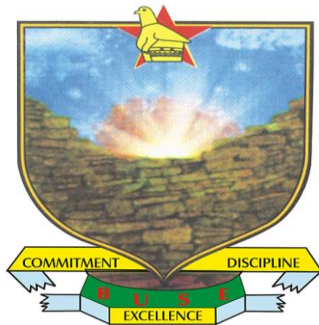


BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF SCIENCE AND ENGINEERING
DEPARTMENT OF DISASTER RISK REDUCTION



Evaluation of the responses and recoveries of cyclone idai in ward 22 mutare district

BY

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS OF THE BACHELOR OF SCIENCE HONOURS DEGREE IN
DISASTER MANAGEMENT**

MAY 2024

The undersigned certify that they have read this project and have approved its submission for marking after confirming that it conforms to the department requirements.

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I Tanyaradzwa B Matumba declare that this project is an original copy of my work and that all the sources I have quoted have been indicated and acknowledged by means of complete

reference. It has not been submitted or published to any other institution/university for academic purpose.

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DEDICATION

This research project is hereby and irrevocably dedicated to my parents, Mr and Mrs Matumba for their unconditional support towards me. I also dedicate this project to Hilton.T Madziwa, Kudakwashe Matumba, Tinayeishe Machiri and Mr Waynz Katsidzira for the unwavering support they offered during the tough times.

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ABSTRACT

The study evaluates the responses and recovery efforts in the affected area, aiming to assess the effectiveness of the emergency response and relief efforts. The services rendered in the aftermath of the disaster were ranged to moderate harm, foster healing, recovery and resilience. The data was collected from 2 focus group discussions 50 questionnaire and 15 key informants operating in Mutare. The objectives of the research includes to evaluate the effectiveness of the responses and recoveries from cyclone Idai in Ward 22, Mutare District in Manicaland Province, to identify the responses and recoveries from Cyclone Idai implemented by the government and non-governmental organizations in Ward 22, Mutare District in Manicaland Province and the third is to determine the effectiveness of the recovery efforts from Cyclone Idai implemented by the government and non-governmental organizations in Ward 22, Mutare District in Manicaland Province. To examine the impact of Cyclone Idai on the physical infrastructure and environment in Ward 22, Mutare district is also an objective of this research. The study utilised the qualitative and quantitative research approach and the data was collected through interview guides and questionnaires to provide detailed information that is relevant to the study. The results obtained shows that people received aid which met the immediate needs of the people such as food and shelter but it did not take into consideration the long term needs of the affected people. The study results reveals that most people got aid on time although some portion of the population did not get any form of assistance in time due to several reasons such as lack of coordination between different institutions. Cyclone Idai destroyed infrastructure and had a negative impact on people's lives as it had far reaching consequences on people's livelihoods hence the need to address the gaps in the response and recovery phase. In conclusion the findings of the research will inform policy and decision-makers about the need for enhanced the vulnerability of communities to natural disasters and enhancing their capacity to recover and adapt in the face of climate change.

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

An outline of Cyclone Idai's effects on Ward 22 in Mutare district, Manicaland, may be found in Chapter 1 of the research paper, "Evaluation of the responses and recoveries from Cyclone Idai in Ward 22 Mutare District Manicaland". The first section of the chapter describes the cyclone's damage, which includes the loss of infrastructure, residences, and agricultural land. It also

describes the quick actions taken in the wake of the calamity, including giving the impacted populace emergency shelter, food assistance, and medical attention. Through a thorough study of the background surrounding the response and recovery activities, the chapter seeks to set the stage for the remaining studies

1.2 BACKGROUND TO THE RESEARCH

Cyclone Idai hit Zimbabwe during the weekend of 15–17 March 2019, bringing heavy rains and strong winds that triggered flooding and landslides. It resulted in loss of life, damage to homes, fields, schools and roads, and disruption to livelihoods. Areas in Chimanimani, Chipinge and Mutare Districts were hit hardest. A review of the experiences and response to the cyclone shows that many institutions play a role in Zimbabwe’s disaster risk management (DRM) system. However, the agencies lack adequate technical, financial and logistical capacities. Response approaches in use are more reactive than proactive. Agencies do not always work in an integrated manner, and DRM is not yet fully mainstreamed across sectors. Zimbabwe faces increasing disasters associated with climate change. National vulnerability is likely to worsen, given the important role that land, agriculture and related resources play in people’s livelihoods. Profiles of common risks, assessments and plans exist in a fragmented manner because of limited resources. The evaluation of Ward 22, Mutare district, Manicaland’s responses to Cyclone Idai is the main goal of this study (Sibanda, Muyambo, and Chitando, 2022). Due to the extensive damage caused by Cyclone Idai, many communities are in immediate need of aid. Governmental and humanitarian organizations reacted quickly to the catastrophe, offering assistance and support to the impacted people and towns. To identify accomplishments and areas for improvement, a thorough evaluation of the efficacy of these reaction efforts and the ensuing recovery actions is necessary (Yokomatsu and Hochrainer-Stigler, 2020). The purpose of this study is to evaluate Ward 22’s responses to Cyclone Idai by looking at the organization of relief operations, the distribution of help, and the supply of necessities including food, housing, and medical care. Furthermore, the research will examine the advancements and obstacles associated with the recuperation stage, encompassing the restoration of livelihoods, infrastructure repair, and community resilience-enhancing programs (Guha-Sapir, Santos, and Borde, 2013). The strengths and shortcomings of the disaster management and recovery system must be thoroughly examined in order to fully comprehend the reactions to and recoveries from Cyclone Idai in

Ward 22. This research aims to increase disaster preparedness and resilience-building efforts in the region by identifying and addressing gaps in the response and recovery processes (Djalante, Jupesta, and Aldrian, 2020). This study is important because it clarifies the assessment of the reactions to and recovery from Cyclone Idai's catastrophic effects in Manicaland's Ward 22, Mutare district. The knowledge and understanding our study has gained will be crucial for shaping future plans for disaster response and recovery, which will ultimately increase the communities affected by such tragedies' overall resilience to disasters. This study is important because it clarifies the assessment of the reactions to and recovery from Cyclone Idai's catastrophic effects in Manicaland's Ward 22, Mutare district. The knowledge and understanding this study has gained will be crucial in shaping future plans for disaster response and recovery, which will ultimately increase the communities affected by such tragedies' overall resilience to disasters.

1.3 STATEMENT OF THE PROBLEM

Cyclone Idai caused extensive damage in Ward 22 of Mutare district, Manicaland, resulting in loss of life, displacement of residents, and destruction of infrastructure. The recovery efforts and response to the cyclone by government and non-governmental organizations have been scrutinized for their effectiveness and impact on the affected population. However, there is a need for a comprehensive evaluation of the responses and recoveries to determine the extent to which the needs of the community were met and to identify any gaps in the provision of aid and support. This will provide crucial insights for future disaster preparedness and response initiatives in the region.

1.4 JUSTIFICATION OF THE STUDY

Conducting an evaluation of the responses and recoveries from Cyclone Idai in Ward 22 of Mutare district, Manicaland is essential for several reasons. Firstly, it will provide an assessment of the effectiveness of the relief efforts and aid distribution, highlighting any shortcomings in the response that need to be addressed. Secondly, the research will offer valuable insights into the specific needs and challenges faced by the community in the aftermath of the cyclone, informing future disaster management strategies in the region. Additionally, the evaluation will contribute

to the body of knowledge on disaster recovery and response, providing lessons and recommendations for improving the resilience of communities in the face of similar natural disasters. Ultimately, this research will serve as a valuable resource for policymakers, humanitarian organizations, and local authorities involved in disaster management and aid distribution in Manicaland.

1.5 Aim

To assess the relief efforts and recovery projects in addressing the immediate needs of the affected population

1.6 Main Objective:

To evaluate the responses and recoveries from cyclone Idai in Ward 22, Mutare District in Manicaland Province.

1.7 Specific Objectives:

1. To identify the responses and recoveries from Cyclone Idai implemented by the government and non-governmental organizations in Ward 22, Mutare District in Manicaland Province.
2. To determine the effectiveness of the recovery efforts from Cyclone Idai implemented by the government and non-governmental organizations in Ward 22, Mutare District in Manicaland Province.

1.8 Research Questions:

1. What are the impacts of the Cyclone Idai on the physical infrastructure and environment in Ward 22, Mutare district?
2. What are the responses and recoveries from Cyclone Idai implemented by the government and non-governmental organizations in Ward 22, Mutare District in Manicaland Province?
3. How effective are the recovery efforts from Cyclone Idai implemented by the government and non-governmental organizations in Ward 22, Mutare District in Manicaland Province.

1.9 Limitations:

- Limited access to affected areas due to damaged infrastructure and restricted movement.

-Challenges in collecting accurate data from individuals who may have been traumatized or displaced by the cyclone.

-Difficulty in obtaining responses from individuals who may have lost their homes or possessions.

-Bias in respondents due to personal experiences and emotions related to the cyclone.

-Lack of previous data for comparison due to the unique and unpredictable nature of cyclone events.

-Time constraints in conducting the research and analyzing the data.

-Potential language barriers with respondents in the area.

1.10 Delimitations:

Focusing specifically on the responses and recoveries from cyclone Idai in ward 22 of Mutare district, Manicaland. Limiting the study to a specific geographical area to provide a detailed and localized analysis. Establishing clear criteria for selecting respondents based on their experiences with the cyclone. Utilizing a specific timeframe for data collection and analysis to capture the immediate aftermath of the cyclone. Considering only the responses and recoveries within the given ward, rather than encompassing broader impacts of the cyclone. Recognizing the limitations of the research in terms of access and availability of data in the affected area. Acknowledging the potential impact of cultural and social factors on the responses and recoveries in the specific ward.

1.11 IMPORTANCE OF THE THESIS

It is crucial to conduct study on Ward 22 Mutare District Manicaland's reactions to response and recoveries from Cyclone Idai for a number of reasons. Taking lessons from the past: Through an assessment of the reactions and recuperations following Cyclone Idai, the study can pinpoint the advantages and disadvantages of the existing approaches to disaster management. By using this information, disaster response efforts can be improved in the future and mistakes can be avoided. Finding opportunities for development, the study might point out specific deficiencies in

the response to Cyclone Idai like communication, infrastructure, or the distribution of emergency supplies. This can assist in focusing resources and efforts on fixing these shortcomings in order to achieve greater results down the road.

Educating policymakers: At the municipal, state, and federal levels, policy and decision-making can be influenced by the research's conclusions. This may result in adjustments to the resources allotted for disaster management as well as preparation, response, and recovery activities.

Enhancing community resilience: Having a thorough understanding of Cyclone Idai's effects and Ward 22's subsequent recovery activities would help to enhance the community's resilience. The research can aid in creating communities that are more resilient to calamities in the future by highlighting the difficulties encountered and the effective remedies.

Adding to the body of knowledge: Studies on Ward 22's evaluation of the response and recovery from Cyclone Idai can enrich the body of knowledge already available on disaster management, especially when it comes to rural communities. This can contribute to the advancement of scholarly knowledge and guide future studies in the area.

1.12 DEFINITION OF MEANINGS IN THE DISSERTATION

Evaluation – The systematic assessment and judgment of the responses and recoveries from Cyclone Idai in Ward 22 Mutare District Manicaland, including their effectiveness and impact.

Responses – The actions and measures taken by individuals, organizations, and authorities in Ward 22 Mutare District Manicaland to address the immediate and ongoing impacts of Cyclone Idai, such as providing emergency relief, shelter, and medical assistance.

Recoveries – The processes and activities aimed at rebuilding and restoring the affected community in ward 22 Mutare District Manicaland after the cyclone, including long-term recovery efforts, infrastructure repair, and economic revitalization.

Cyclone Idai – A powerful and destructive tropical cyclone that struck several countries in southern Africa in 2019, causing widespread devastation, loss of life, and severe damage to infrastructure and communities.

