

AFRICA UNIVERSITY  
(A United Methodist-Related Institution)

THE ROLE OF RELIGION IN THE PERCEPTION OF DISASTERS: A CASE  
STUDY OF CYCLONE IDAI DISASTER AT CHIPINGE DISTRICT HOSPITAL  
IN 2019.

BY

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## Abstract

The study examined the role of religion in the perception of disasters. It focused on the influence of religion and religious beliefs on disaster mitigation preparedness, response and recovery at Chipinge District Hospital during and after Cyclone Idai disaster. It explored the perceptions on Cyclone Idai disaster. Quantitative data was gathered using a questionnaire and qualitative data was gathered using key informant interviews. A sample of 30 participants was taken from the target population of 150. The Statistical Package for Social Scientist (SPSS) and Excel were used for quantitative data analysis. The study showed that Cyclone Idai was viewed by some as: a natural occurrence, as some effect of climate change, as a result of static forces of darkness and as God's anger caused by some evil activities done by some people in the affected area. A key informant pointed out that, some workmets believed that Cyclone Idai and Covid 19 disasters were caused by evil forces of darkness. The study revealed that, most of the hospital staff were affiliated to some religious group. It was also found out that, religion and religious groups played an important role in disaster mitigation, preparedness, response and recovery. However, the involvement of religious groups in community disaster management during and after Cyclone Idai disaster, despite being significant, was not highly organised and structured. The respondents and members of their religious groups offered counselling services but some of them did not have the technical skills. They also provided food, clothing and shelter to Cyclone Idai victims. Hospital staff had a dual role of offering medical services during Cyclone Idai disaster and also offering non-medical support through their different religious groups. The study showed that there was great potential to make use of religious groups and gatherings as platforms through which community disaster management activities could be launched. Therefore, it was recommended that, the hospital could take advantage of connecting with religious groups and their leaders by making use of the hospital staff members who are members of such religious groups. The hospital could then easily pass on information on disaster preparedness to religious groups through their staff members. Further, the hospital could develop more formal relationships and networks with religious groups to facilitate future disaster management activities. It was concluded that, more research could be done on other disasters not covered by this study such as the Covid 19 pandemic, where the disaster mitigation, preparedness and response included vaccination which was despised and rejected by some religious leaders. Some religious leaders ended up wrongly influencing even some healthcare professionals, who in turn decampaigned the vaccination . Therefore, more research may be needed.

**Key words:**Cyclone ; Idai disaster preparedness ; religion

## Declaration

I declare this proposal is my original work except where sources have been cited and acknowledged. The work has never been submitted by someone, nor will it be submitted to another university for the award of a degree.

**Luke Teddy Chigwanda**

Student's Name

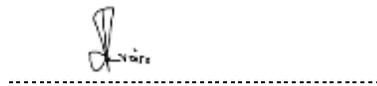


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Student's signature (Date)

**Mr Tawanda Thabani Dzvairo**

Main supervisor



.....

Main Supervisor's signature

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## **Dedication**

I dedicate this study to my wife, Betty S. Chigwanda.

## **List of Acronyms and Abbreviations**

AU	Africa University
DRR	Disaster Risk Reduction
CPU	Civil Protection Unit
LWF	Lutheran World Federation
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction
WASH	Water and Sanitation and Hygiene
WHO	World Health Organisation
ZCC	Zimbabwe Council of Churches

## **Definition of Key Terms**

### **Disaster**

A serious disruption of the functioning of a community or a society causing a widespread human, material, economic and environmental losses which exceed the ability of the affected community or society to cope using its own resources.

### **Disaster preparedness**

Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

### **Disaster response**

The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration.

### **Disaster risk management**

Is the application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses.

(United Nations International Strategy for Disaster Reduction, 2009).

### **Religion**

Religion refers to a system of behaviors and practices, that are linked to supernatural, transcendental, or spiritual elements (Sun, Deng, and Qi, 2018).

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## **CHAPTER 1 INTRODUCTION**

### **1.1 Introduction**

The study explored the role of religion in the perception of disasters. It focused on the influence of religion and religious beliefs on disaster mitigation preparedness, response and recovery at Chipinge District Hospital during and after Cyclone Idai disaster. This chapter covered the background to the study, statement of the problem, research objectives, research questions, assumptions, significance, delimitations and limitations of the study.

### **1.2 Background to the Study**

The frequency and ferocity of disasters have been increasing. The United Nations classified Cyclone Idai as the worst weather-related disaster to strike the Southern Africa in history (Ankomah, 2019). Cyclone Idai disaster in March 2019 caused great damage of property and environment. The devastating Cyclone Idai also caused about 340 deaths and about 270000 people were affected (Chatiza, 2019). About 186 people were injured (United Nations Children's Fund, 2020). The number of deaths could have been more because some people went missing. Further, many people were left homeless.

The affected countries, Malawi, Mozambique and Zimbabwe were left in shock, as they tried to respond to the disaster and recover from the catastrophe. The most affected areas in Zimbabwe were Chimanimani District, followed by Chipinge District and Masvingo District (Chatiza, 2019). Some people in Chimanimani lost everything, that is, their home, property, livelihoods, and the rest of the family members (Chanza et al., 2020). In a study carried out by Nhamo and Chikodzi (2021),

it was discovered that some people from Chipinge and Chimanimani linked Cyclone Idai disaster with their religious beliefs.

Religious beliefs influence how the people affected by a disaster or responding to a disaster perceive the disaster. Nhamo and Chikodzi (2021) pointed out that some people in Chipinge and Chimanimani believed that Cyclone Idai was caused by angry mermaids, whilst others believed that it was caused by angry ancestors. Some people also argued that the areas that were not affected seriously in Chipinge and Chimanimani were spared because their chiefs had performed some rituals through their spirit mediums (Nhamo and Chikodzi, 2021). Therefore, among the people in Chimanimani and Chipinge, there was a strong belief that some supernatural evil force caused Cyclone Idai. Consequently, in an effort to deal with the crisis, cleansing ceremonies were organised and conducted by chiefs and government officials (Nhamo and Chikodzi, 2021).

