BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SOCIAL SCIENCE AND HUMANITIES

The Impact of Climate Change on Rural Women's Livelihoods. A Case of Ward 19, Nyanga District, Manicaland Province

By

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ABSTRACT

Climate change poses a significant threat to rural women's livelihoods globally, with vulnerable communities in developing countries, including Zimbabwe, bearing the brunt of its impacts. This study investigates the impact of climate change on rural women's livelihoods in Nyanga South, Ward 19, Zimbabwe, using the Sustainable Livelihoods Framework as a lens. A qualitative research design, employing a case study approach, was used to collect data from a sample of 30 rural women, selected using random sampling techniques. The study reveals that climate change has severe social impacts, including increased workloads and decreased social cohesion, as well as economic impacts, including reduced agricultural productivity and increased poverty. Despite these challenges, rural women in Nyanga South, Ward 19, have developed coping strategies, including diversifying their livelihoods and adopting climate-resilient agricultural practices. To address the impacts of climate change on rural women's livelihoods, this study recommends promoting climate-resilient agriculture and providing economic empowerment programs for rural women. Further studies are needed to investigate the effectiveness of climate change adaptation strategies in improving rural women's livelihoods.

DECLERATION FORM

I, Givemore Samunda (B211947B), declare that this project is my own original work and has not been submitted elsewhere for examination. I confirm that all sources used in this research have been properly acknowledged and referenced.

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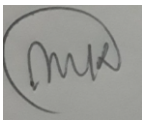
Chairperson: Dr Kurebwa  Date:30/08/2026

DEDICATION

To my beloved father, Mr. Henry Chitsenga, whose unwavering support and encouragement have been my guiding force throughout this journey. Your sacrifices, patience and love enabled me to pursue my dreams, and I am forever grateful.

To my mother, Ms. Lucia Masiya, whose selflessness and resilience inspired me every day. Your prayers and blessings have been my strength.

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LIST OF ABBREVIATIONS

AfDB-African Development Bank

AU-African Union

DFID - Department for International Development

FAO - Food and Agriculture Organization

IFAD - International Fund for Agricultural Development

IPCC - Intergovernmental Panel on Climate Change

NGO - Non-Governmental Organization

SADC - Southern African Development Community

SDGs - Sustainable Development Goals

SLF- Sustainable Livelihoods Framework

SPPs - Social Protection Programs

UN - United Nations

UNDP - United Nations Development Programme

UNEP-United Nations Environment Programme

ZIMSTAT - Zimbabwe National Statistics Agency

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the study

Globally, Climate change impacts 3.2 billion people worldwide, with women comprising 70% of the world's poor being disproportionately vulnerable (IPCC, 2019; World Bank, 2020). In Africa, 75% of the population relies on rain-fed agriculture, 80% of women are engaged in informal economies, and 60% rely on natural resources (AfDB, 2020; AU, 2020). Since the 1980s, climate-related disasters have risen by 15%, affecting women's health, finances, and overall well-being (UN, 2020). In Southern Africa, climate change affects 60% of the population, with women experiencing the majority of climate-related impacts (SADC, 2020). In Zimbabwe, 52% of the population are women, with 61.4% living in rural areas, relying heavily on rain-fed agriculture (ZIMSTAT, 2022). Climate-related disasters have increased women's care-giving responsibilities by 30% and led to a 25% decline in agricultural productivity (Action Aid, 2019; IFAD, 2018). This study focuses on Nyanga South, Ward 19, a rural area in Zimbabwe, where women's agricultural livelihoods and food security are threatened by limited infrastructure, fragile livelihoods, entrenched gender inequalities, and frequent droughts, floods, and temperature variability.

1.2 Purpose of the study

This study seeks to examine the effects of climate change on the livelihoods of

rural women in Nyanga South, Ward 19, Zimbabwe

1.3 Statement of the Problem

Climate change poses a significant threat to women's livelihoods in rural Zimbabwe, particularly in Nyanga South, Ward 19, where 61.4% of the population are women living in rural areas (ZIMSTAT, 2022). Rising temperatures, frequent droughts, and floods have led to a 25% decline in agricultural productivity (IFAD, 2018), exacerbating poverty and food insecurity among rural women. This vulnerability disproportionately affects women, who comprise 70% of Zimbabwe's poor (World Bank, 2020) and rely heavily on rain-fed agriculture for their livelihoods. Climate-related shocks have increased women's care-giving responsibilities by 30% (Action Aid, 2019). These changes have also affected their mental well-being and restricted access to education, Healthcare and economic opportunities. This situation is problematic because it reinforces gender disparities, weakens women's empowerment as well as hindering Zimbabwe's progress towards sustainable development. Addressing this issue requires understanding climate change's impacts on women's livelihoods and identifying context-specific adaptation strategies to enhance their resilience and well-being.

1.4 Research Objectives

1.To analyze the social consequences of climate change on the livelihoods of rural women in Nyanga South, Ward 19, Zimbabwe.

2. To evaluate the economic effects of climate change on the livelihoods of rural women in Nyanga South, Ward 19, Zimbabwe.

3. To identify the ways developed by rural women in Nyanga South, Ward 19, to ameliorate the impacts of climate change.

1.5 Research Questions

1. How does climate change socially affect livelihoods of rural women in ward 19, Nyanga South?

2. To what extent does climate change economically affect livelihoods of women in rural areas, particularly in ward 19, Nyanga District?

3. What strategies do rural women employ to reduce the effects of climate change in ward 19, Nyanga South, Zimbabwe?

1.6 Assumptions of the Study

This study is based on the premise that climate variability is impacting on the lives and sustenance of rural women within Nyanga South, Ward 19, Zimbabwe. It is assumed that women in this area significantly depend on natural resources and agriculture for their living , making them vulnerable to climate-related shocks. Additionally, it is assumed that local coping strategies and adaptation measures can boost the ability of women to withstand climate change. Furthermore, the research assumes that grasping the consequences of climate change on women's livelihoods is vital for crafting effective climate change adaptation policies and programs.

1.7 Significance of the Study

The findings of this study are significant for policymakers (ministers, members of parliament and government officials), local communities such as chiefs and village heads, non-governmental organizations like Oxfam and World Life Fund, academic institutions such as universities, Research Institutes and Colleges, and government agencies like Environmental Protection Agency. It provides valuable insights for developing targeted climate change adaptation strategies, empowering women, and informing climate-resilient agricultural practices. The study contributes to achieving Sustainable Development Goals (SDGs) 5, 13, and 1, and has practical applications in informing climate projects, developing gender-sensitive policies, enhancing women's participation, and improving access to climate information. The findings will benefit local women, policymakers, and stakeholders, ultimately promoting climate resilience, gender equality, and sustainable livelihoods.

1.8 Delimitations of the study

This study is deliberately bounded by several delimitations. Firstly, the study concentrates on rural women, excluding other vulnerable groups such as children, the aged, and those living with disabilities. Additionally, the geographical scope is limited to Nyanga South ward 19 in Zimbabwe, which may not be representative of other rural areas in Zimbabwe or other countries. The study also delimits its focus to specific livelihood strategies, such as agriculture or livestock production, while excluding other important strategies like non-timber forest products or tourism. Furthermore, the study's time frame is limited, focusing on a specific period (six

months), which may not capture long-term trends or historical context. Moreover, the study delimits its scope to rural women only, excluding other important stakeholders like local government officials, NGOs, or community leaders. Finally, the study employs certain research techniques, such as surveys, focus groups, and case study, while excluding other methods like participatory rural appraisals. By acknowledging these delimitations, the study provides a clear understanding of its scope and boundaries, enabling a focused examination of the influence of climate change on the sustenance and lives of rural women in Nyanga South ward 19, Zimbabwe.

1.9 Limitations to the study

This study, acknowledges several limitations that may affect its findings. Firstly, the geographical scope of the study is restricted to ward 19 of Nyanga South, which may limit the external validity of the results to other areas. Additionally, a limited sample size could impact the reliability and precision of the results. Using data collection methods like interviews and focus group discussions, may also introduce subjective interpretations. Furthermore, the study's time frame may be limited, restricting its ability to capture the prolonged hardships resulting from climate change on the lives and sustenance of women residing in rural areas. Sociocultural nuances of the community may not be fully captured, potentially affecting the accuracy of the findings. Power dynamics within the community may also influence participants' responses, and restricted availability of data, language differences, and funding constraints may further restrict the research’s comprehensiveness and detail. Despite these limitations, the research results indicate that it is expected to offer valuable

perspectives on the experiences faced by rural women in a changing climate, informing strategies for supporting their livelihoods and promoting climate resilience.

1.10 Key Definitions

Adaptation - means the process of adjusting to climate change, including social, economic, and environmental responses aimed at reducing vulnerability (Ford et al., 2020).

Agricultural Productivity - can be defined as the output of agricultural products per unit of land, labor, or other inputs (IFAD, 2020).

Climate Change - means a long-term shift in the earth's climate patterns, particularly due to rising average global temperatures (Hansen et al., 2020).