Ward 22 Mutare District Manicaland – A specific administrative division or geographic area within the Mutare District of Manicaland province in Zimbabwe, which was directly impacted by cyclone Idai and is the focus of this research evaluation.

Manicaland – One of the ten provinces of Zimbabwe, located in the eastern part of the country, which was affected by the devastating impacts of cyclone Idai in 2019.

1.13 SUMMARY

In summary, the first chapter of the research highlights the significant impact of cyclone Idai on ward 22 in Mutare district, Manicaland. It describes the immediate responses to the disaster and provides an overview of the challenges faced by the affected population in the aftermath of the cyclone. The chapter sets the stage for the subsequent chapters by establishing the context in which the evaluation of response and recovery efforts will take place, setting the tone for the rest of the research.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

There are a number of indicators that can be used to evaluate and analyze the responses and recoveries from Cyclone Idai in Ward 22, Mutare region.

2.2 Conceptual

It is based on a thorough understanding of the disaster response and recovery process. These factors include immediate responses, relief efforts, infrastructure restoration, economic recovery, and overall community rehabilitation. The fundamental ideas of disaster response, recovery, resilience, vulnerability, capacity, governance, community involvement, humanitarian aid, infrastructure, and livelihoods form the foundation of this framework (Chitando, 2020). Disaster response refers to the actions taken by individuals, communities, organizations, and governments to address the immediate needs of those affected by Cyclone Idai. Disaster recovery, on the other hand, refers to the long-term

process of rebuilding and restoring communities, infrastructure, and livelihoods after Cyclone Idai (Nhamo and Chikodzi, 2021). Resilience refers to the ability of individuals, communities, and systems to absorb, adapt, and recover from the impacts of Cyclone Idai. Vulnerability refers to the susceptibility of individuals, communities, and systems to the impacts of Cyclone Idai, taking into account factors such as poverty, gender, age, and disability. Capacity refers to the resources, skills, and abilities of individuals, communities, and organizations to respond to and recover from Cyclone Idai. Governance refers to the roles and responsibilities of government, non-governmental organizations, and local communities in responding to and recovering from Cyclone Idai (FitzGerald *et al.*, 2016). Community participation refers to the involvement of local communities in the response and recovery processes, including their contributions, needs, and priorities. Humanitarian assistance refers to the provision of aid, support, and services to affected communities, including food, shelter, healthcare, and protection (FitzGerald *et al.*, 2016). Infrastructure refers to the physical structures and systems, such as roads, bridges, and buildings, that were damaged or destroyed by Cyclone Idai. Livelihoods refer to the means by which individuals and households make a living, including agriculture, business, and employment (Blaikie *et al.*, 2014). The conceptual framework is guided by the following research questions: What were the responses to Cyclone Idai in Ward 22, Mutare District, Manicaland, and how effective were they? What are the ongoing recovery needs and priorities of affected communities in Ward 22? How have the responses and recoveries from Cyclone Idai impacted the resilience, vulnerability, capacity, governance, community participation, humanitarian assistance, infrastructure, and livelihoods of affected communities in Ward 22 (Bitrus, 2017b) The conceptual framework is grounded in a relational understanding of the key concepts, recognizing that disaster response and recovery are complex and interconnected processes. The framework posits that effective disaster response and recovery require a comprehensive understanding of the social, economic, and environmental factors that affect communities, and that building resilience and reducing vulnerability are critical to sustainable recovery. By examining the relationships between these key concepts, the research aims to provide a nuanced understanding of the responses and recoveries from Cyclone Idai, and to inform strategies for building resilience and reducing vulnerability in the face of disasters (Council, Studies and Opportunities, 2006).

2.2.1 Immediate Responses:

Cyclone Idai hit Manicaland province in March 2019, causing extensive damage to infrastructure, including houses, roads, bridges, and schools. Search and rescue operations were initiated immediately after the cyclone hit. Immediate responses by local authorities, NGOs, and the national government were crucial in saving lives and providing immediate relief. Search and rescue operations were implemented, and displaced communities were provided with temporary shelter, food, and clean water. Local authorities and emergency response teams worked tirelessly to locate and save affected individuals trapped or stranded due to the floods and landslides (Africa Yearbook Volume 16: Politics, Economy and Society South of the Sahara in 2019, 2020). Temporary shelters were established in safe locations to accommodate displaced families. Food, clean water, and basic sanitary facilities were provided to meet the immediate needs of the affected populations (Tevera, et al., 2021).

2.2.2 Search and Rescue Operations:

After Cyclone Idai hit Manicaland, search and rescue operations were crucial in finding and evacuating individuals who were trapped or stranded due to the devastating impact of the cyclone. These operations were carried out by various local, national, and international entities, working tirelessly to save lives and provide immediate assistance .

These teams consisted of professionals skilled in search and rescue techniques, including water rescue, vertical rescue, and medical response. Search and rescue teams worked to identify individuals in immediate danger and performed evacuations from inaccessible or hazardous locations . These areas included flooded regions, collapsed buildings, and areas at risk of landslides. Helicopters and drones were used for aerial reconnaissance to locate people in distress or identify areas that needed immediate assistance (Nhamo and Chikodzi, 2022). Aerial surveys provided critical information for search and rescue operations, enabling teams to prioritize their efforts effectively. Many individuals were stranded on rooftops or other elevated structures due to floodwaters. Search and rescue teams utilized boats, life rafts, and other watercraft to reach these individuals and bring them to safety (Nhamo and Chikodzi, 2022).

In areas where buildings collapsed or became structurally unsafe, search and rescue teams carefully navigated the debris to find and extract survivors. Specialized equipment, such as cutting tools and heavy machinery, were used to gain access and rescue trapped individuals. Search and rescue teams often included medical personnel who provided immediate medical assistance to those who were rescued ((Nhamo and Chikodzi, 2022)). This included administering first aid, stabilizing injuries, and providing emergency medical care in critical situations. Effective coordination and communication among search and rescue teams, emergency services, and organizations involved were critical for successful operation (Nhamo and Chikodzi, 2022). Clear communication channels, such as radio or satellite communication, were established to ensure seamless coordination and timely decision-making. Search and rescue dogs and their handlers were deployed to locate individuals trapped under debris or buried in landslides. These highly-trained dogs have an exceptional sense of smell and play a crucial role in locating survivors (Nhamo and Chikodzi, 2022).

Local communities and their knowledge of the area played a crucial role in search and rescue operations. Local residents often worked side by side with the rescue teams, guiding them to areas at higher risk or providing insights into potential locations where people could be trapped. Search and rescue operations were conducted. The efforts of these teams were instrumental in saving lives and providing immediate assistance to those affected by the cyclone (Nhamo and Chikodzi, 2022).

2.2.3 Temporary Shelters:

After Cyclone Idai struck Manicaland in Zimbabwe, a significant number of people were displaced from their homes and left without shelter. To provide immediate relief and support, temporary shelters were established to accommodate those affected by the cyclone (Chanza, 2020). These temporary shelters served as a place of refuge and safety for individuals and families who had lost their homes and belongings. Local authorities and humanitarian organizations conducted assessments to identify areas that had been severely affected by the cyclone and determine the number of people in need of emergency shelter. This helped in the planning and allocation of resources for establishing temporary shelters (Chanza, 2020).

Suitable sites were identified for setting up temporary shelters in close proximity to the affected communities (Dominelli, 2018). These sites were evaluated for their safety, accessibility, availability of basic amenities, and the potential to accommodate a large number of individuals or families. Adequate shelter materials, including tents, tarpaulins, and basic construction materials, were procured and transported to the designated shelter sites (Tevera, et al., 2021). These materials were selected based on their durability, weather resistance, and quick assembly capabilities. Trained teams of volunteers, humanitarian agencies, and local authorities worked together to construct temporary shelters for the affected population. The shelters were designed to be sturdy, easily assembled, and capable of withstanding adverse weather conditions (Chikodzi, et al., 2021).

Alongside the shelter construction, efforts were made to provide essential amenities to ensure the well-being of the displaced individuals. These amenities included clean drinking water, sanitation facilities, and lighting to ensure a safe and comfortable living environment. Non-food items such as blankets, hygiene kits, cooking utensils, and mosquito nets were distributed to those in temporary shelters (Chikodzi, et al., 2021). These items were crucial in meeting the immediate needs of the displaced individuals and ensuring their health and well-being. Measures were taken to ensure the safety and security of those residing in temporary shelters. Adequate lighting, fencing, and security personnel were deployed to create a safe environment, especially for vulnerable populations such as women, children, and the elderly (Chatiza, 2019).

Mobile clinics were set up near the temporary shelter sites to provide basic healthcare services and address any immediate medical needs of the displaced individuals. This included medical assessments, treatment of injuries, and the provision of essential medicines. Local communities, volunteers, and humanitarian organizations came together to support the establishment and management of temporary shelters (Chatiza, 2019). They provided assistance in various ways, including helping with construction, organizing community kitchens, and offering psycho-social support to those affected. As the immediate relief phase progressed, efforts were made to transition affected individuals from temporary shelters to more permanent housing solutions. This involved working closely with local authorities and humanitarian agencies to identify suitable options for resettlement or reconstruction of homes (Tevera, et al., 2021). The establishment of temporary shelters in Manicaland after Cyclone Idai offered a crucial lifeline to

those affected by the disaster. The provision of safe and secure shelter, along with basic amenities and support services, helped restore a sense of stability and resilience amidst the challenging circumstances (Tevera, et al., 2021).

2.2.4 Provision of Food:

Cyclone Idai was a devastating natural disaster that hit Manicaland, Zimbabwe in March 2019. The cyclone brought heavy rainfall and strong winds, causing extensive damage to infrastructure and disrupting food supplies in the region. The immediate impact of the cyclone left many people without access to food and clean water, leading to a humanitarian crisis. In response to the emergency situation, various organizations, including local and international humanitarian agencies, stepped in to provide food provision and support to the affected communities (Nhamo and Chikodzi, 2021b). Their efforts aimed to address both short and long-term food needs and ensure food security for the affected population. During the initial phase of the disaster response, emergency food assistance was focused on providing immediate relief to those affected by the cyclone. Local and international organizations, working in collaboration with the government, distributed food items such as rice, maize meal, canned goods, and cooking oil (Tevera, et al., 2021). This emergency food provision aimed to ensure that people had access to nutritious meals during the immediate aftermath of the cyclone. As the relief efforts transitioned into the recovery phase, additional support was provided to help rebuild the food system and ensure sustained access to food in the long term. This involved initiatives such as restoring agricultural productivity, providing seeds and tools to farmers, rehabilitating irrigation systems, and establishing community gardens (Tevera, et al., 2021).

One of the key challenges faced during the response and recovery efforts was the logistical difficulty posed by damaged infrastructure and inaccessible areas. Road networks were severely impacted, making it challenging to transport food supplies to remote and isolated communities. However, humanitarian agencies, in collaboration with the government and local communities, implemented various strategies to overcome these challenges (Chikodzi, et al., 2021). This included utilizing air and river transport, establishing temporary distribution centers, and working with local community leaders to identify areas in need. In addition to the provision of food, efforts were made to ensure the safety and quality of the food being distributed. Local and

international health and food safety standards were upheld to prevent the outbreak of disease and protect the well-being of the affected population. Adequate water and sanitation facilities were also provided to ensure safe food preparation and consumption. Furthermore, a key aspect of the food provision efforts was the coordination and collaboration between different stakeholders (Chatiza, 2019). The government, humanitarian agencies, non-governmental organizations, and community leaders worked together to assess needs, plan interventions, and monitor the impact of their actions. This coordination helped optimize resources and enhance the effectiveness of the response efforts (Chari, 2023).

It is important to note that the food provision efforts in the aftermath of Cyclone Idai were not just immediate responses but also focused on building resilience and preparedness for future disasters. Initiatives such as strengthening early warning systems, improving disaster risk reduction measures, and promoting climate-resilient agriculture were prioritized to minimize the impact of future cyclones and ensure the long-term food security of the region (Chanza, 2020). While significant progress has been made in providing food provision during and after Cyclone Idai, there is still ongoing work needed to fully restore food security and rebuild the affected communities. The resilience and determination of the people and the continuous support of humanitarian organizations will be crucial in ensuring a sustainable recovery and reducing the vulnerability of the region to future disasters (Chanza, 2020).