Those who believe in the African Traditional Religion (ATR) had their own perception of Cyclone Idai disaster and they responded in their unique way. Some Chipinge District Hospital staff might have shared these beliefs and the beliefs could have possibly affected their perception of the disaster and how they were involved in disaster response and recovery activities.

On the other hand churches swiftly responded to Cyclone Idai disaster by offering shelter, food and clothes to the affected people. The Lutheran World Federation (LWF) (2019) reported that the Zimbabwe Council of Churches (ZCC) and its member churches were actively involved in

mobilising resources to help the affected people soon after the disaster was announced. Christians were seeing it as their responsibility to provide the basic needs to the needy disaster victims. Churches were also providing spiritual and psychological support through solidarity messages, prayers and counselling (Lutheran World Federation, 2019). Therefore the Christians' beliefs might also have affected their perception of the disaster and their involvement in response and recovery activities.

The differences in religious beliefs and the consequent perception of disasters have the potential to cause conflicts among responders who include hospital staff. When religious leaders visit hospitalized disaster victims, what they say in solidarity with the victims and what they do to support them might be affected by their beliefs. Hospital staff might have totally different religious beliefs which may also affect what they say and do to the disaster victims.

### **1.3 Problem statement**

Religious beliefs can influence how people perceive disasters, thus can also potentially affect their attitude towards disaster risk reduction; disaster mitigation efforts; early warning; disaster preparedness, response, and recovery. People in Chimanimani and Chipinge Districts and many other Zimbabweans had varying perceptions about Cyclone Idai disaster and this was influenced by their religious backgrounds (Nhamo and Chikodzi, 2021). The researcher's concern was to find out if perceptions of Chipinge District Hospital staff on Cyclone Idai disaster which could compromise preparedness for future disasters were influenced by their religions or religious beliefs. If a disaster is perceived by some people as a punishment from God, it influences how

such people may prepare for future disasters (Holmgaard, 2019). Consequently, religious beliefs can also affect how individuals, their religious groups and communities perceive global problems such as climate change and global warming and their causes. This may also weaken their involvement in global strategies to mitigate against disasters.

On the other hand, if a disaster is perceived as a sign of the end times or the second coming of Jesus Christ as reported by Holmgaard (2019), it might also affect how such people prepare for future disasters. Disasters can be perceived as punishment from God for disobedience and immoral behaviour by some religious groups. Some Christians can consider disasters as signs of the second coming of Jesus Christ, whilst in the African Traditional Religion, disasters can be believed to be caused by angry ancestral spirits. The common effort made by the different religious groups and categories of people is to prevent or minimise the disasters and their effects. Therefore, the researcher sought to find out how could these strong beliefs be used or modified to enhance disaster preparedness, response, and recovery among hospital staff.

#### **1.4 Research objectives**

The objectives of this study are categorised into broad objective and specific objectives. The broad objective gives the overall goal of the research. The specific objectives focused on the particular questions that the research sought to answer or address.

### **1.4.1 Broad Objective**

To examine the role of religion in the perception of disasters by focusing on a case study of Cyclone Idai disaster which struck in 2019 and resulted in a lot of casualties being treated at Chipinge District Hospital.

### **1.4.2 Specific Objectives**

1. To find out how religious beliefs affect disaster mitigation, preparedness, response and recovery at Chipinge District Hospital in 2019.
2. To explore how religious beliefs and associated perceptions about Cyclone Idai disaster in 2019 affected disaster preparedness, response and recovery at Chipinge District Hospital.
3. To find ways of using religion and religious beliefs to positively influence disaster mitigation, preparedness, response and recovery for future disasters.

### **1.5 Research questions**

1. How do religious beliefs affect disaster mitigation, preparedness, response and recovery?
2. How did religious beliefs and perceptions of people at Chipinge District Hospital about Cyclone Idai disaster affected disaster preparedness, response and recovery in 2019?
3. How can religion and religious beliefs be used to positively influence disaster mitigation, preparedness, response and recovery for future disasters?

## **1.6 Assumptions**

It was assumed that the respondents were affiliated to one religion and that none of the respondents had more than one religion.

## **1.7 Significance of the Study**

The influence of religion on the perception of disasters by individuals, religious groups and communities can be significant both positively or negatively. Religion can shape or influence how individuals, families, religious groups, communities and institutions such as hospitals view problems and how to deal with them. Where religion positively influences disaster perception, preparedness, response and recovery, it can be used. However, where religion negatively influences disaster perception and in turn weakens disaster preparedness, response and recovery, efforts may need to be made to correct the wrong understanding and perception of disasters.

However, little research has been done on the influence of religion on perception of disasters, disaster preparedness and response (Reale, 2010). Zakiyuddin (2015) also supported the argument that little research had been done on the role of religion in disaster management. Zimbabwe was affected by Cyclone Eline in 2000, Cyclone Japhet in 2003, Cyclone Dineo in 2017 and Cyclone Idai in 2019 and little research had been done on the role of religion in disasters (Chanza, et al., 2020). This study therefore found its significance because it sought to contribute towards filling this information gap.

Further, the Civil Protection Unit (CPU) and other stakeholders actively involved in disaster mitigation, preparedness and response may be informed by this research about the positive influence of religion on disaster management which can be capitalised on. On the other hand, the research might also help the CPU to take note of the negative influence of some religious beliefs which may need to be corrected or challenged. Many Christian denominations and churches in Zimbabwe have infrastructure in the form of church buildings, schools, clinics and hospitals, which can be very useful during disaster response if their responsible authorities are willing to assist (Reale, 2010). Their level of assistance can be affected by their perception of disasters.

