



**NGOs INTERVENTIONS FOR RURAL COMMUNITIES RESILIENCE TO
CLIMATE CHANGE AND VARIABILITY
CASE STUDY: MULANJE DISTRICT, SOUTHERN MALAWI**

BY

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DECLARATION

I, Chimwemwe Phiri, student number **2018725933**, declare that the mini-dissertation submitted for the Master's degree in Development Studies, at the Centre for Development Support, University of the Free State, South Africa, is my own work. I also confirm that this work has not been submitted to any institution for any qualification.

I am well aware that plagiarism, that is using someone's work and presenting it as my own, without permission and acknowledging the source, is an academic offense and punishable. I declare that the work presented here has made references to ideas from other authors, but such has been credited to the sources accordingly. In adherence to the conventional referencing styles, the author's name, year of publication and in some cases pages have been presented in the text.

Chimwemwe PHIRI

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ABSTRACT

Climate change and variability is a huge developmental challenge for Malawi as it touches on key developmental issues facing human development. Given the country's rurality and vulnerability to climate change, communities continue to face unprecedented impacts of climate change, which in the end impacts greatly on the economic, social, political and environmental components of society. Growing recognition of the role of Non-Governmental Organizations (NGOs) in climate resilience work offers hope in the climate change response discourse. Aside from many other varied roles in climate services, NGOs have been a key player in supporting resilience building for rural communities. Despite the emergency and presence of many NGOs, the impact and effectiveness require further exploration basically due to the fact that communities continue to remain vulnerable to climate shocks despite huge financial investment in the resilience-building processes. This study attempts to underscore the role and effectiveness of NGOs' interventions in regards to climate change, with a focus on Mulanje district in Malawi as a case study. The study's central question is what is the role of NGOs and how are the interventions implemented by NGOs contributing to communities' climate resilience?

Data collection tools involved developed questionnaire guides that were administered through Focus Group Discussions (FGD) and Key Informant Interviews (KII). A total of 88 respondents were engaged, and their views were transcribed into themes that generated results.. Using Mulanje district, in Malawi as a case study, the study discovered that indeed NGOs are a possible alternative to the government in servicing the needs of vulnerable communities in regards to climate change resilience building. This is mostly manifested in its intermediary role in providing climate services such as knowledge, skills and resilience building interventions. Conclusions are drawn from the study centered on acknowledging the role of NGOs in providing new opportunities and innovations in resilience building and further highlight the need for strengthening the capacity of NGOs to effectively deliver climate change resilience building interventions. Furthermore, the study concludes that despite the commendable role played by NGOs, there is need to address ever emerging challenges in regards to flexibility, funding gaps as well as meeting project targets.

TABLE OF CONTENTS

DECLARATION.....	i
ACKNOWLEDGMENTS.....	i
ABSTRACT.....	ii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
LIST OF ACRONYMS.....	ix

CHAPTER 1

INTRODUCTION.....	1
1.1 Background to the Study.....	1
1.2 Problem statement.....	3
1.3 Central Research Questions.....	4
1.4 Aim of the research.....	4
1.5 Specific objectives.....	4
1.6 Conceptual Framework.....	4
1.7 Outline of the Mini dissertation.....	6

CHAPTER 2

LITERATURE REVIEW.....	8
2.1 Concept of Climate Change and Variability.....	8
2.2 Climate Change Causes.....	9
2.3 Global Outlook of Climate Change.....	9
2.4 Climate Change in Africa.....	10
2.5 Climate Change and Variability within the Malawi Context.....	11
2.6 Effects of Climate Change and Variability on Human Development in Malawi.....	12
2.7 Background to the Work of NGOs in Community Development.....	14
2.8 The Role of NGOs in Building Communities Climate Resilience.....	15
2.9 Rural Community Perceptions on Climate Change and Variability.....	17

CHAPTER 3

RESEARCH METHODOLOGY.....	21
3.1 Introduction.....	21
3.2 Study Area Description.....	21

3.2.1 Location and sampling size	21
3.2.2 Poverty and Income Incidence	22
3.2.3 Climate	22
3.2.3.1 Temperature	23
3.2.3.2 Rainfall	23
3.2.4 Demography	23
3.2.5 Agriculture	24
3.2.6 Role and Presence of NGOs Working on Climate Resilience in Mulanje District.....	24
3.3 Research Design	26
3.4 Data Collection Strategy	27
3.4.1 Primary Data	27
3.4.2 Secondary Data	28
3.5 Sampling Design.....	28
3.5.1 Community participants.....	28
3.5.2 Village Development Committees	28
3.5.3 NGO staff.....	29
3.5.4 Government Representatives	29
3.6 Research Ethics.....	30
3.8 Data Analysis.....	30
3.9 Limitations	31

CHAPTER 4

FINDINGS AND DISCUSSION	32
4.1 Introduction	32
4.2 Respondents Household Characteristics.....	32
4.2.1 Age of Respondents.....	33
4.2.3 Education Level	33
4.2.4 Level of Skill	34
4.3 Understanding Effect of climate change	34
4.3.1 Perception of Climate change and Variability.....	34
4.3 Perception of Resilience building	36
4.4 Perception on Causes of Climate Change and Variability	38

4.4.1 Communities views on Climate Change and Variability	38
4.4.2 NGOs staff view on Climate Change and Variability	39
4.4.3 Government Staff view on Climate Change and Variability.....	40
4.5 Common Climate Change Hazards	41
4.6 Observable Effects of Climate Change on Communities.....	42
4.7 Community’s Preferred Resilience Building Interventions.....	44
4.7.1 Large scale irrigation farming	44
4.7.2 Capacity Building	45
4.7.3 Types of livestock Production	45
4.7.4 Alternative income generating Activities	46
4.8 NGO's Preferred Sectors in Climate Resilience Building	47
4.9 NGO effectiveness in Building Climate Resilience	48
4.9.1 Participation in Program Interventions	48
4.9.2 Who Makes Decision on Project Interventions	50
4.9.3 Community lessons In Working with NGOs.....	51
4.5 What is working well and what is not?	52
4.10.1 Feedback from NGOs	53
4.10.2 Feedback from Community Representatives.....	54
4.10.3 Feedback from Government Staff	55

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS	57
5.1.1 NGOs Stimulate and Increase Public Awareness of Climate Change.....	57
5.1.2 Resilience Building; a Multidimensional Issue	58
5.1.3 Diversity and Inclusion is key in Building Resilience.....	58
5.1.4 Grey Areas Visible in NGOs Relevance	59
5.1.5 NGOs provide new opportunities but require New Skills and Capacities.....	60
5.2 Recommendations	60
5.2.1 NGOs must embrace flexibility.....	60
5.2.2 Bringing All Together; Collective Impact.....	61
5.2.3 Proactive vs. Reactive Planning to Strengthen Community Resilience Work	61
5.2.4 Engage Communities in Designing Interventions	62

5.2.5 Meaningful Dialogue between Government and NGOs regarding Skills and Competences	62
.....	62
REFERENCES	64
APPENDICES	71

LIST OF TABLES

Table 3.1: List of TAs, VHs and Population in 2018 (Source: NSO 2018)	24
Table 3.2: Role and Presence of NGOs in Mulanje District	25
Table 3.3 Selected NGOs and justification of their interventions	29
Table 4.1: Participant demographic and socio-economic characteristics	32
Table 4.2: Age ranges of respondents from NGOs, community and governments (n=88)	33
Table 4.3: Summary statistics for forms of participation undertaken by respondents (n=88)	48
Table 4.4: what is working well and what is not	53

LIST OF FIGURES

Figure 1.1 Sustainable livelihood Framework (SLF) adapted from FAO, 2002.....	5
Figure 3.1: Map of Mulanje district; Source Mulanje SEP 2013-2018.....	22
Figure 4.1 Understanding of climate change and variability in the view communities and NGOs	35
Figure 4:2 Perception of resilience building for both NGOs and Community.....	37
Figure 4.3: Frequency of occurrence of climate hazards.....	41
Figure 4.4; NGOs contribution to climate resilience building	47

LIST OF ACRONYMS

NGOs	Non-Governmental Organizations
IPCC	Intergovernmental Panel on Climate Change
GoM	Government of Malawi
GDP	Gross Domestic Product
MDGs	Millennium Development Goals
NSO	National Statistics Office
SDGs	Sustainable Development Goals
NAPA	The National Adaptation Programmes of Action
MVAC	Malawi Vulnerability Assessment Committee
UNFCC	United Nations Framework on Climate Change
HD	Human Development approach
TA	Traditional Authority
VH	Village Head
SLF	Sustainable Livelihoods Framework
NCC	National Climate Change policy
KII	Key Informant Interview
FGD	Focus Group Discussion
AEDC	Agriculture Extension Division Coordinator
AEDO	Agriculture Extension Division Officer

CHAPTER 1

INTRODUCTION

1.1 Background to the Study

Climate change and variability remains a global phenomenon and continues to put a considerable constraint on the human development discourse (Zulu, 2017). Boko, Niang, Nyong, and Vogel (2007), agree that climate change and variability will continue to manifest its impact on the world, occasionally translating into catastrophic consequences that threaten humanity and the existence of biodiversity. In other ways, climate-related results have had a significant effect on critical sectors of the economy, which are more pronounced in low-income countries like Malawi (Gukurume, 2011). Climate change refers to change in climate patterns such as temperature, rainfall patterns and extreme weather events observed over a long period of time (IPCC, 2001). These changes have been largely attributed to direct or indirect human activities that alter global atmospheric composition aside from the natural processes that normally occur (IPCC, 2007). Climate variability refers to the variability in the average weather behavior at a particular location from one year to another or one season to another or one decade to another (Asfaw, 2014). Climate variability is different from climate change, though the two terms are oftentimes used interchangeably.

From a global perspective, climate change has caused severe disruptions to the world's weather and climate systems (IPCC, 2007) more appreciated through impacts on rainfall patterns and other extreme weather events (Nation Newspaper, Malawi, 2013). Dietz (2007), observed that globally, climate change and variability trend is increasingly affecting human development and economic growth especially in low development countries, where the impact is severe due to low capacity to adapt. Most developing countries, especially in Africa are located in tropical regions that endure the world's most extreme climatic conditions (GEO, 2007). As a result, a number of factors such as health, agriculture, environment and water availability are continuously affected by climate change and variability.

In Malawi, particularly over the last decade, weather variability has further weakened national agriculture output, which accounts to over 35% of the country's GDP and 80% of exports ((GOM, 2015); (Chinsinga, Chasukwa and Naess, 2012)) coupled with natural disasters such as floods,

drought and others. A study conducted by Action Aid (2006), finds that the country has already seen an increase in the number of extreme weather events in terms of floods and droughts between the 1970s and 2006. Further findings by GoM (2019) indicate a cumulative impact of floods and drought registered between 2015 and 2019 and affects over 1 million people annually through drought and floods. With a Gini coefficient at 0.433 in 2017 (IMF, 2017) and a poverty rate at 51.5 of which 59.5 remained ruralized and HDI index of 0.485 (NSO, 2018), the disruptions to livelihoods have further worsened rural people's capacity to adapt to climate variability and improve general well-being. Zulu (2017), further suggests the continued multifaceted impacts of climate change and climate variability in Malawi are more pronounced in farmers as they tend to adopt copying mechanisms autonomously or sometimes induced by extension workers or NGOs. Chidanti-Malunga (2011), argues further that mostly NGOs or extension efforts have spearheaded the adoption of climate variability interventions with the focus on resilience building for vulnerable small scale farmers. Building rural community resilience to climate variability has therefore dominated the development discourse amongst government and Non-Governmental Organizations, (NGOs). Stringer et al., (2010), argued that communities that are well equipped with climate information are better prepared to respond, mitigate as well become resilient to overcome poverty and adapt to the challenges of climate change and variability. A common feature that characterizes NGOs work is their ability to work with grassroots structures. NGOs focus on working with communities' advantages them to meaningfully support climate resilience interventions (Simon , 1996). NGOs place more focus on the bottom-up approach that integrates people's views in the development process (Davids and Theron, 2014).

Globally, NGOs have made a substantive contribution to building climate resilience. Iwuchukwu, Nwankwo and Ogbonna (2014), argue that NGOs continue to play a key role in mitigation and adaptation of climate change and variability related risks through awareness and sensitization as well as advancing both adaptation and mitigation risks. The adaptation programs are well designed to address the key issues that affect rural communities as most NGOs operate at a local level. Jones, Harvey and Godfrey-Wood (2016), in the study relating to the changing role of NGOs in climate services describes NGOs role in climate change and variability as knowledge brokers and intermediaries in the climate change value chain. The intermediary component necessitates linkages between climate information and the role of communities in responding to the emerging issues for

sustained resilience. Resilience building, therefore, requires knowledge of climate services and that people are able to understand and participate in designing action plans aimed at addressing climate challenges. In recognition of the gap that exists between climate information users and providers (Vaughan and Dessai, 2014), the role of NGOs becomes more visible as they basically acts as a bridge between policy framers and rural communities.

1.2 Problem statement

The primary issue affecting the rural community's livelihoods has been communities' inability to build resilience towards climate change and variability (Pelling, 2011). Effects of climate change and variability highly manifested in prolonged dry spells and flooding in Mulanje district impact the income of the district/poverty index, (GoM report, 2013-18). According to the Integrated Household Survey III of 2016/17 provided by the National Statistical Office (NSO) the district has a proportion of 65.0 % ultra-poor people and 68.6% in the poor bracket with only about 3.2% able to save income while over 55.0% spend their incomes for daily food consumption (IHS report, 2016-2017). While the area has enjoyed an influx of local and international NGOs working on climate resilience, the district has faced recurrent episodes of climate variability that continue to affect its state of development. Against the above backdrop, it can be argued that climate-related challenges continue to affect the Malawian population. However, while the NGOs sector continues to play an important role in promoting communities' resilience towards climate change and variability, the challenges of climate and the related problem persist. An important question that is worthy asking is “what is the role of NGOs and how are the interventions implemented by NGOs contributing to communities' climate resilience?”.

Using a multiplicity of resilient climate interventions, which are community-led, participants in Kasungu District under the Enhanced Community Resilience Program (ECRP) managed to report an increase in the value of household assets which acted as coping mechanisms in the face of natural disaster for project participants (UK Aid DFID report, 2018). The study, therefore, sets out to test whether NGOs are indeed a possible alternative to the government in servicing the needs of vulnerable communities (Davids, 2014) at risk of impacts of climate variability. The study explores to what extent are the NGOs implementing climate change and variability resilience programs as well as espousing community participation in climate resilience building.

1.3 Central Research Questions

Research questions guiding this study are as follows:

- i. How do farmers perceive the intervention of NGOs in contributing towards climate resilience?
- ii. To what extent and how are NGOs implementing resilience-building programs
- iii. What are the key challenges facing NGOs with respect to implementing climate resilience interventions?

1.4 Aim of the research

The overall aim of the study was to explore the role of NGOs in fostering rural community livelihoods resilience to climate change and variability in Mulanje District, Southern Malawi. Thus, the study seeks to examine, in an evaluative manner whether the NGOs play key roles in reducing rural livelihoods vulnerabilities.