2.2.5 Supply of Clean Water:

Cyclone Idai, which struck Manicaland, Zimbabwe in March 2019, caused immense devastation and disrupted the region's water supply. The cyclone resulted in widespread flooding, damaging water infrastructure and contaminating water sources. This created a dire need for clean water provision in the affected areas (Tevera, et al., 2021). In response to the water crisis, both local and international humanitarian organizations swiftly mobilized to provide clean water and address the immediate needs of the affected communities. Their efforts focused on restoring water supply systems, providing emergency water treatment, and promoting safe water practices to prevent waterborne diseases (Chikodzi, et al., 2021).

During the early stages of the disaster response, emergency water supplies were delivered to provide immediate relief. Water purification tablets, jerrycans, and water filters were distributed to affected communities to help purify available water sources, ensuring that people had access to clean drinking water. Truck-mounted tanks and water bladders were also used to deliver potable water to areas where the water supply systems were severely damaged (Chanza, 2020). As the recovery efforts progressed, the focus shifted towards rehabilitating and repairing water infrastructure. This involved repairing damaged boreholes and wells, restoring water treatment plants, and repairing water distribution networks. International organizations, in collaboration with the local government and communities, provided technical expertise and resources to support these restoration efforts. In addition to infrastructure rehabilitation, efforts were made to promote safe water practices and improve hygiene conditions. Sanitation facilities, such as portable toilets and hand washing stations, were installed to ensure proper hygiene practices. Hygiene promotion campaigns were also conducted to raise awareness about the importance of clean water, sanitation, and hand washing (Chikodzi, et al., 2021).

To address the longer-term water needs and build resilience, initiatives were implemented to strengthen water management systems and improve water resource management. This involved activities such as watershed protection, rainwater harvesting, and the construction of water storage tanks (Wwap, 2018). By implementing these measures, the aim was to ensure a sustainable water supply and reduce the vulnerability of communities to future water-related disasters (Guha-Sapir, Santos and Borde, 2013b). Given the extent of damage caused by Cyclone Idai, one of the major challenges faced during the provision of clean water was the inaccessibility of some affected areas due to damaged road networks (Chikodzi, et al., 2021). To overcome this, humanitarian organizations utilized various means of transportation, including helicopters, boats, and off-road vehicles, to reach isolated communities and deliver clean water supplies (Chatiza, 2019).

Moreover, coordination among different stakeholders played a crucial role in the success of water provision efforts. Collaboration between the government, humanitarian organizations, non-governmental organizations, and community leaders helped in the assessment of needs, planning interventions, and monitoring the impact of the actions taken (Chikodzi, et al., 2021). This coordination ensured the optimal use of resources and the effectiveness of the response efforts.

While significant progress has been made in providing clean water provision after Cyclone Idai, ongoing efforts are still required to fully restore access to safe water and ensure the long-term water security of the region (Chikodzi, et al., 2021). Continued support from humanitarian organizations, along with active community participation, will play a vital role in the sustainable recovery and resilience-building of the affected communities (Chari, 2023).

2.2.6 Sanitary Facilities:

After Cyclone Idai struck Manicaland in Zimbabwe, providing sanitary facilities became a critical priority in the affected areas. The cyclone caused extensive damage to infrastructure, including sanitation facilities, which posed significant health risks to the affected communities (Chatiza, 2019). To address this urgent need, humanitarian organizations worked in collaboration with local communities and government agencies to provide appropriate sanitation facilities. The efforts focused on two primary areas: temporary emergency facilities and long-term solutions. In the immediate aftermath of the cyclone, temporary emergency facilities such as portable toilets and communal latrines were set up in strategic locations (Chikodzi, et al., 2021). These facilities helped to ensure that people had access to basic sanitation services, preventing the spread of diseases caused by poor sanitation. The organizations responsible for setting up these facilities also implemented regular cleaning and maintenance protocols to ensure their proper functioning.

As the recovery efforts progressed, attention shifted towards implementing long-term solutions for sanitation. This involved the rehabilitation and reconstruction of damaged sanitation infrastructure. The organizations involved in these efforts worked closely with the local communities to assess their needs and preferences for sanitation facilities. Depending on the specific needs and circumstances of each area, different types of sanitation facilities were implemented (Tevera, et al., 2021). This included household-level toilets, public latrines, and community-based sanitation systems. The choice of facility was influenced by factors such as population density, available resources, and cultural acceptability. In addition to providing physical infrastructure, awareness campaigns and hygiene promotion initiatives were conducted to educate the affected communities on the importance of good sanitation practices (Organization, 2023). These campaigns emphasized proper handwashing techniques, toilet hygiene, and safe disposal of waste. By promoting hygiene practices, the aim was to prevent the spread of waterborne diseases and improve overall community health (Tevera, et al., 2021).

Given the challenges of accessibility in some areas due to damaged road networks, innovative solutions were deployed to reach isolated communities. This included the use of air transportation, boats, and off-road vehicles to deliver construction materials and complete sanitation projects in remote locations (Chatiza, 2019). The provision of sanitary facilities after Cyclone Idai in Manicaland was not without its challenges. Limited resources, logistical constraints, and the sheer scale of the disaster made the task complex. However, the coordinated efforts of humanitarian organizations, government agencies, and local communities played a crucial role in overcoming these challenges and ensuring the timely provision of sanitation facilities (Nhamo and Dube, 2021). Moving forward, the focus will be on ensuring the sustainability and long-term maintenance of these facilities (Chikodzi, et al., 2021). This will involve capacity building and training programs for local communities to take ownership and responsibility for the upkeep of the sanitation infrastructure. By empowering the communities, they can develop the skills necessary to handle future challenges and maintain their own sanitation facilities.

2.2.7 Emergency Medical Aid:

During and after Cyclone Idai in Manicaland, Zimbabwe, emergency medical aid was crucial in saving lives, treating injuries, and preventing the spread of disease. The cyclone caused extensive devastation, leading to a significant number of injuries and health concerns among the affected population.

Immediately after the cyclone hit, emergency medical teams were deployed to provide immediate assistance. These teams consisted of doctors, nurses, paramedics, and support staff who worked tirelessly to address the medical needs of those affected. Mobile medical clinics were set up in strategic locations, providing essential medical services to people who had lost access to healthcare facilities due to the cyclone's impact. The medical teams provided emergency first aid to treat injuries such as cuts, fractures, and wounds suffered during the cyclone (Chikodzi, et al., 2021). They also administered necessary medications, including antibiotics and pain relievers, to mitigate the risk of infections and alleviate pain. One of the primary concerns after a disaster like Cyclone Idai is the risk of waterborne diseases and other communicable illnesses. To combat this, medical teams worked to provide clean drinking water,

distribute hygiene kits, and conduct health education campaigns. These campaigns focused on promoting proper hygiene practices, the importance of handwashing, and safe food and water consumption (Chikodzi, et al., 2021).

In addition to immediate medical needs, mental health support was also a critical component of the emergency medical aid (Chatiza, 2019). The trauma caused by the cyclone, loss of loved ones, and displacement can have severe psychological effects. Mental health professionals were deployed to provide counseling and support to those affected, helping them cope with the emotional toll of the disaster. Collaboration with local health facilities and organizations was essential in ensuring the effectiveness of the emergency medical response. Existing healthcare facilities in the affected areas were supported with additional medical supplies, equipment, and staff to handle the increased patient load (Chanza, 2020). This collaboration helped to strengthen the overall healthcare system, enabling a more coordinated and efficient response. The provision of emergency medical aid during and after the cyclone faced several challenges. Limited access to affected areas due to damaged roads and infrastructure posed significant logistical constraints. However, the teams adapted by utilizing helicopters, boats, and other alternative means of transportation to reach isolated communities (Chatiza, 2019).

Humanitarian organizations and government agencies worked together to coordinate the delivery of medical supplies and resources (Wright, 2017). They also established communication systems to ensure effective coordination among the various medical teams and facilities involved. As the immediate emergency phase passed, focus shifted towards the long-term recovery and rebuilding of the healthcare system (Chikodzi, et al., 2021). This included rehabilitating damaged health facilities, restocking medical supplies, and training healthcare workers to address the ongoing healthcare needs of the affected population. Emergency medical aid played a vital role in mitigating the health impacts of Cyclone Idai in Manicaland. The timely response of medical teams, collaboration with local health facilities, and the provision of essential medical services saved lives, treated injuries, and prevented the spread of disease. The ongoing support and recovery efforts will be crucial in building a resilient healthcare system and ensuring the well-being of the affected communities in the long term (Chikodzi, et al., 2021).

2.2.8 Relief Efforts:

Various national and international organizations launched relief efforts to provide assistance to the affected communities. Humanitarian agencies, including the United Nations, world governments, and non-profit organizations, conducted extensive relief operations. This involved distributing emergency food supplies, medical aid, and sanitation facilities to prevent the spread of diseases in the aftermath of the cyclone (Chanza, 2020).

2.2.9 Distribution of Supplies:

During and after Cyclone Idai, the distribution of essential supplies was crucial in providing relief and support to the affected population. The cyclone caused widespread destruction, leaving many communities without access to basic necessities such as food, water, shelter, and hygiene items. In the immediate aftermath of the cyclone, humanitarian organizations and government agencies mobilized to distribute emergency relief supplies. These supplies included food rations, clean drinking water, blankets, hygiene kits, and shelter materials. The distribution process aimed to reach the most affected and vulnerable communities, ensuring that essential needs were met (Chatiza, 2019). To facilitate the distribution, established networks and logistical systems were utilized. Aid organizations coordinated with local partners, community leaders, and volunteers to identify distribution points and assess needs. Different modes of transportation, including helicopters, boats, and trucks, were used to reach communities in remote and inaccessible areas (Tevera, et al., 2021).

Efforts were made to ensure that the distribution process was efficient, transparent, and fair. Local communities were actively involved, and community-based organizations played a crucial role in assisting with the distribution. Prioritization was given to vulnerable groups, such as children, the elderly, pregnant women, and people with disabilities, to ensure equitable access to supplies (*Corruption risk assessment in the management & distribution of social protection initiatives & humanitarian aid in Zimbabwe: A Case Study of Cyclone Idai & the Cholera Response* (Chimanimani & Harare), 2020). Ongoing monitoring and coordination were essential to track the distribution process and address any challenges encountered. Aid organizations

collaborated with local authorities and communities to gather real-time information, assess needs, and make adjustments to the distribution plan as necessary. This approach helped to ensure that supplies were reaching those in need effectively (Chikodzi, et al., 2021). Alongside the distribution of immediate relief supplies, efforts were made to support the recovery and rebuilding of affected communities. This included providing livelihood support, such as seeds, tools, and training, to help communities regain self-sufficiency. Additionally, efforts were made to restore infrastructure, including roads, bridges, and communication systems, to facilitate the long-term recovery process (Chari, 2023).

The distribution of supplies during and after Cyclone Idai faced several challenges. The widespread destruction and inaccessibility of many areas made it difficult to reach affected communities. Damaged roads, flooded areas, and limited transport options posed logistical constraints. In response, aid organizations adapted their strategies and employed alternative means of transportation, including air and water transport, to ensure that supplies reached isolated communities. Coordinating the distribution process among multiple organizations and agencies was also a challenge. To address this, coordination mechanisms and communication channels were established to facilitate information sharing and collaboration. Regular meetings, joint assessments, and data sharing were conducted to ensure effective coordination and avoid duplication of efforts (Chatiza, 2019). The distribution of essential supplies during and after Cyclone Idai played a critical role in providing immediate relief and support to the affected population (Chikodzi, et al., 2021). The efforts of humanitarian organizations, in collaboration with local communities and authorities, ensured that basic needs such as food, water, shelter, and hygiene items were met. Ongoing monitoring and coordination were crucial to overcome logistical challenges and ensure an efficient and equitable distribution process (Chatiza, 2019).

