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# About the Journal

## JOURNAL PURPOSE

The purpose of the *Ngenani - Zimbabwe Ezekiel Guti University Journal of Community Engagement and Societal Transformation Review and Advancement*, is to provide a forum for community engagement and outreach.

## CONTRIBUTION AND READERSHIP

Sociologists, demographers, psychologists, development experts, planners, social workers, social engineers and economists, among others whose focus is on community development.

## JOURNAL SPECIFICATIONS

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## SCOPE AND FOCUS

The journal is a forum for the discussion of ideas, scholarly opinions and case studies of community outreach and engagement. Communities are both defined in terms of people found in a given locale and defined cohorts, like the children, the youth, the elderly and those living with a disability. The strongest view is that getting to know each community or sub-community is a function of their deliberate participation in matters affecting them by the community itself. The journal is produced bi-annually.

# Guidelines for Scholars for the Journal

Articles must be original contributions, not previously published and should not be under consideration for publishing elsewhere.

**Manuscript Submission:** Articles submitted to the *Ngenani - Zimbabwe Ezekiel Guti University Journal of Community Engagement and Societal Transformation* are reviewed using the double-blind peer review system. The author's name(s) must not be included in the main text or running heads and footers.

**A total number of words:** 5000-7000 words and set in 12-point font size width with 1.5 line spacing.

**Language:** British/UK English

**Title:** must capture the gist and scope of the article

**Names of scholars:** beginning with the first name and ending with the surname

**Affiliation of scholars:** must be footnoted, showing the department and institution or organisation.

**Abstract:** must be 200 words

**Keywords:** must be five or six containing words that are not in the title

**Body:** Where the scholars are more than three, use *et al.*,

Italicise *et al.*, *ibid.*, words that are not English, not names of people or organisations, etc. When you use several scholars confirming the same point, state the point and bracket them in one bracket and ascending order of dates and alphabetically separated by semi-colon e.g. (Falkenmark, 1989, 1990; Reddy, 2002; Dagdeviren and Robertson, 2011; Jacobsen *et al.*, 2012).

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# LESSONS FROM CYCLONE IDAI FOR EFFECTIVE DISASTER MANAGEMENT IN CHIMANIMANI, ZIMBABWE

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## Abstract

*This study proffers some practical and research-based recommendations to the identified disaster management bottlenecks and lays out solutions to enhance future community disaster management and resilience strategies. The research followed an exploratory sequential design, targeting various key stakeholders who took part in the Cyclone Idai disaster management. A sample size of 57 respondents was selected using purposive and cluster sampling methods. Data were collected through questionnaires and interviews. Quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) version 23.0, whereas qualitative data were analysed using the thematic content analysis. Findings indicated that incompetent governance and administrative systems, lack of coordination and weak enforcement contributed to vulnerability. Furthermore, the study revealed that gender insensitivity marginalised women in decision-making, inadequate training and limited access to early warnings, among others, had all compromised preparedness and disaster management of the Cyclone Idai in Chimanimani District.*

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*Therefore, recommendations proffered include: strengthening governance, addressing poverty and inequalities, integrating gender-sensitive approaches, enhancing training of community members and local authorities, improving communication and early warning systems and establishing well-equipped safety centres.*

**Keywords:** *disaster, disaster-response, resilience, early-warnings, cyclone.*

## INTRODUCTION

Being inspired by the scale of devastation caused by Cyclone Idai, the study was aimed at identifying vulnerability challenges affecting communities in disaster in Chimanimani District in Zimbabwe. The magnitude of Cyclone Idai was unprecedented in Zimbabwean history and required the level of preparedness of the region's disaster response system to be equal to the task. Cyclone Idai, a catastrophic natural disaster that struck the district of Chimanimani in Zimbabwe, stands as a stark reminder of the urgent need for effective disaster management strategies in vulnerable regions (Chatiza, 2019). This study aims to shed light on the factors that contribute to the vulnerability of Chimanimani in the face of cyclones, drawing valuable lessons from the impacts and aftermath of Cyclone Idai. By examining the socio-economic, environmental and governance aspects, the inquiry aimed at providing insights that can inform policy interventions and enhance disaster resilience in Chimanimani.