1.5 Specific objectives

The study was guided by the following specific objectives:

- To explore communities' perceptions regarding NGOs' role in climate change and variability resilience in Mulanje district, Southern Malawi.
- To assess NGOs' interventions and analyze their contribution to rural communities' resilience to climate change and variability vulnerability.
- To ascertain challenges and difficulties faced by NGOs and propose recommendations for meaningful implementation of climate resilience interventions

1.6 Conceptual Framework

Sustainable Livelihoods Approach

The nature of this study necessitates the use of the Sustainable Livelihoods Approach (SLA) framework which helps to analyze trends and behaviour patterns to understand poverty and how to intervene to improve the conditions of people living in poverty. The study attempts to undertake a detailed analysis of NGOs' work in building resilience by using the SLA that attempts to address

key questions of "how" and "why" communities seem not to make significant progress in spite of donor support. Developed in 1990 by the Department for International Development (DFID) and the British State Development Cooperative Agency, the SLA aims at providing a livelihoods framework to support communities' understanding of poverty from a multidimensional perspective, that is not only restricted to productivity and income but that which understands the internal dynamics of people and society (Brocklesby and Fisher, 2003). The approach is people-centered and integrates the community's needs in the quest for sustainable livelihoods (Brocklesby and Fisher, 2003). In practice, it has been used by development partners such as CARE, DFID, and Oxfam in supporting rural livelihoods resilience programs due to its ability to draw on a range of factors affecting poor people's livelihoods and the typical relations between those factors (FAO, 2002). Below is the illustration of the approach;

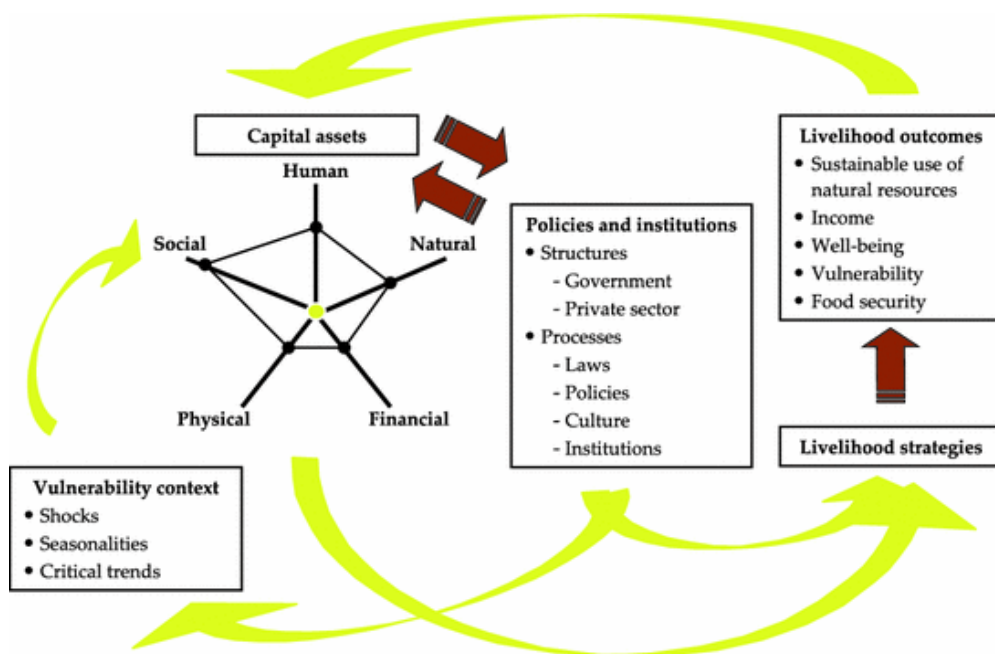


Figure 1.1 Sustainable livelihood Framework (SLF) adapted from FAO, 2002

Key features within the SLF that helped in the application of the framework in the study include the following;

- How project participants get involved in NGOs work within a vulnerability context influenced by external and internal factors that affect general livelihoods. The external and internal factors include changes to weather variations, participation in designing interventions, adjusting the seasonal calendar based on observable challenges and long-term

weather events. The approach focus on the centrality of people's needs, contributions and aspirations in development projects (Sen, 1999). People must decide what to do and be. Key questions to consider are how do NGO participants operate in such a vulnerable context? Are the participants involved in decision making? If yes to what level?

- How participants involved in NGO interventions are engaged to acknowledge and draw a map out livelihood assets and capital assets in terms of skills, strengths and capacities as an inherent potential to sustain livelihoods resilience (DFID, 2001). Key questions to consider is understanding the level to which NGO participants are involved to draw out and utilize assets in form of a human, social physical, social, financial and natural for the advancing resilience-building interventions. Operationally, these assets are influenced by impacts of climate change and variability, policies and institutions, livelihoods strategies and outcomes as well as vulnerability context. SLA further underscores human well-being, expansion of capabilities, inequalities and consideration of community dynamics as key to achieving rural development aside economic gains (Deneulin and Shahani, 2009).

In this study, a SLF was used to understand the effectiveness of NGO's interventions in enhancing communities' capacity to build resilience to climate change and variability. The SLF will help unearth NGO participant's roles, views and perceptions regarding NGOs interventions in climate change and variability. Additionally, the SLF will further expound whether the adaptive strategies implemented are people-centered and accommodates vulnerability analysis as a form of sustainability. Being a people-centered framework, the SLF helped to evaluate whether NGOs acknowledge the livelihoods assets, skills and capitals locally available in the community, and how these livelihoods assets are mapped and utilized to develop resilient building strategies.

1.7 Outline of the Mini dissertation

Chapter 1: Introduction

The chapter provides a brief introduction to this study, the aim, and specific objectives for carrying out the research. It also describes the theoretical framework using climate change and variability resilience-building linkages.

Chapter 2: Literature Review

This chapter gives an in-depth overview of climate change and variability definition, its associated impacts on human development, the climate change and resilience building nexus as well as the role of NGOs in climate resilience and perception of farmers regarding the same.

Chapter 3: Research Design and Methodology

This chapter outlines the methodology employed to collect and analyze data in order to provide answers to the research questions. In other words, it highlights the methodological design of the study.

Chapter 4: Research Findings and Discussions

The chapter presents the findings or results of the study and discussions relevant to the objectives of the study. The results are discussed in this section in a detailed manner by utilizing information collected during the research.

Chapter 5: Conclusions and Recommendations

This chapter provides a summary of the main finding by outlining relevant conclusions on the questions researched for further studies. It also describes suggested recommendations made based on the findings to address the challenges or issues identified.

CHAPTER 2

LITERATURE REVIEW

This section briefly discusses the concept of climate change and variability and the role of NGOs in resilience building. This necessitates a critical literature review of the intervention of NGOs in resilience building as a guide for NGOs role in climate resilience building in Malawi. The first part of the literature discusses the concept of climate change and variability from a general perspective by first describing the meaning of climate change and variability. Further, the section highlights the concept of climate change and variability from an African perspective before narrowing down to the Malawi context. The second section, resilience building and climate change is explored and further the impacts of climate change and variability on human development. The last section discusses the NGOs' work in Malawi in development work, specifically, resilience building and further explains the contributions of NGOs in climate change and variability resilience building in the target district. Insights from the literature used will conclude this section.

2.1 Concept of Climate Change and Variability

Climate change and climate variability terms has often been used interchangeably; however, they differ in meaning. The United Nations Framework Convention on Climate Change (UNFCCC 2007) defines climate change as a change of climate which is attributed directly or indirectly to human activities that alter the composition of the global atmosphere and which are in addition to natural climate variability observed over a comparable period. On the other hand, climate variability refers to the variability in the average weather behaviour and occurrence of extremes of climate at a particular location from one year to another or one season to another or one decade to another (IPCC , 2001).

While climate change is mostly used to denote long term shifts of effects of global warming (GoM , 2012) as a result of a rise in average temperatures over longer time scales, climate variability is often used to denote short term deviations of climate statistics over a given set of time such months, season or year while climate change looks at broader statistical variations in climate projections for an extended period of time, mostly a decade or longer (Munyatsi, Mhazo and Masariramba, 2010). Climate variability manifests itself in short term hazards such as droughts, floods, hailstorms,

changes in rainfall patterns. If the region's coping capacity is not adequate, the short terms events likely lead to direct and indirect impacts on virtually all social and economic sectors as the effect may be huge.

2.2 Climate Change Causes

Two main factors are attributed to the change in climate over the years. These are changes in atmospheric weather conditions mostly referred to as natural causes and human/anthropogenic causes. In terms of natural causes, Stern and Kaufmann (2013), argue that natural forces usually manifested in volcanic eruptions, atmospheric temperatures, and ocean heat have relatively contributed to global changes in climate.

Observed changes in climate have also been attributed to human/anthropogenic forces. Anthropogenic activities such as greenhouse gas emissions, sulfur and carbon dioxide emissions have increased sharply leading to the depletion of the ozone layer that cushions heat. As a result, temperatures have been sharply rising over the years causing a disruption in the normal weather events. Anthropogenic causes by human-induced activities that influence the ecosystem (IPCC, 2014). Human activities that have increased since the pre-industrial era, driven by economic and population growth lead to the burning of fossil fuels substantially change land surface and trigger emissions into the atmosphere that eventually affects cooling and warming effect on the climate (Stern and Kaufmann, 2013). Despite scholars disagreeing on which amongst the two causes is the main leading cause of climate disruptions (Stern and Kaufmann 2013; Crowley 2000), claims that despite several climate models suggesting anthropogenic changes are becoming more pronounced, and that human influence on greenhouse gases is highest in history (IPCC, 2014), over the years natural causes have had a fair share of the cause. This reflection underscores a balanced consideration of the determinants of both causes of climate change in mitigation and adaptation efforts. Concerted efforts in curbing climate change impacts require the commitment of all nations and key players as climate change is a global issue; it affects key sectors and its impacts cut across countries.

2.3 Global Outlook of Climate Change

Climate change is one of the global development challenges, and its impacts are greatly felt

worldwide. The IPCC 2014 report indicates that the earth continues to get warmer for the three past decades as compared to the past three decades. This report builds on earlier observations that each of the last three decades has been warmer than the preceding decade (IPCC, 2007). For instance, the report above reveals that a longitudinal observation of weather pattern in terms of temperature recorded between 1850 and 2000s indicate a temperature rise greater than 0.7 degrees Celsius worldwide. At this rate, climate models further predict more global warming unless efforts to minimize ozone layer depletion are accelerated. Stern and Kaufmann (2013), attribute this alarming increase in temperature rise to the depletion of the ozone layer due to the accumulation of greenhouse gases. Ozone depletion is mostly fueled by industrial gas emissions that permeate through the earth's atmosphere. The continued rise of global temperatures is not only a threat to human existence and survival, but the ecosystem including wildlife is also at the threat of extinction as some wildlife animals can't survive under high temperatures. Stern and Kaufmann (2013), further cements this argument by arguing that the current global warming poses a threat of 40 percent extinction of wildlife species globally. Much as ozone depletion to due industrial gases have been the main discussed cause of climate change, the general scholar's pinion now (IPCC, 2007) agrees that human activities equally contribute to climate degradation.

The IPCC 2013 fifth assessment report challenges policymakers to take extreme measures is addressing human activities that lead to global warming since studies indicate that likely more than half of the observed increase in average surface temperature was caused by human activity. Changes in the way land are used alter the reflectivity of the Earth's surface. For instance, human activities that leave the earth's surface bear and cause degradation such as deforestation, generally increase the amount of sunlight reflects to the atmosphere. The need to address global warming underscored above is an urgent issue as it affects global human discourse hence the need for concerted efforts for all countries. Despite having a world impact on economies, global warming has seen its effect more pronounced in Africa than the rest of the continents. This is due to the fact that most African economies mostly rely on agriculture and other primary rural industries to drive the economy.

2.4 Climate Change in Africa

Africa is one of the highly vulnerable continents to climate change and variability. Geographically, it is the only continent that straddles the equator centrally, making it affected by all three ocean

basins (Nkono, Nyong and Kulindwa, 2006). The fourth IPCC assessment report (IPCC, 2007) describes Africa as a hotspot for climate change and variability as the continent is warming faster than the average global warming average posing a risk of unprecedented weather variations that could occasionally weaken its agricultural output. Observable climate change records indicate that within the 20th century, Africa has been warming at a rate of 0.05 degrees Celsius per decade, with a reduction of rainfall in semi-arid regions of West Africa as a key indicator of climate changes (Nkono, Nyong and Kulindwa, 2006). Briceño and Basher (2006), argue that Africa's over-reliance on seasonal agriculture, water supply and energy generation, especially within the sub-Saharan region, exposes the region to more climate threats. Despite the over-reliance on agriculture, the region exhibit a relatively low capacity to adapt to climate variations (Guillaumont and Simonet, 2011) as evidenced by the rise in weather-related events such as El Nino and La Nina events have further weakened the agricultural production.

Natural and Man-made disasters linked to natural events continue to grow in number, intensity, and impact (Adger, Emma, Tompkins and Neil, 2004). The 2013 World Bank report indicates that most African countries are susceptible to droughts and population pressure that negatively affects the environment (World Bank, 2013). Specifically, poor countries like Malawi, located in the east-central part of Africa, frequent natural hazards manifested in floods and droughts are becoming direct threats to national security (GOM, 2015) because their impacts are amplified by rapid growth and unsustainable development practices, both of which increase exposure and vulnerabilities of communities and capital assets. For instance, the Post Disaster Needs Assessment Report for the 2019 Cyclone IDAI that affected Southern Malawi estimated a total effects value to US\$ 220.2 million and the Government will require US\$ 370.5 million for resilient recovery and reconstruction needs. For poor countries like Malawi therefore, such huge costs deter economic progression. Policymakers and implementers need to address the underlying issues that affect climate change and variability and how communities must prepare to respond. Climate mitigation and adaptation efforts remain rhetoric if future weather variations are not identified, known, understood by all sectors.

2.5 Climate Change and Variability within the Malawi Context

Malawi is among the world's dozen countries most vulnerable to adverse effects of climate change

and variability, and among those with the least resources to adapt or mitigate them (Zulu, 2017). Despite being an agrarian nation, the agriculture system has collapsed over the years due to vulnerability to extreme weather events, manifested mostly in droughts and floods. Failure to adapt to climate change for rural farmers continues to be a burden for both government and NGOs.

Malawi's economy is very much dependent on the environment; it is agro-based and vulnerable to climate shocks, particularly droughts and flooding. Climate change and variability determine the country's economic returns. The agriculture sector contributes above 33 percent of the Gross Domestic Product (GDP) (GoM, 2010) and constitutes a livelihood of 85 percent of Malawi's rural and densely 17 million people (NSO, 2018). The ruralized poverty (GoM, 2016) puts a great strain on smallholder farmers, occasionally weakening and limiting their adaptation and mitigation capacity.

