐
26.	Are displaced girls more likely to face early/forced marriage?	☐	☐	☐
27.	Has climate migration increased trafficking/exploitation of women?	☐	☐	☐

SECTION F: GBV PREVALENCE

Are these statements about GBV and climate change true?

No.	**Statement**	**Yes**	**No**	**I Don't Know**
28.	Have climate stressors increased GBV in your community?	☐	☐	☐
29.	Are women more vulnerable to GBV during droughts?	☐	☐	☐
30.	Have IPV cases risen with food/water shortages?	☐	☐	☐
31.	Has displacement increased GBV cases here?	☐	☐	☐
32.	Have cultural practices failed to protect women from GBV during climate crises?	☐	☐	☐

APPENDIX 4: KEY INFORMANT INTERVIEW FOR COMMUNITY ELDERS, LOCAL ADMINISTRATORS, HEALTHCARE WORKERS, LAW ENFORCEMENT OFFICERS, AND NGO REPRESENTATIVES

Section A: General Information

1. What is your role in the community or organization, and how long have you been involved in addressing climate change or gender-based violence in this area?

Section B: Climate Change, Water and Pasture Scarcity, and GBV

2. How have climate-related challenges (such as water and pasture scarcity) affected women and girls in Matapato South, especially regarding their safety and livelihoods?
3. In your opinion, how do these climate impacts contribute to an increase in gender-based violence (GBV) in the community?
4. What specific challenges do women face during the dry season regarding water and pasture, and how does this increase their vulnerability to GBV?

Section C: Food Insecurity and GBV

5. How has food insecurity, due to changes in rainfall patterns, contributed to GBV in your community?
6. What strategies are in place to support women in securing food during crop failures, and how have these helped reduce GBV risks