## THEORETICAL FRAMEWORK

The theoretical framework premising this study was grounded in the Vulnerability Theory proposed by Wisner *et al.* (2004). This theory provides a comprehensive understanding of the factors that contribute to the vulnerability of communities and individuals in the face of natural disasters. It recognises that vulnerability is influenced by social, economic, environmental and institutional factors and considers it as a multidimensional concept shaped by various drivers (Kohn, 2014). In the context of this study, the theory helped the researchers to

identify the risk factors that make the Chimanimani community susceptible to cyclone-induced disasters and informed the development of effective disaster management strategies.

The theoretical framework incorporates key components of the Vulnerability Theory, including exposure, sensitivity, adaptive capacity, root causes and resilience (Adger, 2006). It examines the physical exposure of the Chimanimani community to cyclones and the resulting impacts on infrastructure and well-being. It explores the socio-economic conditions and demographic characteristics that influence their sensitivity to disasters. It assesses the existing adaptive capacity of the community and identifies opportunities for improvement. It investigates the root causes of vulnerability, such as poverty, inequality and governance issues. Finally, it explores strategies to enhance the resilience of the community through capacity building, early warning systems and community participation.

The application of the Vulnerability Theory to this study provides a robust framework for understanding and addressing the vulnerabilities faced by the Chimanimani community in disaster management. It offered valuable insights into the complex interactions between social, economic and environmental factors and informed the development of targeted recommendations to enhance resilience and reduce vulnerability.

## **LITERATURE REVIEW**

Cyclone Idai made landfall on March 14, 2019, bringing torrential rains, strong winds and widespread destruction to several countries in Southern Africa (Chanza *et al.*, 2020 and Munsaka *et al.*, 2021). In Zimbabwe, the Chimanimani district bore the brunt of the recent disaster, experiencing catastrophic flooding, landslides and extensive infrastructure damage. The cyclone resulted in the loss of hundreds of lives, displaced thousands of people and caused extensive damage to



homes, schools, healthcare facilities and critical infrastructure (Dube *et al.*, 2021 and Munsaka, *et al.*, 2021). The scale of devastation was unprecedented, exposing the vulnerabilities and weaknesses of the region's disaster management systems.

In the wake of Cyclone Idai, it became increasingly apparent that Chimanimani District's vulnerability to such catastrophic events was not solely a consequence of natural forces, but was also significantly influenced by underlying socioeconomic factors (Chari *et al.*, 2021; Chatiza, 2019; Chikodzi *et al.*, 2021). This realisation underscored the need for a more comprehensive approach to understanding and addressing disaster risk in the region.

The present research sought to delve deeper into these socioeconomic determinants of vulnerability and their complex interplay with disaster management mechanisms in Chimanimani. Adopting a holistic perspective, the study aimed to uncover the multifaceted drivers of the community's susceptibility to the devastating impacts of Cyclone Idai.

Poverty, a prevailing issue in Chimanimani, plays a critical role in exacerbating vulnerability to cyclones (Dube *et al.*, 2021 and Munsaka *et al.*, 2021). The district has a high poverty rate, with many households lacking the necessary resources to adequately prepare for and recover from disasters. Poverty limits access to basic services, such as healthcare, education and housing that are crucial in building resilience and responding effectively to cyclonic events. Moreover, poverty often leads to inadequate housing conditions, with a significant number of homes lacking structural integrity and highly susceptible to damage during extreme weather events (Chari, *et al.*, 2021; Chatiza, 2019 and Chikodzi *et al.*, 2021).