2.3 Medical Aid:

Healthcare services were a critical aspect of the relief efforts. Medical teams and mobile clinics were deployed to provide medical assistance, particularly to those injured during the cyclone or suffering from waterborne diseases and other health issues. Immediate medical supplies, including medicines, first aid kits, and medical equipment, were provided to health facilities in the affected areas (Chari, 2023).

2.3.1 Sanitation and Hygiene:

To prevent the spread of diseases in the aftermath of the cyclone, efforts were made to improve sanitation and hygiene conditions. Provision of clean toilet facilities and washing stations were prioritized. Hygiene promotion campaigns were conducted to educate communities about proper hygiene practices and water treatment methods. Additionally, the distribution of hygiene kits, including soap, towels, and menstrual hygiene products, was carried out to ensure better hygiene practices (Chari, 2023).

2.3.2 Reconstruction and Infrastructure Restoration:

Rebuilding damaged infrastructure was a significant challenge. National and international organizations collaborated with the government to initiate infrastructural projects to restore roads, bridges, schools, and health facilities (Guha-Sapir, Santos and Borde, 2013c). Technical expertise and assistance were provided to ensure the resilient reconstruction of damaged buildings. This included the use of disaster-resilient construction materials and techniques (Chatiza, 2019).

2.3.3 Agriculture and Livelihood Support:

Agricultural rehabilitation and livelihood support were crucial for long-term recovery. Programs were implemented to provide farmers with seeds, tools, and training to help them restart agricultural activities. Livestock restocking programs and support for income-generating projects were also initiated to enhance the economic recovery of the affected communities (Tevera, et al., 2021).

2.3.4 Psychosocial Support and Rehabilitation:

Relief efforts also focused on addressing the psychological and emotional impact of the disaster. Counseling services, trauma support, and psychosocial activities were provided to individuals and communities affected by the cyclone (Chari, 2023). School rehabilitation efforts included providing psychosocial support to children and teachers to help them cope with their experiences.

2.3.5 Infrastructure Restoration:

Restoring damaged infrastructure was a major challenge in the affected areas. Reconstruction of infrastructure, such as roads, bridges, schools, and hospitals, took time due to inadequate resources and logistical difficulties. However, several infrastructural projects were initiated by the government and donor organizations to rebuild the region's infrastructure and connectivity.

2.3.6 Economic Recovery:

The cyclone had a significant impact on the local economy, mainly affecting agriculture, which is the primary livelihood for many residents. The destruction of crops, livestock, and farming infrastructure hampered agricultural activities and resulted in food insecurity. Efforts were made to revive agriculture through the provision of seeds, tools, and technical assistance to farmers. Additionally, the government implemented income-generating projects and offered financial support to affected businesses to stimulate economic recovery (Chatiza, 2019).

2.3.7 Community Rehabilitation:

Rehabilitation of affected communities involved addressing the physical, emotional, and psychosocial needs of the people. This entailed providing counseling services, trauma support, and ensuring access to healthcare. Efforts were also made to rebuild schools and provide psychosocial support to affected children. Community-driven initiatives were encouraged to rebuild social cohesion and support systems within the affected communities (Chanza, 2020).

The evaluation of the responses and recoveries from cyclone Idai in ward 22, Mutare district, Manicaland from 2017-2019 shows a mixed picture of progress. While immediate responses and relief efforts were effective in saving lives and providing immediate assistance, the process of infrastructure restoration and economic recovery was challenging and time-consuming. However, with the help of local and international organizations, there have been significant strides in rebuilding communities and rehabilitating affected individuals.

CHAPTER 3 METHODOLOGY

3.1 INTRODUCTION

This is a thorough description of the methodology and instruments used to evaluate the impact of the cyclone, the efficacy of response efforts, and the advancement of the recovery process is given in the methodology chapter for the research on the evaluation of responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland. The research objectives, the literature review that was done to guide the study, the research design, which includes the sampling strategy and data collection instruments, the ethical issues were taken into account, and the schedule for data analysis and reporting are all covered in detail in this chapter. This chapter will also elucidate the measures implemented to guarantee that the research conformed to ethical protocols and the distribution of the results to pertinent stakeholders for well-informed policy formation and decision-making.

3.2 RESEARCH DESIGN

The project consists of both qualitative and quantitative research designs.

3.2.1 Qualitative Research

Key informant Interviews: The District Development Coordinator, ward councillor ward 22 community leaders, chief Zimuya, a representative from Redcross, representatives from NGOs like Plan International, and others involved in the response and recovery operations in Ward 22 are among the important stakeholders chosen for key informant interviews. The semi-structured interviews provided open-ended questions to delve into experiences, viewpoints, and difficulties encountered throughout the cyclone and post-recovery phase (Tjora, 2018). Focus group discussions were conducted to learn about the view points and experiences of Ward 22 residents

regarding the effects of Cyclone Idai and the efficacy of the relief activities. Convenience sampling was used to select the household heads for these focus group discussions.

Method of Sampling: To ensure representation from all community groups, a purposive sampling technique was utilized in the selection of participants for the key informant interviews (Walliman, 2011).

To find reoccurring themes, patterns, and narratives in the qualitative data collected from focus groups discussions and interviews, thematic analysis was done. This method will shed light on the impacted community's subjective experiences and viewpoints as well as the difficulties and achievements of the healing process. Throughout the process of gathering qualitative data, participants' informed consent, confidentiality, and anonymity will all be respected. Prior to conducting the interviews and focus group discussions, approval from the appropriate authorities and ethical review boards will be acquired (Grbich, 2012).

3.2.2 Quantitative Research Design

People who had been directly impacted by Cyclone Idai in Ward 22 were given structured questionnaires. Quantitative questions about the cyclone's effects, the success of the response, and the state of recovery now being pursued were included in the questionnaires. The replies were measured quantitatively using a Likert scale. For the questionnaires, a sample of 50 people in Ward 22 who were directly impacted by Cyclone Idai was chosen at random. The purpose of the sample technique was to capture the range of viewpoints and experiences present in the community (Tiefenbacher, 2013). Descriptive statistical techniques were used to quantify the survey data and find patterns and trends in the respondents' answers. The quantitative data analysis yielded quantifiable insights on the cyclone's effects as well as the efficiency of Ward 22's response and recovery operations. Strict adherence to the ethical principles governing informed consent, confidentiality, and survey participant anonymity was maintained. Before distributing the questionnaires, approval from the appropriate authorities and ethical review

boards was sought. The study sought to give a thorough assessment of the reactions and recoveries from Cyclone Idai in Ward 22, Mutare District, Manicaland, by utilizing both qualitative and quantitative research approaches (Change, 2022). By utilizing both quantitative data and subjective accounts, the integrated approach will contribute to a better understanding of the cyclone's effects as well as the efficiency of reaction and recovery operations (Change, 2022).

3.3 SAMPLE

. In order to ensure that the research findings are reflective of the various viewpoints and responses to Cyclone Idai in the designated area, the sample size is intended to capture a wide range of experiences and insights from the impacted population. Zimstats 2022 indicates that ward 22 has 2,838 homes. Since the researcher could not cover the entire ward, the researcher only utilized 10% of the total households. Number of samples: 283

Sample size determination formula:

$$n = (Z^2 \times P \times (1-P)) / E^2$$

Where:

- n = sample size
- Z = Z-score (1.96 for a 95% confidence level)
- P = population proportion (0.5 for a 50% proportion)
- E = margin of error (0.05 for a 5% margin of error)

3.4 SAMPLING STRATEGIES

A multistage sampling strategy will be used in the evaluation of responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland. Using stratified random sampling, Ward 22 will be split into several strata according to variables like geography, socioeconomic status, and degree of cyclone impact in the first phase. A random sample of households will be chosen within each stratum in order to guarantee a cross-section of the affected population that is representative. This made it possible for the researcher to compile a variety of viewpoints and experiences regarding the reactions to and recovery from the cyclone.

Purposive sampling of important informants, including local government representatives, community leaders, and relief workers who have participated in Ward 22's reaction and recovery operations, will be the second stage's methodology. These primary sources of information offered insightful information and firsthand experience regarding the tactics, difficulties, and achievements in mitigating Cyclone Idai's effects (Thorne, 2016). Thorne (2016) reported that the research achieved a thorough and nuanced understanding of the responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland, by utilizing a combination of stratified random sampling and purposive sampling.

3.5 DATA COLLECTION

The data collection for the research on the evaluation of responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland will involve a mix of quantitative and qualitative methods to obtain a comprehensive understanding of the situation. The following data collection methods will be employed:

Household Surveys: A structured questionnaire were administered to a randomly selected sample of households in Ward 22 to gather quantitative data on the impact of Cyclone Idai, the responses received, and the recovery efforts. The questionnaire will cover aspects such as damage to property, access to basic services, livelihoods, and the

effectiveness of aid and assistance received. This will provide statistical data to analyze the extent of impact and the effectiveness of responses.

Key Informant Interviews: In-depth interviews will be conducted with key informants, including local government officials, community leaders, aid workers, and representatives from non-governmental organizations involved in the response and recovery efforts. These interviews will provide qualitative data on the strategies, challenges, and successes in addressing the impact of Cyclone Idai, as well as insights into the local context and community dynamics.

Focus Group Discussions: Focus group discussions will be conducted with community members in Ward 22 to gather insights into their experiences, needs, and perceptions of the responses and recoveries from the cyclone. This qualitative data collection method will enable the researchers to understand the community's perspectives and opinions on the assistance received and the effectiveness of recovery efforts.

Document and Data Review: Researchers will also review relevant documents and data, including reports from government agencies, non-governmental organizations, and other stakeholders involved in the response and recovery efforts. This will provide additional context and insights into the situation, as well as complement the primary data collected through surveys, interviews, and focus group discussions. By employing a combination of these data collection methods, the research will be able to gather a comprehensive and nuanced understanding of the responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland.

3.6 DATA ANALYSIS

In order to evaluate the reactions and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland, a comprehensive procedure of scrutinizing and evaluating the gathered quantitative and qualitative data will be required.

. Inferential Statistics: To determine the significance of relationships and differences between variables, inferential statistical tests, like chi-square tests or t-tests, may be used. To find out whether there is a significant variation in the impact of a cyclone between different demographic groups, for instance, the t-test could be utilized (Cooksey, 2020).

Qualitative Data Analysis: Focus group discussions and key informant interviews yielded qualitative data for thematic analysis. In order to do this, recurrent themes and patterns in the replies pertaining to the reactions and recoveries from Cyclone Idai must where found and coded. This approach will aid in comprehending the main problems and experiences that the participants have to offer.

Content Analysis: Documents, reports, and other written materials pertaining to the reactions to and recovery from the cyclone will be examined using content analysis. In order to find important themes, patterns, and insights pertaining to the recovery efforts, the content has to be methodically analyzed (Flick, Von Kardoff, and Steinke, 2004). **Data triangulation:** In order to give a thorough picture of the reactions to and recoveries from Cyclone Idai in Ward 22, the quantitative and qualitative data were compared and contrasted. This required looking at how the statistical facts and the qualitative insights both strengthen and complement one another.

Data Visualization: To effectively communicate the findings, data will be presented using a variety of visual forms, including tables, charts, and graphs. This made it easier to interpret the research findings and allowed for the succinct and clear presentation of both quantitative and qualitative results. The analysis's conclusions were evaluated in light of the study's goals and the wider effects of Cyclone Idai in Ward 22. The results from the data analysis are presented in the report, emphasizing the most important learnings from the quantitative and qualitative data. The research yielded valuable insights into the evaluation of responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland, by utilizing a thorough and rigorous data analysis process. These insights will help inform future disaster response and recovery efforts (Schwartz, Anoko, and Abramowitz, 2019).