Despite concerted efforts and institutional responses to address climate change implications, efforts remain in infancy, mostly due to inadequate reporting to national guidelines as per commitment under the United Nations (UN) Framework Convention on Climate Change. Further, most of the climate-related actions in Malawi are donor-driven, implying leadership authority by the government to priorities the key issues of its interests. The 2016 Malawi National Climate Change Policy, 2019 National Resilience Strategy, the Agriculture Sector Wide Approach, National Adaptation Plans of Action (NAPA), and the Malawi Growth & Development Strategy III represent major guiding policy frameworks for climate change and resilience building in Malawi. These policies reaffirm the country's commitment to move from short term reaction approaches to long term adaptation measures aimed at building the resilience of communities. Despite this commitment, Wellard and Kambewa (2012), claim that the country still faces challenges as a mainstream of climate adaptation is limited, institutional support is weak, uncoordinated and mostly overlapping, climate data is largely poor and disconnected from the decision making framers.

2.6 Effects of Climate Change and Variability on Human Development in Malawi

Climate change and variability is a global problem and has left an indelible mark on the human development of people worldwide, (Pope Francis, 2015). Globally, climate change and variability have dominated the Sustainable Development Goals and feature highly in goals 13 (climate action),

14 (life below water) and 15 (life on land). The Intergovernmental Panel on Climate Change report, 2001 projects a scientifically proven projection of the huge effect of humanity especially in Africa and Asia. Climate variability and hazard vulnerability are critical development issues for low-income countries like Malawi. The environment provides habitat to the entire ecosystem, nurtures world creatures in a symbiotic relationship (Banda and Ngwira, 2007). Malawi recognizes how its economic development and the citizen's livelihood are directly dependent on natural resources, which are found in our environment (GoM, 2015). From an expected Gross Domestic Product (GDP) growth rate of 5.3%, the country only achieved 2.8 % as a result of the El Niño drought (GoM, 2016). Crop and animal production, which are sources of food for human beings does not happen in a vacuum; but within a specific environment. Agriculture, which is defined as the cultivation of animals and crops (Bartlett, 2008) is dependant on the environment. When the environmental conditions are good, they act as stimulants for agricultural production and productivity. The ever-changing ecological conditions in our world have greatly affected food production and the well-being of its inhabitants (Pope Francis, 2015).

Climate change and variability have brought a lot of community livelihood disruptions in most parts of the African countries. In Malawi, climate change and variability have direct and indirect impacts on virtually all social and economic sectors of Malawi. The National Adaptation Programmes of Action (NAPA), which was officially launched in 2008, identified eight vulnerable sectors that required urgent adaptation interventions and were recommended for funding. The sectors are agriculture, water, human health, energy, fisheries, wildlife, forestry and gender. Unpredictable climate incidents are resulting in erratic rainfall patterns hence dependence on rain-fed agriculture has failed to achieve minimum production to meet the dietary needs of the people, hence the chronic food insecurity cases in the area (MVAC, 2016).

Stringer et al., (2010), further argue that the rate and intensity of climate-related impacts keep increasing at an alarming rate, posing a future challenge amongst the next generation in managing climate variability. For the past years, severe droughts and floods have drastically reduced food availability in most Malawian rural households. On average, an estimated 2.8 million people have been declared food insecure annually, requiring immediate in-kind support to meet their food needs (MVAC, 2016). For Mulanje District alone, the aftermaths of heavy flooding left 15 people dead,

32,282 households affected and 12,840 households displaced, with 12,245 houses collapsing (GoM 2015). Further, the recent 2019 Cyclone IDAI that affected 15 out of the 28 districts in Malawi has affected 9, 545 people in Mulanje District (GoM 2019 report). Agricultural growth cannot sprout outside the environment. It is argued that the recurrent food insecurity situation in Malawi for the past five years is due to environmental degradation (GoM, 2019). As climate-related effects are unequivocal, building community resilience to adapt to climate variability has been an area of focus amongst NGOs working with rural communities. NGOs have dominated resilience-building space, championing various people-centered approaches to mitigate and adapt to impacts of climate variability. While climate change has affected the entire human society, the plague has gender nuances; women and men are not impacted by the negative effects of climate change in the same way. In most cases, women are less resilient and feel the impacts more than men due to their weak coping capacity.

2.7 Background to the Work of NGOs in Community Development

Globally, the existence of inefficiencies in public management and stagnant progress in terms of human development gave birth to the view that sustainable development can also be achieved through a third sector called Non- Governmental Organizations (Davids and Theron, 2014). Agrawa, Carraro, Kingsmil and Lanzi (2011); Harvey & Singh (2017), agree that NGOs are private institutions formed to support the government's efforts in public service delivery. Bratton (1990) defines NGOs as private institutions supporting the government in service delivery using people-centered approaches. NGOs have a specific focus on a specialized agenda and recruit staff to address the identified problem (Simon , 1996). Mostly, NGOs emphasis is on the bottom-up approach that fosters ownership and sustainability to eradicate poverty (Davids and Theron, 2014).

Globally, poverty alleviation dominates global profiles mostly in rural areas (IMF, 2017). For Malawi, poverty alleviation has featured in all its overarching policy documents, from the Vision 2020 developed in 1998, Malawi Poverty Reduction Strategy (2002) as well as its subsequent Malawi Growth Development Strategies (MGDS) 1 (2006-2011), MGDS 11 (2012-2016)), and MGDS 111(2017-2021). These local policies have been aligned to the Millennium Development Goals (2000) and the current Sustainable Development Goals (2015). Chambers, (1983) describes poverty as a deprivation fulfillment of one's capability, and Sen (1999), defines poverty about

human rights and includes holistic measurement of wellbeing beyond monetary deprivation. Poverty and inequality are intertwined. As such, an understanding of a needs-based approach defines the level of poverty as argued by (Davids, 2014). It follows then that in situations of social injustice, poverty takes its toll as a section of people are deprived of essential resources. Occasionally unequal distribution and social justice lead to dissatisfaction among the marginalized groups of society. This dissatisfaction approach in service delivery by state actors is what NGOs have been trying to address (Davids, 2014). Whether NGOs have been effective or not is subject to several contextual issues but what is critical is that NGOs have been pivotal in addressing the national crisis in humanitarian situations as well as contributing to the longer-term development programs of governments. Banks (2012), attributed the rise in poverty alleviation efforts to the prominence of NGOs and attributed most policy reforms to influential advocacy efforts. For countries like Malawi, which increasingly experiencing climate-related hazards, adaptation as a means of resilience-building has dominated the agenda in poverty alleviation efforts. Stringer, Mkwambisi and Dougill (2010), noted that effects of climate change, which have been highly manifested through multiple impacts of hazards such as prolonged dry spells, hailstorms and flooding in most districts of Southern Malawi necessitated the call for NGOs to focus on climate adaptation.

2.8 The Role of NGOs in Building Communities Climate Resilience

The role of NGOs varies with respect to enhancing resilience building. Hesselberg (2016), argues in their assessment of the capacity of local institutions in Ghana that NGOs mostly focus on helping communities address challenges of their daily livelihood activities and not developing capacity towards climate change and variability. This viewpoint correlates with David (2014), in his definition of NGOs as entities that are framed on a specific target within a period. It follows that when a project fails to meet set objectives, redesigning becomes a challenge. NGOs, therefore, provides direct and indirect adaptive capacity. Stringer., et al (2010), argues that NGOs have the potential to foster dialogue, awareness and engagement with the local people due to their closeness with local structures. However, in the absence of coordination, quality of information delivery becomes a problem (Davids, 2014). The above authors, appear not to address one gap regarding the functionality of the NGOs in reducing vulnerabilities to climate change and variations. Osbahr (2007), in the study on livelihoods adaptation to climate disturbance in Mozambique, argues that

NGOs' specialty was on providing technical expertise, create adaptive programs for recovery in times of disaster and funding within a coordinated government program. This was, however, based on the restrictive governance system for NGOs in the country. The research was however minimal in the literature regarding the role of communities in the climate resilience-building process. Ampaire (2017), in the study on institutional challenges in adapting to climate variability, cites that despite adequate funding, NGOs lack prerequisite knowledge and skills to design long term adaptation and mitigation strategies for building resilience mostly for the most vulnerable communities. Much as resilience-building is a complex subject, NGOs have an opportunity to learn from each other and formulate the guiding framework for effectiveness in service delivery. Additionally, meaningful sustained resilience building can be well understood if NGOs understand the trends and relationship between climate change and variability and community resilience.

Resilience building remains a crucial component towards managing the effects of climate change and variability. According to Adger, Emma, Tompkins and Neil (2004), the solution to climate change and variability is focusing more on building adaptive resilience systems unlike just implementing adapting strategies since systems are closely related to developmental approaches. However, adaptation does not follow a one size fit all plan. Diversities in local contexts necessitate changes in the plan to ensure the efficiency of the adjustment (Agrawa and Carraro, 2011; Fussel and Klein 2006). Contrastingly, Gallopín (2006); Fabricius et al., (2007) and Bryan (2013), challenges that most of the adaptation strategies are based on measures of vulnerability and assessments, which primarily rely on information related to what has already been done. However, this process is viewed as proactive for its failure to consider uncertain circumstances or situations of extreme climate events.

In situations of major climate shocks, the coping capacity, therefore, gets suppressed. This observation is further correlated with Fussel et al., (2006), which recommended a shift from a focus on outcome-oriented adaptive capacity assessments to building adaptive capacity systems. For such systems to be in place, local institutions' capacity plays a vital role. Armitage, 2008; Pelling (2011), argues that as much as local institutions play a significant role in the bottom-up approach adaptation to climate vulnerability, research specific to local NGOs remains scarce yet these are promoters of adaptive capacity and resilience building. Local NGOs preference to work with communities puts

them in a better position to engage communities on changes that facilitates adaptive capacity (Eakin, 2005). Most of the local institutions play a mediator role between various stakeholders in coordination and resource mobilization. It can, therefore, be argued that organizations are innovative and can promote knowledge exchange and collective learning on innovative ways of dealing with climate change and variability (Armitage, 2008; Pelling, 2011).

2.9 Rural Community Perceptions on Climate Change and Variability

Understanding community perceptions regarding climate change and variability remains an important sector in developing high impact community-based adaptation and mitigation interventions. Farmer's perception sets a precedent in terms of knowledge levels and eventually guides the design of awareness messaging interventions (Maddison, 2006). Moyo, Masika and Muchenje (2010), agree further agree that the starting point in climate adaptation efforts remains existing knowledge and perception held by individual farmers in relation to climate change. The above arguments suggest the necessity to engage local communities in taking stock of existing beliefs, attitudes and ideas relating to climate change, which then gets complemented with expert knowledge.

Despite climate-related perceptions being diverse and understood from different contexts, the underlying principles and meanings are the same. Debela, Mohammed and Briddle (2015), defines climate perceptions as a long-term trend of viewing climate change parameters from one's perspective. This definition signifies understanding observable changes to weather variations such as rainfall patterns, temperature rise and the ability to make meaning out of the changes. Perceptions, whether true or false originate from local observers' perspectives and are based on experience and local knowledge (Adger, Dessai and Goulden, 2009). Perceptions ideally affect farmer decisions in determining risks and opportunities as well as shaping the behaviour response in designing adaptation programs. This narrative suggests that understanding farmer attitudes and perceptions in regards to climate adaptation and mitigation programs effectively motivates engaging in actions as well as meaningfully contribute to running effective programs.

Local perceptions to climate-related work have helped to frame meaningful interventions across Africa (Zulu, 2017). Grothmann and Patt (2005), argue that climate-related misconceptions may

undoubtedly lead to low adaptation rates consequently translating to negative impacts of climate change. In Sub-Saharan Africa, where the economy is agro-based and the resource-poor have limited capacity to adapt (Adger, Dessai and Goulden, 2009), integrating their views is essential in adaptation efforts is crucial and continues to be integrated across the world in adaptation programs.

Perceptions of climate change depend on several factors. Fosu-Mensah, Vlek and Mansachadi (2010), claim that social economic and environmental factors such as level of education, assets ownership, access to services include credit influence farmers' decisions to climate change trajectory. This viewpoint correlates with Debela, Mohammed and Briddle (2015), who argues that participants level of education and age are key factors in determining changes in weather patterns such as rainfall pattern. Both authors are short of literature to expound whether perceptions reveal the extent of the intensity of the expected weather variations. Tambo and Abdoulaye (2013), in their study on the perception of farmers on climate change in Nigeria, revealed that farmers have experienced changes in weather events and have been able to make comparisons in the intensity and amounts over the years. Similarly in Ethiopia, farmers agreed to the observable weather changes recorded using local knowledge and experience (Legesse, Ayele and Bewket, 2013). Despite lack of substantiating the claims due to limited meteorological evidence, a longitudinal study conducted in Ethiopia, Chile and Nigeria between 1992-2002, suggests changes in climate happened evidenced by temperature variations and rainfall amounts and patterns.

In Africa, especially Sub-Saharan Africa, farmers' perception to climate change is a complex topic especially in more traditional communities due to association with traditional beliefs about creation and supernatural powers. Debela, Mohammed and Briddle (2015), claims that a significant proportion of Boran smallholders in Ethiopia believe climate change is a result of a curse from supernatural powers as a result of lack of stewardship for the earth. The weather variations such as changes in rainfall and temperature patterns in this aspect as viewed as a punishment for unfaithfulness to God's rules and for deviating from tradition. Similarly in Benin, Tambo and Abdoulaye (2013), argues that much as 33 percent of the respondents acknowledged changes to climate as a result of natural changes and human activities, some farmers attribute changes to climate change and variations to failure to abide by endogenous community customs and laws.

In Malawi, an extremely poor country with a high population dependent on environmental resources (Jørstad and Webersik, 2016), perception related to climate change has shaped the climate adaptation and mitigation landscape. An Oxfam project report on poverty and the environment in Malawi in 2009 indicates that farmer perceptions constitute the reality of climate change as it has affected adaptive farming systems for communities occasionally affected by uncertainties over rainfall and temperature changes (Oxfam, 2009). Malawi is prone to extreme weather events manifested in floods and droughts (Chiotha and Mphepo, 2011). These weather events unfold within the two main seasons, dry and wet. In interviewing whether perceptions amongst women in Malawi, noted that out of eighteen women, eight reported to have noticed weather changes in droughts and rainfall patterns (Jørstad and Webersik, 2016). More specific changes observed by communities include an increase in a number of hot days (Wellard and Kambewa, 2012), longer and hotter summers (Action Aid, 2006), and an increase in annual or spatial rainfall (Bie, Mkwambisi and Gomani, 2008).

Farmer and scientific perceptions of recent climate variability/change agree on temperature but diverge on rainfall (Zulu, 2017). Both show increasing trends in temperatures (0.9°C observed 1960-2006); dry days, hotter summers, drought and flood frequency, and inter-annual variability in rainfall. Contrary to common farmer perceptions of declining total annual rainfall and their delayed start and earlier cessation, no study showed evidence of significant long-term shifts in total rainfall and timing. However, one study discovered a significant geographic (north versus south) and temporal (before and after a detected dry spell in mid-February) bifurcation in Malawi's rainfall and circulation regime that can aid future CC projections (Zulu, 2017). The discordant climate change perceptions can undermine adaptation via mistargeted, suboptimal, and locally inappropriate strategies, or short-lived coping or reactive rather than long-term anticipatory or proactive strategies or maladaptive ones. They undermine farmer confidence in, and use of, formal climate information and related extension advice. Successful adaptation requires reconciling these perceptions to ensure that farmers, extension agents, managers, policymakers, and scientists understand what is changing with weather/climate, as well as how, where, and what they can do address the associated impacts

While climate-related impacts continue to impact rural communities, there is a growing concern that climate change and variability continue to weaken communities coping mechanisms to climate shocks in Malawi. Much as NGOs have proved to be relevant within the context of development work, the literature above suggests that building community resilience for rural communities remains critical. The study, therefore, proposes to critically examine the role of NGOs in fostering community livelihoods resilience and ascertain NGOs' contribution to the process. In the matrilineal context of Malawi, where it is assumed that women have traditional powers, and yet the system remains patriarchal, the study will pay attention to the gender nuances in terms of the gender differentiation in resilience-building as far as NGO interventions are concerned.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a succinct description of the methodological approach that was used to collect data to inform the study under exploration. The chapter provides an outline of the research design by explaining the research approach, data collection strategy, sampling design, research ethics and data analysis. All these elements of the research design mentioned above have been discussed in detail to provide a complete picture of how the study will be conducted, as well as methods of data collection and analysis to accomplish the set objectives.