In addition to poverty, inadequate infrastructure poses a significant challenge in the face of cyclones. Chimanimani's remote and rugged

terrain, characterized by steep slopes and valleys, hinders the construction of robust infrastructure (Chatiza, 2019). The district's road networks, bridges and communication systems are particularly vulnerable, making it difficult for emergency services and relief efforts to reach affected areas promptly (Chari *et al.*, 2021). Limited access to reliable communication channels further hampers the dissemination of early warnings and evacuation instructions, impeding the ability of communities to prepare and respond effectively.

Access to timely and accurate information is crucial for disaster preparedness, yet it remains limited in Chimanimani (Chatiza, 2019 and Chikodzi *et al.*, 2021). Many communities lack access to reliable weather forecasts, early warning systems and information on disaster preparedness measures. This information gap restricts the ability of individuals and communities to make informed decisions regarding evacuation, the protection of assets and the adoption of resilient practices. Addressing this information deficit is vital for improving disaster preparedness and reducing vulnerability in the face of cyclones (Chikodzi *et al.*, 2021).

Socioeconomic inequalities within Chimanimani exacerbate the impacts of cyclones on vulnerable populations (Dube *et al.*, 2021 and Munsaka *et al.*, 2021). Vulnerable groups, including women, children, the elderly and people with disabilities, face additional challenges in preparing for, responding to and recovering from disasters. Limited access to resources, social support systems and decision-making processes further marginalise these groups, making them disproportionately affected by cyclonic events (Dube *et al.*, 2021). Recognising and addressing these inequalities is crucial for promoting inclusive and equitable disaster management practices in Chimanimani.

This study also recognises the significant role of environmental factors in contributing to the vulnerability of Chimanimani to cyclones. The district's geographical location makes it susceptible to extreme weather events, including cyclones and heavy rainfall. Situated in a region prone to climate variability, Chimanimani experiences increased climate risks which are further exacerbated by deforestation and soil erosion (Munsaka *et al.*, 2021). Deforestation, often driven by unsustainable agricultural practices and the demand for firewood, reduces natural buffers against floods and landslides, making the district more vulnerable to the impacts of cyclones (Mavhura, 2020).

The extant literature on disaster management emphasizes the critical role of robust administrative and governance frameworks in mitigating community vulnerability (Kulatunga *et al.*, 2014; Hossain, 2015). This study's examination of Cyclone Idai's impacts on Chimanimani, Zimbabwe aims to build on these insights by investigating the specific factors that contributed to the community's heightened vulnerability during the cyclone event.

On the same note, Kulatunga *et al.* (2014) and Bahinipati (2014) have concluded that politicians should not have undue influence over cyclone response centers, as they may not sufficiently prioritise the requirements of the general public. Additionally, the regulations controlling population settlement emerged as a major factor influencing a community's susceptibility to cyclone-related impacts. Thus, the degree of political will and commitment to developmental issues appears closely related to the degree of vulnerability in any given community, suggesting that a community's ability to handle cyclone-induced disasters could be enhanced by amending the rules governing communal settlements or the ways in which those regulations are enforced. While these insights from the wider literature are highly relevant, the present study on Cyclone Idai's impacts in Chimanimani, Zimbabwe aims to build on this foundation by

examining the specific governance and policy landscape within the district.

Studies by Hossain and Paul (2017) and Kulatunga *et al.* (2014) on cyclone shelters in Bangladesh found that the distinct needs and spaces of women were largely absent from the design and management of these "areas of safety." As a result, Bangladeshi women were often hesitant to seek refuge in the common shelters due to cultural norms of isolation. Moreover, research by Bahinipati (2014) observes how women and the elderly are disproportionately impacted by cyclone events, given their domestic responsibilities and heightened physical vulnerabilities. Hence, the need to uncover the gendered dimensions of vulnerability that may have exacerbated the impacts of Cyclone Idai by examining the accessibility, safety and suitability of cyclone shelters and other disaster response mechanisms for women and marginalised groups in the district.