### **1.8 Delimitations of the Study**

The researcher did not focus on many disasters, but only focused on Cyclone Idai disaster. Geographically, the researcher only focused on Chipinge District Hospital which was also affected by Cyclone Idai in 2019 and which was the hospital that treated most of the casualties from Chipinge and Chimanimani Districts. The data collection tools that were used were the questionnaire and key informant interviews only and no other tools were used.

### **1.9 Limitations of the Study**

The researcher faced time and financial resources limitations. The researcher was a student who was also doing lectures. This was a case study of Cyclone Idai disaster which hit Chipinge District in 2019 among other places. Therefore, the results from this study cannot be generalised for all the other disasters in Zimbabwe which could have affected different places. The perceptions of the study participants may not be representative of all people affected by disasters.

## **1.10 Summary**

This chapter introduced the study and laid out the research objectives. The delimitations of the study were given. The background of the study and the justification of the study were given, showing the essence of the study. The next chapter will focus on literature review.

## **CHAPTER 2 REVIEW OF RELATED LITERATURE**

### **2.1 Introduction**

The researcher explored available information on the research subject, theories and models put forward by different theorists on the subject of religious beliefs and perceptions on disaster mitigation, preparedness, response, and recovery. Empirical research findings by other researchers were used. Research gaps were identified.

### **2.2. Theoretical Framework**

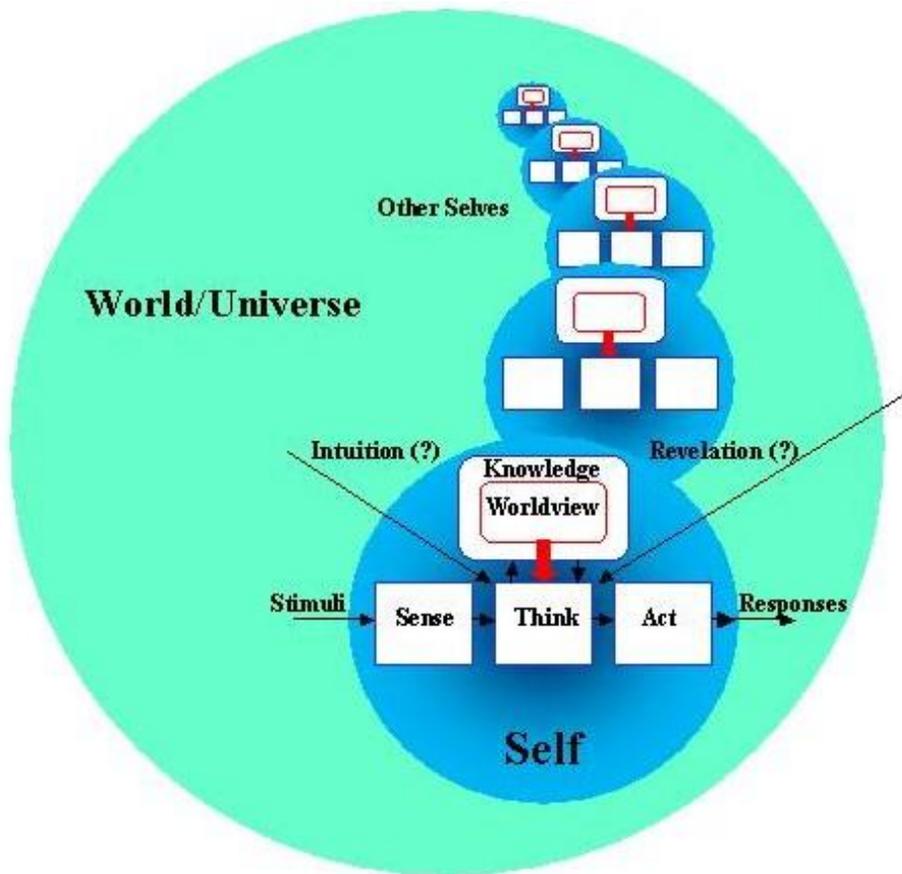
People from different communities, cultures, religions and countries may view disasters differently and also react differently to them. The Worldview concept was used as the theoretical framework to explore the impact of religion on disaster preparedness and response. Worldview is an interdisciplinary concept which can be summarised as a comprehensive framework of one's basic beliefs about things (Call, 2012). The person's worldview guides and direct their education, behaviour, career, relationships and attitudes. Therefore, what a person does or does not do in response to disasters can be effects and results of their worldview.

Gray (2011) defined worldview as a collection of attitudes, values, stories and expectations about the world around us, which influence our thinking and actions. Therefore, before, during and after disasters, people's attitudes and actions can be influenced by their worldviews. This is particularly important among hospital staff because of their critical role in getting the hospital ready for disaster response. Hospitals become the centre of activities after mass casualty disasters since all the seriously injured patients are taken to the hospital.

### 2.2.1 Relevance of the Theoretical Framework to the Study

Hospital staff play a pivotal role during disaster response and their perceptions and attitudes towards the disaster significantly impacts on their service provision.

Figure 1: The self and its worldview in the context of the world



Source: <https://web.engr.oregonstate.edu/~funkk/Personal/worldview.html>

According to Funk (2001), at the heart of one's knowledge is one's worldview. Disasters can be the stimuli. The individual senses, thinks and acts. An individual or a community perceive disasters through a framework of their beliefs. Therefore, their actions or failure to act in response to disasters is influenced by their beliefs. If hospital staff fail to act during disaster preparedness,

response and recovery due to their religious beliefs, that might create serious problems for the hospital and for the patients who might be brought in for treatment. Therefore, the theoretical framework of the study was relevant because it shows that the individual's response or actions are a product of several factors of one's worldview.