Climate Justice - refers to the equitable distribution of climate change effects, advantages, and burdens, prioritizing the rights and interests of vulnerable groups like rural women (Okereke, 2020).

Coping Mechanisms - refers to strategies used by individuals or communities to manage climate-related stressors (Bahadur et al., 2020).

Ecosystem-Based Adaptation - refers to the use of ecosystem services and biodiversity to adapt to climate change, including strategies like agroforestry, conservation agriculture, and ecological restoration (IPCC, 2019).

Food Security - is a state where all people have consistent physical, social, and economic access to sufficient, safe, and nutritious food (FAO, 2020).

Gender Equality - refers to the principle that individuals should have equal rights, opportunities, and freedoms regardless of their gender (UN Women, 2020).

Human Security - refers to the protection of individuals and communities from threats to their well-being, including climate-related threats to livelihoods, health, and human rights (UNDP, 2020).

Natural Resources - means resources existing naturally, such as water, land, forests, and minerals (UNEP, 2020).

Resilience - can be defined as the capacity to withstand or recover from adversity, including climate-related shocks and stressors (Bahadur et al., 2020).

Rural Women - refers to women living in rural areas, often facing unique social, economic, and environmental challenges (Dungumaro, 2020).

Sustainable Development - means about balancing current needs with the ability of future generations to meet theirs, (UN, 2020)

The vulnerability of a system or population indicates how prone it is to damage from stressors related to climate, according to the IPCC (2019, p. 124).

1.11 Dissertation Outline

Chapter One: Introduction

Provided introduction of the research encompassing project's background, statement of the problem, aim of the study, objectives, research questions, assumptions, significance of the study, limitations and delimitation of the study.

Chapter Two: Literature Review and Theoretical Framework

Explained literature review and theoretical framework.

Chapter Three: Research Design and Methodology

Described research methodology.

Chapter Four: Data Presentation, Discussion and Analysis

Gave data presentation, analysis and findings discussion.

Chapter Five: Summary, Conclusions, Recommendations and Areas for further Research

Provided summary, conclusions, recommendations and areas of further research.

CHAPTER TWO

2.0 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Introduction

Climate change undoubtedly poses substantial risks to sustainable development, human welfare, and the environment. Rural Zimbabwean women are particularly susceptible to harmful consequences of climate change, affecting their livelihoods, food security, and overall quality of life. Using the Sustainable Livelihoods Framework (SLF) as a theoretical basis, this review examines the intricate connections between climate change, the ways in which rural women earn their living, and sustainable development in Zimbabwe. This synthesis consolidates current understanding of how climate change affects rural women's livelihoods, focusing on five key themes: agricultural productivity and food security, water scarcity and household chores, economic empowerment and livelihood diversification, health and well-being, and social and cultural impacts. Additionally, it examines the strategies that rural women can employ to lessen the impacts resulting from climate change, including boosting agricultural activities, diversifying livelihood strategies, and participating in empowerment and capacity-building programs.

The goal of this review is to enhance comprehension of the multifaceted challenges facing rural women in Zimbabwe and inform the development of effective strategies for promoting their resilience, empowerment, and well-being.

2.2. Conceptual Framework: Sustainable Livelihoods Framework

This framework, known as Sustainable Livelihoods Framework (SLF) was originated from Robert Chambers and Gordon Conway in 1992, with further refinement by the Department for International Development (DFID) in 1999. The framework focuses on understanding livelihoods as dynamic and complex systems, influenced by various factors, including social, economic, and environmental contexts (Chambers & Conway, 1992; DFID, 1999). The framework highlights the role of multiple resources, including human, social, natural, physical, and financial capital in influencing livelihood results.

The Sustainable Livelihoods Framework (SLF) has sparked considerable discussion among researchers, with various arguments supporting and critiquing its effectiveness. Proponents argue that SLF provides a holistic approach to understanding livelihoods, incorporating social, economic, and environmental aspects (Bryceson & Fonseca, 2019; Eriksen et al., 2020). Additionally, SLF acknowledges the importance of context-specific analysis, recognizing that livelihoods are shaped by unique local conditions (Njenga et al., 2020; Mwale et al., 2020). Moreso, other scholars like Bahadur & Izquierdo (2020), argue that, the framework's asset-based approach enables identification of strengths and vulnerabilities, while its dynamic and adaptive nature recognizes livelihoods as constantly evolving systems.

However, this framework has been criticized by various scholars due to its limitations which need not to be ignored. Critics like Scoones (2015), argues that SLF oversimplifies complex livelihood dynamics, neglecting power relations and social

inequalities. Furthermore, SLF's focus on individual/household-level analysis may overlook broader structural and policy factors influencing livelihood outcomes (Bryceson & Fonseca, 2019; Eriksen et al., 2020). Scholars also point out that SLF lacks inter-sectional analysis, failing to adequately address intersections of gender, class, and ethnicity (Kapoor et al., 2020; Carr & Thamton, 2020). Therefore, one can argue that, SLF may not fully account for climate justice considerations, such as distributional justice and human rights.

While both proponents and critics of the Sustainable Livelihoods Framework (SLF) present valid arguments, it is essential to acknowledge that the framework's limitations can be addressed through careful refinement and application (Scoones, 2015). In the context of this research, which focuses on livelihoods for rural women facing climate change challenges, the writer argues that a refined SLF can provide a valuable framework for understanding and addressing the complex livelihood dynamics at play as noted by Morse & McNamara (2013). Hence, by acknowledging the criticisms of SLF, including its tendency to oversimplify complex livelihood dynamics and neglect power relations and social inequalities (Adato & Meinzen-Dick, 2002). Therefore, the researcher aims to refine the framework to better account for these factors. Specifically, the researcher’s plan is to integrate inter-sectional analysis and address structural and policy factors influencing livelihood outcomes (Kaijser & Kronsell, 2014). Furthermore, the researcher will emphasize climate justice and human rights considerations to ensure that the framework is tailored to the specific needs and challenges of rural women facing climate change (Schlosberg & Collins,

2014). Through this refined approach, the researcher believes that SLF can offer significant benefits for promoting sustainable livelihoods and tackling the specific difficulties encountered by rural women. Therefore, Tschakert & Machado (2012) are in support of the view that, by addressing the limitations of the framework and tailoring it to fit the research context, enhances understanding of livelihood dynamics and guide effective strategies for supporting rural women facing climate change.

2.3. An Overview of Livelihoods for Rural Women in Zimbabwe

The research outlines rural women's livelihoods in Zimbabwe and their varied experiences with climate change impacts, as noted by various researchers. Rural women in Zimbabwe face significant challenges in their livelihoods, characterized by restricted access to resources, markets, and services (Mudzingiri, 2020). Chitimira et al (2019), discovered that livelihoods of women in rural areas are primarily based on subsistence farming, with 75% of women engaged in subsistence farming practices.

However, these women face constraints such as limited land ownership (22%), restricted credit access (60%), and inadequate market information (70%) (Chitimira et al., 2019). Additionally, Mugambiwa et al (2020), argues, rural women's livelihoods are at risk from climate variability, with 80% of women reporting reduced crop yields due to drought and temperature changes.

Despite these challenges, rural women in Zimbabwe have demonstrated resilience and adaptability in their livelihood strategies. For instance, a study by Mwamakamba et al (2019) found that 60% of rural women engage in off-farm activities, such as craft production and small business initiatives to increase their revenue. Moreover,

women's participation in savings groups and cooperatives has increased, with 40% of women reporting improved financial inclusion (Chitimira et al., 2019). Statistically, rural women's livelihoods contribute significantly to Zimbabwe's economy. According to the Zimbabwe National Statistics Agency (2020), women's contribution to agricultural production accounts for 60% of the country's total agricultural output. Furthermore, a study by Ncube et al (2020) found that every dollar invested in rural women's livelihoods generates a return of $2.50 in economic growth. Thus, there is need to look in to ways on which climate change affect rural women's livelihoods so that they may be addressed.

2.4. Impacts of climate change on women's livelihoods

2.4.1 Agricultural Productivity

Agricultural productivity is substantially impacted by changing climate conditions, resulting in reduced harvests and compromised food security. According Mugambiwa et al (2020), rising temperatures, shifts in precipitation patterns, and more frequent extreme weather occurrence, change growing conditions, leading to reduced agricultural output changing precipitation patterns, and increased frequency of extreme weather events alter growing conditions, resulting in decreased agricultural productivity. This posed a threat to rural women as most of them are believed to rely on agricultural produce (FAO, 2017). This reduction in agricultural productivity has severe consequences for rural women's livelihoods including decreased income and food insecurity.

2.4.2 Food Security

Climate change impacts food security, particularly for rural women, by reducing food availability, affecting nutritional quality, and exacerbating existing gender disparities (Mugambiwa et al., 2020). Decreased agricultural productivity, reduced crop yields, and changed growing conditions lead to food insecurity (World Bank, 2020). As a result, rural women encounter substantial difficulties in obtaining enough safe and nutritious food. For instance, climate-related shocks have led to reduced food availability and dietary diversity, resulting in malnutrition and health problems in rural communities (IFAD, 2019).