The existing literature suggests that improving public awareness and preparedness can significantly enhance a community's resilience to cyclone-related shocks. For instance, Hossain (2015) found that informed and trained individuals tend to be less susceptible to the impacts of external risks. Similarly, Hossain and Paul (2017) observe how households lacking cyclone awareness and preparedness account for most cyclone-related mortalities and post-disaster diseases.

However, the unpredictable nature of natural calamities poses challenges even for well-educated populations, as Bahinipati (2014) observe. In the case of Cyclone Idai's impact on Chimanimani, Zimbabwe, the cyclone struck late at night when many residents were already asleep, rendering an effective response exceedingly difficult (Mavhura, 2020). This underscores the need to not only enhance public knowledge and preparedness, but also to consider the timing and other contextual factors that may shape a community's ability to cope

with cyclone events. It is therefore important to examine the community's level of cyclone awareness and preparedness and how these factors may have influenced the disaster's consequences.

Through an examination of the socio-economic, environmental and governance factors at play, the research aimed to unravel the complexities and interdependencies that contribute to the district's vulnerability to cyclones. Through a comprehensive understanding of the factors underlying vulnerability, policymakers, disaster management agencies and communities can work together to develop targeted strategies, strengthen resilience and reduce the impacts of cyclones in Chimanimani. This study sought to provide valuable insights and contribute to the ongoing discourse on effective disaster management in vulnerable regions. It is imperative that the lessons learned from Cyclone Idai would serve as a catalyst for change, prompting stakeholders to prioritise disaster preparedness, response and recovery efforts in Chimanimani.

## **RESEARCH METHODOLOGY**

An exploratory sequential research design was adopted. The study targeted Civil Protection Unit, traditional leaders, cyclone victims, the academia and representatives of the civic society who took part in the Cyclone Idai disaster management. A target population of five thousand one hundred and forty-one (5,141) respondents was earmarked and a sample size of 57 respondents was finally used. Purposive sampling was used to select five (5) key informants (disaster management professionals) interviewed in this study whilst the cluster sampling method was used to select the respondents. Thus, data were gathered through questionnaires and interviews. Interview respondents were coded as **DMP1-5**. Quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) version 23.0, whereas qualitative data were analysed using the thematic analysis.

## FINDINGS

The main focus of the study was to identify vulnerabilities and challenges in disaster occurrence and management to provide recommendations for improvement. The discussion of results was organised around the key variables and thematic areas that emerged from the study: Policy and administrative regulatory glitches, Poverty and cyclone related disasters, Lack of gender sensitivity in disaster planning, Inadequate training, Inaccessibility to mass media for forecasting and early warnings and Inadequacy of safety centres.

### POLICY AND ADMINISTRATIVE REGULATORY GLITCHES

One of the themes, related to vulnerability of Chimanimani to cyclone which has emerged during one of the interviews, was poor governance and administrative systems to regulate policy. Respondent **DMP-4** was quoted verbatim saying:

The policy framework that is being used to manage disasters in Zimbabwe has been overtaken by events. Imagine, the Civil Protection Act Chapter (10:06) was established in 1989 and it does not comply with the contemporary disaster management practices like Community-Based Disaster Management.

In a similar response, respondent **DMP-1** notes:

There is no operational policy to define practical application. If you look, every country has a disaster management policy and some have Ministers of Disasters.

The sentiments by respondents **DMP-4** and **DMP-1** demonstrated shortcomings on the part of the government and political will. These views were supported by Kulatunga *et al.* (2014) who concludes that communities that were vulnerable to cyclone catastrophes are those that lack the administrative and governance frameworks to control disaster management policies and practises.

To ensure community voices were heard in determining factors that led to cyclone induced disasters, Table 1 captures responses (from a questionnaire) on whether lack of proper governance and administrative systems contributed to the Cyclone Idai disaster.