## **2.3 Review of related literature**

The review of related literature was divided into three segments. The general effects of religious beliefs on disaster mitigation, preparedness, response and recovery observed and reported by other researchers were analyzed first. This was followed by highlights of perceptions on Cyclone Idai disaster that were reported during or soon after the disaster before detailed research was done and that were reported by other researchers who researched on Cyclone Idai.

### **2.3.1 The effect of religious beliefs on disaster mitigation, preparedness, response and recovery**

There are many different religions in Zimbabwe. Religion refers to a system of behaviors and practices, that are linked to supernatural, transcendental, or spiritual elements (Sun, Deng, and Qi, 2018). Religious belief affects how religious people interpret natural hazards and perceive risks (Sun et al., 2018). One's interpretation of a natural hazard and perception of risk can affect their sense of urgency. Further, religious belief also governs one's behaviours and affects public emotions in disaster situations (Sun, et al., 2018). Therefore, religion can not be taken lightly. Religious beliefs can affect what people do throughout the disaster cycle. Religion affects how communities and institutions look at risks and disasters; how they respond to the disasters; how they recover from the disasters and their ability and willingness to implement disaster risk

reduction strategies (Regad and Da Silva, 2021). Therefore, religion is an important factor in disaster preparedness. Hospital staff also have religious beliefs which should not be taken lightly.

Some religious individuals and communities can see disasters as God's judgment. There are many disasters recorded in the bible. These include floods during the time of Noah (Genesis 6-8), the fire in Sodom and Gomorra (Genesis 19:1-28), and the plagues in Egypt during the time of Moses (Exodus 7:14-11:10), which were all seen as God's punishment for human sin (O'Mathúna, 2018). This means that according to Christian beliefs, some disasters might occur when humans have failed to do things in accordance with God's guidelines and will. Disobedience, recklessness, and greedy can arouse God's anger and trigger disasters as punishment. Psalm 107:33-34 clearly states what God can do, "He changes rivers into a wilderness. And springs of water into a thirsty ground; A fruitful land into a salt waste, Because of the wickedness of those who dwell in it." Christians believe that God has the poential and power to punish.

However, O'Mathúna (2018) also pointed out that several disasters are also recorded in the bible, but are not specifically declared as punishment from God for human sin. Disasters which were not explicitly linked to human sin include famines during the time of Abraham, Joseph, Naomi, David and Elijah (O'Mathúna, 2018). Therefore, it is not possible to attribute every disaster to God's wraoth or punishment for sin. On the other had, reckless human activities such as land degradation can also triger disasters such as floods from a scientific point of view.

Those who believe in African Traditional Religion (ATR) and who believe in other gods may view disasters as the fury of angry gods. The interpretation of natural disasters can be informed by religious beliefs and can be linked to the influence of gods and medium spirits. Nhamo and Chikodzi (2021) reported that some people believed that Cyclone Idai was caused by mermaids that were following up to destroy the wealth that some people in Kopa area in Chimanimani had obtained from Mozambique using traditional charms.

Others argued that Cyclone Idai was caused by angry ancestors after some clay pots in Ngangu mountain in Chimanimani were broken by people who had gone to pray in the mountain (Nhamo and Chikodzi, 2021). All these beliefs can have an influence on how members of the community who hold such beliefs will respond to the disaster and any other future disasters. Therefore, it was important to find out if some of the Chipinge District Hospital staff had such a particular perception on the disaster. The information was important for planning future health education, health promotion and early warning campaigns in case of future disasters.

Some Christians believe that disasters are a sign of the end times. Worldwide disasters are also perceived by some Christians as apocalyptic events, which signify the end times and final judgement (O'Mathúna, 2018). Earls (2020) reported in a survey done among pastors in 2020 that, about 76% agreed that earthquakes and other natural disasters were a sign of the end times. Therefore, Christian eschatology, or the study of end times can influence how Christians perceive disasters. The majority of pastors believe that some of the current disaster events correspond with Jesus' prophecies of what would occur before his second coming (Earls, 2020). Jesus prophesied

that chaotic weather would be prevalent and also foresaw the seas and the waves roaring in the last days (Luke 21:25-26). He also likened the suffering caused by these signs to birth pangs (Matthew 24:8).

Religious beliefs determine the actions of religious groups before, during and after disasters. The findings from a case study carried out in Indonesia in 2016 showed that religious beliefs and practices bond the local community together and contributed to successful coping with disasters (Gianisa and Le De, 2018). Gianisa and Le De (2018) highlighted that religious groups can fill some disaster response and recovery gaps, especially when resources are limited.

The magnitude of the relief and support given by religious groups after the Indonesia earthquake and subsequent tsunami in 2004 which claimed about 200 000 lives demonstrated that religion and religious values are important in disaster response (Zakiyuddin, 2015). However, Zakiyuddin (2015) reported that the role of religion in disasters during and after the disaster was not well documented. This research will help by generating more documented information on Cyclone Idai.

In Indonesia, it was noted that the perceptions of religious leaders towards disasters was different (Zakiyuddin, 2015). This implies that different religious groups and denominations may have varied perceptions towards the same disaster. The perception observed among many religious leaders was that they considered disasters as God's punishment and not as something natural which

could be mitigated. This perception can be stumbling block to disaster mitigation and preparedness. The hospital's state of disaster preparedness can be negatively affected if hospital staff are negatively influenced by their religions. Such a perception disempowers communities and leaves them hopeless to make any meaningful positive difference through disaster preparedness and mitigation.