2.4.3 Water Scarcity and Household Chores

Water scarcity has been a challenge affecting rural women's livelihoods caused by climate change. In the wake of climate change, women are forced to travel longer distances to collect water, leading to increased workloads and severe consequences for their physical health and well-being (Dube & Phiri, 2020; Nhemachena et al., 2018). The scarcity of water as noted by Makura et al (2020) also affects rural women's ability to maintain hygiene and sanitation, leading to increased health risks. Therefore, addressing the impacts of climate change on water scarcity is critical to promoting rural women's livelihoods and well-being.

2.4.4 Economic Empowerment and Livelihood Diversification

Climate change has far-reaching consequences for rural women's economic empowerment, limiting their livelihood options and exacerbating poverty. A number

of scholars have agreed that, climate-related shocks reduce rural women's ability to utilize natural resources, limit their engagement in economic activities, and increase their workload (Kumar et al., 2020; Chitimira et al., 2019). Given this, there is need for the adaptation of climate-resilient agriculture that can enhance rural women's economic empowerment and providing a stable source of income and improving their food security. According to Dube et al. (2020), providing rural women with the necessary skills and resources to adopt climate resilient practices is crucial for their economic empowerment.

2.4.5 Health and Wellbeing

Climate change has profound impacts on the health and well being of women in rural areas, worsening existing challenges and creating new ones (IPCC, 2018). The rising frequency and severity of extreme weather events increase rural women's risk of water-borne diseases, while changed environmental conditions facilitate the spread of vector-borne diseases (Mugambiwa et al., 2020; Kumar et al., 2020). Climate-related shocks affect the mental health of women, resulting in increased levels of anxiety, depression, and post-traumatic stress disorder (Ncube et al., 2020; Dube et al., 2020). Given this, women as a result are no longer able to cater for their daily duties and responsibilities that can make their livelihoods easier. Thus, there is need to address these health vulnerabilities, a comprehensive approach is required, incorporating climate-resilient water management, healthcare services, and social support systems (WHO, 2018).

2.4.6 Social and Cultural Impacts

Climate change has far-reaching consequences for rural women's sociocultural welfare social, affecting their traditional practices, community cohesion, and cultural identities (Edger et al., 2013). The rising frequency and severity of extreme weather conditions disrupt rural women's social networks and cultural identities (Ncube, 2020; Chitimira et al., 2019). Basing on that view, the researcher can argue that, this disruption of rural women's social networks and cultural identities due to climate induced migration, can erode their social capital, cultural heritage, and sense of belonging as supported by IPCC (2014). This in turn, can decrease their adaptive capacity to climate related shocks hence worsening their vulnerability. Therefore, the researcher can argue using UNFCCC (2015) which state that, community-led adaptation strategies that respect and uphold rural women's rights and traditions are essential to addressing these impacts.

2.5. Ways to mitigate climate change by rural women

This section is going to provide various strategies which women can use in trying to reduce the challenges caused by climate change on their livelihoods in rural areas.

2.5.1 Boosting Irrigation Activities

Rural women in Zimbabwe can adapt to climate change by boosting irrigation activities, which involves implementing irrigation systems to support crop growth during droughts and dry spells (FAO, 2017). This can significantly improve crop yields, lessen rural women's susceptibility to climate impacts, and strengthen their

livelihood stability (Mupanga & Munodawafa, 2022). By ensuring a stable supply of water for crops, irrigation systems can help rural women to reduce the risks associated with climate change such as droughts, floods, and other climate-related disasters. According to Mupanga and Munodawafa (2022), irrigation can improve crop yields by up to 50%, reduce crop failures, and increase rural women's incomes.

2.5.2 Inclusion in Program Implementation and Drought Mitigation

Rural women in Zimbabwe play a vital role in mitigating the impacts of climate change, particularly through their active involvement in program implementation and drought mitigation efforts (IPCC, 2014). By collaborating with government agencies, NGOs, and other stakeholders, rural women can contribute to the development and implementation of climate-resilient agricultural practices (Mupanga & Munodawafa, 2022). This inclusive approach not only enhances rural women's ability to adapt and withstand climate change impacts but also ensures that their needs and priorities are taken into account. Research by Mupanga and Munodawafa (2022) supports this approach, underscoring the value of involving rural women in decision-making processes can help ensure that their needs and priorities are taken in to account, leading to more effective and sustainable solutions.

2.5.3 Diversification of Livelihood Strategies

Rural women in Zimbabwe have developed innovative strategies to adapt to the challenges brought about by climate change, including diversifying their livelihood strategies (Chitimira et al., 2019). This involves engaging in multiple livelihood

strategies, such as crop cultivation and livestock rearing, off-farm employment, and micro-enterprises. By diversifying their livelihood strategies, rural women can reduce their vulnerability to climate-related shocks, improve their overall well-being, and improve their capacity to cope with climate change. As noted by Chitimira et al. (2019), this approach can have numerous benefits for rural women, including increased incomes and improved food security.

2.5.4 Empowerment and Capacity Building

Rural women in Zimbabwe can effectively mitigate the effects of climate change by empowering themselves through capacity-building initiatives (UNDP, 2016). Empowerment through capacity building enables rural women to gain the necessary knowledge, skills, and adaptive capacity needed to adapt to climate change and improve their livelihoods. This approach not only enhances rural women's resilience to climate change but also promotes their economic empowerment and social mobility. According to Mupanga & Munodawafa (2022), empowered rural women are more resilient to the impacts climate change and are able to make informed decisions.

2.5.5 Social Protection Programs

Rural women in Zimbabwe can benefit significantly from social protection programs (SPPs) designed to enhance their resilience to climate-related shocks and stresses. SPPs, including cash transfers, food assistance, and insurance programs, can provide rural women with a safety net, protecting them from the worst impacts of climate change on their livelihoods (Ncube et al., 2020). By providing rural women

with access to financial resources, food, and other essential services, SPPs can help them cope with climate-related shocks and improve their overall well-being. As noted by Ncube et al. (2020), SPPs can have numerous benefits for rural women, including improved food security and health.

2.6 Summary

This chapter examined the multifaceted effects of climate change on rural women in Zimbabwe, considering social, economic, and environmental dimensions. The findings highlighted the disproportionate vulnerability of rural women to climate related stressors such as drought, floods, and heatwaves, which worsening their preexisting socioeconomic challenges. Additionally, the chapter investigated the broad range of impacts of climate change has on rural women's livelihoods, including agricultural productivity, food security, water scarcity, health outcomes and overall quality of life. Furthermore, the chapter identified several strategies that rural women can employ to reduce the effects of climate change, such as boosting irrigation activities, participating in program implementation and drought mitigation efforts, diversifying livelihood strategies, empowering themselves through capacity building, and benefiting from social protection programs. Overall, this chapter provides a comprehensive understanding of the intersections between climate change, rural women, and livelihoods in Zimbabwe.

CHAPTER 3

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The current chapter describes the qualitative research approach used to investigate the influence of climate change on the well being of rural women. Case analysis method was adopted to obtain detailed perspectives on the experiences of rural women. Data was gathered through group discussions and detailed individual interviews, utilizing interview and group discussion protocols as tools. . The study targeted rural women aged 18-60 years, selected using purposive sampling techniques. Theme-based data analysis methods were utilized.

3.2. Research Approach

This study employed a qualitative research approach to examine changes in climate that affects the livelihoods of rural women. This approach allowed for a detailed investigation on the lived experiences of rural women and their views on climate change, providing rich, contextualized narratives as argued by Creswell & Poth (2020). Qualitative methods enabled the collection of data via detailed interviews and focus groups, which facilitated a deeper comprehension of the intricate links between climate change and the lives of rural women, and the broader sociocultural context (Hennink et al., 2020). Therefore, by examining the diverse and context-specific experiences of rural women, shaped by variables like age,

educational level, and socioeconomic standing, this study aimed to provide a comprehensive and context-aware grasp of how rural women have suffered through changes in climate, ultimately informing the development of effective adaptation strategies and policies.

3.3. Research Design

This research used a specific case analysis method to analyse the consequences of climate change on the lives of rural women in Nyanga South ward 19. This approach enables the gathering of rich, qualitative data through group discussions and detailed interviews, providing a nuanced understanding of rural women's experiences and views on climate change (Yin, 2018). The case analysis method permits an examination of the situational factors influencing the consequences of climate change on the well being of rural women, including agricultural output, food security, and general welfare (Merriam & Tisdell, 2016). Thus, by using case analysis approach, this study seeks to deliver a thorough and setting specific insight in to the ways climate change influences the lives of rural women.