**Table 1:** Inadequate governance and administrative systems (Survey, 2023)

**N=44**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	13	29.5	29.5	29.5
	Disagree	16	36.4	36.4	65.9
	Neutral	4	9.1	9.1	75.0
	Agree	7	15.9	15.9	90.9
	Strongly Agree	4	9.1	9.1	100.0
	Total	44	100.0	100.0	

Table 1 presents the responses of the participants regarding the statement "Inadequate governance and administrative systems." The data were categorised into different response options, including "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree." 13 participants (29.5%) strongly disagreed while 16 participants (36.4%) disagreed. 4 participants (9.1%) were neutral, 7 participants (15.9%) agreed while 4 participants (9.1%) strongly agreed. The cumulative percent of "Disagree" was 65.9%, that means that when combining the participants who chose "Strongly Disagree" and "Disagree," 65.9% of the respondents disagreed that a lack of proper governance and administrative systems led to vulnerability.

Interestingly, qualitative findings and quantitative finding were anti-parallel. This suggests that the community voices were not supporting the idea that lack of proper governance and administrative systems to regulate policy led to their vulnerability. The interviewed respondents were technocrats and experienced people in disaster management. The different viewpoints can be attributed to the level of education of respondent whose majority were ordinary and advanced level. It was

therefore suggested that development practitioners help the local community to define their developmental group rights so that they were able to claim or demand. That is, defining the government's obligation(s) in disaster management.

**POVERTY AND CYCLONE RELATED DISASTERS**

Another factor f that exposes communities to cyclone related disasters as mentioned by almost all respondents was 'poverty'. One of the respondents **DMP-5** said:

*Those who were financially stable managed to escape to higher areas and saved their properties and lives. Most people who were swept away had financial challenges.*

The comment suggests that if most people had enough financial savings, lives and properties might have been saved. In a similar comment, a study conducted by Kulatunga *et al.* (2014) concludes that lack of access to health care and financial resources expose people to any form of disaster. As a result, it can be concluded that any strategy aimed at reducing poverty was directly linked to cyclone adaptation. Having considered the comment by respondent **DMP-5**, a question was paused to establish whether other community members were like minded. The quantitative findings are shown in Table 2.

**Table 2:** Poverty as a factor of vulnerability to cyclone (Survey, 2023)

**N=44**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disagree	4	9.1	9.1	9.1
Agree	14	31.8	31.8	40.9
Strongly Agree	26	59.1	59.1	100.0
Total	44	100.0	100.0	



Table 2 presents responses of the participants regarding the statement "Poverty exposes communities to cyclone-related disasters because of the inability to generate savings." The data were categorised into different response options, including "Disagree," "Agree," and "Strongly Agree." 4 participants (9.1%) disagreed, 14 participants (31.8%) agreed 26 participants (59.1%) strongly agreed. The cumulative percent of "Agree" was 80.9%, which meant that when combining the participants. Hence, most of the respondents agreed that poverty exposes communities to cyclone-related disasters due to the inability to generate savings.

The qualitative and quantitative findings all pointed to the fact that poverty exposes communities to cyclone-related disasters due to the inability to generate savings. Hence, to ensure cyclone adaptation in Chimanimani, there was need to put in place strategies that ensure poverty reduction such as social protection by the government of Zimbabwe (Kulatunga *et al.*, 2014).

#### **LACK OF GENDER SENSITIVITY IN DISASTER PLANNING**

There was evidence that exposure of the Chimanimani community to cyclones was gendered. It emerged during the interviews that women and children were the most affected. Women and children were the most affected because they were sometimes forced into classrooms occupied by men (**DMP-2 and DMP-3**). Respondent **DMP-3** buttressing that:

...there was no demarcation of men and women's classroom units. People were occupying any room regardless of sex. As a result, most women decided not to use the identified school as areas of safety.

From the face of it, it can be concluded that rescue efforts did not consider the gender differences. A study conducted by Hossain and Paul (2017) also found that Bangladeshi ladies were naturally

reclusive, therefore during cyclonic risks, they were hesitant to relocate to a 'common' protective shelter. It was therefore prudent that when planning for any disaster management efforts, there was need to consider women, children and representativeness.