3.7 DATA REPRESENTATION

The analyzed data for the research on the evaluation of responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland can be presented in various formats to effectively communicate the findings. The following are some ways to present the analyzed data:

Summary Tables: Descriptive statistics such as mean, median, mode, standard deviation, and range for key variables related to the impact of Cyclone Idai and recovery efforts can

be presented in summary tables. These tables will provide a concise overview of the central tendency and variability of the quantitative data (Nations, 2019).

Bar Charts: Bar charts will be used to visually represent categorical data and comparisons between different groups. For example, a bar chart can illustrate the extent of damage caused by the cyclone in different areas of Ward 22, or the distribution of different types of assistance received by households (Fisher and Meyer, 2017).

Pie Charts: Pie charts can be utilized to show the proportional distribution of responses or recoveries. For instance, a pie chart can present the proportion of households that received different types of assistance (e.g., food aid, shelter, medical supplies) following Cyclone Idai.

Line Graphs: Line graphs can be used to display trends over time, such as changes in the level of recovery or support provided in the aftermath of the cyclone. This type of visualization would be particularly useful for illustrating how recovery efforts have evolved over the months following the disaster (Reduction, 2019).

Geographic Information System (GIS) Maps: Geographic distribution of the impact and recovery efforts can be presented using GIS maps. Maps can show the location of affected households, distribution of aid, and other spatial data to provide a geographical context for the research findings.

Qualitative Data Excerpts: Excerpts from key informant interviews and focus group discussions can be included in the report to provide real-life examples and quotes that illustrate the experiences and perspectives of the participants.

Data Dashboards: For a comprehensive and interactive presentation, a data dashboard can be created to allow stakeholders to explore and interact with the research findings. The dashboard can include various visualizations and filters for different subsets of the data.

Written Narrative: The analyzed data should be accompanied by a written narrative that provides context, interpretation, and discussion of the findings. This will help ensure that the data is comprehensively understood by the audience. By presenting the analyzed data using a combination of these formats, the research on the evaluation of responses and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland can effectively communicate the key insights and implications of the study. The chosen presentation methods should be tailored to the target audience and the specific research objectives

CHAPTER FOUR: RESULTS ANALYSIS, PRESENTATION AND DISCUSSION

4.1 RESPONSE

In this study, we are assessing the reactions to and recoveries from Cyclone Idai in Manicaland's Ward 22 Mutare district. The response rate for each of the used data gathering methods is displayed in the table below. There was a 100% response rate since all 50 people who received the questionnaire answered it. In a similar vein, 15 people were interviewed, and all of them took part, yielding a 100% response rate. This high response rate guarantees a thorough and representative data set for our analysis by demonstrating a significant degree of involvement and desire to offer feedback on the subject

Table 4.1: Response Rate for data collection methods utilised (n=65): Multiple responses

Method of data collection	Number of subjects covered	Response rate	% ge of response
Questionnaire	50	50	100
Interview	15	15	100

The response rates for the two data collection methods (interviews and questionnaires) utilised in a research project to assess the recoveries and responses from Cyclone Idai in the Ward 22 Mutare district of Manicaland are shown in the table 4.1 . With 50 respondents who completed the questionnaires as part of the study, the first technique had a 100% response rate. Nhamo and

Chikodzi (2022b) argues that the high response rate suggests that all 50 participants completed and returned the questionnaires, indicating a high degree of involvement and a willingness to participate in the study. With 15 people covered by the second approach (interviews), all of them participated as well, yielding a 100% response rate. This implies that all 15 individuals were questioned, resulting in extensive qualitative data for the research.

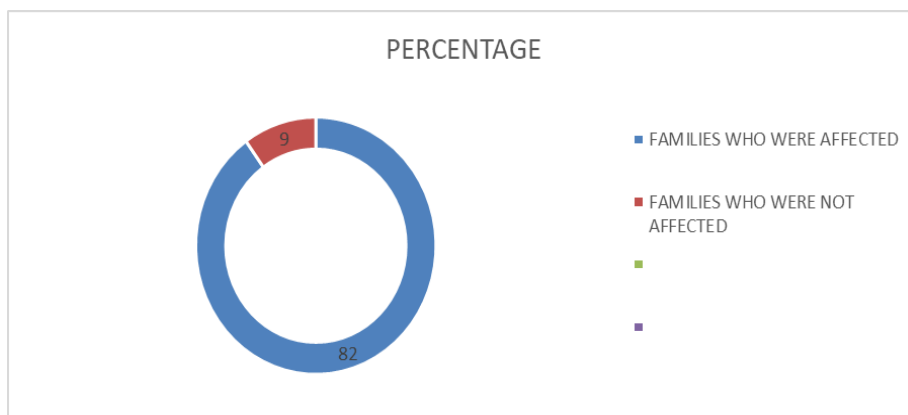
These high response rates are noteworthy because they show a high degree of participant cooperation and willingness, which guarantees that the data gathered using both approaches will be thorough and representative of the viewpoints and experiences of the cyclone-affected community. The 100% response rates for both data collection procedures are especially significant since they show that the chosen participants in the study participated fully and completely. With such high response rates, it is certain that the information gathered using these techniques will be trustworthy and useful for assessing Cyclone Idai's effects and the rehabilitation operations in Ward 22, Mutare District, Manicaland. The table shows that getting replies from the questionnaire and interview approaches was successful.

4.2 Number of families who were affected by the disaster

The table sheds light on how Cyclone Idai affected families in Manicaland's Ward 22, Mutare district. It shows that of the total number of families polled, nine families (18%) were not impacted by the cyclone, whereas 41 families (82%) were affected . Floodwaters left a large number of people stuck on rooftops and other raised structures. To locate and rescue these people, search and rescue teams used boats, life rafts, and other watercraft (Nhamo and Chikodzi, 2022) hence it can be argued that what he said tally with what the participants said. This information can help evaluate response and recovery operations and is essential for determining the extent of the cyclone's impact on the community. Given the large number of impacted families, it is imperative that comprehensive support and treatments be provided in order to facilitate the recovery of the community

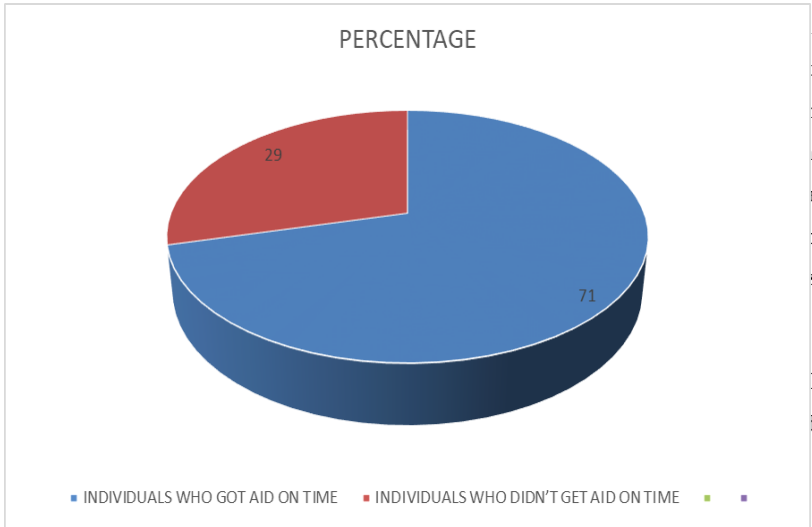
Table 4.2: Response Rate for number of families affected by the Cyclone (n=50)

	Number of families	%ge
Families who were affected	41	82
Families who were not affected	9	18



As shown in figure 4:2, the number of families impacted by Cyclone Idai in Manicaland's Mutare district's ward 22 is shown in the accompanying table. Out of the total number of households polled, 9 families (18%) were not impacted by the disaster, whereas 41 families (82%) were affected by the cyclone. The large number of households impacted by Cyclone Idai in the area under study is noteworthy and emphasises the disaster's wide-ranging effects. For these families, the cyclone probably resulted in a variety of difficulties and problems, such as property destruction, displaced people, loss of livelihoods, and other major disruptions. Notably, 18% of the families were lucky enough to escape the destructive effects of the cyclone, despite

the fact that 82% of them were directly impacted. This difference in impact can provide valuable



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4.3 PERCENTAGE OF FAMILIES WHO GOT BASIC AID

Table 4.3:Percentage of families who got basic aid on time (n= 41) Multiple Responses

	Number of families	Percentage %
Got aid on time	29	71
Didn't get aid on time	12	29

Table 4:3 provides crucial insights into the distribution of basic aid among families affected by Cyclone Idai in Ward 22, Mutare district, Manicaland. Disaster response refers to the actions taken by individuals, communities, organizations, and governments to address the immediate needs of those affected by Cyclone Idai. Nhamo and Chikodzi, (2021) argues that disaster recovery, on the other hand, refers to the long-term process of rebuilding and restoring communities, infrastructure, and livelihoods after cyclone Idai, the data reveals that out of the total families surveyed, 29 families (71%) received basic aid on time, while 12 families (29%) did not receive aid on time. Local authorities and emergency response teams worked tirelessly to locate and save affected individuals trapped or stranded due to the floods and landslides (Africa Yearbook Volume 16: Politics, Economy and Society South of the Sahara in 2019, 2020) also confirms with the above results . This information is critical for evaluating the responses and recoveries from the cyclone in the area. The high percentage of families that did not receive aid on time underscores potential gaps in the relief efforts and the need for more efficient and timely distribution of basic aid. It suggests that there were delays or shortcomings in the response operations, which may have hindered recovery efforts for a significant portion of the affected population. Additionally, the contrasting percentages between families who received aid on time and those who did not indicate the disparities in the distribution of relief, highlighting the urgency of addressing the shortcomings in the aid delivery process to ensure equitable and expedited support for all affected families. This data is crucial for informing future disaster response strategies and for addressing the challenges faced during the recovery process.

4.4 THE LOCALS' VIEWS ON THE ADEQUACY OF THE RESPONSE DURING CYCLONE IDAI

Discussions with residents were undertaken as part of the study assessing the reactions and recoveries from Cyclone Idai in Ward 22, Mutare district, Manicaland, to ascertain their opinions regarding the sufficiency of the responses and recoveries. The information acquired from these interviews provided light on the community's thoughts and experiences about the initiatives undertaken in the wake of the hurricane. Many residents voiced their displeasure with the

reaction and recovery efforts that followed Cyclone Idai being insufficient. The idea that the actions fell short of meeting the immediate and long-term requirements of the impacted populace was a common sentiment. Significant flaws included the delays in providing basic relief, which includes food, clean water, and shelter. Locals stated that the relief efforts took longer than expected, leaving many families vulnerable and struggling to cope in the aftermath of the disaster when one of the participant said:

"The region raises vegetables and animals, mainly goats and cattle, and engages in barter trading for limited-edition goods. They also trade pigs, goats, chickens, and natural fruit berries for safety during food insecurity."

Any further significant worry was the absence of infrastructure and resources to aid in the rehabilitation effort. One of the main complaints among the residents was the sluggish reconstruction of homes, schools, and other vital buildings. Many believed that the answers were insufficient to help their communities and lives return to normal. Access to medical services and healthcare has also become a major source of controversy. A number of residents emphasised how inadequate the medical response was, particularly in terms of controlling the spread of illnesses and tending to the injuries sustained during the storm. Insufficient availability of medical supplies and staff exacerbated the difficulties encountered by the community during the aftermath of the storm.

Concerns were also raised about the dearth of opportunities for sustainable livelihood and financial assistance. Locals noted that many people were left trying to restore their lives and find stable sources of income because the answers did not sufficiently address the loss of livelihoods and economic stability. The interviews make it clear that the residents of Ward 22, Mutare district, Manicaland, are quite concerned about the suitability of the responses and recoveries following Cyclone Idai. The critical need for better catastrophe planning, effective response systems, and ongoing support for long-term recovery efforts is highlighted by their collective feedback. These observations are crucial for determining which areas need to be addressed right

away and for developing future disaster management plans that will better assist and serve the impacted populations.