3.2 Study Area Description

3.2.1 Location and sampling size

The study was conducted in Mulanje district, in the southern part of Malawi (Figure 3.1). Mulanje district is located in the Southern Region of Malawi, approximately 85 kilometers East of Blantyre and 415 kilometers South of Lilongwe, the capital city of Malawi (NSO , 2008). It is bordered by Phalombe to the North-East, Thyolo and Chiradzulu to the West, Zomba to the North, and Republic of Mozambique to the East and South (Mulanje SEP, 2013-2018). The district is accessed by two bituminized roads, one passing through Thyolo and Robert Mugabe Highway, which passes through Chiradzulu. The total area for the district is 2056 square kilometers, which is 2.2 percent of the total area for Malawi (Mulanje SEP, 2013-2018).

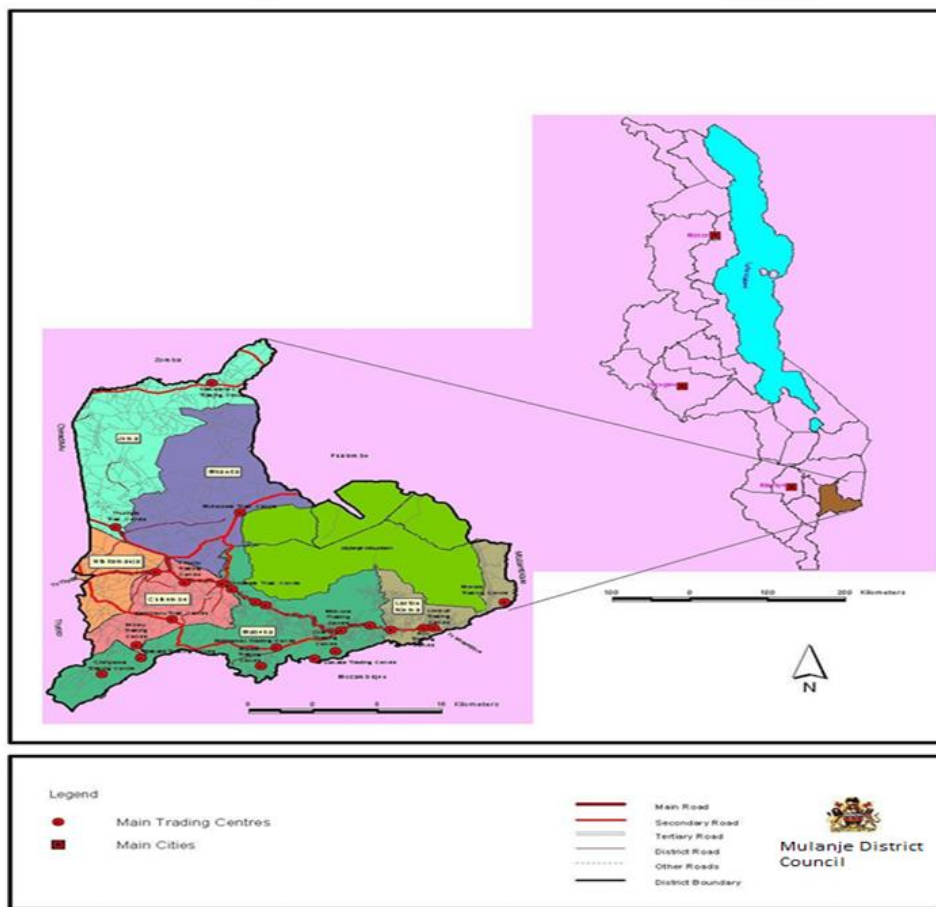


Figure 3.1: Map of Mulanje district; Source Mulanje SEP 2013-2018

3.2.2 Poverty and Income Incidence

According to the Integrated Household Survey III of 2016-17 provided by the National Statistical Office (NSO) the district has a proportion of 65.0% ultra-poor people and 68.60% in the poor bracket compared to 30.6% ultra-poor people and 68.6% in the poor bracket Integrated Household Survey (IHS) II of 2004/5 (IHS report, 2016-2017). Of those with income in the district, only about 3.2% can save; 14.8% find it very difficult to invest while over 55% spend their incomes on daily food consumption (Mulanje SEP, 2013-2018).

3.2.3 Climate

The climate is tropical and falls into two main seasons: wet and dry. The wet season normally starts in November and ends in April while the dry season occurs from May to October (Mulanje SEP,

2013-2018). However, recently it has been noted that due to changing in climate, the wet season becomes shorter and the rainfall mainly erratic with long dry spells. The mountain has a big influence on local weather conditions causing higher rainfall in the windward side than the leeward. From June to August the district experiences occasional rain and fog (Mulanje SEP, 2013-2018). This phenomenon is called Chiperoni (*named after a mountain in Mozambique*) and it is caused by cool and moist airflow. This weather condition supports crop growth in winter and promotes the growth of tea, which is a major cash crop for the district and the nation. The district has a favorable climate for agriculture but climate change variations have weakened the total agricultural productivity with only 17.9% people reporting accumulating savings from agricultural-based production (IHS report, 2016-2017).

3.2.3.1 Temperature

The mean annual temperature recorded at about 800 meters above sea level (Mimosa Meteorological Station) is 22.4 degrees Celsius (Mulanje SEP, 2013-2018). The hottest months are from September to April with a mean temperature of 35 degrees Celsius at Mimosa and the coldest months are from May to August when temperatures go down to 9 degrees Celsius (Mulanje SEP, 2013-2018). On the mountain, at above 2000 meters above sea level, the temperature can even go slightly below 0 degrees Celsius in winter.

3.2.3.2 Rainfall

The annual rainfall over Mulanje ranges from 257 mm to 343.1mm (GOM, 2015). One of the most distinctive features of Mulanje climate is a great variation of rainfall over a short distance. The variation is more pronounced at the foot of Mulanje Mountain than it is on the plateau. Annual rainfall ranges from 25.7mm to 343.1mm (Mulanje SEP, 2013-2018). Otherwise, rainfall within the district varies from 600mm to 650 mm in the western parts of the district. In the plain land areas, about 500m to 600m above sea level, it can reach over 300 mm.

3.2.4 Demography

Mulanje district has a total population of 684,107 of which 325,115 are males and 358,992 are females (NSO, 2018). The population has jumped from 521,391 in 2008 (NSO , 2008). The district is divided into 6 Traditional Authority areas (TAS) (Table 3.1); Chiefs are the overall in charge of

the areas and under the Chiefs, there are Group Village Headmen and Village Headmen. There are 79 Group Village Headmen and 496 Village Headmen. Traditional Authorities Mabuka and Nkanda have the highest number of Group and Village Headmen. Mulanje district is one of the poorest districts with almost 74 percent of people reporting to have accessed loans to start a business or buy food (IHS report, 2016-2017).

Table 3.1: List of TAs, VHs and Population in 2018 (Source: NSO 2018)

Traditional Authority	Total	Male	Female
TA Mabuka	108,442	51,351	57,091
TA Laston Njema	91,742	43,968	47,774
TA Chikumbu	87,148	41,208	45,940
TA Nthiramanja	51,108	23,916	27,192
TA Nkanda	128,070	61,037	67,033
TA Juma	109,821	52,573	57,248
STA Sunganinzeru	68,585	32,458	36,127
STA Tombondiya	24,103	11,309	12,794
Mulanje Mountain Reserve	306	147	159
Mulanje Boma	14,782	7,148	7,634

3.2.5 Agriculture

Apart from tea, the major crops grown in the district are Maize, rice, sorghum, groundnuts, phaseolus beans, pigeon peas, cotton, tobacco, cassava, sweet potato and chilies. The minor crops produced are Sunflower, Paprika, Cow Peas, Ground beans, Soya beans, Grams, Chickpeas, Velvet beans, Field peas, Dolichus beans, pineapples, bananas and burley tobacco (IHS report, 2016-2017).

3.2.6 Role and Presence of NGOs Working on Climate Resilience in Mulanje District

Mulanje district has over 31 Non-Governmental Organizations working in various parts and different interventions (Mulanje SEP, 2013-2018). Specifically, for the past five years, thirteen organizations have been recorded as working within the climate resilience sector; the organizations are as tabulated in Table 3.2:

Table 3.2: Role and Presence of NGOs in Mulanje District

Name of NGO	Activities and its focus area	Impact Area	Location
Mulanje Mountain Conservation Trust	Awareness of conservation of biodiversity and sustainable utilization of natural resources.	TAs Njema, Mabuka, Nkanda	Boma
National Smallholder Farmers Association of Malawi (NASFAM)*	Agricultural Farmer membership aimed at promoting agricultural services (Climate Resilience and DRR interventions)	District	Nkhonya Trading Centre
Likhubula CCAP house	Church-based youth organization working on agroforestry and youth skills	TA Nkanda	Likhubula
World Vision Malawi*	The faith-based organization supporting the disadvantaged through multi-sectoral approaches e.g., Agriculture.	TAs Nkanda and Njema	Chitakale
FINCA	Business development and loans services	District	Chitakale
Malawi Rural Finance Company (MRFC)	Business Development and Loan Services	District	Boma
ADRA*	Action for Social Change (advocacy and capacity building) Women empowerment Agriculture, climate change and DRR	TA Juma TA Chikumbu	Boma and Nkando
PLAN Malawi	Promote children development including DRR and Agriculture focused interventions	TA Juma and TA Nkanda	Boma
Mulanje Renewable Energy Agency	Awareness on conservation of biodiversity and sustainable utilization of natural resources	District	Boma
Churches in Action, Relief and Development (CARD)*	Relief and disaster management	TA. Njema	Boma
AFRICARE*	Livelihoods projects	TA Nkanda, Mabuka, Juma and Njema	Boma
CADECOM*	Food security and disaster	District	Chisitu and Nkando
Oxfam GB*	Resilience and Women Empowerment	TA Nkanda, Mabuka, Juma and Njema	Boma

**The highlighted rows indicate the study focused on impact areas where Oxfam, CADECOM, CARD, AFRICARE, World Vision, and NASFAM are working but for the sake of information, we will also interview partners from other organizations.*

3.3 Research Design

This study used a case study approach. Much as quantitative design can generate results for the same study, the interactive and humanistic approach and the significance attached to detailed analysis and understanding of complexities related to the topic necessitates the qualitative approach (Bryan, 2013). In qualitative studies, the questions may change and be refined in the interest of accommodating complex views from respondents. Case studies seek to build rapport and credibility hence the closeness with people's realities brings out salient issues. Additionally, a case study design explores challenges and opportunity available to the local people and understand the dynamics related to their state of vulnerability in detail. Much as the case study is criticized for its weak generalization, purposive sampling expands the extent of generalization. The proposed case study was helped the researcher learn about events leading to the continued vulnerability of local people amidst the presence of NGOs working in the area in more detail. To accommodate diversity, the researcher was included staff working for NGOs, government officers, local development structures, also referred to as Village Development Committees (VDC) and selected participants as respondents. Data were coded and analyzed from which themes were generated.

For this study, the choice for qualitative research is based on the fact that the study intends to listen to participants' own narratives and perspectives on why communities remain vulnerable to climate variability shocks regardless of huge financial investment from NGOs towards resilience building. To unearth such salient matters, the study explored an interpretive and descriptive approach; one that entails that all factors be carefully examined; perceptions, stories of change and societal dynamics worthy of understanding and exploring. Participants' interviews will be more focused on generating stories based on responses, unlike quantitative research, which collects data to assess pre-designed models. Emphasis was on viewing and analyzing participants' responses from an independent perspective; one that acknowledges the diversity of respondents' interpretation of situations and independently encompasses all factors when developing a theory from respondents' responses (Creswell, 2003). From an interpretative approach, the responses were not generated from already designed coded answers but generalization and theories were developed from understanding the meaning of situations based on respondents' views (Creswell, 2003). The proposed research was examined situations leading to increased vulnerability to climate vulnerability. From a qualitative approach, it proposes to enquire from various stakeholders and

made conclusions based on the participants' views and realities. It leans towards an interpretive approach where reality can be viewed from different perspectives. Diversity was drawn by engaging various stakeholders such as government officers, NGO representatives and Village Development (VDCs) representatives in the study as respondents to give a balanced opinion on the situation.

3.4 Data Collection Strategy

Data were collected using semi-structured interviews by using an interview guide. This data was transcribed, coded, and analysed from which themes are developed. Sixty-six respondents (66) were interviewed using key informant interviews and focus group discussions, which have been complemented by prior secondary literature reviewed. Two sets of data described below were used.

3.4.1 Primary Data

Primary data was collected through the following methods:

3.4.1.1 Key Informant Interviews

Key informant interviews, which are semi-structured involved an in-depth purposive conversation with respondents with the expectation of generating new knowledge from ideas and views shared (Legard, 2003). Using an interview guide, twenty-six (26) Key informant interviews was conducted, taking an exploratory approach where participants expressed their responses in line with the interview guide. The twenty-six (26) key informants were interviewed to provide their perspective regarding NGO's role in building communities' resilience to climate vulnerability. The key informants interviewed are comprised of seven (7) government officers from the ministry and district council, seven (7) managers from NGOs, and six (12) VDC representatives selected from the four villages. Government officers provide policy direction and support implementation in relation to development work whereas NGO managers are implementers of the interventions. The interviews conducted were guided by a developed interview guide.

3.4.1.2 Focus Group Discussions

Creswell (2003), defines focus group discussions (FGDs) as a participatory interactive conversation on a particular case of interest, led by a facilitator and can involve six to eight people. For the

purpose of this research, four (4) FGDs were conducted with a maximum of ten (10) people each; targeting community representatives. To seek an in-depth understanding of the gender dynamics, FGDs will be split into three groups; one group will be made up of males only, the other one mixed and the third one females only.

3.4.2 Secondary Data

Padgett (2008), argues that secondary data helps to understand the underlying situation on the ground and identifying documents that will help address the research question. The document review process involved reviewing existing literature from the national level to district and community level on livelihood resilience. Proposed documents for review include the 2008 National Adaptation Plan of Action (NAPA), Vision 2020, Malawi Growth and Development Strategy (MDGS 111), Sustainable Development Goals, National Resilience Plan, 2016 Integrated Household Report and 2018 Mulanje District Socio-Economic Profile and evaluation reports for end projects in Mulanje district.

3.5 Sampling Design

3.5.1 Community participants

Systematic random sampling was used to identify the respondents. Forty (40) community participants from four (4) villages where NGOs have a huge presence in Mulanje district were purposively identified and interviewed through a focus group discussion. Using Village Development Committee registers, the forty (40) were drawn from the project program participants list of the area (10 people per village). Vulnerable participants from the list identified based on the social-economic index were interviewed since they are less resilient to climate shocks.

3.5.2 Village Development Committees

Three (3) members of the VDCs from the four (4) village development committees (3 from each VDC) were interviewed as key informants to understand their perspective of NGO work in Mulanje district. The Village Development Committees (VDC) is a government instituted local development stricture that overseas development work at the community level.

3.5.3 NGO staff

Seven (7) project managers drawn from developmental NGOs in Mulanje district were interviewed to understand their role in development work and their contribution towards strengthening community resilience to climate variability. The list of NGOs from which the manager was drawn for interviews including the justification is presented below;

Table 3.3 Selected NGOs and justification of their interventions

Name of NGO		Justification for selection
1	National Smallholder Farmers Association of Malawi (NASFAM)	Implements livelihoods resilience and humanitarian programs
2	World Vision Malawi	Implements livelihoods resilience and humanitarian programs with a focus on children and youth
3	ADRA	Implements livelihoods resilience and humanitarian programs from a Faith-Based perspective.
4	Churches in Action, Relief and Development (CARD)	Implements livelihoods resilience and humanitarian programs from a Faith-Based Perspective
5	AFRICARE	Implements livelihoods resilience and humanitarian programs
6	Oxfam GB	Funds projects and co-implements humanitarian programs
7	Catholic Development Commission in Malawi- CADECOM	Implements livelihoods resilience and humanitarian programs from a Faith-Based Perspective

3.5.4 Government Representatives

Seven (7) Key informant interviews were conducted with government officers especially from the District Executive Committee as main duty bearers. Target participants were as follows; one (1) Chairperson of Mulanje District Executive Committee who is also the District Commissioner or his/her designate, one (1) Chief Mitigation Officer from the Department of Disaster Management Affairs (DoDMA), one (1) Director of Planning and Development for Mulanje district, one (1) member from Extension Services department and three (3) members of Mulanje District Executive Committee.

3.6 Research Ethics

The nature of the study requires constant interaction with people to gather information related to the research study. As such, the study anticipates consideration for research ethics sought from the following groups.

3.6.1 The University of Free State Ethics Committee

The University provides guidance in terms of ethics requirements in social research. The researcher has been seeking permission to undertake the study from the ethics committee in the Economics and Management Sciences Department.

3.6.2 Voluntary Participation and Consent

Voluntary participation and seeking concepts are key principles under data collection (Denzin, 2003). Prior to the interviews, voluntary participation was emphasized by the researcher to ensure that respondents participate willingly without being forced or manipulated. Participants was informed of the nature and background of the study as well as its objectives to seek consent and voluntary participation.

3.6.3 Privacy and Confidentiality

Due to the sensitivity of the research, the participant's information will be confidential and private. Reference will be made to specific offices and NGOs and not individuals to safeguard their image. The study does no harm principle that will apply during the interview sessions and participants will be informed of the choice to withdraw from participating if the need arises.

3.8 Data Analysis

Recorded interviews were transcribed and coded, from which themes were generated. Themes classify and relate data of the same categories (Bryman, 2012). The qualitative analysis is ideal for this study as it underlines participant's in-depth views and understanding of the concept under study. Data collected was coded and themes generated for classification. The qualitative analysis categorized data that informed the realities of NGO's intervention in building resilience.

3.9 Limitations

The study faced a number of challenges outlined below. Firstly, the sample size was small in comparison with the quantitative approach. However, the focus on getting in-depth information will ensure a detailed scope of analysis. Secondly, the study required financial resources to travel to project sites where NGOs are implementing various interventions. Regarding this, the researcher planned to conduct the interviews within a specified period of time to avoid extra expenses. Finally, the study required information from donor representatives who may be unwilling to provide information on their projects. On this, the researcher explained clearly the purpose and use data and will eventually stick to the interview guide.

CHAPTER 4

FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings. The chapter is divided into four main sections in regards to the research questions under exploration. The first part discusses the respondent's demographic characteristics by citing their key characteristics such as geographical location, size and gender. The second part discusses respondents understanding of climate change, variability and resilience building. The third part discusses the extent and relevance of NGOs work in resilience building and finally, the paper discusses challenges encountered in climate resilience-building work.

4.2 Respondents Household Characteristics

A summary of the demographic and socio-economic aspects is presented in Table 4.1 below. Respondents to this questionnaire, which includes community representatives, government officers and NGOs staff were requested to indicate their age and other social characteristics as part of demographic characterization.

Table 4.1: Participant demographic and socio-economic characteristics

Household participant characteristics		Frequency	Percentage
Sex	Male	55	62.5%
	Female	33	37.5%
Land ownership	Own	59	67.0%
	Rent	29	33.0%
Age groups	Below 35	37	42.0%
	35-45	31	35.2%
	46-60	15	17.0%
	61 and above	5	5.7%
Household members	Live alone	2	2.2%
	1 to 2 people	7	7.9%
	2 to 4 people	35	39.9%
	4 to 6 people	23	26.2%
	6 & above	21	23.8%
Educational level	Primary & others	56	64.0%
	Secondary	10	11.0%
	Graduate/Tertiary	22	24.0%
Level of skill	Semi-skilled	32	36.3%
	Skilled	29	32.9%
	Unskilled	27	30.6%

4.2.1 Age of Respondents

Table 4.1 indicates age distribution of the respondents drawn from the three groups of respondents namely community members, NGO staff and government employees. From Table 4.2, the majority of the respondents were below the age of 35 (n=37) which represents 42 percent of the total respondents. Thirty five percent (n=31) of the respondents aged between 35 to 45 years while seventeen percent (n=15) aged between 46 to 60 years. Only six percent (n=5) of the respondents aged 61 years and above and this was only recorded amongst the community respondents group.

Table 4.2: Age ranges of respondents from NGOs, community and governments (n=88)

Age category	NGOs	Community	Government	Total
- Below 35	6	24	7	37
- 35 to 45	9	18	4	31
- 46 - 60	2	12	1	15
- 61 and above	0	5	0	5
Total	17	59	12	88

4.2.2 Gender characteristics

Table 4.2 shows that participants' gender representation was more male-dominated with 62.5 percent, while females made up 37.5 percent. The respondents were strategically and purposively selected based on their roles in the study. Respondents were drawn from government departments (12 (7M 5F)) working in the field of Livelihoods Resilience at the district level, NGOs (19 (8M 9F)) working in the district as well as representation from community members (59 (40M 19F)). The community members were strategically drawn from local development committees that mostly champion NGOs work as well as participants that had prior participated in NGOs interventions; NGOs staff were selected for their role in championing interventions while government officers represented the overall regulators of climate resilience work at the district level.

4.2.3 Education Level

Table 4.1 above shows the education level of the respondents of the study. Out of 88 respondents, 64 % (n=56) indicated to have attended primary school education. This category was dominated by community members. Twenty four percent (n=22) reported having attended tertiary education, a category that was dominated by government staff and NGOs employees while eleven percent (n=10) reported having attended secondary school. The level of education was inquired as a means to ascertain the level of conceptualization of climate resilience issues. As argued by Mengistu

(2011), farmer literacy level is a key in determining the level of technology adoption. Literate respondents are therefore expected to understand the concepts of climate change and variability much quicker than illiterate ones. Consequently, the argument suggests that the education level will help farmers grasp the resilient building interventions championed by NGOs to improve their level of resilience towards climate-related hazards.

4.2.4 Level of Skill

Table 4.1 above shows the level of skills acquisition as reported by the study participants. Out of the interviewed 88 participants, 36.3% (n=32) reported having semi skills which mostly comprised of business and local enterprises. 32.9% (n=29) reported having skills and this group mostly comprised of NGOs staff and government officers while 30.6% (n=27) reported having not attained any skills. Most of the community respondents made up this group.

4.3 Understanding Effect of climate change

The understanding of the effect of climate change and vulnerability remains one of Malawi's key priority areas due to its multifaceted impacts on the country's economy, which is mostly agrarian in nature (IMF, 2017). In line with SDG no. 13 and the Agenda 2063 on climate action², Malawi has invested technical and financial resources to help communities' access to knowledge on climate change and variability (GoM , 2017-23). Community respondents and NGOs staff were asked to explain in their own view what the concept of climate change, variability and resilience-building mean. The sections below (Section 4.3.1 - 4.3.5) provide respondents' view of the concept of climate change, variability, and further the resilience-building steps.

4.3.1 Perception of Climate change and Variability

The findings of the study show that there was a general consensus in understanding the term climate change and variability as all respondents linked the climate change and variability to change in weather manifested in lifetime events such as the reduction in crop harvest and grazing are deterioration livestock deaths. As argued by Crosson (1993), key to understanding adaptive capacity and resilience building to climate change and resilience building is to empower individuals to make informed choices on decisions regarding interventions to explore. For instance, farmers

should be free to make choices on ‘what’, ‘how’ and ‘when’ to plant crops. Adger et al., (2004), attribute a lack of information to challenges related to adapting to climate change.

The findings show that 88 % of NGOs interviewed indicated that climate change and variability is defined as changes in weather variation observed over long and short periods of time, while 12% reported that relates to rainfall and temperature fluctuations (Figure 4.1). In regards to community members’ responses, 63% of the respondents reported understanding of climate change and variability related to increase in rain and temperature fluctuations whereas 25 % defined climate change and variability in relation to weather influenced changes in crop harvest. The high literacy levels in terms of understanding climate change and variability could be attributed to the two factors; first, as per the level of education, most farmers had attained formal education, and second, the influx of NGOs that have been propagating climate change programs in the district. Figure 4.1 shows the findings of communities’ representatives and NGOs staff understanding of the concepts of climate change and variability.

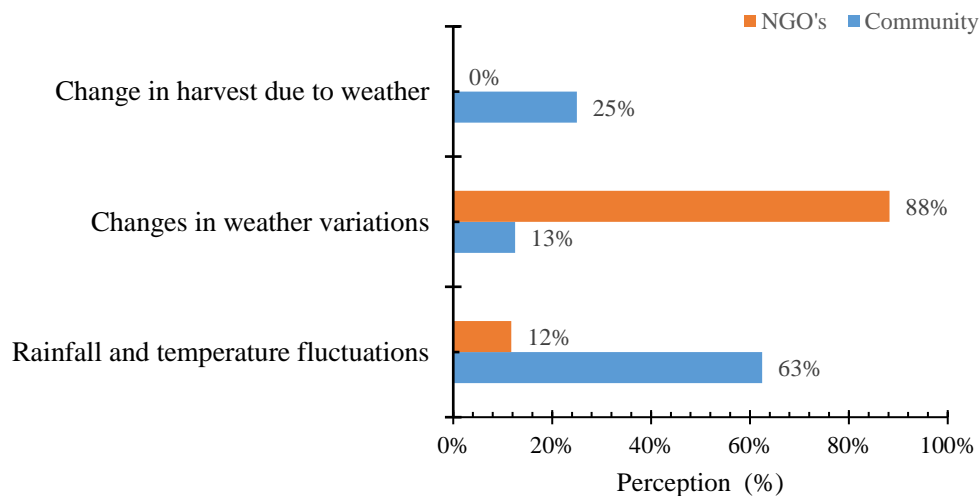


Figure 4.1 Understanding of climate change and variability in the view communities and NGOs

Despite the general understanding of climate change for the majority of respondents, the analysis draws one key observation; NGOs staff understand better the concept of climate change than community representatives as evidenced in the conceptualization of the concept of climate change and variability. While both definitions seemingly point to the same, community members singled out more manifestations of climate change and variability. The following quotations drawn from a

community member of the Village Development Committee (VDC) and an NGO staff supports this argument

For us, we understand climate change as something that has changed our ways of farming such that these days we harvest less than in previous years (FGD, VDC member 1F)

Climate change and variability can all be defined as observable changes in weather patterns with the only difference between the two seen in terms of period. Climate change is mostly observable patterns over a long period of time while variability is short term (KII, CARD 1M)

4.3 Perception of Resilience building

The study further undertook an attempt to understand respondents understanding of the concept of resilience building. The study found similarities in responses provided as both KIIs and FGDs pointed to the fact that resilience relates to community empowerment to withstand future disasters as well as the ability of communities to withstand negative impacts of disasters (Figure 4.2). A FGD for Area Development Committees (ADC) in Group Village Headman (GVH) Mwawihe defined resilience building as; “deliberate setting up interventions aimed at empowering communities to be able to withstand the effects of disasters” (FGD, ADC members, F). The figure 4.2 below further sums up the definitions provided for resilience building.

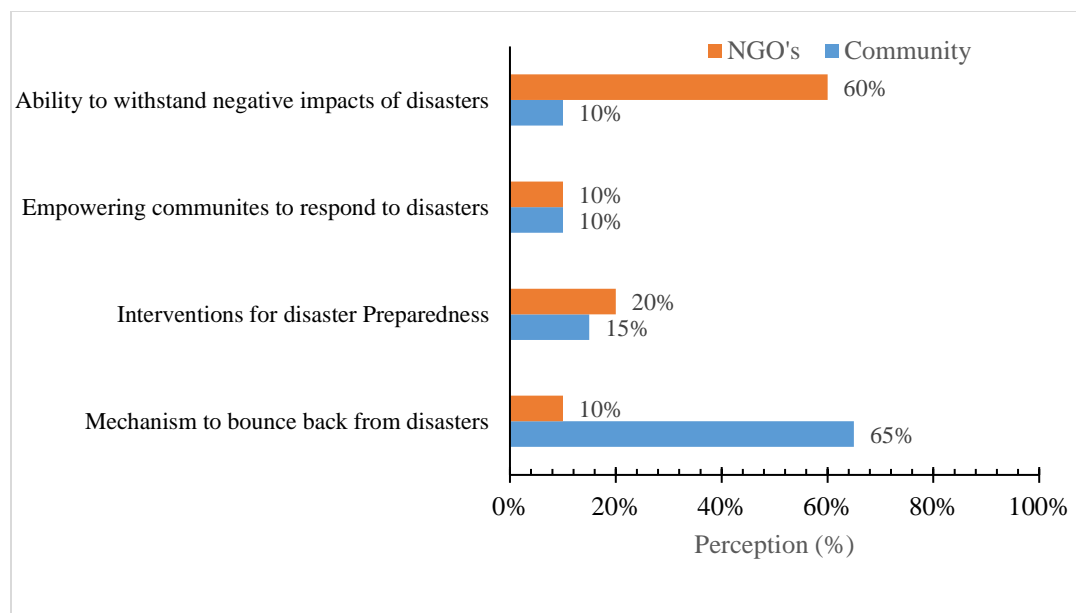


Figure 4:2 Perception of resilience building for both NGOs and Community

The study found that Oxfam, CARD, and CADECOM are key organizations that registered positive outcomes in creating awareness of climate change and variability as well as resilience-building understanding. The three organizations were credited for jointly implemented a Strengthening Community Resilience Project in disaster-affected areas of the district in which conceptualization of the interventions was done by community members themselves. Government officers including NGOs developed interventions that were drawn from community action plans. The bottom up approach in this project ensured effectiveness in project delivery, as well as stimulated community enthusiasm in participating to resilience-building interventions as one community member underscores that:

We were part of the design process of a project involving Oxfam, CADECOM and CARD on resilience-building interventions that involved tree planting and conservation agriculture. We were asked to develop during action planning; in such a way we were fully satisfied and participated jointly as the intervention addressed the key needs we identified” (KII, ADC Chair, female).

It is clear from the findings that projects, where communities are involved, tend to spur enthusiasm, empowerment and sustainability. Communities feel being part of the process and own the development process.

4.4 Perception on Causes of Climate Change and Variability

Farmer perception of past weather variability constitutes reality since they affect local conceptualization of the concept of climate change and variability (Zulu, 2017). As a follow-up to participants' understanding of climate change and variability concept, the study further sort views of respondents in terms of their understanding of the causes of climate change and variability. In this study, I made a case for possibilities in terms of understanding of what really causes climate change from communities, NGOs staff and staff working for the government. In the sections below, I began by analyzing communities' views on what causes climate change, followed by NGOs perspective and finish with viewpoints from government staff. Variations in responses are key to understanding strategies advanced in building climate resilience.

4.4.1 Communities views on Climate Change and Variability

Representatives of communities interviewed in this study seemed to agree that climate change is hugely caused by two factors namely human activities and changes in natural processes.

We ought to have digressed a lot from the way our forefathers in regards to safeguarding the ecosystem. These days, careless cutting down of trees is one major area that has led to change in the climate. We can all see how Mulanje Mountain, our natural source of water and trees has been deforested for the past years, rains are now unpredictable and rivers stemming from the mountain are drying. (VDC Chair, Namulenga VDC, 1F).

By implication, the sentiment above would entail that climate change ought to be viewed from how communities manage the entire ecosystem and not only components that make up the system. The reference made to Mulanje Mountain only confirms the fact that the rate of environmental degradation is of great concern. In their responses, communities' representatives all agreed that human-induced activities such as unsustainable agricultural production techniques such as cultivating along river banks and cutting down trees carelessly are increasingly influencing the

climate and earth's temperature. This is how one elderly community member, who is aged 58 years express her rage at how fast the environment is deteriorating:

I have been around for many years and it's sad how the current generation manages the environment. In our time, one would not just cut trees without seeking approval. Even in such situations, everyone had the duty to replant trees once you cut some. The present generation doesn't see the need to do so, even with the realization that most of the forest products sustain their livelihoods (Community member, 8F).

Communities also connect climate change to natural processes. Interviewed elderly members expressed the belief that climate change was ought to happen at some stage in life with or without human intervention, a belief passed on by their forefathers.

Our forefathers used to tell us that at some point, the world will lose its aged vegetation for a new one. It's a natural process designed by the creator (Chief 3M).

The above sentiments from communities seem to suggest that communities realize that climate is changing rapidly despite variations in regards to ascertaining its cause. As argued by Zulu (2017, farmer knowledge on climate change and variability is key to communities' efforts to adapt to climate change. The realization that climate is changing provides an opportunity for NGOs and government staff to intensify community-based adaptation and livelihoods resilience programs.

4.4.2 NGOs staff view on Climate Change and Variability

The rise in greenhouse emissions and human activity were key responses provided by employees working for NGOs. NGOs staff seemed to agree that changes to natural processes, propelled by a rise in emission is the main factor to changes in climate as well as human-induced activities that negatively affect the environment. This viewpoint could be attributed to the fact that all the NGOs staff interviewed had undergone the tertiary level of education and conceptualize the climate change discourse better than other respondents. Thus, NGOs employees described key causes as:

Changes in climate can be attributed hugely to global warming. These include mostly industrial gases and other emissions going into the atmosphere. Unfortunately, rural communities like these only suffer consequences; big companies and developed countries are mostly major contributors to emissions (Employee 3M).

Employees further agree that aside from huge industrial emissions, human-induced activities for rural communities such as cutting down trees and burning charcoal equally contribute to changes in climate. Rate of charcoal burning is high in Malawi as most of the rural livelihoods view charcoal burning as an alternative source of generating income. Reflecting on energy challenges in Malawi, one employee further attributes to use of forests products for energy as a main key driver for climate change in Malawi:

The main problem is the heavy reliance on biomass energy, which is projected at 97 percent in Malawi continues to put pressure on existing forests, thereby reducing Malawi's sink capacity. Rural communities' source of biomass is in form fuel wood and charcoal, practices which accelerate rate of forest degradation (Employee 5 F).

The reflection from NGO acknowledges that much as global warming constitutes a larger share of the climate change problem, human-induced activities equally amplify the problem.

4.4.3 Government Staff view on Climate Change and Variability

Government staff interviewed in this study seem to agree with NGOs' staff viewpoints that climate change is a combination of both natural causes as well as human-induced activities. The staff seemed to agree that to a larger extent, global warming is the main catalyst of climate change, as evidenced by amounts of emissions into the ozone layer. They labeled Malawi as a net emitter in regards to greenhouse gases as compared to other countries but cautioned that the rising sector in industries and manufacturing may pose a serious threat to climate change:

We are hugely suffering the consequences of hugely industrialized countries that emit so much gas into the atmosphere. We produce our own emissions yes, but to a larger extent, developed countries are chief emitters. Of course, Malawi is slowly becoming an industrialized country and we must watch the rate at which we are emitting gases into the atmosphere. To a larger extent, our human actions such as not caring for the environment are consequently contributing to changes in weather patterns. (Government Agriculture Extension Officer 1F)

One must understand that climate change is changing at a faster rate due to human activities that lead to gas emissions that deplete the ozone layer. Much as most of these gases occur

naturally, human activities such as burning fossil fuels and cutting down trees are slowly increasing the concentration of these gases (Government Environmental Officer, 4F).

From the assertion above, government staff conceives that aside from emissions released into the atmosphere, communities are equally contributing to climate change through unsustainable farming practices as well as not paying attention to the rate of environmental degradation. Government officers propose that NGOs must focus on climate adaptation programs to ensure the resilience of the communities at risk.

4.5 Common Climate Change Hazards

Respondents were asked to mention common climate change hazards for their areas to ascertain their knowledge and understanding of climate change and variability. The results are presented in Figure 4.3 below.

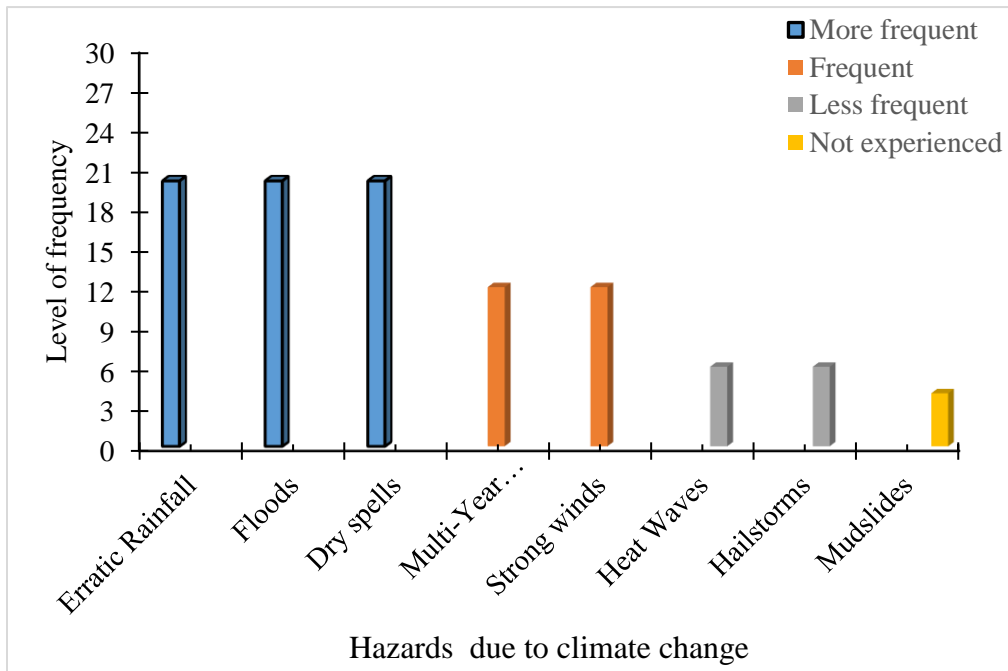


Figure 4.3: Frequency of occurrence of climate hazards

Resulting from the question that aimed at exploring the main climate change hazards in Mulanje district, erratic rainfall, floods and dry spells featured commonly at 20 % each, whereas

seasonal/multi-year droughts and strong winds were recorded at 12 % each. Heat waves and hailstorms reported 6 % and 4 % of participants reported not to have experienced mudslides. Actually, GoM (2019), underscores this observation in its 2019 Post Disaster Needs Assessment report by stating that Mulanje district was one of the worst affected districts during the cyclone IDAI that was preceded by prolonged drought, strong winds, heat waves, and hailstorms. Additionally, there was a mention of erratic rainfall and floods experienced within one growing season as explained by the Chief Mitigation Officer for the district;

The past years have been very unpredictable in terms of rainfall and drought pattern. We could experience drought in between August to October and later experience heavy floods from November to January. The sudden unexpected changes in such patterns make farmers more vulnerable and susceptible as their coping mechanisms are pushed beyond capacity. (Employer 4F).

Respondents pointed out that heat waves, hailstorms and mudslides are less frequent and non-existent in some cases. There was an assumption from government extension workers that the key to resolving such occurrences could be capacity building in participatory scenario planning (PSP).

It is the task of the government to train communities to anticipate various hazard scenarios but we are resource-constrained. Our funding is inadequate. I wish NGOs would channel more resources to this component so that our communities are more capable on exploring various scenarios (Government Staff 6M).

4.6 Observable Effects of Climate Change on Communities

Effects of Climate change were perceived by respondents as direct result on observable changes related to climate or weather variability. Their understanding was rooted into analyzing manifestations of climate related hazards, and these were linked to how they affect general livelihoods. Much as government staff, NGOs employees and community representatives narrated key effects of climate change observed in their area, voices of the effects were more prominent among the community representatives. The quotations below describe community representatives articulated the effects of climate change

Climate change has resulted into reduced crop and livestock production. Our harvest have drastically been reduced over the years to the extent that we can't meet the food entitlements for the whole production season. Previously, I used to harvest 25 to 30 50 kgs bags of maize on my plot but now I can only harvest less than 10 bags every year (Community Representative 19 F).

I feel climate change has heavily contributed to malnutrition and further spread of communicable diseases in my community. I have in mind the floods that hit hard in 2017-18 where cholera outbreak took lives of many people (Community Representative 21M).

The many incidences of negative coping mechanisms such as prostitution and high school drop-out among young girls and children is due to climate change induced floods. Most poor communities lost everything during floods and with little support to rebuild their livelihoods, many fell victims of abuse (Community Representative 17M).

From community representative's perspective quoted above, indications suggests an awareness among respondents that climate change effects are multi-dimensional in nature as they affect all key sectors of humanity. Communities particularly emphasized that vulnerable groups such as young girls and women are more at risk to the social effects of climate change.

Communities seem to suggest that government and NGOs focus more on addressing tangible effects of climate change in the design of their interventions, neglecting key aspect related to protection, gender and social inclusion.

When organization come to support us, they mostly focus on providing in kind support or cash to rebuild our livelihoods, no body seem to pay attention to the gender differentiated needs arising from impacts of climate change. Women and young girls suffer most; we strive even to get registered as a beneficiary of the relief items (VDC Chair, 4F).

Such sentiments invite possible reflection of design of climate change interventions. While communities commend the good work by NGOs, the key question remains, how can resilience building interventions ensure gender and social integration?

4.7 Community's Preferred Resilience Building Interventions

Respondents understood resilience building interventions as activities aimed at empowering communities to withstand household shocks in times of climate induced hazards. Drawing on Sustainable Livelihoods Framework, resilience building interventions could be equated to a set of livelihood assets and capital assets in terms of skills, strengths and capacities as an inherent potential to sustain livelihoods resilience (DFID, 2001). When quizzed on what works best, respondents indicated the following as preferred interventions;

4.7.1 Large scale irrigation farming

Communities indicated that much as some NGO have championed irrigation farming, the support in terms of inputs and equipment has been on a small scale. Mostly, NGOs have distributed treadle pumps and small solar irrigation kits, which could only serve two farmers per day. Respondents ranked irrigation as first priority resilience building intervention just because farming is what defines them.

Every day when I wake up, I think of farming, it's the main source of livelihood here as it provides food on the table. We fail to harvest enough due to insufficient rains. Given an alternative to water for production, I will use all my energy to invest in irrigation farming (Community member 2M).

We have natural water flowing throughout the year but the challenge has been equipment to channel the water into our fields. At some point, one NGO brought motorized pumps, which could not be sustained due to high cost of fuel. We think the solar ones can be a great alternative. (Community Representative 8 M)

I have been using the treadle pump for more than 5 years now and always fail harvest enough for my family. It drains my energy a lot and I always go to bed very tired. With a bigger investment in irrigation, we can produce more and remain food secure and resilience to climate shocks. (Community representative 5 F).

The sentiments above suggest that large scale irrigation could be a viable solution in addressing persistent droughts that mostly affect crop yields.

4.7.2 Capacity Building

Respondents valued capacity building in terms of training and learning visits as essential components of climate change resilience component. Communities view training as a pathway to strengthened capacity to anticipate and respond to future hazards.

Aside from irrigation, climate knowledge is key for building resilience. We prefer trainings in climate adaptation and resilience building. The problem mostly is that NGOs train Lead Farmers with the expectation that they will cascade information to follower farmers. Unfortunately, most lead farmers do not conduct follow up trainings (VDC Secretary, 9F).

We need frequent capacity-building sessions to respond the demands of an ever-changing climate. This is key for all of us to anticipate better management of climate shocks. (VDC Chair 2M).

Communities also pointed out partnerships and sharing experiences with other stakeholders on how to deal with climate change as a key priority for improving resilience building as underscored by the village head.

We want to see and learn from others on how they adapt to climate change. We hear a lot on the radio. Knowledge gained from visits and further dialogue can help if adapted into our context (KII, Chief 1F).

The above observation cement further an argument that the capacity of communities and local structures in climate resilience must be cemented for a more sustained climate response (Ogunbameru and Mustaph, 2020). Communities who are equipped are likely to better understand, anticipate and cope with climate shocks.

4.7.3 Types of livestock Production

Communities indicated that livestock production remains another key preferred priority in building climate resilience. Communities indicated that livestock has the potential to support resilience-building efforts as livestock are mostly resistant to climatic shocks than crops. A community member from Che Sani village underscores this

I prefer goats. They rarely get sick and can graze on any vegetation. In times of climate shocks, it's easier to sell one (FGD, Che Sani, 2M).

Pigs mostly breed a lot and can fetch more income if sold. I prefer if NGOs can help us with new breed and skills (Community representative 3F)

The above sentiments suggest that livestock production occupies a prominent stage in climate resilience building. Aside playing a significant role in food production, they indirectly support production through manure.

4.7.4 Alternative income generating Activities

Communities further indicated that providing alternative sources of livelihoods such as business opportunities and other income generating activities is another key preferred resilience building intervention. Mostly businesses such as running a small grocery and investing in livestock as a business were more prominently referred to when asked on the preferred income-generating activities.

I am of the view that another key intervention for resilience building could be providing alternative sources of income such as capital for businesses like brewing beer or selling clothes, or running a tea room (Chair, VCPC 4M)

Business can cushion us from the impacts of climate change. I prefer the food industry business because people will always want to eat. I think we can make money, save and use when climate shocks impact us greatly. (FGD, Juma 2F)

The above sentiments seem to suggest that running profitable small and medium scale businesses could be an option for build resilience for climate shocks. Through income earned from businesses, communities can invest the profit and use the returns in times of climatic shocks. Communities further seem to agree that despite the preference for such interventions, proper assessments must be conducted to ascertain the viability of the proposed economic interventions.

4.8 NGO's Preferred Sectors in Climate Resilience Building

Respondents were also asked to indicate key sectors championed by NGOs in their contribution to climate resilience building. This emphasize whether thematic areas mostly advanced by NGOs response to climate change resilience-building efforts. Figure 4.4 below, summarizes responses provided by the respondents.

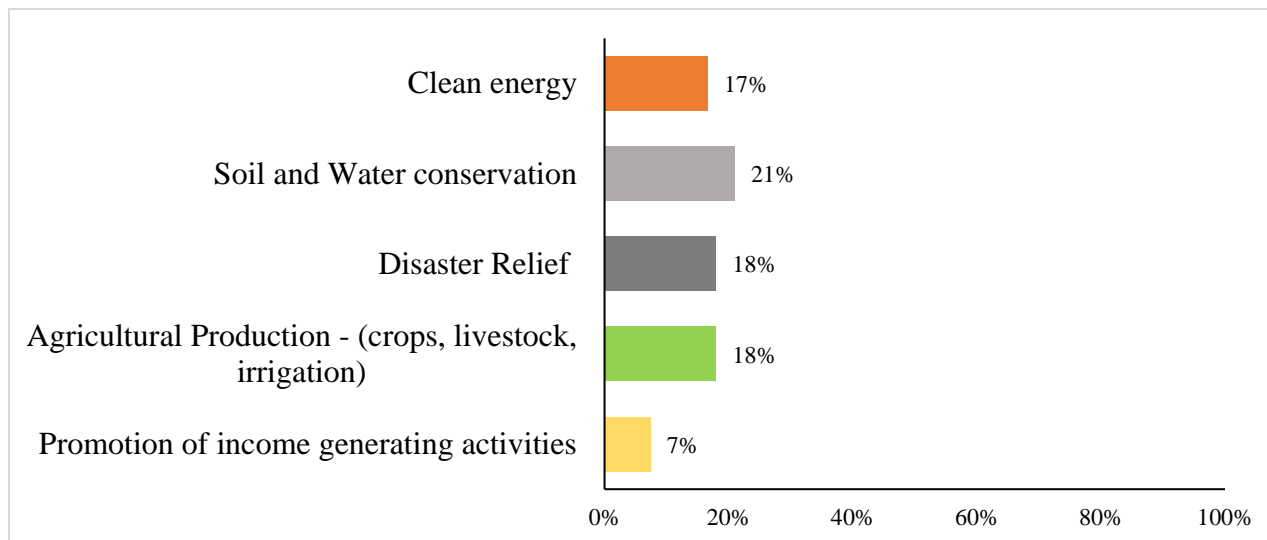


Figure 4.4; NGOs contribution to climate resilience building

From the findings presented in Figure 4.4 above, most NGOs' interventions focus on soil and water conservation (21%) as well as disaster relief (18%) and agriculture production (18%). Respondents further indicated that aside from these two, NGOs also focus on clean energy (17 %) and finally income-generating activities (7%). Respondents cited soil and water conservation methods as key in building resilience due to the fact that most winter cropping utilizes residual moisture. Water is mostly conserved in preparation for winter production, which normally is practiced to complement rainfall harvest. In terms of agricultural production interventions, respondents acknowledged that almost all NGOs support communities with inputs for winter cropping such as seed and fertilizers. Technical training in sustainable agricultural practices were also mentioned as key among the capacity building interventions in relation to agricultural production and productivity.

In all interviews conducted, communities indicated that of all interventions championed by NGOs, winter cropping using residual moisture and irrigation facilities helps communities to quickly recover from the impacts of weather variability. Irrigation using early maturing varieties ensures that communities quickly access food for household consumption. “Mostly, of all the interventions,

what works best is farming during winter season with support from treadle pumps. We can harvest vegetables and maize within three months for sale as well as household use” (FGD, Namphungo, male).

In terms of income-generating activities, respondents mentioned diversity of interventions championed by NGOs such as goat production, small-scale businesses and village savings and loans (VSLs). The study found that women and men are organized in groups to run a small scale business of which profits are equally shared among the members.

We believe in the power of unity and group work. By being in a group, am encouraged to keep participating even in situations when my income is short. We encourage each other to keep working hard so that we may realize more profits at the end of the cycle (FGD, Mwawihe, Female)

To ensure more investments, the businesses are linked to village savings and loans so that more interests are generated and shared at the end of an agreed cycle.

4.9 NGO effectiveness in Building Climate Resilience

4.9.1 Participation in Program Interventions

The surveyed respondents were asked to give the form of participation, which they mainly undertook in various NGO championed interventions. The results of the descriptive analysis are summarized in Table 4.3.

Table 4.3: Summary statistics for forms of participation undertaken by respondents (n=88)

Form of participation	Frequency
- Passive participation	8 (9%)
- Participation by consultation	29 (33%)
- Information giving	29 (33%)
- Participation for material incentives	22 (25%)
- Functional participation	0
- Interactive participation	0
- self-mobilization	0

A typology of participation by Howard-Grabman and Snetro (2003), was adopted to understand the exact forms of participation that are undertaken by local people whenever NGOs are implementing climate change resilience-building programs. The results in table 4.3 above show that participation by consultation and information giving was mostly recorded, each reporting 33 % (n=29). A further 25 % (n=22) of respondents reported to have participated specifically by being motivated by material incentives provided by NGOs such as lunch allowances and transport refunds. This trend according to Davids and Theron (2014), presents a danger of discontinuity of interventions post NGO phase as participant's participation is driven by the incentive.

Passive participation was recorded at 9 % (n=8) whereas there was no mention of functional, interactive and self-mobilization participation. Passive participation implies that participants were already told what is going to happen or has already happened (Mchunu and Theron, 2014), which is similar to the top-down approach where communities have no say in what interventions have been proposed. A KII interview underscores this trend in one of the projects implemented in the area as part of resilience building in the wake of disasters:

We were first told we will receive two goats each as part of pass on scheme. Unfortunately, in the course of implementation, project staff informed us that there has been changes and instead of goats, we will receive two chickens each. It's almost a year now and we are still waiting for the chickens. (KII Thuchila Area Development Committee member, Male).

The absence of interactive, functional and self-mobilization forms of participation reflects an old paradigm model of development projects mostly designed without authentic people participation (Chambers, 1983). Lack of meaningful consultation reflects a top-down approach system (Korten and Klaus, 1990), which could be attributed to failure by most communities to build resilience to climate change shocks.

Analysis from the above discussion fully coincides with the Manilla Declaration on the Peoples Participation and Sustainable Development (1989), which highlighted that most rural development models are devoid of inclusion of indigenous knowledge in planning, implementation and monitoring of projects. The study found that most climate resilience projects are rushed in

conceptualization as most of them are designed at the onset of disasters. A KII discussion by the Extension Planning Area Officer underscores this:

Mostly NGOs flock into the districts with climate resilience interventions when disaster hit, instead of introducing the interventions prior to the climate-related disasters. As a result, instead of building resilience, communities are only assisted to cope with the emerging challenge. (KII Thuchira EPA, Male).

The findings presented above indicate that in terms of participation, communities are not fully involved in designing resilience-building programs, a situation that limits the integration of their local knowledge in the design process. As argued by Mchunu and Theron (2014), authentic participation emanates from situations when communities are the driving force of development agendas. The situation in Mulanje district as per the respondents' feedback seems to suggest that minimal consultation in developing resilience-building strategies could explain the gaps in community resilience building.

4.9.2 Who Makes Decision on Project Interventions

The study findings denote that decision making in project interventions mostly fail to recognize community views. It has emerged that mostly NGOs seek the views of government officers only when devising or adjusting project interventions. Communities indicated that they felt interventions aimed at empowering them are more sustaining than predesigned activities. While acknowledging the partial involvement of local communities in designing interventions, respondents bemoaned the top-down tendency most NGOs adopt in implementing interventions.

NGOs mostly bring on board predesigned interventions- they must leave room for flexibility and integration of our emerging issues. We are powerless and have no negotiating power. We resign to accepting the interventions other than letting them take the project to other areas (ADC Chair 6F).

I was once engaged during the orientation meeting of one of the resilient building projects in my area. We were told that the government and the NGO have decided to support us with livestock farming (VDC Secretary 5 F).

From the interviews above, communities seem to agree that a top-down syndrome dominates the planning of resilience interventions. Locals are mostly sidelined or partially consulted in deciding the choice of resilience building interventions. Further discovery on the same revealed that NGOs mostly consult government officers in deciding the choice of interventions. The government officers by virtue of their roles represent communities in deciding interventions to be championed. This did not sit well with communities as underscored by one member:

The extension officer mostly side with them, we are told they are involved and decide on our behalf. We want NGOs to come down and speak to us (VDC Chair 7 F).

The argument provided by communities seems to suggest that the downward spiral of community consultation mostly ends at the government officer's level. It is critical however that the community's views form part of the design process as integrating local views is key for the success and sustainability of climate resilience interventions. Communities must not be left out as they are drivers of their own developmental aspirations (Davids and Theron, 2014).

4.9.3 Community lessons In Working with NGOs

The study findings emphasize the point that joint planning in conceptualization and implementation of the project remains key to the sustenance of project interventions. In both FGDs and KIIs, respondents alluded to the fact that partial collaboration suffocates efforts to empower communities. "we see ourselves as key to solving our own challenges, only if properly consulted, not just being told that there is money meant to support certain interventions deemed fit by NGOs.

Our understanding is that donors must come down and seek views with relevant structures on what must be included in the project design" FGD, Namulenga, female).

Analyzing responses from participants, it is clear that communities are left behind and wish to view development initiatives from a different perspective. Instead of just being informed by key project focal persons on the ground, they want to be actively involved in review meetings

Indeed, in some cases project reviews are done, but local representatives are always the same and sometimes only speak for themselves. We want a rotational representation of our local people so that there is always a diversity of views feeding into the project. (FGD, Che Sani, female).

The selection of project beneficiaries was also another contentious issue; communities feel that NGOs criteria for registering beneficiaries have loopholes.

“How do you expect the same participants every time there is a new project? Those entrusted in registering beneficiaries are mostly influenced by chiefs and leaders. We think NGOs should also take part in beneficiary identification to vet the process” (FGD, Mgumera, Male).

Calls for transparency and accountability on project budgets were evident; participants narrated that NGOs staff rarely disclose full amounts of available funding, leaving room for suspicions and misconceptions.

We aren't sure if the funds allocated for projects are all well utilized since we aren't told how much is allocated for interventions. (FGD, Namphungo ADC, male).

4.5 What is working well and what is not?

Respondents were asked to mention strengths and areas that need further strengthening in regards to NGOs' interventions in promoting climate resilience. Table 4.4 presents a summary of findings as per the responses.

From a Sustainable Livelihoods approach, the success of interventions must integrate community empowerment as a strategy to analyze key issues and relationships affecting the progress of rural development-related (Brocklesby and Fisher, 2003). Respondents were open to discuss the internal dynamics of what is working well and not. Below is a description per respondent group guided by Table 4.4 above.

Table 4.4: what is working well and what is not

	What is Working	What is Not working Well
NGOs	Good working relationship with local structures	Donor priorities vs Community everchanging needs
	Community willingness and enthusiasm	Late funding
	Government support	Short duration of responding to donor calls leading to minimal community consultations
Community	NGOs utilise existing structures for implementation	Variations in terms of what is planned and what is implemented
	Local involved in implementation	Piecemeal approaches to interventions
	Technical Support	Most projects are short term
		No trickle down effect as knowledge revolves around the same trained people
		Locals not fully involved in designing projects
Government Staff	Mostly NGOs provide monitoring support	Crush of ideologies
	Capacity building sessions	Duplication of efforts by NGOs in the same area
	Accompaniment	Coordination and Competition amongs NGOs
		Personality of officers
		Accountability and transparency of funds
		Funding Cuts
		Unfilled expectations

4.10.1 Feedback from NGOs

NGOs provided insights into what they think their organizations have done well and not, providing situations and examples to back up the arguments. In terms of what is working well, NGOs employees cited support from local structures which are entry points at the local level, community willingness, zeal and drive to participate in interventions and finally government support in the implementation of interventions. The quotations cited below underscored the points above;

I feel local structure such as Village Development Committees (VDCs), and Area Development Committees have been very supportive from the initial project presentation to the time the project lifespan came to an end (NGO Employee 3M).

I have particularly been impressed by the level of commitment displayed by community participants. It shows they were eager to change their lives for the better (NGO Employee 2F).

From NGOs employees' perspective, focus interventions based donor priorities, late funding due to organizational bureaucracy and limited involvement of communities in developing project concepts are key areas not working well.

The process of releasing funding is mostly delayed due to compliance and organization systems. Sometimes this forces us to meet key dates if implementing seasonal activities. Flexibility is key to addressing ever-changing community needs (NGO employee 1F).

Most of the interventions proposed interventions are designed with minimal intervention of local structures since organizations are provided little time to develop project concepts (NGO Employee 6M).

From the above account, it could be argued that most rural community projects tend to employ a top-down approach, a scenario Chambers (1983), insisted "lowers" communities' ability and called for a complete shift to more accommodating community-driven projects. Meaningful resilient building interventions should be done by or with the people concerned, rather than for or to them.

4.10.2 Feedback from Community Representatives

Much as representatives of community respondents highlighted that NGOs recognize and utilize the local structures, provide technical support and involve locals in project formulation, they felt huge variations exist from what is initially planned compared to what is proposed. The information in terms of trainings only remain with few people trained as the trickle-down effect is mostly superficial. With most of the projects running for a lifespan of less than three years, community representatives feel the duration is short to meaningfully contribute towards attaining resilience for communities

I am not sure where the problem is, but when NGOs are introducing the project at ADC level, they promise to deliver a lot of things. However, when you check

progress in the course of implementation, you notice huge deviations from what was originally planned and presented. For instance, we were promised goats by one NGO but in the end, beneficiaries received rabbits. Am not sure why this is the case (ADC Chair M).

A project that is aiming at resilience-building must be long term. Most of the projects here last for less than 2 years which leaves communities not yet ready to sustain the interventions (VDC Secretary 4F).

Deducing from the above quotations, the respondents seem to suggest that accountability of projects remains unchecked and that NGOs have the liberty to change planned interventions without necessarily engaging the communities. The responses further suggest that a piecemeal approach to resilience building could probably explain slow progress in terms of the adoption of climate resilience interventions championed by NGOs.

4.10.3 Feedback from Government Staff

The role of government in climate resilience interventions cannot be overemphasized. Government is the main stakeholder, and NGOs and other like-minded stakeholders fit into the government organization's strategic framework. Government employees interviewed were of the view that the government has lost sight of its advisory role to the NGOs as evidenced by a scenario where NGOs are advancing approaches banned by the government. The quotation below underscores this;

It's surprising that according to government plans, we are promoting early yielding varieties as part of preparedness to disasters while NGOs keep promoting local varieties that take long to mature. One wonders where and who gave them such mandate? We end up confusing communities with contradictory messages (Government Employee 1M).

The oversight management of government leaves a lot to be desired at times especially in situations where NGOs compete against each other over the same target areas. Each organization want to be viewed as performing better than the other, forgetting that the primary essence of their work is to support communities build resilience (Government Employee 3F).

Just like sentiments from communities, government officers suggest that accountability of NGOs funds remains a big gap. Mostly, project budgets are confidential documents that are not shared with government officers.

CHAPTER 5:

CONCLUSIONS AND RECOMMENDATIONS

The conclusions drawn from this research have been aligned towards objectives as per the discussion in Chapter 4. The section below provides a succinct description of the conclusions and recommendations.

5.1 Concluding Remarks

5.1.1 NGOs Stimulate and Increase Public Awareness of Climate Change.

The study has discovered that despite challenges in communities to build resilience to climate change, communities are aware of the concept of climate change and variability. A general consensus on understanding climate change and variability as well as resilience-building was noted amongst community members and NGOs staff, even though NGOs showed more knowledge about the concepts than community members. For instance, during FGDs and KIIs, respondents were able to explain several changes taking place because of climate changes and are ready to contribute their labour, land and other resources towards the project. During the study, communities attributed knowledge on climate change, variability and resilience building to NGOs efforts;

We knew that the trend in the weather pattern is changing due to changes to some of the seasonal activities, but NGOs and government helped us to understand more on climate change and its related impacts (Namchewe village, FGD, 6 male)

The fact that the community attribute climate knowledge to the work of NGOs suggests that adherence to the agreement at UN Framework Convention on Climate Change in Rio 1992 convention where among other issues, NGOs were given prominence to stimulate and increase public awareness on climate change. The study findings suggest that through awareness and sensitization programs as well as capacity building sessions, NGOs have imparted knowledge to communities to an extent that communities are able to plan, implement and anticipate future climate shocks.

5.1.2 Resilience Building; a Multidimensional Issue

The study has discovered that climate change resilience building is a multidimensional issue in which several stakeholders have different, yet complementary roles to play. Through complementarities, NGOs work to address a cross-section of issues hence the need to create synergies. For instance, this study discovered that NGOs' role centered on raising capacities of the different stakeholders to enable them to play their expected roles in implementing and sustaining the project interventions. During the interviews, local development representatives pointed out a sense of empowerment and community ownership of project interventions as key ideologies championed by NGOs. One village chief summed it up well with an example

We are now aware that projects championed by NGOs are ours, and not for them. NGOs only support the process but the local people must and are owners of project initiatives. This realization has made us realize our own worth and think of sustainability beyond the project phase. (KII, Chief, Female).

The realization from the findings above relates to what Chambers (1983), suggests that NGOs champion self-help programmes. The goal of climate change resilience-building is transformation (Twigg and Calderone, 2019). Self-transformation, therefore, requires coordinated efforts from all stakeholders, as holistic resilience-building entails reshaping and enhancing people's capacity to adapt to, anticipate, and absorb shocks and stresses. In this study, the study acknowledges that NGOs are only part of the process, other stakeholders are key as well.

5.1.3 Diversity and Inclusion is key in Building Resilience

The study findings show that for meaningful resilience to manifest, a diversity of livelihood interventions must be explored, all centered on people's views and aspirations. Programmes focusing on diversifying livelihoods should also consider contextual factors and community power dynamics to ensure that no one is left behind. During the study, communities mentioned that some of the interventions have been targeting the same people, leaving other equally vulnerable beneficiaries out of the target group. Communities feel rotational inclusion of beneficiaries on the beneficiary list could ensure greater reach. The study results suggest that resilience strategies should not be piecemeal in nature; interventions should not only target the same people, to prevent conflicts

over resources equally, a diverse range of interventions sheds off competition and ensures reliance as communities can rely on one intervention if the other fails.

5.1.4 Grey Areas Visible in NGOs Relevance

The study findings indicate that much as NGOs contribution to building climate resilience remains unequivocal, communities pointed out key areas that need further scrutiny and review to ensure effectiveness. During the study, communities feel in some instances, NGOs have underperformed in balancing expectation versus actual delivery of interventions;

NGOs have been short of promises at times. For instance, we were once told to anticipate two goats each but in the end only two chickens came without any explanation. Some times what is promised at the start of the project never gets accomplished and we wonder how funds have been used (FGD, Che Sani, Female)

I am more concerned with funding cuts. Often times a two-year project gets implemented in just six to twelve months, with no activity for the other months due to what they say funding cuts. In the end, interventions are just piled up on farmers and in some cases, certain activities are cut due to time. (KII, Government AEDO, Male)

I would greatly feel a sense of accomplishment if the approval systems for funding are fast-tracked. Mostly we spend more time waiting for funding than actual implementation (KII NGO staff Female)

The study findings from NGOs staff on challenges encountered within their organizations collaborates with findings from community participants. NGOs staff pointed out that mostly bureaucratic protocols in funds management often lead to delays in releasing funds, as well as funding cuts from back donors.

I know funds management goes through a lot of clearance steps but officers must plan well in advance as mostly these unnecessary delays are the ones that cause communities frustrations. If the due processes are done in time, and mindful of the needs on the ground,

am sure communities won't be complaining of short implementation cycle as well as reduced budgetary funds. (KII NGO staff Female)

The fact that all sets of respondents alluded to areas that need improvement suggests that NGOs must embrace positivity to address the identified gaps.

5.1.5 NGOs provide new opportunities but require New Skills and Capacities

The study findings indicate that NGOs' interventions bring a new perspective, skills and resources for the community, which other actors such as the government may not possess. During the study, communities attributed increased income to the introduction of innovative income-generating activities such as making energy-saving cooking stoves and mushroom production.

Through trainings, we realised that we can make profits from selling the energy cooking stove, aside using it in our homes, such skills never existed in this community. (KII Chief, Mwawihe, Male)

The study further revealed that much as NGOs are innovative, the growing competition for funding amongst NGOs to compete for funding warrants a certain degree of caution in regards to skills and capacities. Government officers revealed that NGOs' capacity must constantly be checked to ensure alignment into government priorities.

It's surprising that while the government has a policy on promoting improved varieties of crops, one NGO was promoting local varieties. Their staff need better orientation to align their priorities to the needs of the country (KII AEDCC, Mathambi, female)

Much as NGOs provide both financial and technical support, there is a need to ensure that NGOs possess adequate and sustained technical and resourcing capacities.

5.2 Recommendations

5.2.1 NGOs must embrace flexibility

One key study finding was the lack of flexibility by NGOs to adjust funding to meet the emerging issues in regards to community response to climate change. This study recommends that NGOs must exercise room for flexibility. As observed by Jones and Harvey (2016), resilience-building interventions need adaptive management and flexible programming that integrates experimental

learning and innovations. Communities must be challenged periodically to analyze the trends in resilience building and propose new strategies based on emerging needs. Lead farmers can be identified to propagate and champion innovations before scaling down to individual farmers. These strategies should leave room for periodic reviews so that farmers adapt to the emerging needs for resilience building. Such innovations can only be possible if NGOs remain open to new ideas than traditionally sticking to the pre designed project documents.

5.2.2 Bringing All Together; Collective Impact

The study recommends that a deliberate strategy must be developed to ensure collective impact through a framework that will integrate all sectors working on resilience building. Coordination and networking is an efficient tool for the exchange of knowledge and information among NGOs. It should be based on their needs and their motivation to face challenges. Networking can be also a tool to disseminate information and knowledge on best practices for scaling up and replication. By defining common ground and joining forces, networking serves to strengthen NGOs' capacities and negotiating abilities. The danger with each organization advancing their own agenda is that resilience work remains uncoordinated leading to duplication and less value for money. For meaningful coordination to materialize, the study further recommends that government lead the process by among other things; designing effective tools of sharing information and experiences; periodic meetings to organize the structural frameworks of the network; and the support and development of other frameworks of coordination mechanisms that may emerge among NGOs.

5.2.3 Proactive vs. Reactive Planning to Strengthen Community Resilience Work

The study findings have also observed that much of the climate resilience funding emanates from NGOs and not government coffers. This is despite the mandate of the government to attain priorities of the country in regards to climate resilience. The challenge with donor funding is that it is restricted and tied to a specific time frame. There is a need to balance the medium-term and long terms needs of communities hence the study recommendation for government to form true long-term partnerships in advancing climate resilience work.

5.2.4 Engage Communities in Designing Interventions

The study findings show that in most cases, there is the minimal engagement of communities in designing climate resilience interventions. Communities feel NGOs impose interventions on them and the question on who is driving the resilience agenda often remains unaddressed. Much as the study acknowledges the involvement of communities at some stages during implementation, meaningful resilience-building involves full participation of communities from design to evaluation. The absence of meaningful consultations ignites the discussion propelled by (Chambers, 1983) in his view that communities must be at the driving seat of any development endeavor. While communities are involved in capacity building sessions and beneficiaries of in-kind transfers from NGOs, the key principle to meaningful resilience-building starts with inclusive participation in deciding and framing the intervention process.

5.2.5 Meaningful Dialogue between Government and NGOs regarding Skills and Competences

One of the key findings of the study centered on the lack of coordination and alignment of NGOs' plans to government priorities. The observation was mostly manifested in situations where organizations could be seen advancing agendas contrary to government priorities. For instance, government officers lamented that some organizations were advancing local varieties when the district had set out clear plans to promote modern varieties that are early maturing and high yielding. In response to this challenge, the study recommends meaningful dialogue and consultation in developing district sector plans, and ensure functional vetting of NGOs projects before rollout.

The study leaves a gap for future research in understanding the outcome of the resilience-building process derived from NGOs' interventions. It will be of much importance to understand how much of the knowledge imparted by NGOs gets used by local communities and whether the knowledge, skills and designed set of interventions are making any significant contribution to climate resilience-building work.

This chapter focused on drawing conclusions and recommendations arising from the study finding and discussions above. It has been concluded that NGOs play a key role in supporting communities to build resilience against climatic shocks. Through programs ranging from capacity building, information sensitization and awareness as well as economic initiatives aimed at cushioning the

impact of climate shocks, NGOs are increasingly taking on intermediary roles, helping communities to acquire, understand, value and consider climate resilience-building work as part of their developmental initiatives. Recommendations have equally been made on ensuring that the coordination of NGOs is enhanced at the district level and that government leads the process of integrating NGOs' views in developing plans. Further recommendations include engaging NGOs to involve communities in the whole process of project management and ensure the flexibility of their interventions to accommodate and address emerging issues related to climate change.

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APPENDICES

7.1 Focus Group Guide for Community Participants

Demographic Data	
Date of Interview	_ / _ / _
Gender	Male _____ / Female _____
Name of Village _____	
Involvement in Projects _____	
Age Range _____	
Great, thank you. Now I am going to ask you some questions about your perception on NGOs work regarding to climate change and variability resilience building.	
<i>Understanding of climate change, variability and resilience building</i>	
In your own words how do you understand the concept of climate change and variability and resilience building?	
What are the main things that you think rural people in Malawi consider as key resilience building interventions?	
<i>Perceptions regarding NGO work</i>	
Which NGOs have been working in this area and what have they been doing	
What have NGOs been doing regarding to resilience building to climate change and variability	
How have NGOs faired so far in this work?	
How do you rate NGOs contribution to climate resilience building?	
What is working well and no and why?	
<i>Challenges and difficulties regarding NGO work</i>	
What would you consider as challenges faced by NGOs in climate change programs?	
What would you consider as challenges faced by communities in climate change programs?	
<i>Relevance of NGOs</i>	
Which focus areas does the NGO prioritize in climate change and variability resilience building?	

How relevant are interventions championed by NGOs?

Explain the process of deciding interventions?

Who is involved more in the implementation process?

Thank you for participating in the study

7.2 Interview Guide for NGO's Employees

<p>Participant's Organization _____</p> <p>Gender Male / Female</p> <p>Date __ / __ / __ </p> <p>Position in the organization _____</p> <p>How long have you been in the position?</p> <p>What did you study at the university? _____</p> <p>How long have you worked in the climate change resilience field?</p> <p>_____</p> <p>What is your role in the organization in relation to climate change and variability?</p> <p>How are you involved with communities in relation to your work?</p> <p>Great, thank you. Now I am going to ask you some questions about your understanding of climate change and variability, extent and relevance of interventions, contribution and challenges NGOs face.</p> <p>To explore NGOs' interventions and analyze their contribution to rural communities' resilience to climate change and variability vulnerability.</p>
<p><i>Understanding Climate change and variability Resilience building</i></p> <p>In your own words how do you understand the concept of climate change and variability and resilience building?</p> <p>What are the main things that you think rural people in Mulanje district consider as key resilience building interventions?</p> <p><i>Extent and relevance of NGOs work in Resilience building</i></p> <p>What interventions are you implementing related to resilience building?</p> <p>Why do you think are these relevant to resilience building? Which ones do you focus on more and why?</p> <p>How relevant are these interventions?</p> <p>Explain the process of deciding interventions?</p> <p>How are the interventions implemented?</p> <p><i>Challenges and Difficulties in climate resilience building work</i></p>

13 What are the key challenges and difficulties faced by NGOs? Probe in areas of Implementation, coordination, funding, capacity?

Conclusion: What is your final reflection in relation to NGOs work in building community resilience to climate change and variability in Mulanje district?

Thank you for participating in the study

7.3 Interview Guide for Government Employees

<p>Participant's Organization _____</p> <p>Gender Male / Female</p> <p>Date _ _ /_ _ /_ _ </p> <p>Position in government _____</p> <p>How long have you been in the position?</p> <p>How long have you worked in the climate resilience field? _____</p> <p>What is Government role in relation to climate change and variability resilience building?</p> <p>How are you involved with communities in relation to your work?</p> <p>Great, thank you. Now I am going to ask you some questions about your understanding of climate change and variability, extent and relevance of interventions, contribution and challenges NGOs face.</p>
<p><i>Extent and relevance of NGOs work on Resilience building</i></p> <p>Which NGOs are working in climate change resilience building?</p> <p>To what extent does NGOs engage you in implementing climate change and variability resilience building interventions?</p> <p>Which focus areas does the Government prioritize in climate change and variability resilience building?</p> <p>How do you assess the relevance are interventions championed by NGOs?</p> <p>How involved are you in implementing? Why? How are the interventions implemented?</p> <p>Which interventions do you think are more relevant to resilience building and why?</p>
<p>Conclusion: What is your final reflection in relation to NGOs work in building community resilience to climate change and variability in Mulanje district?</p> <p>Thank you for participating in the study</p>