Participation of all Chimanimani community was sought through a questionnaire to establish if indeed gender issues contributed to the suffering of people who were affected by cyclones. Table 3 presents the quantified views of community members.

**Table 3:** Gender Sensitivity and Disaster management Planning (Survey, 2023) N=44

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Agree	5	11.4	11.4	11.4
Neutral	2	4.5	4.5	15.9
Agree	6	13.6	13.6	29.5
Strongly Agree	31	70.5	70.5	100.0
Total	44	100.0	100.0	

The Table 3 presents the responses of the participants regarding the statement "Lack of gender sensitivity in disaster planning contributes to vulnerability." The data are categorised into different response options, including "Agree," "Neutral," and "Strongly Agree." 5 participants (11.4%) disagreed, 2 participants (4.5%) were neutral, 6 participants (13.6%) agreed while 31 participants (70.5%) strongly agreed. Most respondents expressed agreement or strong agreement with the statement. 37 participants (84.1%) either agreed or strongly agreed that a lack of gender sensitivity in disaster planning contributes to vulnerability.

Both qualitative and quantitative findings were supporting the notion that lack of gender sensitivity in disaster planning contributed to

vulnerability of the Chimanimani community to Cyclone Idai. It was therefore proposed, with all other factor remaining constant, that disadvantaged groups including women be involved in disaster planning efforts so that their felt needs are taken on board.

### **INADEQUATE TRAINING**

Education and training were also considered as some of the major missing-links during the Cyclone Idai management mission. Some of the respondents bemoaned lack of knowledge on how to manage disasters. Respondent **DMP-4** averred:

...people were stranded because they had no knowledge on where to go, what to do and where to report to.

In related sentiments, an emotional respondent **DMP-1** puts it on record that:

...the last training on disaster management was attempted in 2008 and it targeted urban areas. Look now, the rural areas were the hard-hit areas. If people had the skills on how to manage the impending cyclone disasters, it might have saved a great deal.

The comments clearly indicate lack of adequacy training and lack of knowledge on how disasters were managed. This view point resonates well with Hossain (2015) who suggests that people who are informed and trained are less susceptible to shocks from the outside world, such as risks. It can therefore, be proposed that local community members be capacitated through training to manage disasters in their areas of jurisdiction. This is also is sync with Chanza (2020) who notes that members from the security services were deployed to carry out search and rescue operations (100) hours after the floods subsided.

To determine whether inadequate training on disaster management resulted in cyclone disaster, a survey question was shared to

community members and the responses are presented as shown in Table 4.

**Table 4:** Inadequate training and vulnerability to cyclones (Survey, 2023) **N=44**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Neutral	5	11.4	11.4	11.4
Agree	5	11.4	11.4	22.7
Strongly Agree	34	77.3	77.3	100.0
Total	44	100.0	100.0	

Table 4 shows how out of the total of 44 respondents, 5 (11.4%) chose the option "Neutral," indicating they neither agreed nor disagreed with the statement. Another 5 (11.4%) respondents chose the option "Agree," indicating they agreed with the statement. Most of the respondents, 34 (77.3%), selected the option "Strongly Agree," indicating a strong agreement with the statement. In summary, the data suggest that a significant majority of the respondents (77.3%) strongly agreed that less trained people were vulnerable to external shocks such as cyclones.

The qualitative and quantitative data presented supported the notion that there was lack of adequacy training and lack of knowledge on how disasters were managed. To ensure a cyclone adaptation in Chimanimani District, it was therefore suggested that local people should be trained so that they were able to train their own communities at village level. This may also save the cost of resources such as transport and food especially when conducting periodic drill demonstrations.

### INACCESSIBILITY TO MEDIA FOR BROADCAST OF EARLY WARNINGS

Cyclone Idai also unearthed communication vulnerability to cyclone adaptation efforts. It emerged during the interviews that some of the people were caught unaware. Respondent **DMP-7** who was in shock highlights the following:

...the Civil Protection Unit Cyclone Idai (2020) report observe how a section of the affected people did not receive any warning with regards to Cyclone Idai. Hence, they were caught unaware.