3.4 Population and Sample

The researcher worked with a specific targeted population as explain bellow. As per Bryman & Bell (2019), a research population denotes the complete set of individuals or cases a researcher intends to study. The study’s target demographic comprised rural women between 18 and 60 years living in Nyanga South ward 19. The selection of this population was informed by their susceptibility to the effects of

climate change and their potential to provide valuable insights into the effects of climate change on rural women's livelihoods as noted by Denton (2018).

3.4.1 Sampling Method

A list of 30 rural women living in Nyanga South ward 19 was obtained from the local community leaders and village heads using a simple random sampling technique. This list served as the sampling frame for the study (Etikan et al., 2016).

3.4.2 Sample Size and Selection

A random sample of 30 rural women was selected from the sampling frame using random sampling methods where every individual has an equal selection chance. According to Bryman & Bell (20190, simple random sampling is a method where every individual in the population has an equal probability of being chosen. Saunders et al. (2019) define systematic sampling as members are selected based on a fixed interval or system. Therefore, this sample size was deemed sufficient to provide reliable results, while also being manageable in terms of data collection and analysis.

3.5 Data collection method

The research utilized in-depth interviews and focus groups as its primary data collection methods to obtain firsthand information in to the influence of climate change on rural women’s means of living. According to Bryman (2019), data collection methods refer to the ways in which data are gathered. In-depth interviews were chosen due to their capacity to yield rich, detailed accounts of rural women's experiences and perceptions of climate change, allowing for a deeper understanding

of the complex relationships between climate change, livelihoods, and the sociocultural context

3.6 Research Instruments

The researcher used a semi-structured interview guide and a guide for focus group discussions in collecting data. A research instrument denotes the tools or means utilized for data collection like surveys, interviews or tests, which are intended to assess particular variables or constructs (Hair et al., 2020). This helped the researcher to come up with a clear understanding on how data can be gathered through interviews.

3.6.1 Semi-Structured Interview Guide

A semi structured interview guide for interviews was used to collect data. Creswell & Poth (2018) describe a semi structured interview guide as a qualitative approach for collecting data that employs a flexible structure of open-ended questions to obtain detailed, context-rich data from respondents. A guide for semi-structured interview was created to gather qualitative information on the experiences and views of rural women regarding changes in climate. The guide comprised open-ended questions, enabling participants to express their thoughts, emotions, and experiences in depth. The semi-structured interview guide was used to carry out detailed interviews with a subset of rural women.

3.7 Data Presentation and Analysis

To facilitate meaningful interpretation and extraction of useful insights, the collected data will be subjected thematic analysis. Data analysis denotes a systematic process of cleaning, transforming, and modeling data to extract useful information and support decision-making (Minelli et al., 2020). This study employed thematic analysis procedure with pie charts in trying to explain the findings.

3.7.1 Narrative and Thematic Analysis

Narrative and thematic analysis procedures were used to analyze and summarize the qualitative data gathered via detailed interviews and focus groups. Narrative analysis involves examining the narratives and experiences communicated by participants to identify patterns and themes (Riessman, 2018). Thematic analysis involves detecting, coding, and classifying themes and patterns within the data (Braun & Clarke, 2019). These analytical methods yielded a detailed comprehension of how rural women experience and perceive climate change, including their coping strategies and adaptation measures.

3.7.2 Data Presentation

The analyzed data was presented using various formats, including quotes and narratives. Qualitative data will be presented using thematic analysis, with quotes and narratives used to illustrate key themes and patterns (Braun & Clarke, 2019). This approach provided a comprehensive and nuanced understanding of the effects of climate change on the livelihoods of rural women.

3.8 Ethical Considerations

This study was guided by a commitment to ethical principles, ensuring that the research was carried out in a way that upheld the rights, dignity, and welfare of the participants. Resnik (2020) argues that, researcherS should recognize the importance of addressing ethical issues in research, as they pertain to the moral principles that guide the conduct of research. Thus, the researcher was therefore guided by women moral principles in carrying the study, including respect for persons, beneficence, non-maleficence and autonomy (Beauchamp& Childress, 2019).

3.8.1 Informed Consent

Before collecting data, the researcher obtained informed consent from all participants, ensuring they were aware of the study's goals, procedures, potential risks, and benefits (Beauchamp & Childress, 2019). According to the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979) , the process of obtaining informed consent involved providing participants with a straightforward explanation of the study, encompassing their rights and responsibilities, and securing their written agreement.

3.8.2 Confidentiality and Anonymity

For the protection of participants' privacy and confidentiality, all data collected during the study was anonymize and kept confidential (Kaizer, 2019). ' In line with the principles of confidentiality and anonymity (World Medical Association, 2018), participants' names and identifiable details were not reviewed in any study-related

reports or publications.

3.8.3 Respect for Cultural and Social Norms

The researcher was sensitive to the cultural and social norms of the rural women participants, ensuring that the study was conducted in a manner that respected their values, beliefs, and practices (Chavez, 2020). This involved being aware of power dynamics, avoiding cultural insensitivity, and ensuring the research was carried out inclusively and respectful (Smity, 2018).

3.8.4 Avoiding Harm and Ensuring Benefit

The researcher ensured that the study did not cause physical, emotional, or psychological harm to participants (National Research Council, 2014). Additionally, the study was designed to benefit the participants and the community at large, by providing insights on how climate change impacts the livelihoods of rural women and informing the development of effective adaptation strategies (Intergovernmental Panel on Climate Change, 2020). Hence, by addressing these ethical issues, the researcher ensured the research was carried out in an ethical manner, respecting the rights, dignity, and well-being of the participants. This commitment to ethical principles was essential for maintaining the trust and confidence of the participants and ensuring the integrity of the research findings.

3.9 Chapter Summary

The chapter outlined qualitative research approach employed to investigate the impact of climate change on the livelihoods of rural women. Through a case study

approach, detailed interviews and group discussions were conducted to gather rich, contextualized narratives from rural women. The study's methodological framework was structured to explore the intricate and subtle aspects of rural women’s lives , offering a detailed insight in to how climate change influences their means of living. Hence, by employing a qualitative methodology, the research sought to enhance comprehension of the daily realities faced by rural women due to climate change, thereby guiding the creation of tailored adaptation measures and policies.

CHAPTER FOUR

4.0 DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.1. Introduction

The qualitative study's results, which examined how climate change affects rural women's means of living. Specifically, this chapter delve into the thematic analysis of the data collected from 30 rural women through focus group discussions and interviews. The results were organized in to three main categories, corresponding to the study's objectives. The first category examined the social outcomes of climate change for rural women's lives, the second category deliberated on the economic implications of climate change on women in rural areas, and the final category analyzed the adaptation techniques employed by rural women to lessen the impacts of climate change. Each section was subdivided into sub-themes, which emerged from the questions posed during data collection. The presentation of findings was supplemented with tables, pie charts, descriptive narratives, and quotes to provide an understanding and coherent illustration of the results. A summary of the key findings will conclude this chapter.

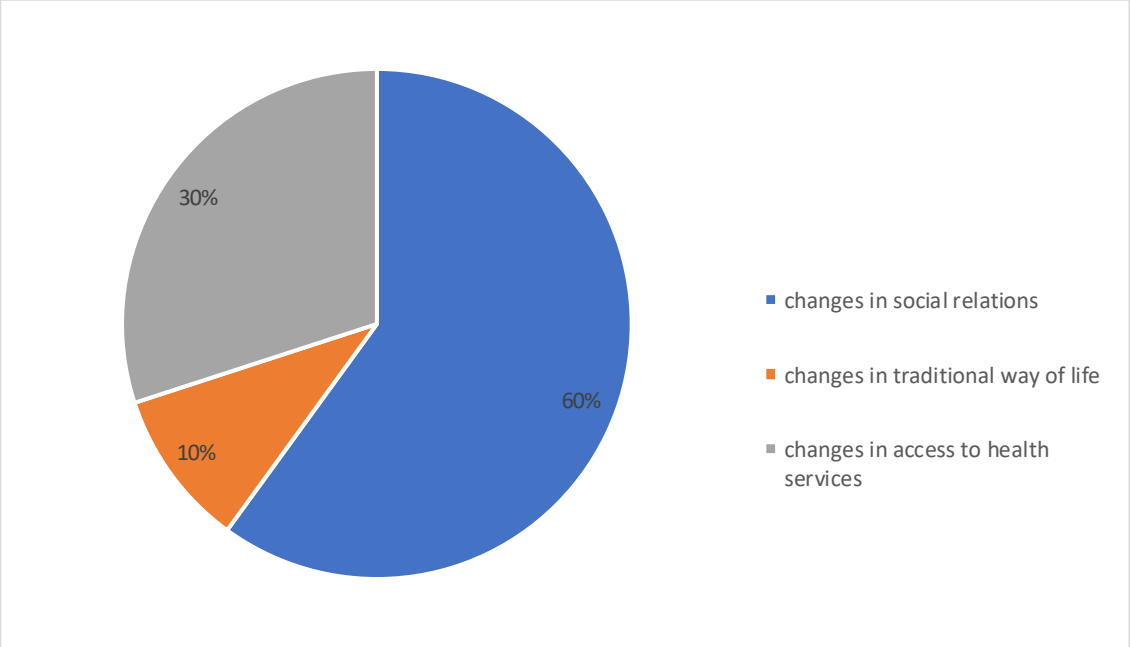
Table 4.1: The demographic profile of participants

Characteristic	Category	Frequency	Percentage
Age	(18-35)	10	33.3%
	(36-50)	14	46.7%
	(50 & above)	6	20%
Marital Status	Married	22	73.3%
	Widows	3	10%
	Single	5	16.7%
Occupation	Farmers	26	86.7%
	Traders	4	13.3%
Educational level	Primary	18	60%
	Secondary	12	40%

This table presents the demographic characteristics of 30 rural women, from Ward 19, Nyanga South who participated in a research study. The table reveals the distribution of participants across various demographic categories. In terms of age, the participants were divided into three groups from 18-35 years (10) 33.3%, 36-50 years (14) 46.7%, and 50 years and above (6) 20%. Furthermore, the majority of participants were married (22) 73.3%, with smaller proportions being single (5) 16.7% and widowed (3) 10%. Occupation-wise, most participants were farmers (26) 86.7%, while a smaller proportion were traders (4) 13.3%. Additionally, the majority had a primary education (18) (60%), while (12) 40% had a secondary education.