4.4.1 COMMUNITY VIEWS ON THE EFFECTIVENESS OF THE RESPONSES

A variety of viewpoints were voiced during the focus group talks about the efficacy of the responses and recoveries from Cyclone Idai that were held among the residents of Ward 22, Mutare area, Manicaland. Many viewpoints from the community members emerged throughout the intense discussion over the efficacy of the responses. Following the cyclone, many residents expressed their thanks for the quick relief efforts provided by government agencies, nonprofits, and other stakeholders. They agreed that some of the immediate problems encountered by the afflicted population had been lessened by the provision of relief such as food, clean water, and temporary housing. Some others also emphasised how quickly emergency services responded and how rescue teams were dispatched at the height of the crisis. Nhamo and Chikodzi, (2022) in his research also observed that emergency response teams, including trained rescue personnel, were deployed to the affected regions of Manicaland .

"They brought food, water, and blankets. But what struck me was the compassion and empathy they showed. They listened to our stories, offered words of comfort, and treated us with dignity. It was more than just aid; it was a reminder that we mattered, that our lives were valued. In the midst of devastation, that meant everything. I am overwhelmed with gratitude. The NGO's, government and other well wishers worked tirelessly to provide immediate relief. . They were on the ground quickly, rescuing people, and providing medical assistance. It was heartening to see the outpouring of support from local and international communities."

But in addition to the sentiments of thanks, the people also voiced several noteworthy complaints and reservations about the overall success of the responses and recoveries. Locals frequently

lamented the delays in providing help and support, citing instances in which vital supplies came late and exacerbated the challenges the community experienced in the immediate aftermath of the disaster.

"Regretfully, the government's reaction was insufficient and sluggish. Their attempts were haphazard and they appeared overburdened. We had the feeling that we were alone and abandoned. Frequently, their response was too little, too late, even when it did occur".

An integrated structure for inter-agency collaboration on policy and local implementation also appeared lacking. Local authorities, who were first responders after the cyclone made landfall, were not made visible at the onset of the response, despite being hard at work from community to council level. The affected councils were themselves unprepared. Local units of national government (coordinated by the DA) lacked the necessary capacity. Urban local authorities later mobilized their equipment and staff to open roads, and made food and material donations including blankets and clothes collected from their areas. This was partly in solidarity with the affected communities and councils, and also to demonstrate disaster response capacities. Cyclone Idai thus showed the limits of Zimbabwe's decentralization. Local authorities were not leading the response, and their sub-structures were also relatively invisible as national government led the response. The gaps identified in this paper are based on the notion that the public sector is the principal responder in disasters. Though most of the policy gaps identified predated the disaster, these gaps arose from delays in instituting the necessary reforms. They were exposed by the seriousness of the disaster and the manner in which the response was managed. In addition, a number of neighbourhood members voiced their displeasure with the responding agencies' lack of cooperation and communication. Reports surfaced of efforts in certain regions being duplicated, while other locations were left underserved. This lack of coordination contributed to inefficiencies and hindered the overall effectiveness of the response efforts.

"The lack of transparency and communication was alarming. We didn't know what aid was coming, when, or who was responsible for what."

The issue of infrastructure and resource limitations also featured prominently in the discussions. Locals emphasized that the capacity to rebuild homes, schools, and essential facilities was inadequate, resulting in prolonged challenges for the community. Chatiza, (2019) argues that the

slow progress in the restoration of infrastructure was seen as a barrier to the overall effectiveness of the recovery efforts.

The effectiveness of healthcare responses also drew attention, with concerns raised about the accessibility and quality of medical services. Locals highlighted challenges in accessing healthcare facilities, as well as shortages of medical supplies and personnel, which impacted the ability to address health-related issues arising from the cyclone.

Another recurring theme was the need for sustainable livelihood opportunities and economic support. Many locals felt that the responses fell short in addressing the loss of livelihoods and economic stability brought about by the cyclone, which affected the community's ability to recover and rebuild their lives.

While there was recognition of the efforts made in responding to Cyclone Idai, the interviews with locals in Ward 22, Mutare District, Manicaland, revealed a mixed perspective on the effectiveness of the responses and recoveries. The feedback provided valuable insights into the areas where improvements are needed, such as coordination, infrastructure development, healthcare provision, and economic support. These insights are essential for informing future disaster response strategies and ensuring that the needs of the community are adequately addressed in the aftermath of such catastrophic events.

4.4.2 WERE THE RESPONSE AND RECOVERIES ALIGNED WITH THE COMMUNITY

During the interviews conducted among the locals in Ward 22, Mutare District, Manicaland, regarding the alignment of the responses and recoveries from Cyclone Idai with the needs of the people, a range of views and opinions were expressed. The issue of whether the responses and recoveries were in line with the needs of the community prompted diverse perspectives and experiences from the local inhabitants.

Guha-Sapir, Santos and Borde, (2013d) argues that a common sentiment expressed by many locals was that while efforts were made to provide assistance and support, there were gaps in addressing the specific needs of the community. One recurring theme was the need for

sustainable housing solutions. Locals highlighted that the temporary shelters provided in the aftermath of the cyclone did not adequately address the long-term housing needs of the affected population. Many community members expressed a desire for more permanent, structurally sound dwellings and raised concerns about the timeliness and sufficiency of housing support .

“The temporary shelters were just a Band-Aid solution; We need homes built with durable materials, Sustainable housing solutions were a major gap. The temporary shelters provided were a short-term fix, but they didn’t address our long-term housing needs. We needed permanent, sturdy homes”

The availability and accessibility of clean water and sanitation facilities were also identified as critical needs that were not consistently met. Locals cited instances where the provision of clean water and sanitation infrastructure fell short, leading to challenges in maintaining basic hygiene and sanitation standards. The absence of adequate sanitation facilities posed health risks and compounded the difficulties faced by the community in recovering from the disaster.

Concerns were raised regarding the appropriateness of aid and support in addressing the nutritional needs of vulnerable groups, particularly children, elderly individuals, and pregnant women. Some locals expressed dissatisfaction with the availability and distribution of food supplies, emphasizing the importance of targeted assistance to ensure that the specific dietary requirements of these groups were met adequately (Steier and Patel, 2017) confirmed that in their research .

“The aid seemed to be a one-size-fits-all approach, without considering the unique needs of vulnerable groups. Pregnant women, for instance, require more protein and iron, while children need nutrient-dense foods for growth and development. The elderly have specific dietary needs due to health conditions or medication. We needed targeted assistance to ensure they received the right foods. We need more targeted and thoughtful assistance. Aid organizations should consult with local health experts and community members to understand our specific needs. Food supplies should be tailored to the dietary requirements of vulnerable groups, and distribution should prioritize those who need it most”

Oecd, Organization and Group, (2018) argues that the alignment of responses with the healthcare needs of the community was a significant area of debate. Many locals voiced concerns about the availability and accessibility of medical services, with reports of shortages of essential medications and healthcare professionals. The challenges in accessing healthcare facilities, especially in remote areas, were highlighted as a key factor in the extent to which the responses met the healthcare needs of the community .

The provision of educational support and resources to address the disruption caused by the cyclone was also a prominent concern among the locals. The impact of the cyclone on schools and educational infrastructure was noted, with community members stressing the importance of initiatives to ensure the continuity of education for children affected by the disaster.

“We felt that the response didn’t fully address the specific needs of students and educators. Many schools were damaged or destroyed, and temporary learning spaces were not always available or suitable. Children were out of school for months, and many fell behind in their studies. Some students, especially those in critical exam years, suffered significant setbacks.”

Many locals felt that the educational response did not fully cater to the specific needs of students and educators in the aftermath of the cyclone and this was similar to what (Tevera *et al.*, 2021) acknowledged in his research .The issue of livelihood support and economic recovery was a recurring theme in the discussions. Locals expressed a strong desire for sustainable livelihood .According to Tevera *et al.* (2021), residents believed that the educational response did not adequately address the unique requirements of teachers and pupils in the wake of the hurricane.A recurrent subject in the talks was the need for economic recovery and assistance for livelihoods. In order to restore their lives and communities, the locals indicated a great need for opportunities for sustainable livelihood and financial help. Chatiza (2019) also argues that they

underlined the need of programmes that would allow them to recover financial stability and reconstruct their lives, emphasising the necessity of community-specific solutions . People in Ward 22, Mutare District, Manicaland, were interviewed, and their opinions on whether Cyclone Idai's aftermath and reactions were consistent with the needs of the people. While there were commendations for the assistance provided, the interviews brought to light several areas where the responses did not fully align with the specific needs of the community. Davies, (2014) in his research states that the insights provided by the locals offer valuable guidance for future disaster recovery efforts, emphasizing the importance of responsive, community-centric approaches that address the unique needs of affected populations in the aftermath of such devastating events.

4.4.3 DID THE CYCLONE HAVE IMPACTS ON THE ENVIRONMENT AND DAILY ACTIVITIES

Following interviews conducted among the locals in Ward 22, Mutare district, Manicaland, regarding the impacts of Cyclone Idai on the community, it was evident that the cyclone had significant effects on the environment and daily activities, particularly agriculture.

“Agriculture is our livelihood, and the cyclone devastated our crops and farmland. We lost our entire harvest, and our fields were left barren. The cyclone devastated our environment and agricultural land. We lost crops, livestock, and trees, which were our livelihood.”

The cyclone's impact on the environment and agriculture was a pressing concern that was voiced by many community members (De Satgé and Watson, 2018) mentioned in his research. The cyclone had a devastating effect on the environment, leading to widespread destruction of vegetation, deforestation, and soil erosion. The force of the cyclone's winds and heavy rainfall resulted in the uprooting of trees, loss of vegetation cover, and in some cases, landslides. (Chanza, 2020) argues that the resultant damage to the natural environment not only altered the landscape but also had long-term implications for soil fertility, water retention, and biodiversity.

Chatiza (2019) added that in terms of agriculture, which is a vital aspect of the community's daily activities and a major source of livelihood, the impact of Cyclone Idai was profound. The cyclone caused extensive damage to crops, particularly staple food crops such as maize, rice, and vegetables. Many farms and fields were inundated, leading to the destruction of crops and

agricultural infrastructure. The flooding and waterlogging that ensued from the cyclone also hampered agricultural activities, making it difficult for farmers to engage in planting, cultivating, and harvesting their crops .

The cyclone's impact on agriculture had far-reaching consequences for food security and the local economy. The destruction of crops not only meant diminished access to food for the community but also disrupted the agricultural supply chain, affecting trade and market activities. Moreover, the loss of agricultural produce had economic implications for local farmers, as it impacted their income and ability to sustain their families. The cyclone also created challenges in terms of post-disaster recovery and rebuilding agricultural capacity, as the affected farmers faced difficulties in securing the necessary resources and support to resume their farming activities .

In addition to the immediate agricultural impact, the cyclone also had implications for long-term agricultural productivity. The soil erosion and loss of topsoil resulting from the cyclone's impact on the environment posed challenges to the sustainability of agricultural practices. It necessitated measures to address soil conservation and land rehabilitation to restore the fertility and productivity of the land as published by Chatiza(2019).

The discussions with locals highlighted the need for targeted interventions and support to address the environmental and agricultural implications of the cyclone:

“We need support to restore our environment and agricultural land. This includes cleaning and restoring water sources, providing seeds and tools for farmers, and replanting trees. We also need training and resources to adapt to climate change and mitigate future disasters”.

Agricultural rehabilitation and livelihood support were crucial for long-term recovery. Programs were implemented to provide farmers with seeds, tools, and training to help them restart agricultural activities. Livestock restocking programs and support for income-generating projects were also initiated to enhance the economic recovery of the affected communities (Tevera, et al., 2021). Community members expressed the importance of initiatives aimed at environmental restoration, reforestation, and soil conservation to mitigate the cyclone's impact on the natural environment. Additionally, there was a call for assistance in rebuilding agricultural infrastructure, providing resources for crop replanting, and imparting knowledge on resilient farming

techniques to bolster the community's agricultural resilience in the face of future natural disasters .