In a rather conflicting sentiment, respondent **DMP-2** has observed that:

...people heard about Cyclone Idai well before it affected them. However, they never imagined the magnitude of the Cyclone and its negative impacts.

The comments corroborate Hossain and Paul (2017) who conclude that ninety-five percent (95%) of cyclone-related deaths in Africa occur in families without any warning or forecast about the approaching cyclone. In addition, Kulatunga *et al.* (2014) early warning messages should be crafted and communicated in a way that cultural values are held dear.

The assertion that ‘inaccessibility to mass media for forecasting and early warnings contribute to cyclone vulnerability’ was presented to the generality of the Chimanimani community members and their responses are illustrated in Table 5.

**Table 5:** Inaccessibility to mass media for forecasting and early warnings Versus Vulnerability to cyclones (Survey2, 023)

**N=44**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	9.1	9.1	9.1
Disagree	2	4.5	4.5	13.6
Agree	36	81.8	81.8	95.5
Strongly Agree	2	4.5	4.5	100.0
Total	44	100.0	100.0	

Table 5 demonstrates that out of the total of 44 respondents, 4 (9.1%) strongly disagreed with the statement, indicating they strongly believe that fatalities during cyclones are not related to the inaccessibility of mass media for forecasting and early warnings. Additionally, two respondents (4.5%) disagreed with the statement, suggesting that they have a similar viewpoint.

On the other hand, a majority of the respondents, 36 (81.8%), agreed with the statement, indicating that they believe there was a relationship between fatalities during cyclones and the inaccessibility of mass media for forecasting and early warnings. Finally, 2 respondents (4.5%) strongly agreed with the statement, expressing a strong conviction regarding the connection between fatalities and the lack of access to mass media.

In summary, the data suggests that a significant majority of the respondents (81.8%) agreed that fatalities during cyclones were related to the inaccessibility of mass media for forecasting and early warnings. These quantitative conclusions also support the qualitative views. It can therefore, be concluded that improved access to mass media can help the Chimanimani community to mitigate cyclone disasters for adaption.

#### **INADEQUACY OF SAFETY CENTRES**

Globally, safety centres have been used as a stop gap measure to accommodate people during cyclones. However, in the context of managing Cyclone Idai, it surfaced that schools were used as safety centres and were not enough to accommodate all the affected people. Respondent **DMP-5** has observed that:

...schools that were used as temporal areas of safety were over-crowded and overwhelmed. In some instance, the distance to these schools was too long to walk.

The comment by respondent **DMP-5** shows that there were safety centres established for cyclone disaster management as practiced in other regions. It was therefore prudent that the planning process to establish safety centres for cyclones may consider the elements of adequacy, gender and proximity. This suggestion was also cemented by Hossain and Paul (2017) who concludes that people who live closer to safe homes have an advantage over others who do not have enough space in those regions.

The conclusion was also placed on a questionnaire for quantitative views and Table 6 presents the findings.

**Table 6:** Adequacy and Proximity of safety centres (Survey, 2023)  
N=44

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly Disagree	4	9.1	9.1	9.1
Neutral	29	65.9	65.9	75.0
Agree	2	4.5	4.5	79.5
Strongly Agree	9	20.5	20.5	100.0
Total	44	100.0	100.0	

In Table 6 respondents were asked to indicate their level of agreement or disagreement with the statement that proximity to "areas of safety" may expose communities to cyclone disasters. The response options given were "Strongly Disagree," "Neutral," "Agree," and "Strongly Agree." Out of the total 44 respondents, 4 (9.1%) strongly disagreed with the statement, indicating they strongly believed that proximity to areas of safety does not expose communities to cyclone disasters. A significant number of respondents, 29 (65.9%), selected the option "Neutral," suggesting that they neither agreed nor disagreed with the statement. In contrast, 2 respondents (4.5%) agreed with the statement, indicating that they believed that there was a relationship between proximity to areas of safety and cyclone disasters. Additionally, 9

respondents (20.5%) strongly agreed with the statement, expressing a strong conviction regarding the connection between proximity to areas of safety and cyclone disasters.