4.3. Social Impacts of Climate Change on Rural Women's Livelihoods

Figure 4.1: Distribution on Social changes



The above information shows findings which reveal that climate change has significantly affected the social dynamics of rural women in Nyanga South Ward 19. Majority 18 (60%) of the 30 respondents reported changes in social relations, indicating a significant disruption to their social networks and community bonds. Furthermore, another 9 (30%) of the women reported changes in their traditional ways of life, suggesting that climate change is eroding their cultural heritage and customary practices. The other 3 (10%) of the respondents also reported changes in their access to healthcare services, underscoring the susceptibility of rural women to health risks associated with climate change.

4.3.1. Changes in social relations

The research shows that sixty percent (60%) 18 of rural women participated in

this study reported changes in social relations as attributable to climate change. Their social relationships with family and friends have indeed been affected as one participant pointed out: *"Climate change has made it difficult for us to visit our relatives and friends because the roads are often destroyed by floods, and it is hard to travel."*

Another participant further emphasized that*:*

"We used to practice batter trade with our neighbors by exchanging crops for groceries and clothes, but now we can not due to the drought, and we have lost that trade."

The disruption of social relationships and trade networks as reported resonate with Livelihood Assets component of the SLF, specifically the erosion of social capital. Ford et al (2020), argues that, climate changes brought social isolation and erode social cohesion, notably in rural settings. According to the research findings, climate change is not only affecting rural women's livelihoods but also their social relationships and mental well-being. This is consistent with the Vulnerability Context component of the SLF, which highlights the external factors that can affect people's livelihoods.

4.3.2 Changes in relationships between men and women

Still under changes in social relations. Some women reported that climate change has brought existing social inequalities, leading to increased gender-based violence (GBV). One contributor purported that*: "Due to the drought, my husband is struggling to provide for our family, and I am afraid to ask him for food or money*

because he has become violent."

Another respondent noted: *"The lack of food has created tension in our household, and I have noticed that my husband is more irritable and prone to violence when he is hungry."*

The increase experiences in GBV as given above is support by the Livelihood Outcomes component of the SLF, specifically the negative impact on human well-being. Kapoor & Al-Mahamid (2020), are of the view that, changes may trigger GBV, particularly in rural areas where women are more vulnerable to economic and social shocks. The researcher argues that rural women are particularly vulnerable to climate related shocks, which lead to food and water scarcity which, thereby worsening existing social inequalities.

4.3.3. Changes in Social Cohesion

Another crucial thing that women reported was social cohesion which also affected their social relations. Rural women are facing troubles which disturbed their unity and oneness, and they need to be emancipated as noted from the words of a respondent: *"People are becoming more individualistic and less willing to help each other because they are struggling to survive themselves."*

This erosion of social cohesion can be linked to the Livelihood Assets component of the SLF, specifically the decline of social capital. This finding is supported by the IPCC (2019) which suggests that climate change can erode social cohesion, notably in rural communities. The researcher argues that changes in social cohesion due to climate change can have significant impacts on rural women's access to social support

networks and services.

4.3.4. Impact on Housing and Living Conditions

This is another crucial area which shows changes in social relations resulting from climate change as reported during discussions. Rural women indicated that climate change has had an impact on their housing and living conditions.

One respondent observed that:

> *Recently we experienced heavy rains which destroyed our houses, and we have to move to higher ground, but it is hard to find a place to stay especially with children and we often end up in crowded and unsanitary conditions.*

The SLF's component (livelihood assets) can be used to argue on the impact on housing and living conditions, specifically the loss of physical capital which left women in danger. Barton et al (2020), suggest that, there has been an increase in risk of housing disruptions and decrease access to safe and secure housing, particularly in rural areas with limited infrastructure. The researcher argues that the changes in housing and living conditions due to climate change can significantly impacts the health and welfare of women in rural areas.

4.3.5. Changes in Social Support Networks

The rural women reported that climate change has affected their community's social support networks. One of the informants said that: *"People are becoming more isolated, and we don't have the same level of support from our neighbors and community members."*

Women in rural areas face a decline in social support networks which can be argued using the livelihood assets component of the SLF, specifically the erosion of social capital which became a threat to rural women. Literature has it that, climate change can exacerbate social isolation and decrease social support networks, particularly in rural communities (Ursula et al., 2020). Given that, the researcher argues that, changes in social support networks have brought significant impacts on the psychological well being and overal welfare of rural women. This is in the sense that, the breakdown of social support networks increased vulnerability and decreased resilience among rural women as proven in the discussion. Therefore, there is need for climate change adaptation strategies that prioritize social support and community building.

4.3.6. Impact on Traditional Way of Life

Apart from social changes, rural women have noticed that their traditional way of life has been also affected by climate change. Rural women used to have traditional ceremonies and celebrations. As highlighted by one of the interviewees that:

> *We used to have rain making ceremonies (Mukwerere) before rainfall and thanks giving (Maganzvo) to celebrate the harvest season, but now the rains are unpredictable, and we can't plan anything.*

This shows that rural women are continuously facing erosion of traditional cultural practices resulting from climate change. This can be linked to the livelihood assets component of the SLF, specifically the loss of cultural capital. According to the IPCC (2019), climate change can result in the decline of traditional cultural practices

and ways of life. The researcher argues that the loss of traditional cultural practices can have significant impacts on rural women's sense of identity and community, which is consistent with the livelihood outcomes component of the SLF.

4.3.7 Impact on Children's Education

This is another traditional way which has been influenced by climate change given that, there are a lot of ups and downs in the academic sector of rural women's children. Majority of rural women reported that climate change has affected their children's education. Among them, one contributor aptly stated that*:*

> *Our children are complaining that some teachers are not coming for the lessons maybe they are in search of food and the children are falling behind, our children are also denying to go to school without carrying food.*

Another respondent shared*: "The footbridges were swept away by the floods, and our children could not go to school because they cannot cross flooded river."*

Having above responses, disruption of educational services is indeed in line with the SLF, specifically the loss of human capital. According to Winthrop et al. (2020), climate change can increase the risk of educational disruptions and decrease access to education, particularly in rural areas with limited infrastructure. The researcher argues that changes in access to education due to climate change can have significant impacts on rural women's children's future opportunities and livelihoods, which is consistent with the livelihood outcomes, a component of the SLF. This may as a result perpetuate cycles of poverty and decrease rural women children's chances of escaping poverty.