The interviews among the locals in ward 22, Mutare district, Manicaland, underscored the significant impact of Cyclone Idai on the environment and daily activities like agriculture. The cyclone's effects on the environment, particularly the destruction of vegetation and soil erosion, had implications for the sustainability of agricultural practices and the overall well-being of the community. The insights gleaned from the interviews provide valuable input for the development of targeted interventions and strategies to address the environmental and agricultural impact of the cyclone, emphasizing the need for sustainable measures to restore the environment and support the recovery of agricultural activities in the community .

4.4.4 WHAT ARE THE FACTORS THAT AFFECTED THE RESPONSES AND RECOVERIES IN WARD 22

The reactions to and recovery from a cyclone such as Idai in Ward 22 Mutare District Manicaland can be influenced by a number of factors. Among these are a few of these elements:

a) Geographical location: According to Proverbs and Brebbia (2016), Ward 22's precise position within Manicaland had an impact on the cyclone's strength and emergency response teams' accessibility.

b) Infrastructure: The condition of the region's roads, bridges, and buildings has an impact on the effectiveness and speed of response operations as well as the capacity for rapid recovery (Chatiza 2019) also observed that in their research .

c) Socioeconomic status: Ward 22 people' capacity to anticipate disasters and recover from their aftermath was influenced by their socioeconomic standing. Lower income earners could find it difficult to reconstruct their communities and lives

d) Government response: (Medicine *et al.*, 2017) observed in his research that the effectiveness of the government's response to the cyclone, including the timeliness of relief efforts and the distribution of resources, greatly impacted the outcomes for residents in Ward 22 .

e) Community preparedness: The level of preparedness within the community, including early warning systems, evacuation plans, and access to resources, played a significant role in the responses and recoveries from a cyclone like Idai

f) Environmental factors: The natural environment in Ward 22, such as the presence of floodplains or deforestation, impacted the severity of the cyclone's impact and the ability to recover from it (*Cyclone Idai: Stories and Poems Behind Idai*, 2019).

g) Social cohesion: the level of social cohesion and community cooperation within Ward 22 influenced the ability of residents to come together and support each other during the recovery process

h) Access to healthcare: The availability of healthcare services and support in Ward 22 impacted the ability of residents to recover from injuries and illness caused by the cyclone

i) Media coverage: The level of media coverage and public awareness about the cyclone influenced the amount of support and resources that are directed towards Ward 22 for recovery efforts.

j) Climate change: The impact of climate change on the frequency and intensity of cyclones like Idai also affected the responses and recoveries in Ward 22, potentially making future disasters even more challenging to overcome.

CHAPTER FIVE: CONCLUSIONS AND RECOMENDATIONS

5.1 Conclusions

A number of critical findings and relief to those affected by the tragedy, demonstrating a rapid and well-coordinated initial reaction to Cyclone Idai (Devi, 2019). In order to meet the immediate needs of the impacted population, it was imperative that temporary shelters be established, food and water be distributed, and medical aid be provided (Devi, 2019). Future disaster responses must address the various shortcomings and difficulties found in the current response attempts.

However, there were significant gaps and obstacles in the response operations that must be addressed in future disasters. One of the major issues noted was a lack of effective communication and coordination among various response agencies, which resulted in duplication of efforts and confusion among beneficiaries (Megersa and Woldetsadik, 2022). This lack of cooperation also caused delays in the distribution of relief supplies, with some towns receiving aid later than others (Megersa and Woldetsadik, 2022). The review also emphasised the significance of community resilience and preparedness in the aftermath of disasters like Cyclone Idai (Woldetsadik, 2022). Early warning systems, disaster management committees, and evacuation preparations were found to be more effective in mitigating the impact of the disaster. This underscores the importance of investing in community capacity-building programs and disaster risk reduction initiatives to enhance local resilience and reduce vulnerability to future disasters as argued by (Woldetsadik, 2022).

Another major finding from the review was the need of addressing the long-term recovery needs of Cyclone Idai-affected communities. While emergency relief efforts were critical in meeting the impacted population's immediate needs, long-term support is required in areas such as livelihood restoration, infrastructure repair, and psychosocial support (De Satgé and Watson, 2018). Many people in Ward 22 lost their homes, crops, and livelihoods as a result of the cyclone and are now battling to recover (De Satgé and Watson, 2018).

The assessment conducted in Ward 22, Mutare District, Manicaland, following Cyclone Idai, brought to light the significance of a multifaceted approach to disaster management, which

includes initiatives to build community resilience, timely and coordinated response efforts, and long-term recovery support. We can ensure that impacted communities are able to recover and rebuild in a sustainable and resilient manner by taking lessons from Cyclone Idai's experiences and applying them to future disaster preparedness (De Satgé and Watson, 2018). In Ward 22, Mutare District, Manicaland, an assessment of the reactions to and recoveries from Cyclone Idai brought to light the necessity of better risk communication and community involvement tactics. It was observed that a large number of community people lacked knowledge about the possible effects of the cyclone and time to prepare for the disaster (De Satgé and Watson, 2018). Moving forward, it is essential for response agencies to work closely with communities to raise awareness about disaster risks, build local capacity for early warning systems, and ensure that communication channels are in place to reach all community members, including vulnerable populations such as the elderly and people with disabilities.

The evaluation emphasised the significance of inclusivity and equity in catastrophe responses. Certain marginalised populations in Ward 22, including as women, children, and persons with disabilities, encountered unique barriers to receiving relief and recovery support (Charrua et al., 2021). This underlines the importance of tailoring response operations to meet the needs of all community members, ensuring that no one is left behind in the aftermath of a disaster. Increasing different groups' engagement in decision-making processes and include marginalised voices in recovery planning are critical steps towards constructing a more equitable and resilient community (Gumbo et al., 2021).

Finally, the review emphasised the importance of environmental, social, and economic elements in determining disaster outcomes. Cyclone Idai not only destroyed property and killed people, but it also worsened Ward 22's underlying vulnerabilities and inequalities (Couasnon et al., 2020). The storm underscored the importance of a comprehensive strategy to disaster management that targets the underlying causes of vulnerability, such as poverty, inadequate infrastructure, and environmental degradation. Communities can better plan for and respond to future catastrophes by using an integrated approach that incorporates the social, economic, and environmental elements of disaster risk. This will reduce the total impact on lives and livelihoods. The examination of the responses and recoveries after Cyclone Idai in Ward 22, Mutare District, Manicaland, offered useful insights into the strengths and weaknesses of current disaster

management practices and highlighted key areas for improvement (Nhamo and Chikodzi, 2022). By learning from the experiences of Cyclone Idai and implementing the recommendations outlined in the evaluation, communities can enhance their resilience to future disasters, protect the most vulnerable members of society, and work towards building a more sustainable and equitable future (Brears, 2023).

5.2 PROJECT RECOMMENDATIONS

5.2.1 Conduct a comprehensive needs assessment.

One essential proposal for the inhabitants experience as a result of Cyclone Idai's devastation. This could entail analysing their access to safe drinking water, food, shelter, medical care, and other basic necessities. By performing a thorough needs assessment, researchers can get useful insights into the exact areas where support and help are most urgently required (Nhamo and Chikodzi, 2021).

To gain a comprehensive picture of the reality on the ground, the needs assessment should include a variety of methodologies, including surveys, interviews, focus group discussions, and observations (*Mental health and climate change policy brief, 2022*). Researchers should collaborate extensively with local community leaders, relief agencies, and government officials to ensure that the assessment is thorough and accurate. Furthermore, it is critical to include affected communities in the evaluation process to ensure that their views are heard and their needs are properly met (Nhamo and Dube, 2021). The needs assessment findings can help create and implement targeted relief and recovery actions in Ward 22. By getting a good grasp of the specific requirements of the impacted people, assistance organisations, aid agencies and local authorities can better tailor their interventions to meet the most pressing needs and support the community in their recovery from the cyclone (Bohr and Memarzadeh, 2020).

5.2.2 Clear funding for disaster risk assessments

Clear funding for disaster risk assessments and analyses within an integrated framework, drawing on scientific evidence and indigenous knowledge to better understand and reduce disaster risks.

5.2.3 Finalizing the DRM policy, legislation and organizational structures

based on the Constitution, the Sendai Framework and relevant local experiences (e.g. Cyclone Idai and those from other jurisdictions).

5.2.4 Capacity building

Programmatic ideas revolve around supporting the establishment and capacity development of devolved DRM structures that are able to generate, analyse and communicate relevant DRM information, conduct participatory needs assessments, implement responses and document experiences.

5.2.5 Assess the effectiveness of the institutions involved in disaster management

In the context of Cyclone Idai experiences, institutional arrangements that place local authorities in a clear leadership role in coordinating sector and inter-sector DRM, from policy making to planning through to implementation and evaluation, are critical. A balance is needed between infrastructure and capacity development of relevant institutions.

5.2.6 The need to invest in adaptive and resilience building

There is a need to invest in adaptive and resilience building measures with a view to protecting the most vulnerable groups, women and children, including investments in disaster risk reduction in the form of early warning systems and early action; climate adaptation investments for key value chains; resilience investments for infrastructure; social protection; and recovery measures for the most vulnerable groups to bounce back from climatic shocks

5.2.7 Assess the Effectiveness of Emergency Response Efforts

Another significant proposal for the study is to evaluate the effectiveness of local and international humanitarian groups' emergency response efforts in providing relief and assistance to the impacted communities in Ward 22. This assessment should look at the timeliness, coordination, and impact of response operations in meeting the immediate needs of communities following Cyclone Idai (Bowen et al., 2020). Researchers should look into critical aspects of the response efforts, such as the distribution of emergency supplies, medical help, shelter support, and information dissemination to affected residents. By analysing the strengths and limitations of emergency response, researchers can find areas for improvement and give recommendations to improve future disaster response efforts (Medicine et al., 2020).

When evaluating the success of an emergency response, researchers should examine the opinions of various stakeholders, such as assistance agencies, government officials, community leaders, and affected residents. This multi-dimensional approach can provide a thorough picture of Ward 22's overall response to Cyclone Idai, as well as highlight opportunities for improved stakeholder coordination and collaboration (FitzGerald et al., 2016). Researchers should think about the long-term viability of response activities and how they will affect community rehabilitation. By examining not only the initial response but also the continuous support offered to people in Ward 22, researchers can ensure that the community's requirements are satisfied in the aftermath of the cyclone (Kumar, Zindani and Davim, 2021).

5.2.8 Evaluate the Role of Community-Based Organizations

Evaluate the involvement of community-based organisations (CBOs) and volunteers in giving support and assistance to Ward 22 residents affected by Cyclone Idai. CBOs play an important role in disaster response and recovery efforts because they are frequently well-connected with the local community and can give targeted assistance to vulnerable people (Tiedenbacher, 2013). Researchers should evaluate the activities and impact of CBOs in Ward 22, including their ability to mobilise resources, coordinate relief efforts, and interact with affected residents. By

examining the performance of CBOs in responding to Cyclone Idai, researchers can discover best practices, obstacles, and potential for increasing the role of community organisations in future catastrophe scenarios (Saarinen, Fitchett, and Hoogendoorn, 2022).

Researchers should look on partnerships and collaborations between CBOs, relief agencies, government officials, and other stakeholders in the response and recovery process. Understanding how different actors collaborate to support the community allows researchers to give recommendations for improving coordination and collaboration among the many groups participating in disaster response activities (Timothy, 2023). When assessing the function of CBOs, researchers should consider the long-term impact of their operations on the community's resilience and capability to adapt to future crises. By acknowledging the work of CBOs and volunteers, researchers may help leverage local resources and skills in developing a more resilient and empowered community in Ward 22. (Karácsonyi, Taylor & Bird, 2020).