The Lutheran World Federation (2019) reported that after Cyclone Idai, churches in Zimbabwe, Malawi and Mozambique were appealing for help from their members in order to help the Cyclone Idai victims. The churches also provided counselling and pastoral support. Therefore, religious groups can play a pivotal role during disaster response and recovery. Hospital staff who might have been positively influenced by their religions to be actively involved in disaster response and recovery could enhance the hospital's state of preparedness, response and recovery.

After Cyclone Idai, many people were left homeless and churches, church schools and mosques offered shelter, blankets, clothes and food to the stranded victims (Lutheran World Federation, 2019). This was a significant contribution towards response and recovery from the disaster. Simple words of encouragement can give hope to disaster victims. Some churches from Zimbabwe, Malawi and Mozambique send solidarity messages and prayers to Christians in the affected areas of Chimanimani and Chipinge (Lutheran World Federation, 2019). Such messages gave hope and motivated the affected communities. In the hospital environment, where disaster victims could be gathered for medical help, hospital staff can offer the same services and support being offered by

their respective churches. Consequently, the hospital could end up offering spiritual support through its religious members of staff in addition to the usual medical support.

### **2.3.2. Perceptions on Cyclone Idai disaster and their possible effects**

Many people in Chimanimani and Chipinge Districts and beyond had many unanswered questions after the catastrophic Cyclone Idai left many people dead; others injured and some homeless. Zimbabwe is dominantly a Christian nation and many people were asking why God allowed such a devastating disaster to occur when he has the power to prevent such a disaster (Tomuseni, 2020). It is difficult for religious leaders to give a satisfactory answer to this question. Theologians and philosophers refer to this paradox as the question of theodicy (Tomuseni, 2020).

It was noted that Christians referred to examples of disasters and suffering in the bible where innocent people such as Job were affected by catastrophic misfortunes (Tomuseni, 2020). Therefore, disasters can also be seen as destructive and painful occurrences which people may never understand why they occur. After Cyclone Idai, Tomuseni (2020) reported that, Christians responded to the disaster in compassion and love. There was need to gather more information and have a wider perspective of how religion could influence perceptions on disasters. It was also important to find out what perceptions Chipinge District Hospital staff had on Cyclone Idai disaster.

### **2.3.3. Strategies to improve perceptions towards disasters**

Many people in different nations are religious. Religions vary within the same community, nation, continents and the world at large. Despite the diversity of religions, it has been noted that religion shapes society and how the society perceives issues of development and disasters (Reale, 2010). Institutions such as universities, the Centre for Risk and Community Safety and the Parliament of World Religions have had engagements on faith, community and disaster risk reduction (DRR) (Reale, 2010). Religious and spiritual worldview of disasters, is that the disasters are unavoidable (Reale, 2020). However, most people and most religions make efforts to reduce or alleviate human suffering through offering help to the affected people. Some have gone beyond to look at disaster mitigation.

However, Reale (2020) also reported that, some religious leaders were encouraging their followers to consider disasters, not as events that can be avoided by disaster mitigation and response but as some form of God's retribution. In Southern Italy some religious people tried to use the statue of the patron saint of the town to defend themselves from a volcano disaster but it did not work (Regad and Da Silva, 2021). Misguided religious leaders can be stumbling blocks in disaster management whilst informed religious leaders can be useful conduits through which disaster management initiatives can be passed on to the communities. Religious leaders have the potential to directly or indirectly positively influence their followers who might be working in various institutions such as hospitals. Therefore, was important to find out to what extent the perceptions of Chipinge District Hospital staff towards disaster preparedness were influenced by their religions, religious beliefs and their religious leaders.

### **2.3.4 Research gaps to be filled by this research**

Zimbabwe was affected by several cyclone disasters before Cyclone Idai, but little has been documented on the effect of religious beliefs and perceptions on disaster preparedness, response and recovery. Zimbabwe was hit by Cyclone Eline in 2000, Cyclone Japhet in 2003, Cyclone Dineo in 2017 and Cyclone Idai in 2019 (Chanza et al., 2020). Little research has been done to explore how the perception of Chipinge District Hospital staff on Cyclone Idai disaster was influenced by their religious beliefs. This research add new information on the role of religion and religious beliefs during disaster mitigation response, and recovery.

### **2.4 Summary**

This chapter explored the literature on the influence of religion on the perception of disasters and , outlined the worldview conceptual framework. The chapter culminated in identifying the gaps that were going to be filled by this research. The following chapter will focus on the research methodology.

## **CHAPTER 3 RESEARCH METHODOLOGY**

### **3.1 Introduction**

In this chapter, the approaches that were used in the study are explained. The design of the study, population, sample and sampling procedure, instrumentation and data collection procedures were discussed. The data presentation method was outlined. The guiding ethical considerations were stated.

### **3.2 The Research Design**

A descriptive research design was used in this study. The type of descriptive study that was used was the cross-sectional study. A research design structures activities, providing a blue print for an investigation (Bums and Grove, 1992). The cross-sectionanl descriptive research seeks to give a statement of affairs as they are at present. Therefore, this study gave a snapshot of the role of religion in disaster preparedness. Descriptive research is characterized by an attempt to determine, describe or identify what is the prevailing situation or phenomenon (Dudovskiy, 2017). This implies that a scientific method was used to collect, analyze, present and interpret data. This enhanced the value and importance of the research.

The mixed methods methodology was used to carry out this study. This methodology uses both quantitative and qualitative data to do the investigation (Wisdom and Creswell, 2013). The mixed methods methodology was seen as the most appropriate approach because both qualitative data and quantitative data were essential (Wisdom and Creswell, 2013). However, the research relied more on quantitative data than qualitative data. It was not going to be possible to use qualitative

data or quantitative data in isolation because a lot of valuable information might have been missed out. Therefore quantitative data was complemented by the qualitative data.

### **3.3 Population and Sampling**

This section covers, the target population, the sample size, and the sampling procedure.