4.3.8. Impact on Access to Healthcare Services

On this, rural women reported that climate change has affected their access to health services, particularly for pregnant women. According to a participant's account:

> *As a pregnant woman, I have to travel long distances to get to the clinic, but during the rainy season, the roads are flooded, and I have to wait until the water recedes. Meanwhile, the clinic often runs out of medicine, and I have to buy them from private pharmacies, which is expensive. Recently, we have had an outbreak of cholera in our village, and many women have fallen ill, and the clinic is too far, and we cannot get there on time.*

Another respondent pointed out that:

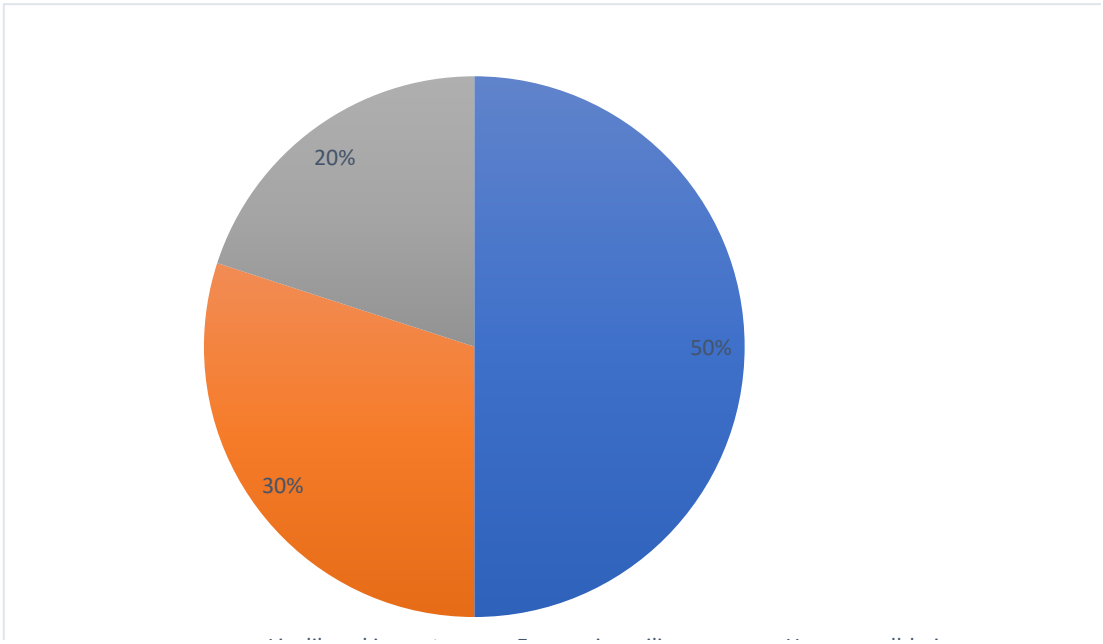
> *My sister died during childbirth because the ambulance could not reach our village due to the bad roads destroyed by heavy rains. If we had a clinic nearby with emergency services, she would have survived.*

This limited access to healthcare services can be linked to the livelihood assets component of the SLF, specifically the lack of physical capital, such as healthcare infrastructure. According to Langer et al. (2020), climate change can heighten the likelihood of maternal and child mortality, especially in rural regions with restricted healthcare access. The researcher argues that indeed climate change has become a major barrier to accessing health services, particularly for pregnant women and those suffering from climate-related illnesses, which is in line with the vulnerability context component of the SLF. From the researcher's perspective, the respondents' experiences highlight the need for climate-resilient healthcare systems that prioritize

the requirements of women and children residing in rural communities.

4.4. Economic Impacts of Climate Change on the livelihoods of rural women

Figure 4.2 Distribution on economic change



The above information shows the economic impacts of climate change on rural women's livelihoods, with 50% of the 30 participants (15 women) reporting livelihoods impacts, such as reduced agricultural productivity and income losses. Additionally, 30% of the participants (9 women) reported struggling with economic resilience, including difficulties in accessing credit and markets. Meanwhile, 20% of the participants (6 women) reported impacts on human well-being, including increased stress and anxiety related to economic insecurity.

4.4.1. Livelihood Impacts

4.4.2. Impact on Crops and Livestock

Most of rural women reported that climate change has affected their crops and

livestock which is now a critical issue as most of them who participated in discussions and interviews relied on agriculture (crop cultivation and livestock keeping). One respondent noted:

> *In the past years, we used to grow potatoes, wheat, beans and cotton as our cash crops but we have abandoned them, now we are trying tobacco but the rains are unpredictable, and we cannot grow anything because they need much water.*

One of the interviewees highlighted:

> *"Our livestock are dying because of the drought, and water sources have dried up, there are no pastures and we cannot afford to buy them food, so the situation is traumatizing us."*

This is consistent with the Livelihood Assets of SLF, which highlights the importance of natural capital (land, water) and physical capital (infrastructure, technology) in supporting livelihoods. Mason-D'Croz et al (2019), suggest that climate change can lead to decreased crop yields and livestock productivity. Given that, one can argue, the vulnerability of rural women has reached the peak as climate change affected them left, right and center, women are like patients in a hospital without medicines and doctors, hence they will perish.

4.4.3 Impact on Income and Household Support

The rural women reported that climate change has had an effect on their income and ability to support their households. One respondent shared:

> *"We used to sell our crops at the market, but now we cannot grow anything that can sustain us due to harsh weather conditions mostly it's too sunny which led*

our crops to die pre-maturely, and we have no income to support ourselves."

According to another participant's account:

My husband lose his job, he used to work at someone's plot, and as a result of continuous dry seasons, the plot's owner has decided to quit farming which left most of our husbands unemployed, and we cannot support our family.

Brouwer et al (2020) suggests that, climate change can lead to decreased income and livelihood opportunities for rural communities. The researcher therefore is of no doubt that, the impact of climate change has really affected income and household support of rural women hence there is need for economic empowerment and well-being on rural women so that they can have something to do than to rely on rainfall which is now unpredictable.

4.4.4. Impacts on Economic Activities

Some rural women reported that climate change has affected their ability to participate in economic activities, such as selling produce at the market. One of the contributors shared: *"We used to sell potatoes, beans and wheat but now we cannot, and we cannot get to the markets as we have nothing to sell."*

Another participant further emphasized that: *"We cannot afford to transport our produce to the markets because the roads are bad and bridges are damaged, and we cannot afford the transportation costs."*

Literature has it that, climate change can lead to decreased participation in economic activities and increased vulnerability to poverty (ILO, 2020). Given that, the researcher argues that, climate change has negatively affects economic activities

of women in rural areas, has also impoverished them to the extent that they can’t even afford to eat two times during a day. This may cause danger to their physicality and mental health issues.

4.4.5. Economic Resilience

4.4.5.1. Impact on Access to Financial Services

Access to financial services is another aspect that climate change affected as reported by rural women. One respondent noted:

> *We have no access to loans from the bank because our crops have failed, and most of us are even afraid of being sued due to our previous debts from Tobacco and Cotton companies we fail to pay as a result of crop failure due to climate change and we have no collateral.*

Another contributor aptly stated: *"We can't afford to pay the interest on our loans because our income has decreased due to the drought."*

Consultative Group to Asist the Poor (CGAP) (2020) suggests that climate change can lead to decreased access to financial services and increased vulnerability to debt. The researcher argues that since some rural women used to take loans in the form of agricultural inputs but due to floods and mostly shortage of rainfall, they are producing nothing which left them with large debts that they could not pay. As a result, this impact on access to financial services can have significant effects on rural women's economic empowerment and livelihoods.

4.4.5.2. Changes in Economic Resilience

The rural women reported that climate change has affected their community's economic resilience. As observed by a participant: *"Our community is not resilient to climate related shocks because we do not have any savings or assets to fall back on."*

Another respondent pointed out that: *"Our community is not prepared for climate related disasters and nothing meaningful is being done because we do not have any emergency fund or plans in place."*

To support that, research carried by United Nations Development Program (UNDP) (2020) suggests that climate change can lead to decreased economic resilience and increased vulnerability to poverty. The researcher argues that lack of knowledge about climate change and its effects has led rural women and their local leaders to be ignorant instead of engaging in something which can sustain their livelihoods, hence they are being affected every day. Therefore, changes in economic resilience can significantly affect the livelihoods and welfare of women in rural areas.

4.4.6. Human well-being

4.4.6.1. Changes in Market Prices

The rural women reported that changes in climate have affected the market prices of their crops and livestock. In the view of a respondent: *"The prices of our crops have increased because of the drought, but we cannot sell anything because we do not have any crops to sell."*

Another respondent noted: *"The prices of livestock have decreased because of the*

drought and we are forced to do so as to feed our families, and we cannot sell our livestock at a good price."

This is in line with what FAO (2020) suggests that, climate change can lead to price volatility and decreased livelihood opportunities for rural communities. This shows that rural women have been impoverished through decrease in prices of their livestock despite that prices of crops are higher due to high demand but they have nothing to sell. This may create inequalities between those with and those without something to sell. Therefore, changes in market prices can have significant effects on rural women's economic resilience and livelihoods.

4.4.6.2 Impact on Food Security and Nutrition

Food security and nutrition is another crucial area affected by climate change as reported by rural women. In the words of one of the respondents: *"We cannot grow enough food to feed our families because of the drought, and we have to rely on buying food from the market, which is expensive."*

According to another participant's view: *"Our children are malnourished because we cannot afford to buy nutritious food, and we have to rely on wild fruits and vegetables, which are not nutritious."*

The findings are supported by literature which suggests that climate change can result to shortage of food and nutrition, particularly for rural communities (Mason-D'Croz et al., 2019). Having that, one can argue that, climate change has caused rural women to suffer psychologically, mentally and emotionally given that for one to be able to work needs food with a balanced diet but they have nothing on tables.

As a result, mortality rate may increase and pregnant women may die when they are giving birth because they may lose power due to hunger.