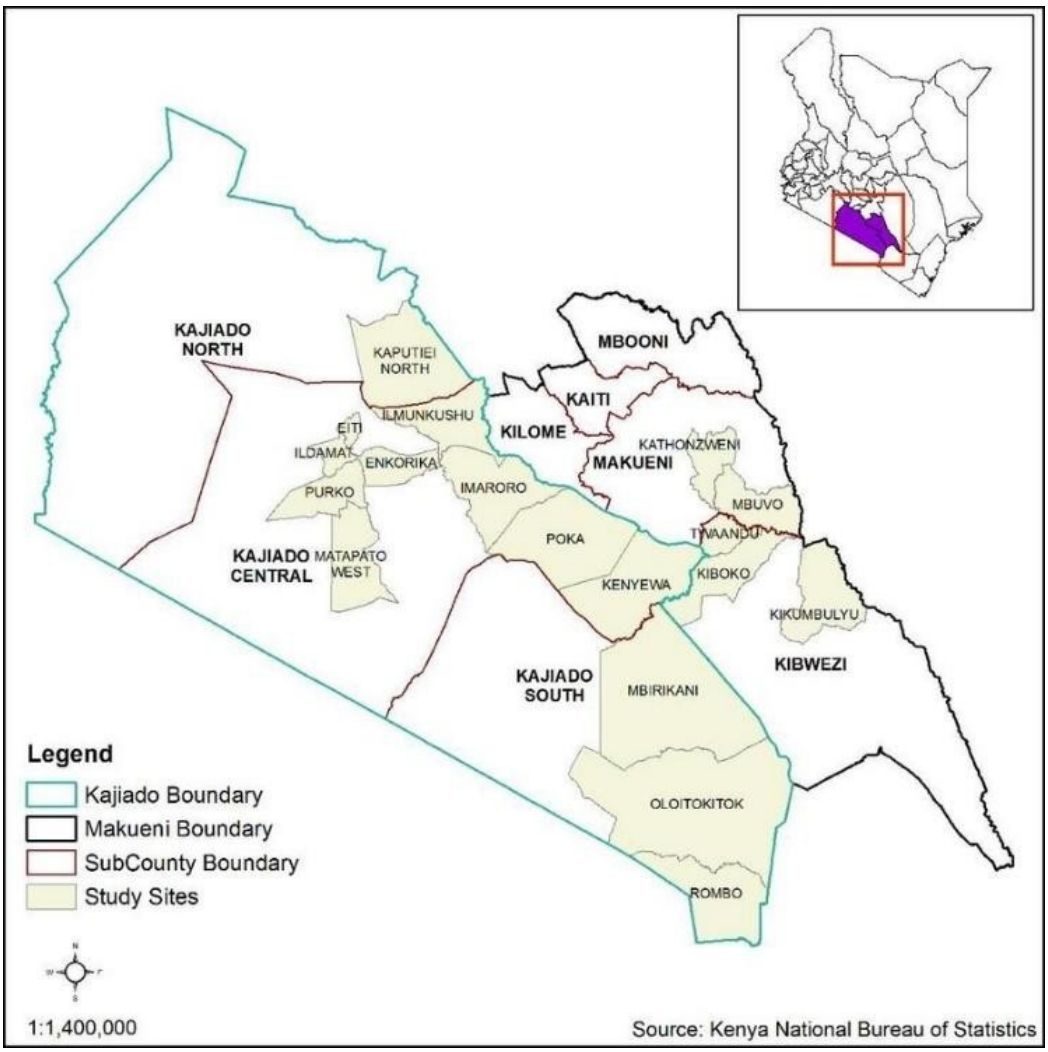
Section D: Displacement and GBV

7. Has climate-induced displacement (such as migration due to drought) led to more GBV, especially among women and girls? If so, how are displaced women protected from such violence?

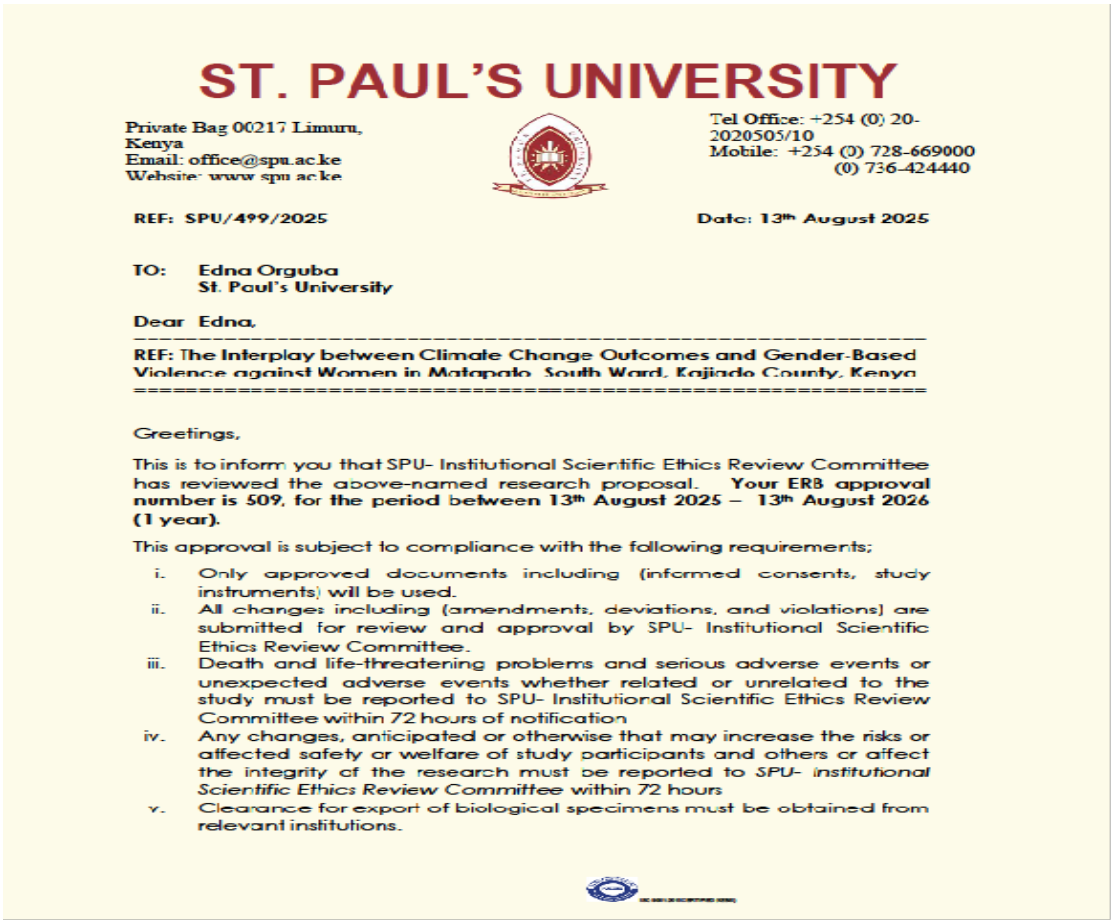
Section E: Tools used to collect data on climate-related Gender-Based Violence (GBV)

8. What data collection tools or methods (e.g., surveys, focus group discussions, mobile apps, case management systems) are currently used in your organization/community to gather information on GBV in the context of climate change?
9. What challenges have you encountered when collecting data on climate-related GBV, and how have you addressed them?