#### **3.3.1 Target Population**

The research only targeted a small target population. A target population is a set of persons that possess the same common characteristics defined by the researcher's defined criteria (Wisdom and Creswell, 2013). The target population consisted of Chipinge District Hospital staff. The research targeted about 150 staff members at Chipinge District Hospital. The study only focus on members of staff. Patients were excluded from the study.

#### **3.3.2 Sample size**

A sample, which was a subset of the target population was selected to participate in the study (Wisdom et al., 2013). For large populations, a minimum sample of 100 and a maximum sample of 10% of the population is recommended and for small populations such as in this study, it would be ideal to interview everyone. However, due to limited financial resources and time, a sample of the target population had to be taken. The researcher could not interview everyone in the target population. A minimum sample size was calculated using the formula given below:

$$n = \frac{z^2 \times p(1-p)}{\left(\frac{1-p}{2}\right)^2}$$

Where n= needed sample size

Z= 1.96, Z statistic for confidence level at 95%

P= estimated proportion of respondents somehow influenced by religion in disaster response

d= precision, d=1-p

$$n = \frac{1.96 \times 1.96 \times 0.6(1-0.6)}{\left(\frac{1-0.6}{2}\right)^2}$$

n=23 (n=minimum sample)

A minimum sample of 23 was supposed to be taken. Therefore, a sample of 30 participants was taken from the target population of 150. The sample constituted 20% of the target population. The sample consisted of 2 Doctors, 3 Environmental Health Technicians, 20 Nurses, and 5 Ancillary staff. Key informants were the District Health Services Administrator and the Chairperson of the Hospital Disaster Preparedness Committee.

### 3.3.3 Sampling Procedure

A sampling procedure is a determined plan made before any data is actually collected (Polit and Hungler, 1995). The researcher used non- probability sampling. The sample was composed of the readily available subjects. The researcher used the convenient sampling method. This sampling method was chosen because some staff members were off-duty or on leave and some were on night duty and they were not be easily reachable. The researcher had very limited time to do data collection. Due to time limitations, the researcher targeted staff members who were easily accessible. The 20 nurses who were included in the sample were picked from Female Ward, Male

Ward, Maternity Ward, and Children's Ward. Five nurses were picked from each of the wards and that was the average number of nurses on duty in those wards at the time of the data collection.

### **3.4 Data Collection Instruments**

Quantitative data was collected on predetermined questionnaires that brought about statistical information. Qualitative data was collected using key informant interviews with the District Health Service Administrator, and the Chairperson of the Disaster Preparedness Committee.

### **3.5 Pilot Study**

The pilot study was carried out by issuing out the questionnaire to 5 Chipinge District Hospital staff to assess the suitability and effectiveness of the questionnaire in gathering the required data. This was done at the beginning of December 2021, just before completing attachment. The time needed to fill the questionnaire was noted as about 15 minutes and a few numbering corrections which had been noted were made to the questionnaire prior to the actual data collection process in February 2022.

### **3.6 Data Collection Procedure**

The research participants were asked to fill the questionnaire whilst the researcher waited and got them back soon after they were completed. The data was collected mainly during tea and lunch breaks. If the participant was busy and not able to fill the questionnaire immediately, the researcher left the questionnaire with the participant to be filled at a more convenient time and the researcher

came back later to pick the questionnaire. The researcher helped research participants who had problems understanding the research questionnaire. Questions were elaborated by the researcher for research participants who needed help. The data collection was done over one day because it was done during the time when lectures were ongoing and the researcher could not spend more time out in Chipinge.

### **3.7 Analysis and Organization of Data**

The Statistical Package for Social Sciences (SPSS) (Version 20) software was used to analyze quantitative data. SPSS was chosen because it was user friendly and affordable. As pointed out by Blanche et al. (2006), from the quantitative data, the researcher produced detailed information in the form of tables, charts, figures, texts, and narratives. Further, the data analysis discovered some patterns and themes. Qualitative data was analyzed by looking at recurring themes.

### **3.8 Ethical considerations**

The research complied with the Africa University Research Ethics Committee standards and guidelines. Permission to carry out the research was obtained from the Chipinge District Medical Officer. The permission letter is attached in Appendix 6. The approval to carry out the research was given by the Africa University Research Ethics Committee and the approval letter is attached in Appendix 8. The researcher explained and gave assurance that subjects took part in the research voluntarily. The subjects were given consent forms which they were supposed to sign to confirm their voluntary participation. As pointed out by Blanche et al (2006), no names were be put on questionnaires for the subjects to remain anonymous. Some of the research participants gave a verbal consent and were not keen to put their signatures on consent forms. The participants were

advised that they were free to withdraw from the study at anytime but none of them withdrew from the study.

### **3.9 Summary**

The chapter focused on the research methodology. Target population and the sample were outlined. Sampling technique and justification were explained. Major data collection tools that were used were identified. The questionnaire and the key informant interview guide are shown in the appendices section of this study. The next chapter focused on data presentation and analysis.

## **CHAPTER 4 DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

### **4.1 Introduction**

The has two major sections. The first section dwells on data presentation and analysis. The second segment focuses on discussion and interpretation. was split into for categories.

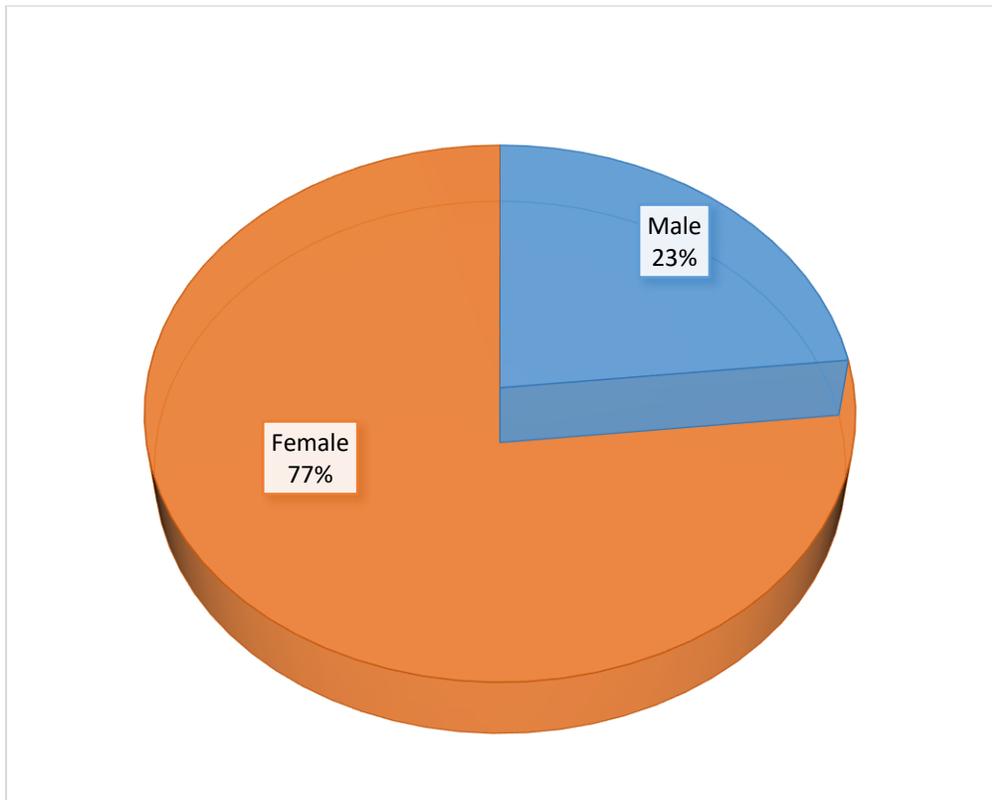
### **4.2 Data Presentation and Analysis**

The section begins with a brief focus of the demographic information, followed by a focus on the influence of religious beliefs on disaster mitigation, preparedness, response and recovery. This was followed by a focus on the perceptions about Cyclone Idai disaster. The section ends with an analysis of how religious beliefs can positively influence disaster mitigation preparedness, response and recovery.

#### **4.2.1 Demographic and general information**

As shown in Figure 2: Distribution of respondents by sex more than three quarters (77%) of the respondents were females and slightly less than a quarter (23%) were males. Therefore, the responses could have had an inclination towards female biased perceptions and views.

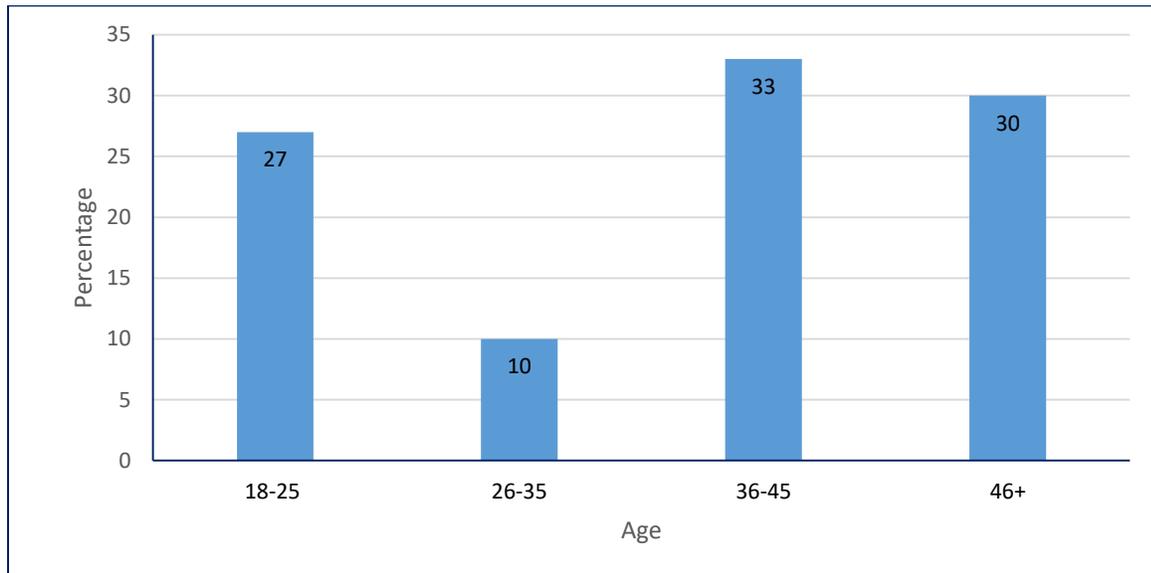
Figure 2: Distribution of respondents by sex



The finding that there were almost three times more females working in a hospital as compared to males was in line with findings by Loke and Fung (2014) who reported that 82% of the participants in a related study targeting hospital staff were females and 18% were males.

Figure 3: Distribution of respondents by age. The greatest proportion (33%) of the respondents were in the 36 to 45 years age range. Respondents who were 46 years old and above constituted 30% and the 18 to 25 years constituted 27%. The 26 to 35 years age range constituted the smallest proportion (10%).