4.4.6.3. Impact on Education and Health

Rural women reported that climate change has impacted their capacity to invest in the education of their children and health. As highlighted by one of the interviewees: *"We cannot afford to pay school fees for our children because our income has decreased due to the drought."*

Another respondent shared: *"We cannot afford to buy medicine for our children because our income has decreased due to the drought, and we have to rely on traditional medicine, which is not much effective."*

UNICEF (2020) suggests that climate change can lead to decreased investment in education and health, particularly for rural communities. The researcher argues that, education is key to success and one should be physically health, therefore if children's education is affected, they will remain in poverty. Thus, the impact on education and health can have significant effects on rural women's children's future opportunities and livelihoods.

4.5. Ways to ameliorate Impacts of Climate Change by Rural Women

4.5.1. Growing drought resistant crops through Pfumvudza System

In rural areas, women are trying to use their knowledge by growing some drought resistant crops. As reported by one of the participants that:

"We diversify our crops to reduce hunger and starvation, millet, sorghum, and

rapoko are some of the crops we are growing but still nothing much is being produced as they also need water."

Another respondent noted:

"We implemented conservation agriculture such as Pfumvudza system where we dig holes and plant our crops there to reduce soil erosion and improve water retention but it also failed because of the now short rain season."

This strategy is in line with the livelihood Assets component of the SLF, which highlights the importance of natural capital in supporting livelihoods. According to the International Fund for Agricultural Development (IFAD) (2020), crop diversification is an effective strategy for adapting to climate-related shocks. However, the writer argues that relying solely on rainfall is unsustainable, and investing in climate-resilient agriculture and irrigation systems is necessary to support rural women's livelihoods.

4.5.2. Poultry and Livestock rearing

Despite climate change shocks some women proved to be innovative by starting off-farming projects. One of the interviewees shared: *"I have engaged in off-farm activities like poultry, piggery goat rearing but food to feed them has become a challenging issue."*

Another informant noted that*: "We participate in village savings and loan associations (Mikando) but some have abandoned because they have no money to contribute as they used to."*

Livelihood Diversification component of the SLF, can be linked to the strategies

which highlight the importance of diversifying livelihoods to reduce reliance on a single income source. Research by the Overseas Development Institute (ODI) (2020) emphasizes the importance of livelihood diversification in reducing rural women's reliance on agriculture. The writer argues that these strategies can help rural women with the ability to withstand climate change and underscores the necessity for diversified livelihood strategies to support rural women's economic empowerment.

4.5.3. Suggested supportive measures to reduce climate change's effects

The following responses show some measures that may help women to be rescued from climate change impacts. One respondent noted:

> *"We need training on climate resilient agricultural practices, and solarized boreholes that we may practice garden nutrition as we heard through Nyangani FM that others are doing better out there."*

Another respondent had the view that:*"We need access to credit facilities to invest in our farming lands and if we are to be given a starting capital will start projects like broiler keeping and piggery."*

This respond shows the applicability of livelihood assets, a component of the SLF, which highlights the importance of human capital (skills, & knowledge) in supporting livelihoods. According to a 2019 study conducted by the Food and Agriculture Organization (FAO) research indicates the importance of providing training and access to credit facilities for rural women to adapt to climate change. The writer argues that these suggested support systems can help rural women build their capacity to respond to climate-related shocks and highlights the necessity for targeted support

programs to boost rural women's resilience to climate change.

4.5 SUMMARY

This chapter presented the data findings from ward 19, Nyanga District, on the challenges facing women as a result of climate change. Data was presented under three major sub headings constructed from main objectives of this research; the first was focusing on social impacts, the second was presenting on the economic impacts and the last has focused on strategies to ameliorate climate change by rural women. Thematic analysis was used with pie charts to explain the findings and literature in support of the findings. Using the Sustainable Livelihoods Framework (SLF) as a lens, the findings reveal that climate change has significant social impacts, including increased workload, restrict access to healthcare services and educational opportunities, leading to heightened poverty levels and food insecurity, as well as economic impacts, including reduced agricultural productivity, decreased income, and restricted access to market opportunities and financial services. Despite these challenges, rural women employ several strategies to alleviate the impacts of climate change, including the implementation of climate resilient agricultural techniques and livelihood diversification initiatives, and social support networks. Thus, there is a gap needs to be closed through more effective strategies from government to reduce challenges facing rural women stemming from climate change.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS, RECOMMENDANTIONS AND AREAS FOR FURTHER RESEARCH

5.1. Introduction

This chapter summarizes the whole dissertation from chapter one to chapter four, explaining what were the main focus of each chapter. In accordance with the project's research objectives, this chapter focused on conclusions made from findings of the study. It further, gave some recommendations suggested by the writer basing on the key findings of the research. Lastly, areas of further research were given also, followed by reference list of literature consulted in writing this project.

5.2. Summary

Chapter 1 introduced the research study, providing an overview of the context and relevance of investigating the effects which climate change brought to the lives and livelihoods of rural women. The chapter emphasized on how rural women are exposed to climate-related shocks, exacerbating poverty, food insecurity, and gender inequalities, and established the the study's goals, research questions, and its overall importance. By framing the research within the Sustainable Livelihoods Framework, the chapter laid the groundwork for comprehensive examination of how climate change influences the socioeconomic status and livelihoods of women in rural communities, setting the stage for the subsequent chapters.

Chapter 2 provided a comprehensive literature review and theoretical framework

to comprehend the ways in which climate change influences the lives and livelihoods of women in rural communities. The chapter examined the relationships between climate change and the livelihoods of rural women as well as sustainable development, utilizing the Sustainable Livelihoods Framework as a theoretical framework. The literature review highlighted the susceptibility of rural women to climate-induced stresses, such as droughts, floods, and heatwaves, which worsened their existing social and economic challenges. The chapter also explored various strategies that rural women can adopt to reduce the effects of climate change, such as enhancing irrigation activities, diversifying livelihood strategies, and empowering themselves through capacity building.

Chapter 3 outlined the qualitative research methodology employed to examine the hardships facing rural women resulting from climate change in Nyanga South ward 19. The research used a case study approach, utilizing detailed interviews and group discussions to collect rich, contextualized firsthand information from a sample of 30 rural women. The study's methodological framework was guided by ethical principles, with a focus on respecting the rights, dignity, and well being of the participants. Thematic analysis procedures were employed to analyze the data, providing a detailed understanding the experiences and perceptions of climate change among rural women. This chapter aimed to enhance understanding of the lived experiences of rural women within the context of climate change.

Chapter 4 presented the findings of a qualitative study on the hardships resulting from climate change on the lives and daily duties of women in Nyanga South, ward

19. The study revealed significant social impacts, including changes in social relations, traditional ways of life, and access to healthcare services. Climate change also had profound economic impacts, including decreased agricultural productivity, reduced income, and limited access to markets and credit facilities. Despite these challenges, rural women employed various strategies to cope with the consequences of climate change, including climate-resilient agricultural practices, livelihood diversification, and social support networks. The study's findings highlighted the need for targeted support programs to strengthen rural women's ability to withstand climate change and address the gaps in their livelihoods.

Chapter 5 examines how the study's results impact the lives of rural women facing the challenges of climate change. The chapter emphasizes the necessity of a comprehensive strategy to tackle the various social and economic consequences of climate change for the rural women's well being. Finally, the chapter provides conclusions, suggestions for policy makers, practitioners and researchers to facilitate rural women's adjustment to climate change and enhance their overall well being. The chapter also identifies potential areas for additional research.

5.3. SUMMARY OF KEY FINDINGS

Being guided by research questions, below are the findings of the project.

1. **How does climate change socially affect rural women's livelihoods in ward 19, Nyanga South?**

The study found that climate change has led to changes in social relations, including increased social isolation, decreased social cohesion, and increased

gender-based violence. Additionally, the study also found that climate change has disrupted traditional ways of life, including the erosion of cultural practices and ceremonies. Furthermore, the study revealed that climate change has increased the risk of maternal and child mortality, decreased access to education, and exacerbated social and economic inequalities.

2. **To what extent does climate change economically affect livelihoods of rural women, particularly in ward 19, Nyanga District?**

The study showed that, climate change has decreased crop yields and livestock productivity which is now a challenge to rural women's livelihoods. It also reduced income and household support, and decreased participation in economic activities of rural women. These impacts have resulted in increased vulnerability to poverty among rural women.

Furthermore, there is a decrease in access to financial services, decreased economic resilience, and changes in market prices. Additionally, climate change has affected rural women's food security and nutrition, education, and health. These findings highlight the need for urgent action to support rural women's economic empowerment and resilience in the face of climate change.

3. **In what ways do rural women manage to mitigate the impact of climate change in ward 19, Nyanga South, Zimbabwe?**

Rural women employed various strategies to reduce climate change’s consequences on their lives. The approaches include, growing drought resistant crops, diversifying their crops, and implementing conservation agriculture practices such as the

Pfumvudza system. Additionally, some women have engaged in off-farm activities like poultry (broiler & indigenous) keeping, some practiced buying and selling clothes and participating in village savings and loan associations (Mikando) to reduce their reliance on crop cultivation.