In summary, the data indicate that a small portion of the respondents (4.5%) agreed that proximity to areas of safety may expose communities to cyclone disasters, while a larger group (20.5%) strongly agreed with this statement. However, most of the respondents (65.9%) selected the neutral option, indicating an uncertain or neutral stance. The quantitative produced a different view to that of the experts. This can be attributed to the fact that safety homes are not common in Zimbabwe. Hence, their use and advantages could not be established by respondents. Basing on technical and expert advice, it is suggested that safe homes (sensitive to cyclones) be established in Chimanimani District while being cognizant of adequate numbers and distance travelled.

## **CONCLUSION AND RECOMMENDATIONS**

This study has shed critical light on the multifaceted vulnerabilities that undermined the ability of Chimanimani District to effectively prepare for and respond to the devastation of Cyclone Idai. The major conclusions drawn from the study are as follows: The study revealed that policy and administrative regulatory glitches was a crucial factor contributing to the vulnerability of the Chimanimani community. Inadequate coordination, weak enforcement of regulations and a lack of accountability hindered effective disaster management efforts. Without robust governance structures, the community was left exposed and ill-prepared to face cyclone-related disasters. It also came to light that, poverty emerged as a key driver of vulnerability in the study. The impoverished conditions of the community heightened their exposure to cyclone-induced disasters and limited their capacity to cope and recover. Thus, limited livelihood options and inadequate infrastructure exacerbated the impact of cyclones on the community.



The study highlighted the lack of gender sensitivity in disaster planning as a significant concern. Women, in particular, faced unique vulnerabilities and were often marginalised in decision-making processes. The study revealed that inadequate training for community members and local authorities was a significant barrier to effective disaster response. Both the local community and government authorities were found to lack sufficient knowledge and skills in disaster preparedness and emergency response procedures.

The inaccessibility to mass media for forecasting and early warnings was found to be a significant challenge. The study revealed that limited access to reliable and timely information hindered the community's ability to prepare and respond adequately.

The study found inadequacy in the availability of safety centres that are critical for providing shelter and support during cyclone events. Insufficient infrastructure and limited capacity to accommodate affected individuals hindered effective disaster response efforts.

Based on the study's findings, several recommendations can be made to enhance disaster management in Chimanimani. The article suggests the following that; The Government of Zimbabwe should strengthen governance and administrative systems. It should consider revising the Civil Protection Act Chapter (10:06) for improved coordination, enforcement of regulations and accountability mechanisms in disaster management. Enhancing the governance structures and establishing effective administrative systems will facilitate better policy implementation and coordination among relevant stakeholders. All stakeholders in disaster planning and management should incorporate gender-sensitive strategies that address the specific needs and vulnerabilities of women. Ensuring equal representation, participation and decision-making of women in disaster management processes is crucial. The study recommends that the Civil Protection Unit, in

collaboration with relevant civil society partners, urgently provide comprehensive training programmes on disaster preparedness, response and recovery for both community members and local authorities. This capacity-building initiative will equip the local population and government officials with the necessary knowledge and skills to effectively mitigate, respond to and recover from cyclone-induced disasters in the future.

To improve disaster response and resilience, it is recommended that the government and development partners prioritise investments in communication infrastructure and the promotion of community-based communication networks within the affected regions. Strengthening the flow of critical information to vulnerable populations before, during and after disasters is crucial. The Government of Zimbabwe and Civil Society organisation should work with local leaders to ensure adequate infrastructure and capacity of safety centres in strategic locations within Chimanimani. These centres should be well-equipped to provide shelter, essential services and support during cyclone events.

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