APPENDIX 5: THE MAP SHOWING THE STUDY AREA



APPENDIX 6: RESEARCH PERMIT



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REF: SPU/499/2025 **Date: 13th August 2025**

TO: Edna Orguba
St. Paul's University

Dear Edna,

REF: The Interplay between Climate Change Outcomes and Gender-Based Violence against Women in Matapalo South Ward, Kajiado County, Kenya

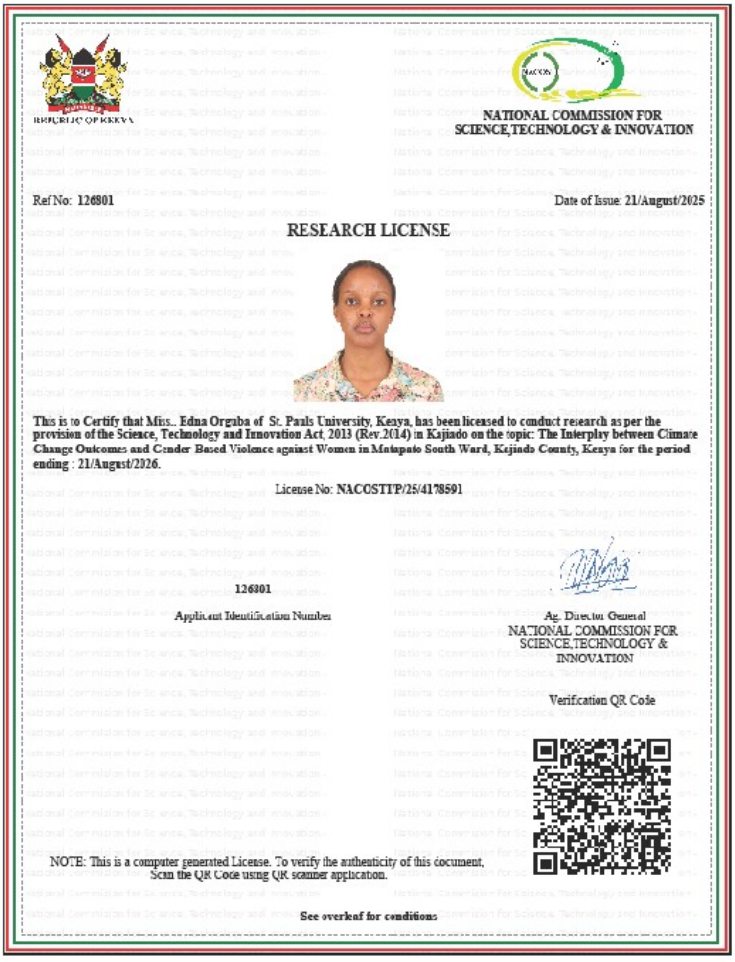
Greetings,

This is to inform you that SPU- Institutional Scientific Ethics Review Committee has reviewed the above-named research proposal. **Your ERB approval number is 509, for the period between 13th August 2025 – 13th August 2026 (1 year).**

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SPU- Institutional Scientific Ethics Review Committee.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SPU- Institutional Scientific Ethics Review Committee within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to *SPU- Institutional Scientific Ethics Review Committee* within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.

APPENDIX 7: NACOSTI PERMIT



NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 126801

Date of Issue: 21/August/2025

RESEARCH LICENSE

This is to Certify that Miss.. Edna Orguba of St. Pauls University, Kenya, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kajiado on the topic: The Interplay between Climate Change Outcomes and Gender Based Violence against Women in Matapato South Ward, Kajiado County, Kenya for the period ending : 21/August/2026.

License No: NACOSTI/P/25/41788591

126801

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions