ROLE OF COMMUNICATION IN DEVOLUTION TOWARDS THE IMPLIMENTATION OF CLIMATE ACT 2016 IN MBITA CONSTITUENCY

BY

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DEDICATION

I want to dedicate this work to my family, particularly my mother Mrs. Margret Tangara who has supported and encouraged me in this academic journey.

ACKNOWLEDGEMENT

First, I want to thank the Almighty God for his guidance and protection throughout this academic journey. I also want to render my gratitude to Rongo University and the school of Information communication and Media studies for your support in my academic journey as a communication and public Relations major.in addition, I want to extend my gratitude to Mr. Erick Kashara for his advice and guidance during my writing of this project proposal.

DECLARATION

I, BENARD OMONDI TANGARA, hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, this research proposal is my original work and has not been presented for degree in this or any other University.

Signed_____

Date ___23rd/04/2024_____

BENARD TANGARA

LMC/006/2020

CERTIFICATION

This research proposal has been submitted for examination with my approval as University Supervisor:

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MR. JOHANNES MAKODIAH

Table of Contents

Abstract

Climate change is an area that is in dire need of publicity to help the public make informed decisions in its adaptation and mitigation. This research project aimed to investigate the pivotal role of communication in facilitating devolution processes towards the effective implementation of the Climate Act 2016 within Mbita Constituency. With climate change presenting significant challenges globally, the Climate Act 2016 serves as a crucial policy framework aimed at mitigating its adverse impacts. However, successful implementation at the local level, particularly within Mbita Constituency, relies heavily on effective communication strategies.

Employing a quantitative research methodology, this study analyzed the perceptions, attitudes, and behaviors of stakeholders involved in the devolution process and climate action within Mbita Constituency. Through surveys and statistical analysis, the research objective was to seek and quantify the influence of various communication channels, including traditional media, social media, community engagement programs, and government initiatives, on the devolution process towards climate action implementation and subsequently, the researcher aimed to establish which communications approaches are effective in public participation in climate action

The research also explored the extent of awareness, understanding, and engagement among stakeholders regarding the Climate Act 2016 and its implications for local governance and environmental sustainability. By examining the correlation between communication effectiveness and the progress of devolution initiatives, this study aimed to provide empirical insights into the mechanisms through which communication contributes to successful climate action implementation at the local level.

CHAPTER ONE

1.0 INTRODUCTION

This chapter provides the overall context for the research. The section provides a general overview of the climate change discourse through review of relevant existing literature on climate change communication. The chapter also discusses the problem statement, the objectives of the study, significance of the study, study justification

1.1 Background Information

Today, it is widely recognized globally that climate change is one of the greatest threats facing humanity (Schneider, 2011). A substantial number of human populations have suffered as temperatures have risen, rainfall has become more variable, and the occurrence of unpredictable weather conditions such as floods, hurricanes, and droughts has intensified across the continents.

The Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) has confirmed that climate change is one of the most urgent issues of our time. (UNFCCC, 2011) Climate change refers to a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UNFCCC, 1992).

Since climate change is projected to have severe consequences for many citizens around the globe, considerable money and effort have been initiated in creating public awareness on the causes and effects of climate change and of how laypeople should behave to mitigate and adapt to a changing climate. For the past years, social scientists have studied the public understanding of climate change, analyzing, for example, whether laypeople understand or misunderstand climate science (Etkin & Ho, 2007; Seacrest et al., 2000; Sterman & Sweeney, 2002, 2007), laypeople's attitudes to various action strategies (Ohe & Ikeda, 2005) and barriers to public engagement in climate change (Lorenzoni et al., 2007a). Knowledge gained from such studies has been used to inform research into science communication and environmental education as well as climate information/communication campaigns organized by, states agencies, NGOs, among other interest institutions.

Like any other part of the globe, Kenya has not been spared by the effects of climate change as at least 70 percent of its land mass is arid and semi-arid. (Republic of Kenya 2010) Kenya's economy is dependent on the natural resource base, and thus is highly vulnerable to climate variability and change. Rising temperatures and changing rainfall patterns, resulting in increased frequency and intensity of extreme weather patterns such as droughts and flooding, threaten the sustainability of the country's development. Among the most vulnerable regions in Kenya is the Lake Victoria Basin. Because of the high poverty rates, changing socioeconomic and political circumstances and demographic growth, traditional coping strategies are increasingly becoming insufficient. Further, the increased frequency of extreme events is not allowing the society time to adapt after such shocks.

To address the subject of climate change, as part of the Kenyan nationally determined contributions (NDCs) to the Pari agreement, the Kenyan government ascended the Kenyan climate act of 2016 that places duties on the national government and county governments to mainstream climate change responses into development planning, decision making and implementation and to respond in various other ways to climate change through their national adaptation plans revisited every five years.

To safeguard sustainable development, the County Government of HomaBay has developed this Climate Change Policy in in line with the delegations of the Kenyan climate act of 2016 on devolutions to provide a clear and concise articulation of overall response priorities to climate variability and change in the region, however communicating and implementing of these policies at the grassroots level such as Mbita constituency remains a challenge (HomaBay County, 2021).

1.2 Statement of the problem

The implementation of climate change act of 2016 remains a challenge in grassroots communities in Kenya. A substantial number of the counties delegations struggle with meeting the national adaptation plans in building community resilience, implementing of adaptation and mitigation measures in the grassroots communities such as Mbita constituency in HomaBay County. Despite the fact that about 74% of the labour force is employed in agriculture, half of the population of Homa-Bay is food insecure. The overall proportion of households who do not have enough food to meet their household needs throughout the year is 82%. Food insecurity peaks between July and August and between December and March when harvested stocks will usually have been depleted. Significant 'sudden-onset' natural hazards such as flash floods, epidemics, pest infestations and livestock diseases, as well as headwinds and severe storms, are also threat

to residents of the County. Aside from the sudden onset risks, other 'slow onset' hazards include environmental and land degradation, the consequences of which can be equally disastrous to livelihoods. (Homa Bay Climate policy act 2021)

1.3 Objectives of the study

1.3.1 general objectives

1. To find out the levels of awareness and understanding among residents of Mbita Constituency regarding climate change and the provisions of the Kenyan Climate Act of 2016.
2. To identify communication barriers and challenges faced in the implementation of the Kenyan Climate Act of 2016 at the county level, particularly within Mbita Constituency.

3. To determine the Stakeholder Perceptions and Engagement Levels towards Climate Action by assessing the local communities attitude, beliefs and participation towards climate change, its impacts, and the urgency for action

1.3.2 Specific objective

To establish the effectiveness of communication strategies and stakeholder engagement in facilitating the implementation of the Kenyan Climate Act of 2016 within Mbita Constituency, with a focus on their impact on awareness, understanding, and participation in climate change mitigation and adaptation efforts.

1.4 Justification of the study:

Climate change poses significant threat to communities worldwide, including those in Kenya, where its adverse effects are increasingly being felt. In response to this global crisis, the Kenyan government enacted the Climate Act of 2016, aimed at mitigating greenhouse gas emissions, promoting climate resilience, and fostering sustainable development. However, effective implementation of climate policies such as this requires robust communication strategies and active stakeholder engagement at the local level.
Mbita Constituency, situated in Kenya's Nyanza region, is particularly vulnerable to the impacts of climate change due to its geographical location and reliance on agriculture and natural resources for livelihoods. Understanding the role of communication in facilitating the implementation of the Kenyan Climate Act of 2016 within Mbita Constituency remains crucial.

This study will have a significant impact on the current research gap and the existing literature in the area by trying to analyze effectiveness of communication in climate change mitigation and adaptation in Mbita.

1.5 Significance of the study

This study is crucial for the people of Mbita constituency by shedding light on their immediate challenges in climate change communication and policies implementations within HomaBay County and other counties in Kenya. This study was to suggest more innovative communication approaches and mechanism that can be employed in grassroots communities by climate interest stakeholders to communicate climate changes messages in a way that the lay people would identify with the climate crisis and evoke a public self-drive course towards climate action.

Moreover, this study's outcome is crucial to all communication practitioners and researchers. It helps bring their conceptual understanding of climate change policies implementation governance at the grassroots level.

1.6 Research Questions

1.6.1 What are the current levels of awareness and understanding among residents of Mbita Constituency regarding climate change, and how familiar are they with the provisions outlined in the Kenyan Climate Act of 2016?

1.6.2 What are the communication barriers and challenges faced in the implementation of the Kenyan Climate Act of 2016 at the county level, particularly within Mbita Constituency?

1.6.3 How do stakeholders perceive and engage with climate action in Mbita Constituency, including their attitudes, beliefs, and levels of participation towards climate change mitigation and adaptation efforts, considering the necessity of urgent action?

1.7 Scope and limitations of the study

This research was limited to Mbita constituency in HomaBay County. The researcher was unable to visit all counties and constituencies in Kenya, considering the limitations of time demanded by academic research for the award of this degree. Therefore, the sample obtained from this area represents the rest.

1.8 Operational Definition of Terms

Climate change: Climate change refers to weather changes caused by human activity that reduce the formation of the global ambiance, as well as natural climate unpredictability noted in similar time (UNFCCC, 1992).

Communication is the means of acquiring all crucial information, understanding, and effectively distributing the information to people who might require it (Zulch, 2014).

Climate change Adaptation: Adaptation - Is a process by which strategies to moderate, cope with and take advantage of the consequences of climatic events are enhanced, developed, and implemented. (UNDP, 2005)

Mitigation: An anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases (IPCC, 2001a)

Climate change communication: is a kind of communication activity, which aims to understand and master climate change information and related scientific knowledge for society and the public, raise the public's awareness of climate change, enhance their sense of crisis, and adapt to the sense of responsibility of mitigating the impact of climate change, and seek solutions to climate change problems through changes in public attitudes and behaviors. (Zheng, B.W.; Li, Y.J., 2011)

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

In this chapter the study reviewed relevant existing literature that address the research questions and objectives the chapter one climate change communication and policy implementations to inspire public climate action. This chapter also discusses the theoretical approach of diffusion of innovations theory in climate adaptation and innovations.

2.1 Theoretical Framework

This research paper is informed by the diffusion of innovation theory which according to Everett Rogers seeks to explain how, why, and at what rate new ideas and technology spread. Rogers argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system. For Rogers (2003), adoption is a decision of "full use of an innovation as the best course of action available" and rejection is a decision "not to adopt an innovation". Rogers defines diffusion as "the process in which an innovation is communicated thorough certain channels over time among the members of a social system."

Four Main Elements in the Diffusion of Innovations

Innovation

Rogers offered the following description of an innovation: "An innovation is an idea, practice, or project that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12). An innovation may have been invented a long time ago, but if individuals perceive it as new, then it may still be an innovation for them. Uncertainty is an important obstacle to the adoption of innovations. An innovation's consequences may create uncertainty: "Consequences are the changes that occur in an individual or a social system as a result of the adoption or rejection of an innovation" (Rogers, 2003, p. 436). To reduce the uncertainty of adopting the innovation, individuals should be informed about its advantages and disadvantages to make them aware of all its consequences

Communication Channels

The second element of the diffusion of innovations process is communication channels. For Rogers (2003), communication is "a process in which participants create and share information with one another in order to reach a mutual understanding." This communication occurs through channels between sources. Rogers states that "a source is an individual or an institution that originates a message. A channel is the means by which a message gets from the source to the receiver" (p. 204).Rogers states that diffusion is a specific kind of communication and includes these communication elements: an innovation, two individuals or other units of adoption, and a communication channel. Mass media and interpersonal communication are two communication channels. While mass media channels include a mass medium such as TV, radio, or newspaper, interpersonal channels consist of a two-way communication between two or more individuals. On the other hand, "diffusion is a very social process that involves interpersonal communication relationships" (Rogers, 2003, p. 19). Thus, interpersonal channels are more powerful to create or change strong attitudes held by an individual. In interpersonal channels, the communication may have a characteristic of homophile, that is, "the degree to which two or more individuals who interact are similar in certain attributes, such as beliefs, education, socioeconomic status, and the like," but the diffusion of innovations requires at least some degree of heterophily, which is "the degree to which two or more individuals who interact are different in certain attributes." In fact, "one of the most distinctive problems in the diffusion of innovations is that the participants are usually quite heterophilous" (Rogers, 2003, p. 19). Communication channels also can be categorized as local channels and cosmopolite channels that communicate between an individual of the social system and outside sources. While interpersonal channels can be local or cosmopolite, almost all mass media channels are cosmopolite. Because of these communication channels' characteristics, mass media channels and cosmopolite channels are more significant at the knowledge stage and local channels and interpersonal channels are more important at the persuasion stage of the innovation-decision process (Rogers, 2003).

Time

According to Rogers (2003), the time aspect is ignored in most behavioral research. He argues that including the time dimension in diffusion research illustrates one of its strengths. The innovation-diffusion process, adopter categorization, and rate of adoptions all include a time dimension. These aspects of Rogers' theory will be discussed later in more detail.

Social System

The social system is the last element in the diffusion process. Rogers (2003) defined the social system as "a set of interrelated units engaged in joint problem solving to accomplish a common goal" (p. 23). Since diffusion of innovations takes place in the social system, it is influenced by the social structure of the social system. For Rogers (2003), structure is "the patterned arrangements of the units in a system" (p. 24). He further claimed that the nature of the social system affects individuals' innovativeness, which is the main criterion for categorizing adopters.

Rogers goes ahead in his theory to categories different adopters of innovations as;

Innovators

For Rogers (2003), innovators were willing to experience new ideas. Thus, they should be prepared to cope with unprofitable and unsuccessful innovations, and a certain level of uncertainty about the innovation. Also, Rogers added that innovators are the gatekeepers bringing the innovation in from outside of the system. They may not be respected by other members of the social system because of their venturesomeness and close relationships outside the social system. Their venturesomeness requires innovators to have complex technical knowledge.

Early Adopters

Compared to innovators, early adopters are more limited with the boundaries of the social system. Rogers (2003) argued that since early adopters are more likely to hold leadership roles in the social system, other members come to them to get advice or information about the innovation. In fact, "leaders play a central role at virtually every stage of the innovation process, from initiation to implementation, particularly in deploying the resources that carry innovation

forward" (Light, 1998, p. 19). Thus, as role models, early adopters' attitudes toward innovations are more important. Their subjective evaluations about the innovation reach other members of the social system through the interpersonal networks. Early adopters' leadership in adopting the innovation decreases uncertainty about the innovation in the diffusion process. Finally, "early adopters put their stamp of approval on a new idea by adopting it" (Rogers, 2003, p. 283).

Early Majority

Rogers (2003) claimed that although the early majorities have a good interaction with other members of the social system, they do not have the leadership role that early adopters have. However, their interpersonal networks are still important in the innovation-diffusion process. As Figure 2.2 shows, the early majority adopts the innovation just before the other half of their peers adopts it. As Rogers stated, they are deliberate in adopting an innovation and they are neither the first nor the last to adopt it. Thus, their innovation decision usually takes more time than it takes innovators and early adopters.

Late Majority

Similar to the early majority, the late majority includes one-third of all members of the social system who wait until most of their peers adopt the innovation. Although they are skeptical about the innovation and its outcomes, economic necessity and peer pressure may lead them to the adoption of the innovation. To reduce the uncertainty of the innovation, interpersonal networks of close peers should persuade the late majority to adopt it. Then, "the late majority feels that it is safe to adopt" (Rogers, 2003, p. 284).

Laggards

As Rogers (2003) stated, laggards have the traditional view and they are more skeptical about innovations and change agents than the late majority. As the most localized group of the social system, their interpersonal networks mainly consist of other members of the social system from the same category. Moreover, they do not have a leadership role. Because of the limited resources and the lack of awareness-knowledge of innovations, they first want to make sure that an innovation works before they adopt. Thus, laggards tend to decide after looking at whether the innovation is successfully adopted by other members of the social system in the past. Due to all

these characteristics, laggards' innovation-decision period is relatively long. In addition to these five categories of adopters, Rogers (2003) further described his five categories of adopters in two main groups: earlier adopters and later adopters. Earlier adopters consist of innovators, early adopters, and early majority, while late majority and laggards comprise later adopters. Rogers identifies the differences between these two groups in terms of socioeconomic status, personality variables, and communication behaviors, which usually are positively related to innovativeness. For instance, "the individuals or other units in a system who most need the benefits of a new idea (the less educated, less wealthy, and the like) are generally the last to adopt an innovation" (Rogers, 2003, p. 295). For Rogers, there was no significant difference between the ages of earlier adopters and later adopters, but this categorization and its characteristics are beyond this study.

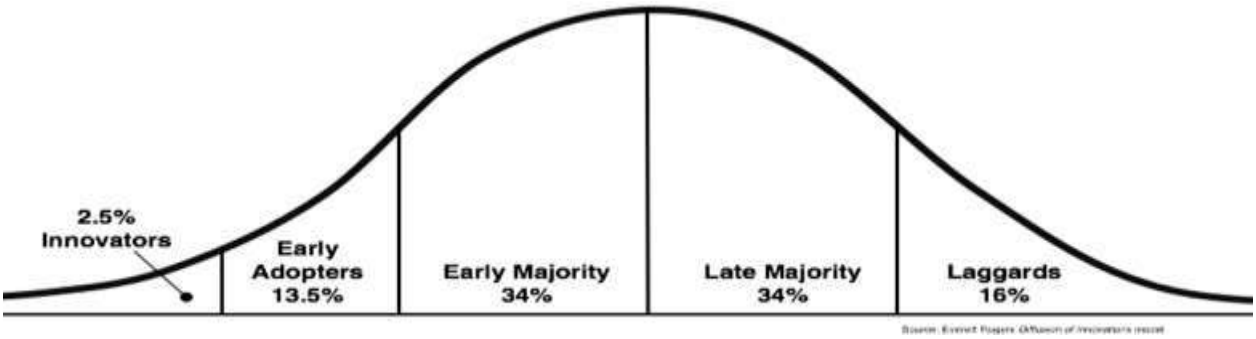


Figure2.2. Adopter Categorization on the Basis of Innovativeness (Source: Diffusion of Innovations, fifth edition by Everett M. Rogers. Copyright (c) 2003 by The Free Press. Reprinted with permission of the Free Press: A Division of Simon & Schuster

Diffusion of innovation theory provides a profound foundation for this research paper. This theory presents a supportive framework on climate change communication in grassroots communities how innovative ideas to address climate change adaptation, mitigation and building community resilience in Mbita constituency can be achieved. The theory also provides an intricate understanding of the audience of climate innovations starting with climate change solutions innovators as it goes down the chain to adopters and finally laggards whom in these case are members of the community who take up climate change solutions in finally stages.

The theory provides a theoretical approach on how climate change communications is done through specific channels, how individuals pick up climate action messages based on the existing social systems and how they employ these messages in their daily life for a sustainable living.

This theory finds its relevance to the area of this research paper as it provide a framework of presenting discourses on climate change communication among lay people how people adopt to innovative practices such as smart agriculture, sustainable green and blue economy.

In the context of my research on communication strategies for implementing the Kenyan Climate Act of 2016 in Mbita Constituency, the Diffusion of Innovation Theory can provide valuable insights into understanding the challenges and opportunities associated with disseminating climate-related information and fostering community engagement.

At the knowledge stage, there is a lack of awareness among the populace regarding climate change and the Climate Act of 2016, as highlighted in my research findings. This represents the initial barrier to adoption, where individuals are unaware of the existence or importance of the innovation (in this case, climate action initiatives).

The persuasion stage involves convincing individuals of the relevance and benefits of the innovation. In the context of your research, effective communication strategies play a crucial role in persuading community members to recognize climate change as an urgent issue and understand the importance of the Climate Act of 2016 in addressing it. This requires tailored messaging, credible sources of information, and engaging communication channels to effectively convey the message and overcome skepticism or indifference.

The decision stage involves the process of individuals weighing the pros and cons of adopting the innovation and making a decision to participate or not. In the case of Mbita Constituency, community members expressed a desire for greater involvement in climate action, indicating a positive inclination towards adoption. However, barriers such as the language gap and limited community engagement need to be addressed to facilitate informed decision-making and active participation.

2.1.2 Theoretical application of social learning theory by albert Bandura in this research

"Social Learning Theory" proposed by Albert Bandura in 1977. This theory emphasizes the importance of observational learning, modeling, and social reinforcement in shaping behavior. According to Bandura, individuals learn by observing the actions and outcomes of others, and this learning process is influenced by cognitive, behavioral, and environmental factors.

In the context of your research on communication strategies for implementing the Kenyan Climate Act of 2016 in Mbita Constituency, the Social Learning Theory offers insights into how community engagement and communication can facilitate climate action.

Observational Learning: Community members in Mbita Constituency may learn about climate change and the Climate Act of 2016 through observation of others, such as local leaders, neighbors, or peers who are actively engaged in climate resilience initiatives. By showcasing successful examples of climate projects and behaviors, communication efforts can inspire others to adopt similar actions and contribute to collective efforts towards climate resilience.

Modeling and Role Modeling: Effective communication strategies can utilize role models and opinion leaders within the community to demonstrate desirable behaviors and attitudes towards climate action. By highlighting the actions of respected individuals or groups who are actively involved in climate initiatives, communication efforts can influence community members to emulate these behaviors and become advocates for change.

Social Reinforcement: Positive reinforcement and social norms play a crucial role in shaping behavior according to the Social Learning Theory. Communication strategies can leverage social reinforcement by highlighting the benefits and rewards associated with climate action, such as improved community resilience, environmental conservation, and sustainable livelihoods. By emphasizing collective responsibility and the importance of community involvement in addressing climate change, communication efforts can create a supportive social environment that encourages active participation and engagement.

Cognitive Factors: The Social Learning Theory also acknowledges the role of cognitive factors, such as beliefs, attitudes, and perceptions, in shaping behavior. Communication strategies can target these cognitive factors by providing accurate information, addressing misconceptions, and

framing climate-related issues in ways that resonate with the values and priorities of the Mbita Constituency community. By appealing to cognitive processes and promoting a deeper understanding of climate change impacts and solutions, communication efforts can facilitate meaningful behavior change and decision-making among community members.

2.2 Empirical Review

2.2.1 Public understanding and participation in climate change action

Perception of climate change as a problem across the globe has been increasing over the years and this has been attributed to the increased frequency of climate change impacts (UNDP, 2007), but it is still not considered a priority environmental issue especially in the developed countries (Leiserowitz, Kates and Parris, 2005; Leiserowitz, 2006; Pew Research Centre, 2013). Various studies show that people in developing countries are more likely to perceive climate change as a threat (GlobeScan, 2006; Pew Research Centre, 2006; Godfrey et al., 2009). Contrary results were, however, reported by Pugliese and Ray (2009) who states that climate change is more likely to be perceived as a serious problem in the developed world than in developing countries, despite developing countries being the most vulnerable to climate change impacts.

In light of the complexity and uncertainty involved in the issue of climate change, how is it understood by laypeople? Recent research suggests that although awareness of climate change is now high in many countries (Whitmarsh, 2011), the last couple of years have seen a decline in public interest about climate change, at least in United States and to some extent in the UK (Leiserowitz et al., 2011a; Poortinga et al., 2011; Whitmarsh, 2011). In the US, the number of respondents to the survey named “Climate change in the American mind” that were very worried or somewhat worried about global warming declined from 63% to 52% between November 2008 and May 2011 (Leiserowitz et al., 2011a). Other US surveys show similar results (Maibach et al., 2010), and there are signs of a certain “issue fatigue” at least within some segments of the American public (Maibach et al., 2010). For the UK, the picture is mixed and a consistency in the pattern is lacking. A survey reported by Reser et al. (2012) found 71% of UK respondents to still be very or fairly concerned about climate change. Other studies have shown that a growing number of people believe that claims about climate change, and in particular its impacts, have been exaggerated (Poortinga et al., 2011; Whitmarsh, 2011). However, going outside the United

States and the UK, the picture is a bit different. A Eurobarometer survey 13 showed that in the year 2011, 68% of the respondents within the European Union saw climate change as a serious problem, which is an increase from 64% in 2009 (Eurobarometer, 2011). An Australian survey identified 66% of the respondents to be very or fairly concerned about climate change (Reseret al., 2012). In a review of fifteen years of climate change perceptions research in Europe and the USA, Lorenzoni and Pidgeon (2006) found some recurrent results. The informants in the various studies were widely aware of the issue of climate change, but their understanding of the causes of and solutions to climate change was incomplete. Climate change was regarded as a serious risk, but participants in the studies perceived it as distant in space as well as time. Hence, the informants conceived of climate change as less important than other personal or social risks. As regards informants' preparedness to address the threats they still perceived in relation to climate change, they saw governments as the main responsible bodies, although they generally expressed some willingness to act in response to climate change-induced threats. Lorenzoni and Pidgeon (2006) conclude that earlier studies demonstrate the ambivalence of lay people's attitudes towards climate change. The public needs to balance the problems of everyday life with awareness of the social problems that climate change may give rise to. In a later review, Wolf and Moser (2011) draw similar conclusions about how the public in developed countries perceive and understand climate change.

Doss and Morris (2001) argues that the perspectives of the indigenous people, the way they think and behave in relation to climate change, as well as their values and aspirations have a significant role to play in addressing climate change. A report on South African awareness of climate change (Taderera, 2010) revealed that while most Africans are aware that weather patterns are changing, their understanding of global climate change is limited. Climate change terminology is poorly understood. It is often literally interpreted as 'changes in weather'.

2.2.2 Communication Barriers in climate change education and participation in climate action

Analysis of the determinants of farmer's choice of adaptation methods and perceptions of climate change in the Nile Basin of Ethiopia revealed that education increases climate change awareness and the likelihood of soil conservation and changing planting dates as an adaptation method Deressa, T. T., Hassan, R. M., Ringler, C., Alemu,T. & Yesuf, M. (2008). Schwarzkopf, J., Ziegler, A. & Hoffmann, V. (2009), using an econometric analysis with different choice models examined the determinants of knowledge of CO2 offsetting based on unique data from computer assisted web interviews from Germany and United States. The preliminary results indicated that higher education had a positive effect on carbon literacy, as do, to some extent, higher income, and higher age and being male.

Just like in most African countries, the majority of Kenya's population is unaware of climate change, but are concerned about food insecurity and the recurrent droughts and floods in the country (Otieno, Pauker and Maina, 2009; Gok, 2010). However, the Kenyan government is aware of and concerned about climate change as a development issue. In this regard, the government has developed the National Climate Change Response Strategy (NCCRS) – 2010 and its implementation plan, the National Climate Change Action Plan (NCCAP) 2013-2017, which outlines actions to be taken to mitigate and build resilience to the impacts of climate change.

2.3 Knowledge Gap/ Research Gap

Existing research literature on climate change communication have failed to pin point the exact effective communication approach when it comes to climate change communication among the lay people. When it comes to the public understanding of climate change versus the public engagement in sustainable practices of climate change; two recurring scholarly arguments remains unsettled, the Information Deficit Model and the Participatory or Dialogical Model. The Information Deficit Model states that the public has ample understanding of the science of climate to act properly to combat climate change. The public, in this view, can just be informed and get the knowledge on climate change, which will then provide them with the proper tools and interest to act (Brossard & Lewenstein, 2009; Lewenstein & Brossard, 2006; Nisbet

&Scheufele,2009).

The Participatory or Dialogical Model, in contrast, directly challenges this, asserting that public understanding of climate science is insufficient for lay people to be able to partake in a meaningful way in climate action. Those who argue in favor of this model would say that true public engagement is marked by active learning and action in climate change that touches the head, heart, and hands (Wolf & Moser, 2011, p. 550).

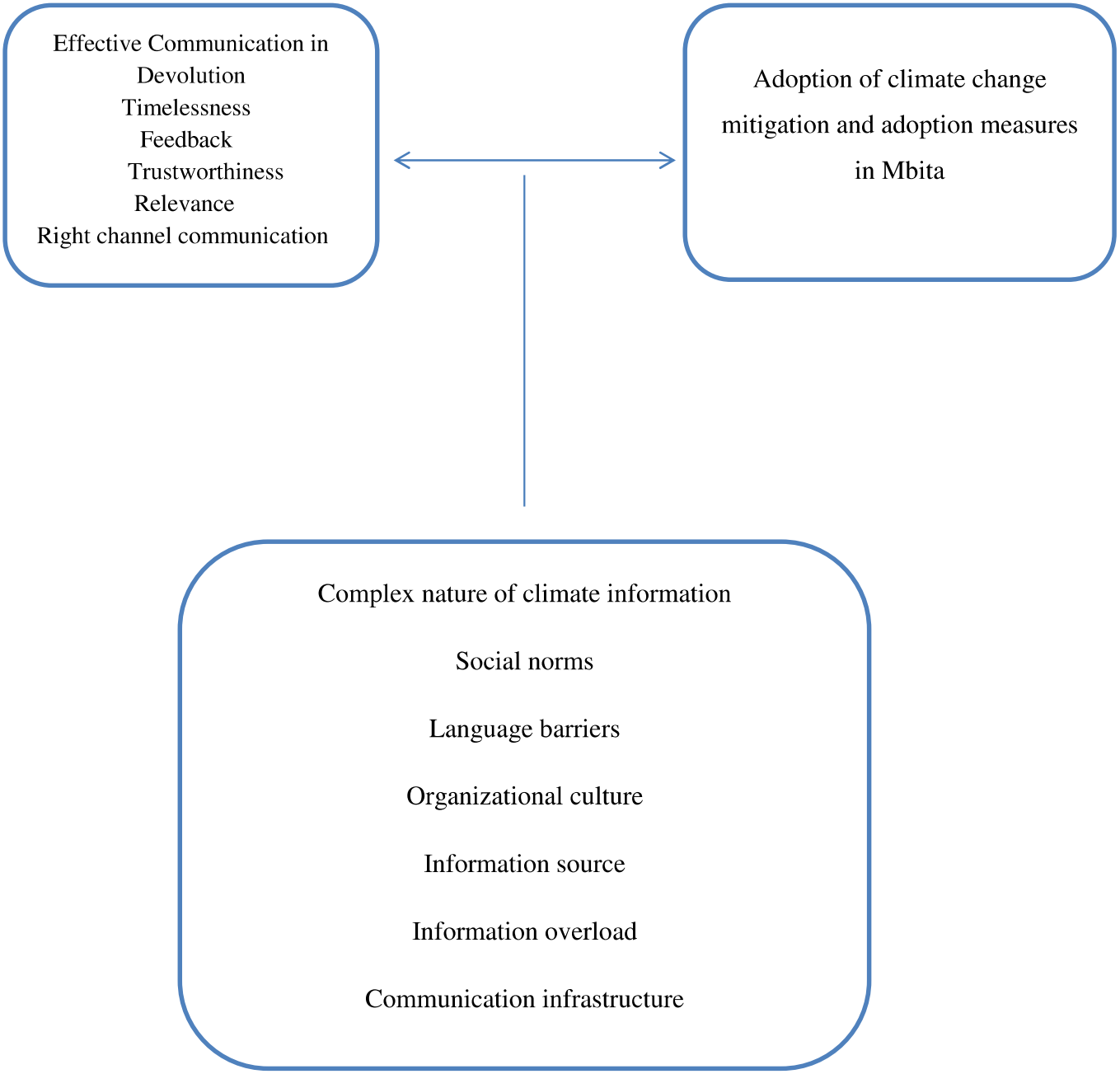
This gap, however, remains in terms of how these paradigms are evidenced within the grassroots communities of Mbita Constituency. A specific concern is what extent the Information Deficit Model or the Participatory/Dialogical Model informs the approach to climate change communication and action in this region. The conclusive effectiveness of these approaches in the previous researches is lacking

Kiai and Karembu (1999) assert that environmental concerns have not been given the critical attention they deserve in many developing countries a crisis attributed to climate change communication. Accordingly, environmental issues remain more visible in policy documents but wanting in implementation. Such lack of concern is evident in both the media as well as general public.

Besides, the actual effectiveness of different communication strategies and means of engagement that link the science climate change community with grassroots climate activities represents a rather under-researched field and the data drawn still remains inconclusive. If the gap is understood, this becomes the basis for developing communication strategies designed to address effectively the grassroots communities' challenges in line with climate change.

2.4 Conceptual Framework

The conceptual framework below clearly shows the connection between climate change communication and the implementation of the climate act of 2016 in devolution. The communication at the devolved government is assumed to influence the success the implementation of the climate act of 2016 as a climate change mitigation and adaptation mechanism in fostering community resilience.



CHAPTER THREE
RESEARCH METHODOLGY

3.1 Overview

This chapter discusses the research methods that were employed by the researcher. This chapter included the research design used, description of the population, sample size and sampling techniques, data collection procedure and how the data was analyzed to accomplish the goal of the research.

3.2 Research Design

Research design signifies the method applied in conducting out a research. Cooper and Schindler (2003) define research design as a comprehensive scheme, outline or plan that is used to generate answers to a research problem. Nachimias (2007) identifies descriptive design as a method of generating data. Descriptive research involves the analysis of specific behaviors, as defined by Greener (2008).

A descriptive survey used be used in this study as it is deemed most appropriate in identification and description of people's opinion about a phenomenon through structured questioners (Mugenda, 2003), in this case climate change communication and the implementation of climate change act of 2016. The descriptive design was purposely selected considering the convenience and the availability to meet the deadline for the submission of the research findings.

3.3 Research Approach

This research used a quantitative survey method in examining the challenge of climate change communication and the implementation of climate act of 2016 a devolved Mbita constituency of HomaBay. The questioners survey method which is a form of descriptive research design is the most frequently used type of self-research report. Gay (2017). It gives the research a space to gather evidence from the study population and empirically determine the present position of the respective statistics with deference to the available variables. (Gay, 2017). The online questionnaires were generated from electronic survey instruments kobo toolbox hence being satisfactory in guaranteeing the accuracy of the data collected. Research data which is collected by such methods is often quantifiable. Borg and Gall (2003). The absolute intention of survey

research is to gather or obtain regular data from all focused respondents within a population. Gall et al. (2003). In conducting the research, the study used a quantitative survey method of administering electronic survey questioners to the responded through a WhatsApp group chat of Mbita constituency.

3.4 Research Methodology

This refers to the procedure undertaken in carrying out the research. Primarily; survey instruments was applied in the form of online questionnaires generated and sent digitally through kobo toolbox to the respondents. Information collected by such methods is often quantifiable. Borg and Gall (2003).The main purpose of survey research is to obtain standard information from all subjects in the sample in order to generalize the findings. Gall et al. (2003). In conducting the research, the study used the survey questioners administered online through WhatsApp media to the respondents in Mbita constituency who have access to smartphone. Similarly the locals who do not have smartphone and digital literacy to feel in the electronic questioners will be guided through the process.

3.5 Study Area

The study focused on Mbita Sub-County in Home Bay County, a small, rural town located along the shores of Lake Victoria, near the southwestern border of Kenya, located on a peninsula, with water on three (3) sides and surrounded by picturesque islands between latitudes 0o 21’ and 0o 32’ south and longitudes 34o 04’ and 34o 24’ east (CIDP, 2017). The livelihoods of most of the residents depend on fisheries and rain fed small scale farming, practices that are highly vulnerable to environmental degradation and to the effects of climate change, which influences the rainfall and temperature patterns thereby affecting the lakes stored water. PREPARED (2014) observes that the temperature in the Lake Victoria Region is expected to increase by 3 to 4◦C by the end of this century without much change in the rainfall pattern, leading to a significant downward trend in the lake’s water supply as a result of enhanced evaporation as well as increased water temperatures. This coupled with dwindling fish 8 stocks due to overfishing will increase the pressures on the fishers’ livelihoods (onyango Lubola, 2021).

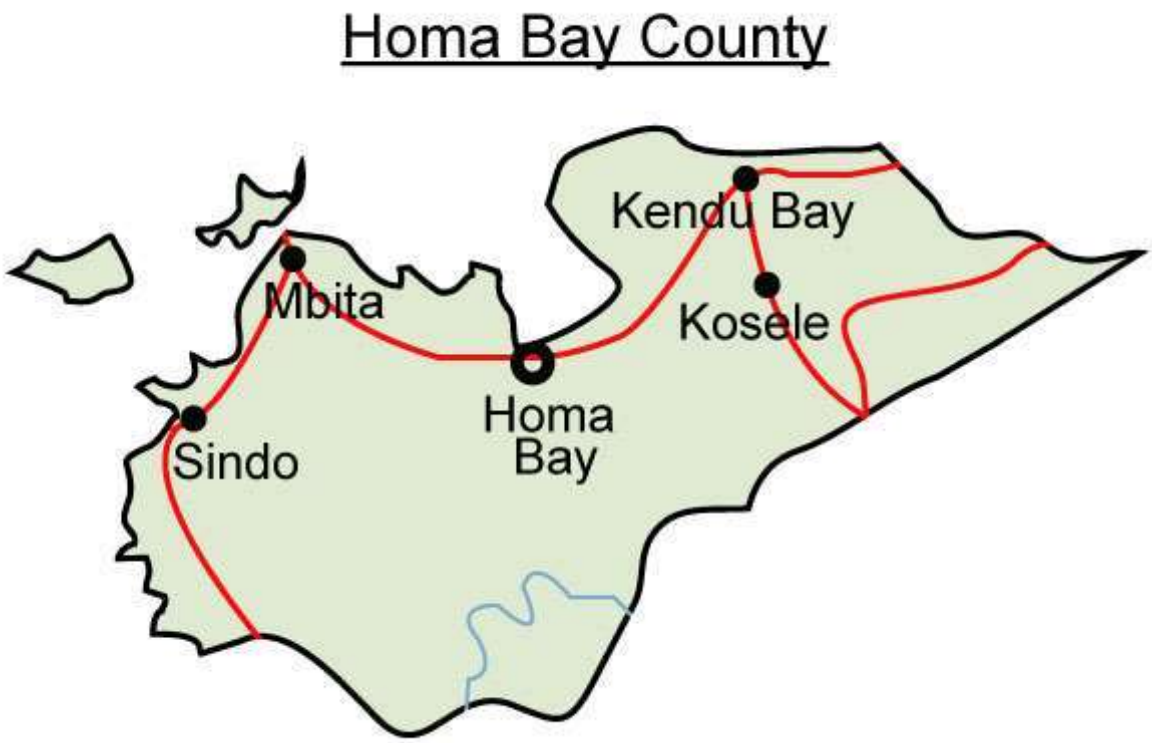


Figure3.1 Map of Mbita Sub county and other regions in HomaBay County source: elimu Counties in Kenya.

3.6 study target population

The number of subjects or individuals in whom a researcher is interested in conducting research is referred to as the target population (Oso & Onen, 2009). Mugenda and Mugenda (2008) define target population as the whole group of individuals or subjects who share familiar attributes and for whom a researcher wishes to conduct research and have the findings generalized.

The study target population involved local community members of Mbita Constituency approximated to be of about 67,274 who hold fast hand information on climate change challenges; the target population will also include climate change policy makers both at the sub county in Mbita and at the county level of HomaBay. In addition, the study will also focus onto interest groups that have partnered with the county government of HomaBay County to drive climate change agenda.

3.7 Sampling Techniques

This study will utilize probability sampling techniques to ensure the selection of a representative sample from the target population. Probability sampling involves the random selection of individuals from the population, with each individual having an equal chance of being chosen (Trochim & Donnelly, 2008). By employing probability sampling, the study aims to minimize sampling bias and increase the generalizability of the findings to the broader population (Creswell & Creswell, 2017).

3.8 Sample size

The sample size of the population under study will be calculated using (Yamane, 1967) numerical formula. This simplified formula is used to obtain a representative sample from a population greater than 1000 people. The formula is:

$$n = \frac{N}{1 + N * (e)^2}$$

n - the sample size
N - the population size
e - the acceptable sampling error

*95% confidence level and P= 1.5 are assumed

n= 67,274s
(1+ (67,274*1.5*1.5)) = 44.42

Sample population= 44

3.9 Method of Data Collections

Data collection in research involves the systematic gathering of information to address specific research questions or objectives (Saunders, Lewis, & Thornhill, 2019). It encompasses various methods such as surveys, interviews, and observations, tailored to the nature of the research inquiry and the characteristics of the target population (Bryman, 2016). In the context of this study, the collection of primary data through structured questionnaires aligns with the principles of empirical research, which emphasize the direct observation and measurement of phenomena to generate evidence-based conclusions (Creswell & Creswell, 2017).

In this study, primary data was collected using structured questionnaires administered to community members in Mbita. The primary data collection process was used to supplement with a limited review of secondary sources. The structured questionnaires will employ a semi-structured format, comprising both open and closed-ended questions. This approach aims to provide respondents with the flexibility to express their perspectives freely while ensuring the collection of relevant data pertaining to the research topic.

Prior to the commencement of data collection, respondents received detailed explanations regarding the purpose and methodology of the study. This step is essential to foster understanding and cooperation among the participants, thereby enhancing the quality of the data collected.

The researcher complemented the primary data obtained through quantitative methods with secondary data sourced from books, internet extracts, and seminar papers. This supplementary information was used to enrich the study by providing additional insights and context to the findings gathered from the primary data collection process.

3.10 Research Instrument

The apparatuses applied in doing the research will include closed questions in a questionnaire. The closed ended questions aimed at getting the precise answers needed. Smith et al. (2014). The questionnaires were in-boxed residents of Mbita constituency who have access to electronic smartphone through a questioner link on their WhatsApp.

3.11 Data Analysis and Presentation

The information gathered was analyzed quantitatively. The quantitative data will be analyzed using descriptive statistics and the Statistical Package for Social Sciences (SPSS). Descriptive statistics are data set properties that describe the data. They include mean, median, mode, variance, and standard deviation and are used before formal inferences are made.

3.12Reliability and Validity

The ability of a research instrument to produce consistent results after repeated tests is referred to as reliability. According to (Mugenda & Mugenda, 2003), reliability occurs when the measurement procedure is accurate and precise. On the other hand, validity refers to the point to which the research tool can measure what it was designed to measure. According to Mugenda and Mugenda (2003), validity is the point to which the outcome of the data analysis corresponds to the subject under investigation. According to Yin (1994), validity explains the theorized knowledge of the theory, data collected in the literature section is 30 realistically examined before any conclusion is made at the end. The researcher made every effort to reduce issues that could jeopardize the reliability and validity of the data.

3.12 Ethical Considerations

The researcher ensured that it was of great necessity to reassure their respondents of confidentiality and that the information obtained was strictly for academic purposes. The researcher will be truthful and honest and at no circumstance manipulate the data and information collected from the research. Towards the end of the research and data analysis, the researcher will provide the study reports to the project under study.

CHAPTER FOUR
DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.1 Introduction

This chapter presents the study findings in terms of data analysis, interpretation and discussions. This chapter was categorized into response rate, demographics and profiles, descriptive statistics, inferential statistics, and results discussions. The analysis of data, explanation and discussion of the results was carried out grounded on the objectives of this chapter hence gives a breakdown and interpretation of research results established on the study objectives. The results are displayed in tables and pie charts showing value frequency and percentages. The responses obtained from participants were analyzed quantitative methods.

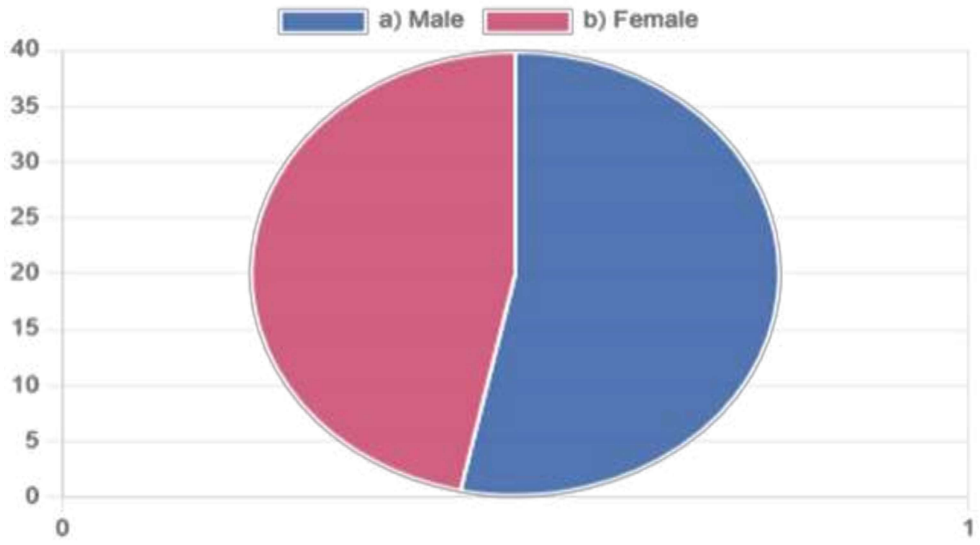
4.2 Response Rate

The researcher had a sample size of 44 people including men and women representatives from Kasgunga, Kamasengre, Kaswanga and Rusinga who were issued with electronic survey questioners. The Population was singled out because they are the ones who experience the impacts of climate change and therefore were best suitable for investigating their understanding of Climate change Act of 2016 and its implementations. However, out of the issued questionnaires, 42 were returned duly filled signifying a response rate of 78%, which was adequate for statistical analysis, as noted in Mugenda and Mugenda (1999), a response rate of 50% or higher is considered good.

4.3 Demographics of the Respondents

4.4.1 Gender distribution of the Respondents

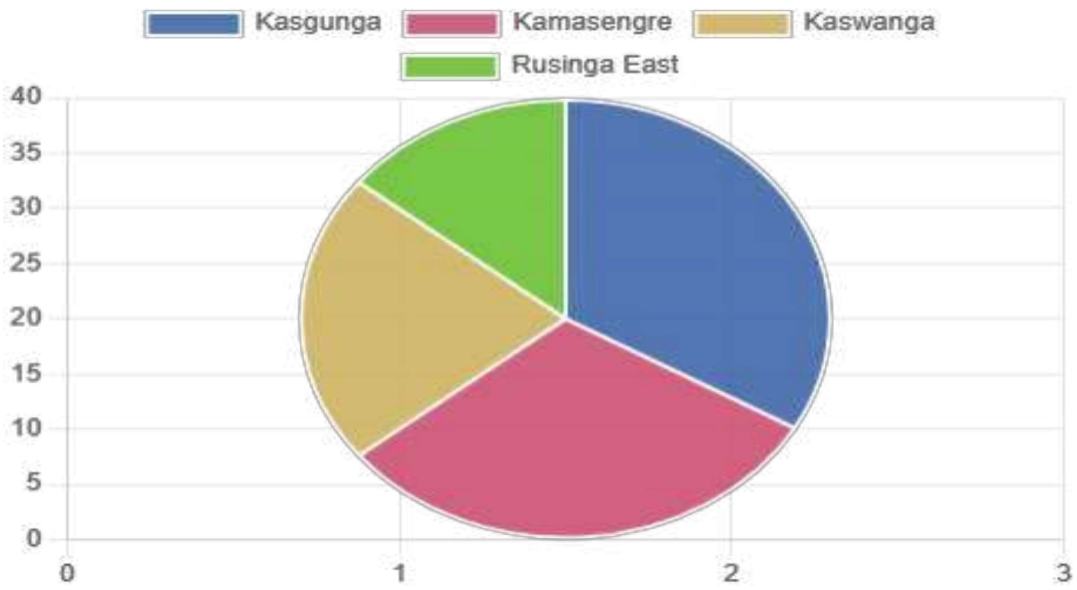
The gender representation from the survey questioners was as follows with majority of men leading in providing responses for the questioners that were issued.



VALUE	FREQUENCY	PERCENTAGE
MALE	16	38.1
FEMALE	14	33.33

Majority of the respondents included men at 38.1% and women representing 33.33% of the sampled population understudy.

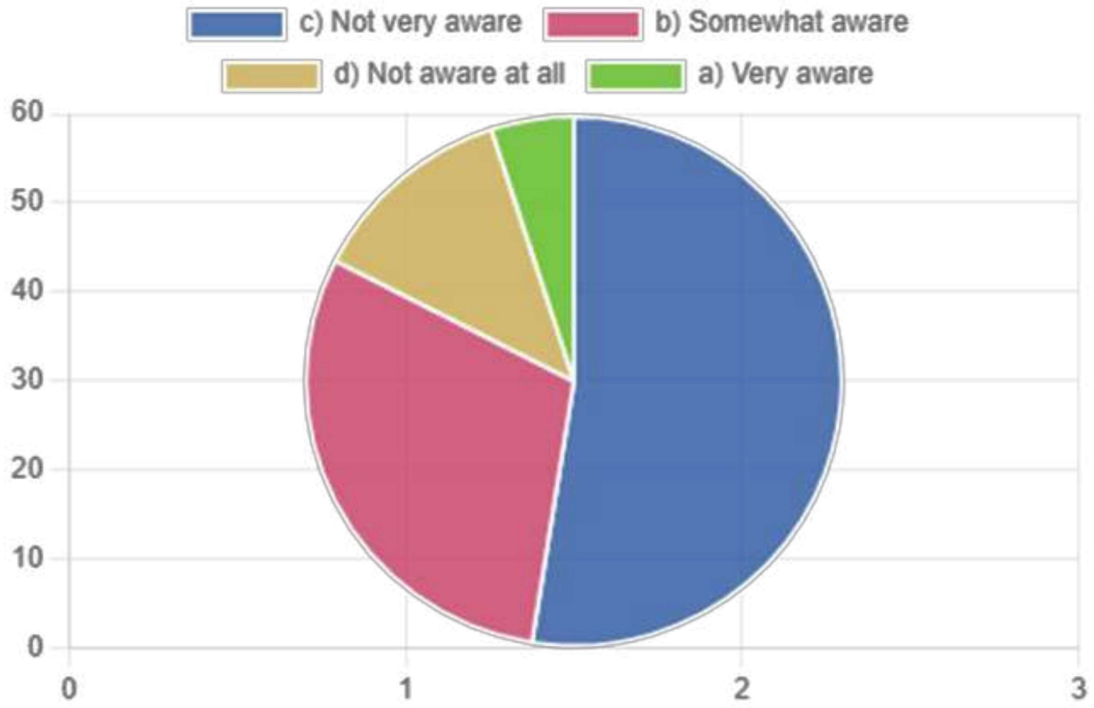
4.4.2 Geographical ward responses in different locations ma



VALUE	FREQUENCY	PERCENTAGE
KASGUNGA	14	33.33
KAMASENGRE	13	30.95
KASWANGA	9	21.43
RUSINGA EAST	6	14.29

This was the population distribution of the respondents who fully answered the questioners and submitted a feedback to the server with Kasgunga leading with the number of respondents of 33.33% followed by Kamasengre at 30.95% and Kaswanga at 21% and Rusinga East coming last at 14.29% with a frequency of 6.

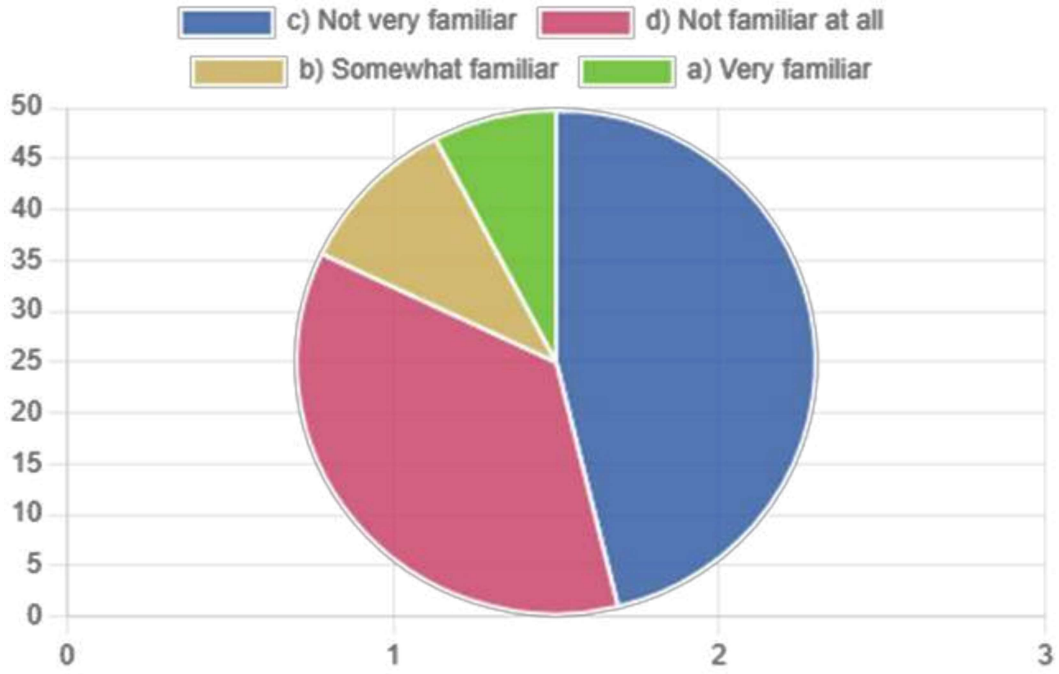
4.2 Level of Climate change awareness in Mbita Sub County



VALUE	FREQUENCY	PERCENTAGE
VERY AWARE	2	4.76
SOMEWHAT AWARE	12	28.57
NOT VERY AWARE	21	11.9
NOT AWARE AT ALL	5	50

The population distribution and the level of understanding of the Mbita Sub County on the subject of climate change, results of the study indicate that at least 28.57% of the population have the slightest ideas of what climate change is while Majority of 50% are not aware at all about the subject of climate change affecting their lives leaving out 4.76% and 11.29% who are very aware and not aware at all respectively.

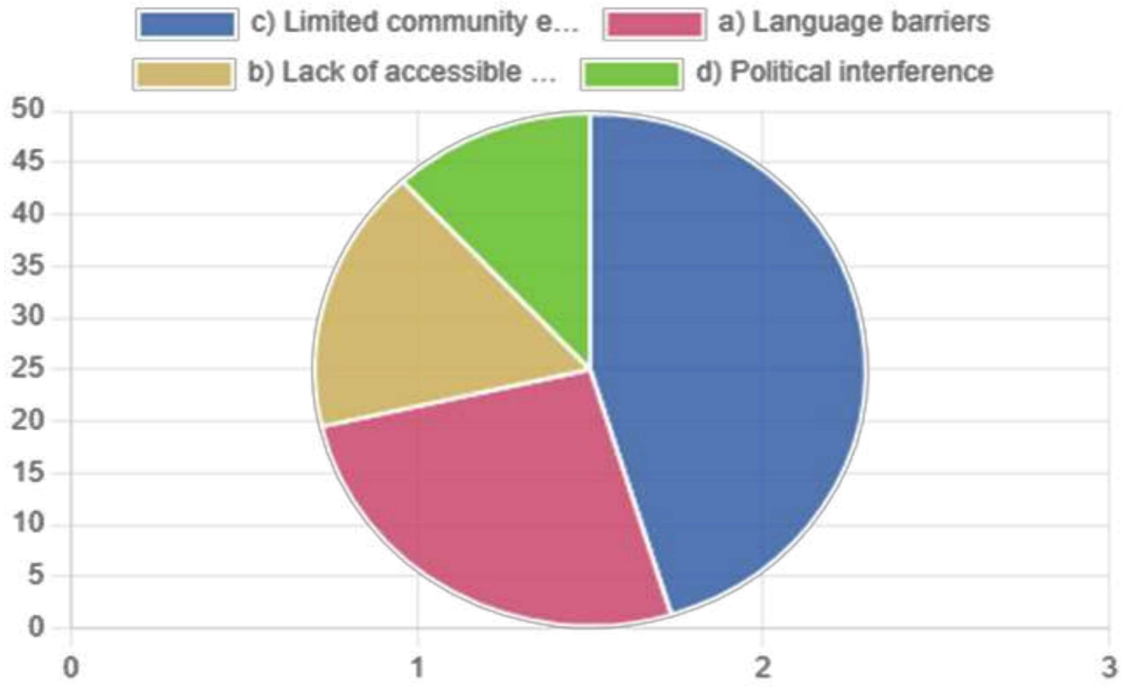
4.3The people of Mbita Familiarity with the provisions of climate act of 2016



VALUE	FREQUENCY	PERCENTAGE
VERY FAMILIAR	3	7.14
SOMEWHAT FAMILIAR	4	9.52
NOT VERY FAMILIAR	18	42.86
NOT FAMILIAR AT ALL	14	33.33

The question of the people of Mbita understanding the provisions under the climate act of 2016 demonstrated that at least 42.86% of the population are not familiar with these provisions of the climate act while 33.33% are not very familiar and the remaining 9.52% and 7.14% are somehow familiar and very familiar respectively.

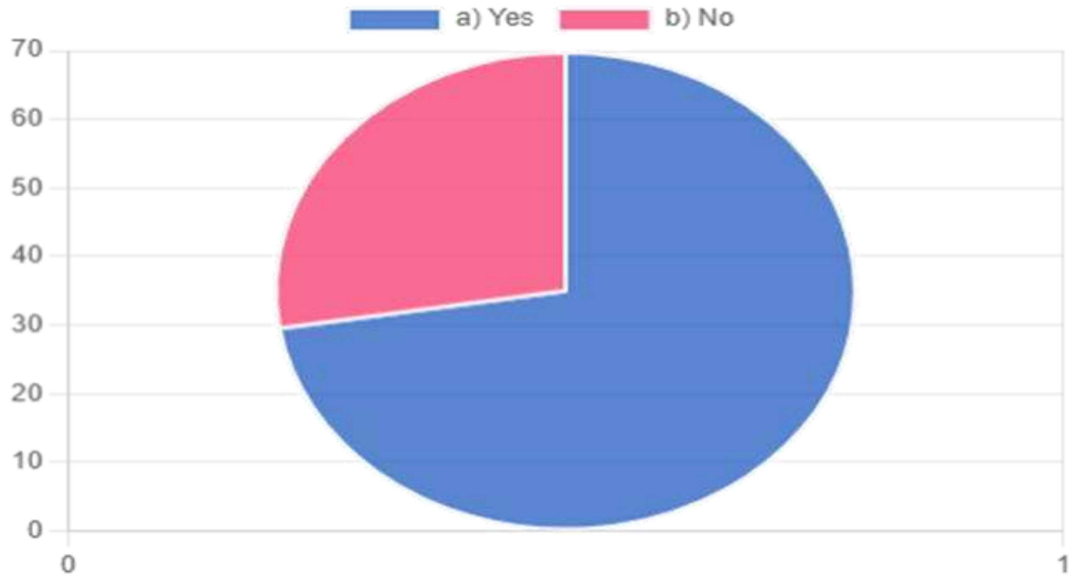
4.4 Communication barriers experienced by the people of Mbita in Understanding climate act of 2016



VALUE	FREQUENCY	PERCENTAGE
LANGUAGE BARRIER	11	26.19
LIMITED COMMUNITY ENGAGEMENT	19	45.24
LACK OF ACCESSIBLE INFORMATION	7	16.67
POLITICAL INTERFERENCE	5	11.9

Exceptional the findings indicates that 45.24% attributes the communication barriers to their engagement in climate action at the sub county level was limited community engagement in climate action initiatives unlike 26% of the sample population who identify language barrier as their main hindrance in understanding the Kenyan climate act of 2016, while the remaining 11.9% and 16.9% who see that their barrier in understanding climate act of 2016 and participation in climate action is political interference and lack of accessible information respectively.

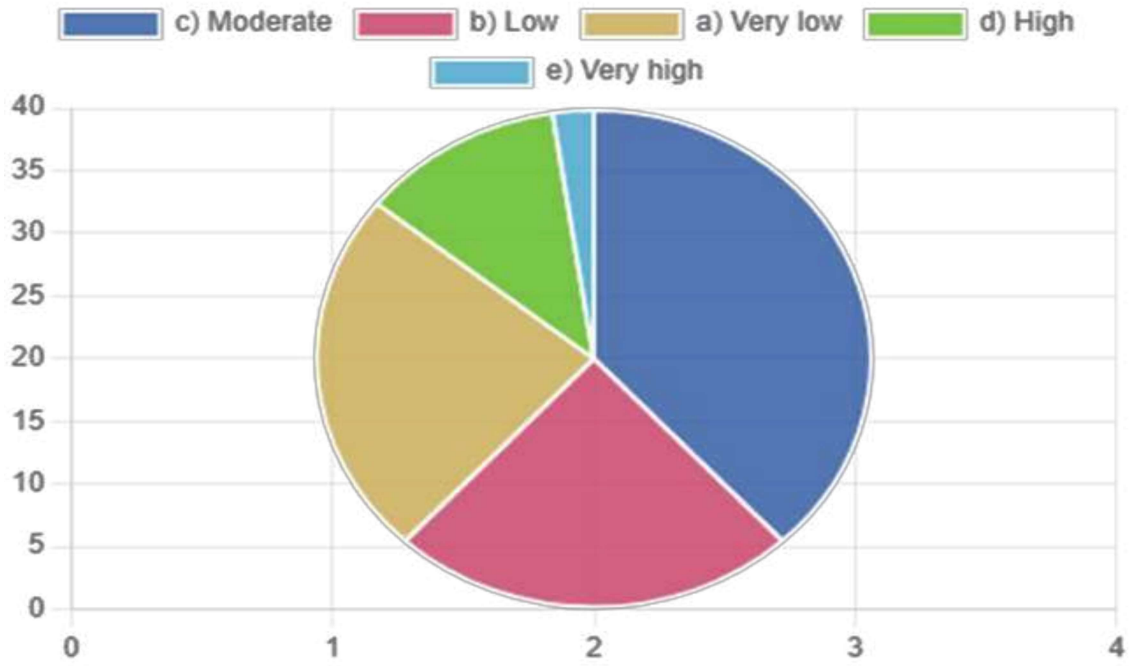
4.5 challenges experienced in accessing information related to climate change and the Climate Act 2016 within Mbita Constituency



VALUE	FREQUENCY	PERCENTAGE
YES	**29**	**69.05**
NO	**11**	**26.19**

Responding to the challenges of accessing information about the Kenyan climate act and other related climate action information such as national adaptation and mitigation measures, at least 69.05% of the responding population indicated that they are having challenges when it comes to accessing information on Kenyan climate act and other climate related information unlike the 26.19% who shored to not have experienced challenges when sourcing information on climate act of 2016.

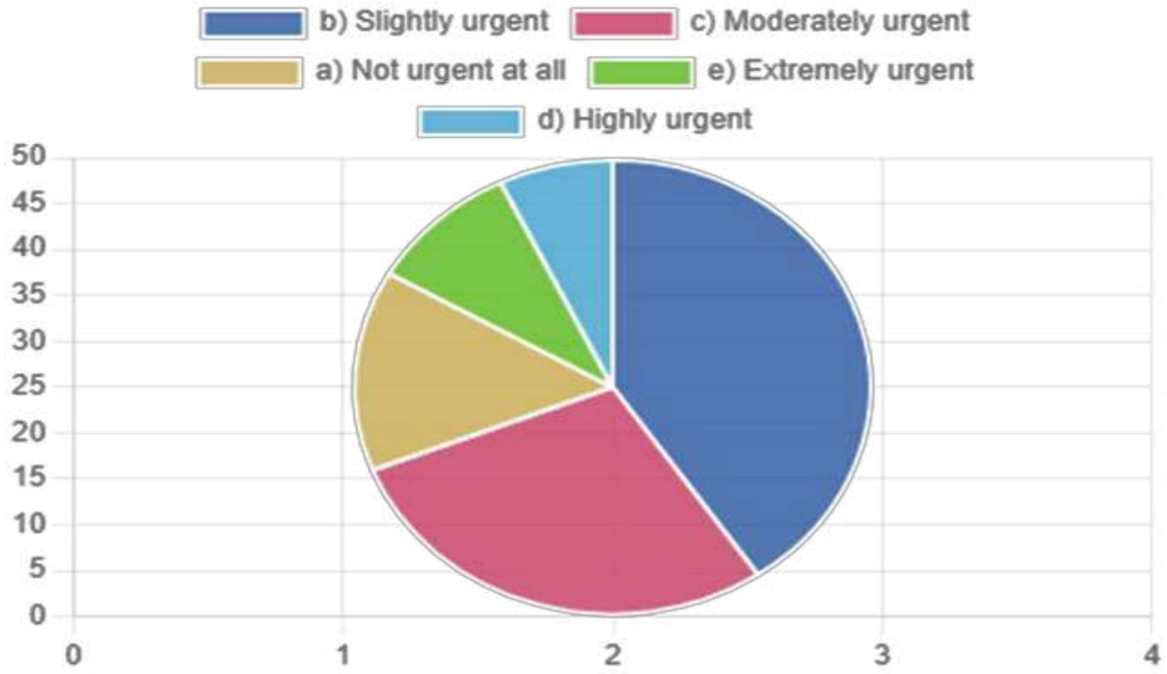
4.6 levels of engagement in climate action within Mbita Constituency



VALUE	FREQUENCY	PERCENTAGE
HIGH	5	11.9
VERY HIGH	1	2.38
MODERATE	16	38.1
LOW	10	23.81
VERY LOW	10	23.81

Community participation in climate change, statistics indicates that 38.1% of the respondents believe that Mbita Constituency is moderately engaged in activities of addressing climate change and meeting the national responsibility on offsetting the carbon foot print as outlined in the Kenyan climate act of 2016. 23.81% believe that community engagement in Mbita towards climate action is low and very low respectively, while the remaining 2.38% and 11.9% believe that public participation in climate action in Mbita is very high and high respectively.

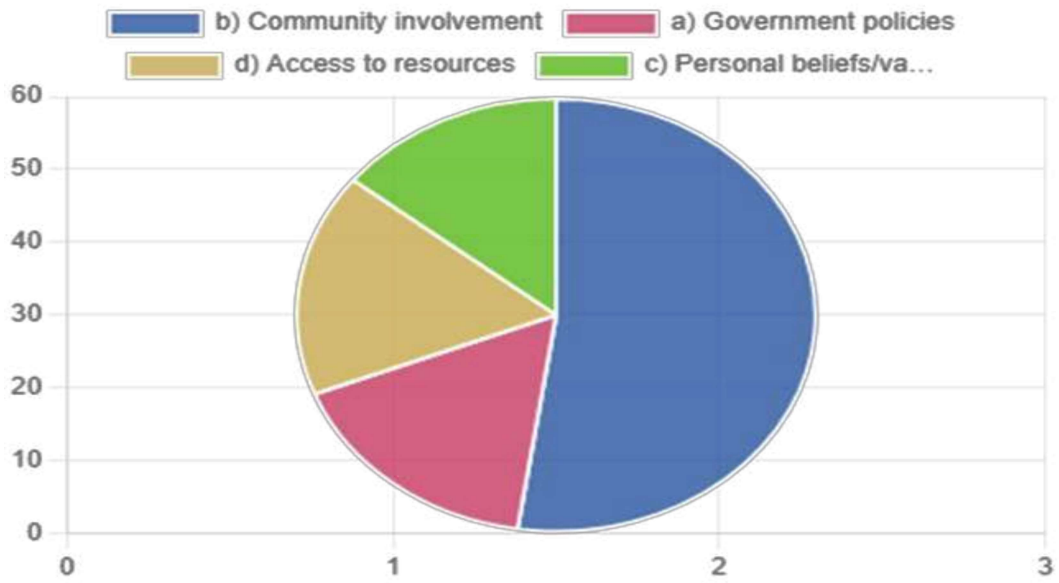
4.7 Perception levels on the urgency for climate change mitigation and adaptation efforts in Mbita Constituency



VALUE	FREQUENCY	PERCENTAGE
NOTE URGENT AT ALL	6	14.29
SLIGHTLY URGENT	17	40.48
MODERATELY URGENT	12	28.57
HIGHLY URGENT	3	7.14
EXTREMELY URGENT	4	9.52

Majority of the sampled population at least 40.48% believe that climate change in the region was not an immediate problem that needed a lot of attention, unlike 28.57% who believe that the issue of climate change was moderately urgent and need attention to be addressed. 7.14% responded that the issues of climate change was highly urgent and needed proper attention. 14% believe that the issue of climate change is not an issue at all and there for no need for effort in that area.

4.8 Factors influencing the people of Mbita in participation in climate action towards implementation of climate act 2016



VALUE	FREQUENCY	PERCENTAGE
COMMUNITY INVOLVEMENT	22	52.38
GOVERNMENT POLICIES	7	16.67
ACCESS TO RESOURCES	7	16.67
PERSONAL BELIEFS AND VALUES	6	14.29

The question of what motivated the people of Mbita constituency to engage in climate in climate actions that are geared towards implementations outline under the provisions of climate act of 2016. 52.38% believed that community involvement in climate action would be enough to inspire people to engage in carbon offsetting activities. However, 16.67% still believed that government policies and access to resources was enough for the people to engage in climate action, unlike the 14.29% who believed that personal beliefs and values is what is required of them to engage in activities of climate action as required by the Kenyan climate act of 2016.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the main objective of the study, findings, conclusions, and recommendations of the study on the role of communication in devolution towards the implementation of climate act of 2016. Suggestions, recommendations, and areas for further research will then be presented.

5.1 Summary

The study was anchored on determining the effectiveness of communication strategies that foster stakeholder engagement in facilitating the implementation of the Kenyan Climate Act of 2016 within Mbita Constituency, with a focus on their impact on awareness, understanding, and participation in climate change mitigation and adaptation efforts.

From the findings drawn from the study its conclusive that communication and community engagement are depended variables which are mandatory required to operate simultaneously for effective climate communication and implementation of acclimate action policies at the grassroots level.

Key findings underscored a concerning lack of awareness among the populace regarding climate change and the Climate Act of 2016. A significant portion of the community perceived climate change as a non-urgent issue, highlighting a critical gap in understanding and prioritization of environmental concerns.

Moreover, the study revealed prevalent challenges hindering effective stakeholder engagement. A notable barrier identified was the language gap, impeding communication and comprehension of climate-related information. Additionally, limited community engagement emerged as a prominent factor inhibiting active participation in climate action endeavors.

However, amidst these challenges lies a ray of hope. A substantial portion of the population expressed a keen desire for greater involvement at the community level, emphasizing the need for enhanced communication strategies to facilitate meaningful engagement. Recognizing the imperative to align individual actions with the mandates of the Kenyan Climate Act of 2016, community members emphasized the importance of targeted communication efforts aimed at fostering understanding and encouraging proactive participation in climate initiatives.

The findings underscore the critical role of effective communication strategies in bridging knowledge gaps, fostering community engagement, and driving collective action towards climate resilience within Mbita Constituency.

5.2 conclusions

The study sheds light on the pressing need for effective communication strategies to catalyze stakeholder engagement and facilitate the implementation of the Kenyan Climate Act of 2016 within Mbita Constituency. Through a comprehensive examination of awareness, understanding, and participation in climate change mitigation and adaptation effort.

The study explored the challenges of climate communication the grass root communities such as Mbita Sub County, shedding light to some of these challenges as limited community engagement in climate action and language barrier of explaining the concepts of climate change to the grass root communities.

The study was also aimed to establishing the motives that would drive people into climate change participation to seek solutions of its impact of which the finding draw community involvement as consistent factor off addressing the challenges posed by climate change.

5.3 Recommendation

The following recommendations are applicable to the county Government of HomaBay, the Sub County office in Mbita Constituency, other national and local climate Policy makers, climate action interest groups, and other devolved government in Nyanza region and other parts of the country as well as the residents of climate affected areas.

These recommendations offers suggestions that indoor to fully implement the policies and the national adaptation plans as stipulated in the Kenyan climate act of 2016 the above mentioned groups should realize the following:

Tailored Communication Strategies: Develop and implement communication strategies tailored to the specific needs and preferences of the Mbita Constituency community. This includes using local languages, cultural contexts, and relevant communication channels such as community radio stations, drama groups, and community meetings to effectively convey climate-related information.

Community-Based Education Programs: Initiate community-based education programs focused on raising awareness and understanding of climate change and the Climate Act of 2016. These programs should utilize interactive and participatory approaches such as workshops, storytelling sessions, and practical demonstrations to engage community members of all ages and backgrounds.

Language Access: Address the language gap by providing translated materials and interpreting services to ensure that climate-related information is accessible to all members of the community. Collaborate with local translators and interpreters to accurately convey key messages in languages spoken by the majority of residents.

Enhanced Stakeholder Engagement: Strengthen stakeholder engagement by establishing platforms for dialogue, collaboration, and feedback between community members, local government authorities, NGOs, and other relevant stakeholders. This can include setting up community forums, advisory committees, and regular consultation sessions to solicit input and involve stakeholders in decision-making processes related to climate action initiatives.

Capacity Building Initiatives: Invest in capacity building initiatives aimed at equipping community members, government officials, and civil society organizations with the knowledge, skills, and resources needed to actively participate in climate resilience efforts. This can include training workshops on climate change adaptation and mitigation strategies, as well as providing technical assistance and funding support for local climate projects.

Promotion of Proactive Participation: Promote proactive participation in climate initiatives by highlighting the importance of individual and collective actions in addressing climate change impacts. This can involve showcasing successful local climate projects, organizing community competitions or incentives, and providing opportunities for hands-on involvement in climate-related activities such as tree planting, waste management, and renewable energy projects.

Monitoring and Evaluation: Establish mechanisms for monitoring and evaluating the effectiveness of communication strategies and climate action initiatives in the Mbita Constituency. This can involve conducting regular surveys, focus group discussions, and impact assessments to measure changes in awareness, understanding, and participation levels over time and adjust strategies accordingly.

5.4 suggestions for further study

Role of Community Leaders communication: Research focusing on the role of community leaders, such as elders, religious leaders, and local authorities, in driving climate action could offer valuable insights. Investigating their influence on community perceptions, decision-making processes, and participation in climate initiatives can inform strategies for leveraging local leadership for environmental advocacy.

Gender Dynamics: Investigating the gender dimensions of climate communication and engagement could uncover disparities in access to information and participation opportunities, informing the development of gender-sensitive communication strategies.

Understanding Socio-Cultural Factors: Investigating the socio-cultural factors influencing perceptions of climate change and engagement with climate initiatives within Mbita Constituency could provide valuable insights for designing culturally relevant communication strategies for effective implementation of climate act of 2016

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APPENDICES

Questioners guide

ROLE OF COMMUNICATION IN DEVOLUTION TOWARDS THE IMPLIMENTATION OF CLIMATE ACT 2016 IN MBITA CONSTITUENCY BY BENARD TANGARA

1. What is your name?

2. What is your age?

3. What is your gender?

   a) Male
   b) Female

4. Which ward do you come from in Mbita Constituency?

   a) Kamasengre
   b) Kasgunga
   c) Rusinga East
   d) Kaswanga

5. What is your level of awareness and understanding of climate change?

a) Very aware

b) Somewhat aware

c) Not very aware

d) Not aware at all

6. How familiar are you with the provisions outlined in the Kenyan Climate Act of 2016?

a) Very familiar

b) Somewhat familiar

c) Not very familiar

d) Not familiar at all

7. What communication barriers have you encountered in understanding the Kenyan Climate Act of 2016?

a) Language barriers

b) Lack of accessible information

c) Limited community engagement

d) Political interference

8. Have you faced any challenges in accessing information related to climate change and the Climate Act 2016 within Mbita Constituency?

a) Yes

b) No

9. How would you rate your level of engagement in climate action within Mbita Constituency?

a) Very low

b) Low

c) Moderate

d) High

e) Very high

10. What is your perception of the urgency for climate change mitigation and adaptation efforts in Mbita Constituency?

a) Not urgent at all

b) Slightly urgent

c) Moderately urgent

d) Highly urgent

e) Extremely urgent

11. What factors do you think influence your participation in climate action initiatives?

a) Government policies

b) Community involvement

c) Personal beliefs/values

d) Access to resources