Despite these efforts, rural women require targeted support to build their resilience to climate change. They have suggested measures such as training on climate resilient agricultural practices, access to credit facilities, and solarized boreholes to support garden nutrition. These support systems can enhance rural women's capacity to respond to climate-related shocks and promote their economic empowerment.

5.4. Conclusions

The conclusions were given being guided by the research questions of this study. The research's first question focused on how does climate change socially affect livelihoods of rural women. The findings showed that, social impacts of climate change on rural women's livelihoods in ward 19 are profound and far-reaching. The study's findings underscore the urgent need for policymakers and stakeholders to prioritize the social well-being and resilience of rural women in climate adaptation and mitigation strategies. Therefore, by addressing the social vulnerabilities exacerbated by climate change, it is possible to enhance the overall livelihood security and quality of life for these women and their communities.

Apart from that, another research question was on the extent on which climate change affected women in rural areas economically. Conclusion showed that, the

economic impacts of climate change on rural women's livelihoods in ward 19 are significant and warrant targeted interventions. Policymakers and development practitioners must prioritize climate-resilient agricultural practices, diversified income-generating opportunities, and financial support mechanisms to mitigate these economic vulnerabilities. Given that, they can help ensure sustainable livelihoods and economic empowerment for rural women in the face of climate change.

The last conclusion was drawn from the research's question which asked about the strategies employed by rural women in trying to reduce effects of climate change. Results showed that, rural women in ward 19, Nyanga demonstrate remarkable resilience and resourcefulness in employing strategies to reduce the effects of climate change. To build on these efforts, it is essential to provide targeted support, capacity-building initiatives, and access to climate-resilient technologies. Hence, by empowering rural women and enhancing their adaptive capacities, policymakers and development practitioners can help ensure more effective and sustainable climate change adaptation outcomes in the region.

5.5. Recommendations

Recommendations are given being guided by the objectives of this study.

Development of Climate-Resilient Social Support Systems:

Policymakers, local communities, NGOs academia and government agencies should develop and implement community-based support networks, providing training on climate-resilient agricultural practices, and promoting access to healthcare services.

Strengthening of Traditional Ways of Life:

Efforts should be made to strengthen traditional ways of life, including cultural practices and ceremonies, to promote social cohesion and community resilience.

Addressing Gender-Based Violence:

Policymakers, local communities, NGOs and government agencies should address the issue of gender-based violence, which has been exacerbated by climate change.

Improvement of Access to Education and Healthcare:

The government and non-governmental organizations should improve access to education and healthcare services for rural women and children.

Promotion of Climate-Resilient Agriculture:

The government agencies, local communities and non-governmental organizations should promote rural women with access to drought-tolerant seeds, irrigation systems, and conservation agriculture practices.

Economic Empowerment of Rural Women:

Policymakers, NGOs and government agencies should promote the economic empowerment of rural women through the provision of access to credit facilities, training on entrepreneurship and business management, and support for income-generating activities.

Development of Climate-Resilient Infrastructure:

The government and non-governmental organizations should invest in the development of infrastructure that can withstand the consequences of climate change

such as roads, bridges, and irrigation systems.

Climate Change Awareness and Education:

There is a need for climate change awareness and education programs that target rural women and communities.

5.5. Areas for Further Research

Climate-Resilient Agricultural Practices

Investigating innovative climate-resilient agricultural practices and technologies that can be adopted by rural women to enhance their livelihoods.

Climate Change and Rural Women's Migration

Examining the correlation between climate change and the movement of women from rural areas, and exploring the implications for rural development and livelihoods.

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APPENDICES 1

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DEPARTMENT OF PEACE AND GOVERNANCE

28 November 2024

TO WHOM IT MAY CONCERN

RE: REQUEST TO UNDERTAKE RESEARCH IN YOUR ORGANISATION

This serves to introduce the bearer, ...SAMUNDA GUNEMORE..., Student Registration Number ...B2119478..., who is a **HBSC PEACE AND GOVERNANCE** student at Bindura University of Science Education and is carrying out a research project in your area/institution.

May you please assist the student to access data relevant to the study, and where possible, conduct interviews as part of a data collection process.

Yours respectfully

J.KUREBWA (DR)
Acting Chairperson

BINDURA UNIVERSITY OF SCIENCE EDUCATION
PEACE & GOVERNANCE
CHAIRPERSON
28 NOV 2024
FACULTY OF SCIENCE EDUCATION
PRIVATE BAG 1020, BINDURA, ZIMBABWE

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APPENDICES 2

CONSENT FORM FOR PARTICIPATION IN RESEARCH STUDY

CONSENT FORM FOR PARTICIPATION IN RESEARCH STUDY

Title of Study: **The Impact of Climate Change on Rural Women's Livelihoods, A Case of ward 19, Nyanga District, Zimbabwe**

Introduction:

I am Samunda Givemore, a fourth-year student at Bindura University of Science Education, pursuing Bachelor of Science Honors Degree in Peace and Governance. As a prerequisite for final-year students, I am undertaking research for my project, which investigates: The Effects of Climate Change on Rural Women's Livelihoods: A Case of ward 19, Nyanga District. I am appealing for your assistance, contributions, and relevant information regarding this study.

FOCUS OF THE STUDY

During this study, you will be asked to participate in one of the following:

1. A focus group discussion (FGD) with 8 and above participants, which will last approximately 90 minutes. The FGD will be conducted in a private and comfortable setting, and you will be asked to share your experiences and perspectives on the impacts of climate change on your livelihood.
2. An in-depth interview (IDI) with the researcher, which will last approximately 60-90 minutes. The IDI will be conducted in a private and comfortable setting, and you will be asked to share your experiences and perspectives on the impacts of climate change on your livelihood.

During the FGD or IDI, you will be asked questions about:

- Your livelihood and how it has been affected by climate change
- Your experiences with climate-related shocks, such as droughts and floods

- Your coping strategies and adaptation measures
- Your perceptions of the impacts of climate change on your livelihood and well-being
- The discussion will be audio-recorded, and notes will be taken. The audio recordings and notes will be kept confidential and anonymous.

CONFIDENTIALITY AND ANONYMITY

All information collected during this study will be kept confidential and anonymous. Your name and any identifying information will not be linked to your responses. The data collected will be used solely for the purpose of this research study.

RISKS AND BENEFITS

There are no known risks associated with participating in this study. However, you may experience emotional discomfort when discussing the impacts of climate change on your livelihood. The benefits of participating in this study include contributing to a better understanding of the impacts of climate change on rural women's livelihoods and informing strategies to support rural women in adapting to climate change.

VOLUNTARY PARTICIPATION

Your participation in this study is voluntary. You may withdraw from the study at any time without penalty or loss of benefits. If you wish to withdraw, please inform the researcher immediately.

By signing below, you indicate that you have read and understood the information provided, and you consent to participate in this research study.

APPENDICES 3

Interview Guide

1. Can you describe how climate change has affected your social relationships with family and friends?

2. How has climate change impacted your traditional way of life, including ceremonies and celebrations?

3. Have you noticed any changes in your community's social cohesion due to climate change?

4. How has climate change affected your access to healthcare services?

5. Can you share any experiences of how climate change has impacted your children's education?

6. How has climate change affected your crops and livestock?

7. How has climate change impacted your income and ability to support your household?

8. Have you noticed any changes in the market prices of your crops and livestock due to climate change?
9. Can you share any experiences of how climate change has impacted your access to financial services?

10. How has climate change affected your ability to participate in economic activities, such as selling produce at the market?

11. Can you describe how climate change has affected your food security and nutrition?

12. Are there any traditional coping mechanisms that you use to deal with climate-related shocks?

13. Are there any economic coping mechanisms that you use to deal with climate-related shocks?

14. Can you suggest any strategies that could help rural women like yourself to adapt to the economic impacts of climate change?

15. Can you describe any climate-resilient agricultural practices that you use?

16. How do you think rural women like yourself could be supported to adapt to the impacts of climate change?

APPENDICES 4

Focus Group Guide

1. Can you describe how climate change has affected your social relationships with family and friends?

2. How has climate change impacted your traditional way of life, including ceremonies and celebrations?

3. Have you noticed any changes in your community's social cohesion due to climate change?

4. How has climate change affected your access to healthcare services?

5. Can you share any experiences of how climate change has impacted your children's education?

6. How has climate change affected your crops and livestock?

7. How has climate change impacted your income and ability to support your household?

8. Have you noticed any changes in the market prices of your crops and livestock due to climate change?
9. Can you share any experiences of how climate change has impacted your access to financial services?

10. How has climate change affected your ability to participate in economic activities, such as selling produce at the market?

11. Can you describe how climate change has affected your food security and nutrition?

12. Are there any traditional coping mechanisms that you use to deal with climate-related shocks?

13. Are there any economic coping mechanisms that you use to deal with climate-related shocks?

14. Can you suggest any strategies that could help rural women like yourself to adapt to the economic impacts of climate change?

15. Can you describe any climate-resilient agricultural practices that you use?

16. How do you think rural women like yourself could be supported to adapt to the impacts of
climate change?