5.2.9 Evaluate the Mental Health and Psychosocial Support (MHPSS) Services

An assessment of the mental health and psychosocial support (MHPSS) services provided to the affected community is an important component of the research on evaluating Cyclone Idai reactions and recoveries in Ward 22, Mutare District, Manicaland. The emotional and psychological impact of a natural disaster like Cyclone Idai can have long-term consequences for individuals and communities, making it critical to assess the success of existing MHPSS programmes (Almonte, 2021). Researchers should determine the availability and accessibility of mental health services in Ward 22, such as counselling, therapy, and support groups. They should also assess if these programmes are culturally appropriate and fulfil the specific requirements of the cyclone-affected population. By conducting interviews and focus group discussions with community members, mental health practitioners, and aid workers, researchers can gain insight into the impact of the disaster on mental health and the effectiveness of the support services provided (Almonte, 2021).

Researchers should assess capacity-building initiatives targeted at empowering community members to support one another's mental health and well-being. This could entail training community leaders, volunteers, and healthcare staff in psychosocial assistance and mental health first aid. Researchers can determine the impact of these empowerment programmes in building resilience and recovery in Ward 22 by measuring the level of community engagement in

addressing mental health problems (*Human Resource Management and Mental Health-A Psychosocial Aspect, 2021*). Researchers should look into the stigma around mental health concerns in the community and how it affects the use of MHPSS. Researchers can assist establish a friendly atmosphere for persons in need of psychological support by reducing stigma and raising mental health awareness cyclone Idai.

5.2.10 Monitor and Evaluate the Long-Term Recovery and Reconstruction Efforts

Another essential recommendation for the study is to monitor and assess the long-term recovery and reconstruction efforts in Ward 22 following Cyclone Idai. While rapid relief activities are critical in the aftermath of a disaster, long-term recovery and rebuilding initiatives are equally important for community recovery and resilience building. Researchers should monitor the progress of recovery and reconstruction efforts in Ward 22, such as infrastructure, housing, and livelihood repairs. They should also assess the efficacy of livelihood assistance programmes, community development efforts, and economic recovery projects intended at improving the socioeconomic well-being of the impacted community. Tracking the progress of these programmes over time allows academics to identify problems, triumphs, and lessons learned that can improve future disaster recovery efforts (*Human Resource Management and Mental Health-A Psychosocial aspect, 2021*).

Researchers should consult with stakeholders such as community members, local authorities, relief agencies, and government officials to gain a variety of perspectives on Ward 22's long-term rehabilitation. Researchers can guarantee that the evaluation is comprehensive and reflects the community's interests and concerns by including the opinions of various stakeholders (Nhamo and Chikodzi, 2021). Researchers should evaluate the viability of recovery initiatives and their impact on community resilience to future disasters. By assessing the long-term effects of recovery and reconstruction initiatives, researchers can identify areas where more support and resources may be needed to enable the sustainable recovery of Ward 22 in the aftermath of Cyclone Idai (Nhamo and Chikodzi, 2021).

5.2.11 Promote Community Participation and Empowerment in the Recovery Process

Encourage community engagement and empowerment during the recovery process in Ward 22. Engaging community members in decision-making, planning, and implementation of recovery initiatives can improve intervention effectiveness and sustainability while also instilling a sense of community ownership and resilience (Nhamo and Chikodzi, 2021). Researchers should organise community consultations, participatory evaluations, and feedback systems to ensure that Ward 22 inhabitants' perspectives are heard and included in recovery planning and execution. By including community members in the design and execution of recovery programmes, researchers may guarantee that interventions are tailored to local needs, priorities, and cultural contexts. Researchers should empower community leaders, volunteers, and local organisations to actively participate in driving the recovery process.

Initiatives that encourage cooperation, solidarity, and social cohesion among Ward 22 residents should be supported by researchers. Following the devastating effects of Cyclone Idai, researchers can contribute to the creation of a supportive environment that promotes healing, recovery, and long-term resilience by developing strong social networks and relationships within the community (Nhamo and Chikodzi, 2021).

5.2.12 Strengthen Disaster Risk Reduction (DRR) Strategies and Preparedness

Strengthening disaster risk reduction (DRR) plans and preparedness measures is another crucial recommendation from the research on evaluating reactions and recoveries from Cyclone Idai in Ward 22. Reducing vulnerabilities and strengthening the community's ability to endure and recover from future hazards are key components of a proactive strategy to building resilience to natural disasters like Cyclone Idai (Nhamo and Chikodzi, 2021). The success of DRR programmes in Ward 22, such as risk assessments, early warning systems, emergency action plans, and community training programmes, should be evaluated by researchers. Researchers can find possibilities and gaps to improve the community's resilience to future disasters by assessing the degree to which DRR techniques are integrated into local development planning and decision-making processes (Nhamo and Chikodzi, 2021). Researchers ought to work together

with local authorities, disaster management agencies, and community organizations to develop and implement context-specific DRR interventions that address the unique vulnerabilities and challenges faced by Ward 22.

To guide targeted interventions that prioritise the most at-risk persons and places, this may entail carrying out hazard mapping exercises, vulnerability assessments, and community-based risk assessments (Nhamo and Chikodzi, 2021). Researchers ought to investigate novel strategies for constructing resilience, like climate-smart agriculture, green infrastructure, and nature-based solutions, as these can improve the community's ability to adapt and lessen its vulnerability to calamities in the future. Researchers can lessen the effects of climate change and natural disasters on Ward 22 and foster long-term resilience and sustainability in the face of upcoming difficulties by supporting ecologically friendly and sustainable DRR strategies (Nhamo and Chikodzi, 2021).

5.2.13 Foster Partnerships and Collaboration among Stakeholders

Last but not least, fostering partnerships and collaboration among stakeholders participating in the emergency and recovery operations in Ward 22 following Cyclone Idai is an important suggestion for the research. A coordinated, multi-sectoral approach that makes use of the assets and strengths of various stakeholders is necessary to address the intricate and linked problems posed by natural disasters and assist community recovery and resilience-building (Nhamo and Chikodzi, 2021). To provide a thorough and integrated response to Ward 22's requirements, researchers should promote communication and cooperation amongst government agencies, non-governmental organisations, international assistance agencies, academic institutions, private sector partners, and community-based organisations. Researchers can support the optimisation of the efficacy and efficiency of interventions and prevent duplication of effort in the recovery process by encouraging cross-sectoral collaboration and information sharing.

Researchers ought to back capacity-building programmes that bolster local stakeholders' abilities, resources, and knowledge so they can work together to plan, organise, and carry out recovery

operations. Researchers can improve the durability and efficacy of recovery programmes in Ward 22 by enabling varied actors to collaborate towards shared objectives (Gumbo et al., 2021). It is imperative for researchers to champion the cause of marginalised and vulnerable populations, including women, children, the elderly, and people with disabilities, and to guarantee that their perspectives are acknowledged and valued during the decision-making process. In the wake of Cyclone Idai in Ward 22, researchers can contribute to addressing gaps and fostering social equity and justice by supporting inclusive and participatory approaches to recovery and resilience-building (Gumbo et al., 2021).

Researchers can contribute to a thorough and holistic understanding of the opportunities and challenges for improving disaster resilience and recovery in the community by incorporating these specific recommendations into the research on evaluating responses and recoveries from Cyclone Idai in Ward 22 (Gumbo et al., 2021). Researchers can contribute to the development of evidence-based interventions and policies that support Ward 22's long-term recovery and resilience-building after Cyclone Idai by bolstering disaster risk reduction strategies, encouraging partnerships and collaboration among stakeholders, evaluating mental health and psychosocial support services, monitoring long-term recovery efforts, and encouraging community participation and empowerment. Through cooperative and multidisciplinary efforts, the research can help create a community that is more sustainable, inclusive, and resilient—better able to endure and recover from future natural disasters

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RESEARCH TOOLS

APPENDIX A:INTERVIEW GUIDE FOR THE KEY INFORMANT

Please note information given to this paper will be used for academic purposes only .The respondent's information shall be kept confidential and names of respondents will remain anonymous. Your cooperation will be highly appreciated.

SECTION A: Efforts made by the organization towards the wellbeing of the survivor of cyclone.

Have you been involved in disaster relief if yes, what type of disaster relief did you provide to the victims of cyclone?

What was your contribution towards the psychological wellbeing of the victims of cyclone?

Have you been involved in the response and recovery stage, if yes what were your efforts

Most of the survivors of cyclone were suffering from mental illness, what type of interventions you undertook towards their mental issues

Section B: Strategies that has been employed in the response and recovery to help the survivors of cyclone Idai

Cyclone left the survivors vulnerable, what has been done to improve livelihoods, food security and nutrition of the survivors of cyclone?

What criteria did you use to prioritize the needs of the victims

What strategies are taken to improve health services and people' psychological problems.

WHAT ARE THE FACTORS THAT AFFECTED THE RESPONSES AND RECOVERIES IN WARD 22?

WERE THE RESPONSE AND RECOVERIES ALIGNED WITH THE COMMUNITY NEEDS?

APPENDIX B: QUESTIONNAIRES FOR THE HOUSEHOLD HEADS

SECTION A: DEMOGRAPHIC INFORMATION

Demographic Information

1.Ages 18-24 25-34 35-44 45 +

2.Gender: Male Female

3.Marital status: Single Married Divorced Widowed

4. Academic qualifications: Primary education Secondary education

College/ University

SECTION B

1. Were you residing in ward 22, Mutare district during cyclone Idai?

a) Yes	
b) No	

2. Were you directly impacted by cyclone Idai in ward 22?

a) Yes	
b) No	

3. How would you rate the timeliness and effectiveness of the emergency response efforts in ward 22 following cyclone Idai?

a) Very effective	
b) Effective	
c) Neutral	
d) Ineffective	
e) Very ineffective	

4. Were you aware of the evacuation procedures and emergency shelters set up during cyclone Idai in ward 22?

a) Yes	
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b) No	
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5. Did you receive adequate support (food, water, medical aid) during the emergency response phase in ward 22 after cyclone Idai?

a) Yes	
b) No	

6. In your opinion, were the recovery efforts in ward 22 effective in assisting the community after cyclone Idai?

a) Very effective	
b) Effective	
c) Neutral	
d) Ineffective	
e) Very ineffective	

7. What specific assistance did you receive during the recovery phase in ward 22 after cyclone Idai?

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8. Have you noticed any lasting impacts on the physical infrastructure in ward 22 as a result of cyclone Idai (e.g. damaged buildings, roads, etc.)?

a) Yes	
b) No	

9. How do you believe the environment in ward 22 was affected by cyclone Idai (e.g. impact on forests, water sources, etc.)?

a) Severely affected	
b) Moderately affected	
c) Slightly affected	
d) Not affected	

10. Do you think adequate measures have been taken by authorities to address the impact of the cyclone on physical infrastructure and the environment in ward 22?

a) Yes	
b) No	

11. What do you think could be improved upon in future disaster response and recovery efforts in ward 22 based on your experience during cyclone Idai?

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12. Overall, how would you rate the effectiveness of the response and recovery efforts in ward 22 following cyclone Idai?

a) Very effective	
b) Effective	
c) Neutral	
d) Ineffective	
e) Very ineffective	

APPENDIX C: FOCUS GROUP DISCUSSIONS FOR THE SURVIVORS OF CYCLONE IDAI.

SECTION A: DEMOGRAPHIC CHARACTERISTICS DATA

1. How old are you
2. What is your gender?
3. What is your race and ethnicity?

4. How many people live in your home?
5. What is your marital status?
6. What is the highest level of education you have completed?

SECTION B: WATER AND SANITATION AFTER DISASTER

1. What is the current water source for domestic use?
2. Is water for domestic use treated?
3. What is the current sanitation option?

SECTION C: HEALTH

1. What disorders experienced after cyclone Idai?
2. What challenges did you face in accessing health services?
3. Did you face any form of violence if yes, what was it.?
4. Who linked you with health services?
6. How has the disaster affected your health?

SECTION D: FOOD AND SHELTER

1. How has the disaster affected the different sources of food?
2. Where did you get food staffs during and soon after disaster?
3. Which NGOs helped you with food staff during and after cyclone?
4. Which type of food were you given?

DID THE CYCLONE HAVE IMPACTS ON THE ENVIRONMENT AND DAILY ACTIVITIES LIKE AGRICULTURE?