Figure 3: Distribution of respondents by age



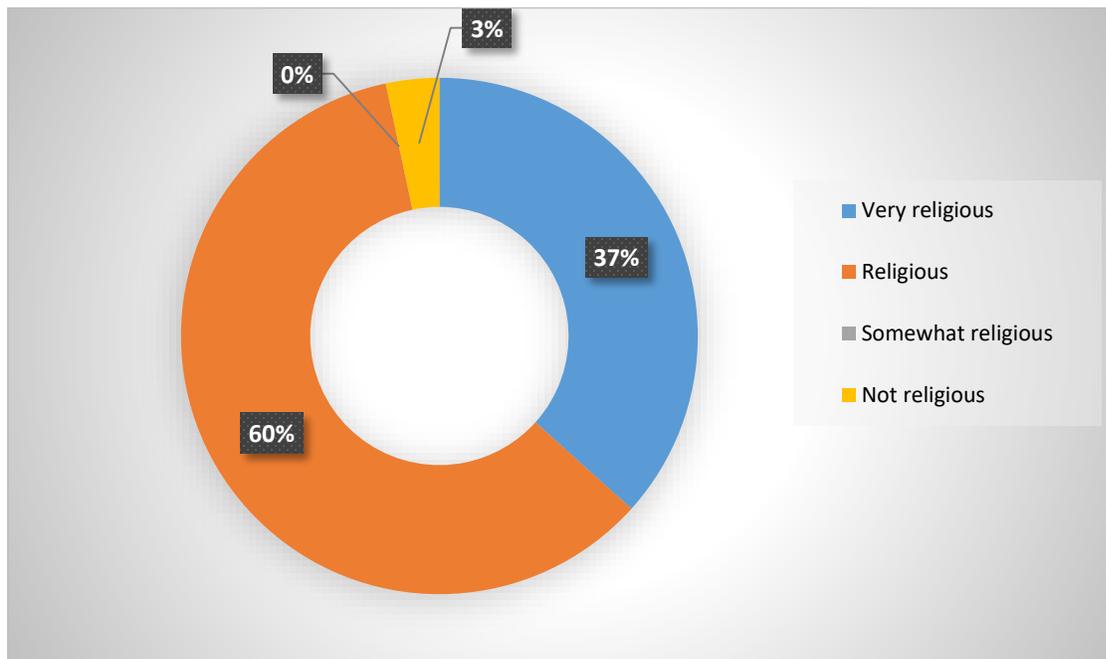
This age distribution confirms the crisis in the nation of Zimbabwe, of the massive brain drain. One key informant mentioned that a lot of nurses especially the single ones or those with small families were leaving the country to work in more developed countries such as United Kingdom, where they get better salaries. This left the hospital with more junior nurses who are still bonded and much older nurses who were close to retirement.

#### 4.2.2 Religion and perceptions on disaster management

Most (93%) of the respondents were Christians and a very small proportion (7%) believed in the African Traditional Religion as shown in Figure 4: To what extent respondents were religious.

Therefore, the responses could have been biased towards the Christian values and beliefs.

Figure 4: To what extent respondents were religious



More than half (60%) of the respondents considered themselves as religious and 37% considered themselves as very religious. Therefore, almost all the respondents (93%) of the respondents had some religion in which they believed in. Their beliefs and actions with regards to disaster perceptions and responses could have been influenced by their religious beliefs.

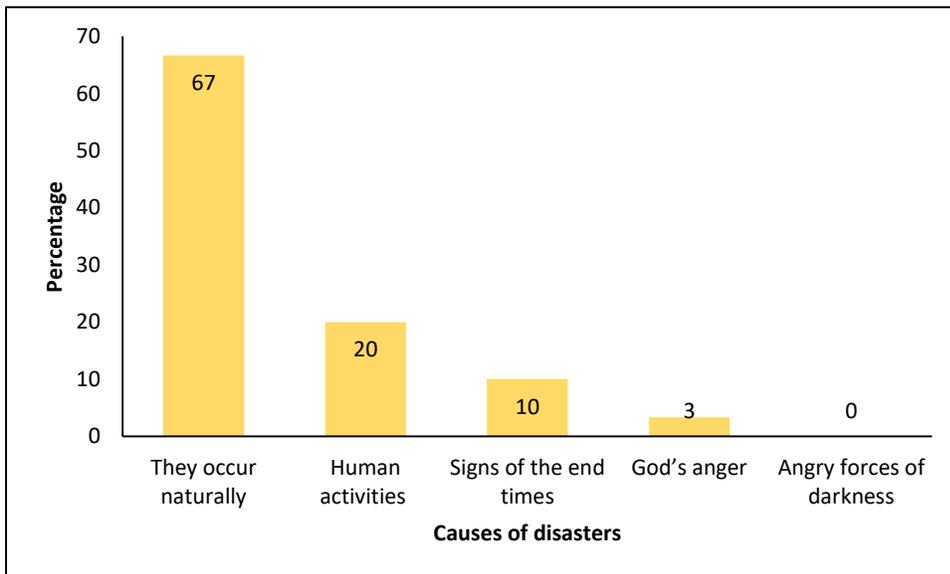
On the other hand, all the professional healthcare staff who took part in this study could be used by the hospital as the conduits which can pass crucial information on disaster preparedness from the hospital to many different religious groups where they worshiped and to the community at large. Only 3% were not religious. Therefore, some of the respondents could have indicated that they were Christians or believed in the African Traditional Religion but they did not have a strong belief in the the religion they claimed to belong to. The model in Figure 1, explains the self and its

worldview, which depends partly on one's religion. Therefore, hospital staff with different religions had different views of Cyclone Idai disaster and also reacted differently to the disaster.

#### 4.2.3 Religious beliefs and perceptions on causes of disasters in general

The distribution of general beliefs on the causes of disasters is shown in Figure 5: General beliefs on the causes of disasters. The majority (67%) of the respondents were of the opinion that disasters just occur naturally, whilst 20% thought that disasters were caused by human activities which damage the environment. A much smaller proportion (10%) were of the opinion that disasters were a sign of the end times as mentioned in the Bible. Very few (3%) of the respondents believed that disasters were caused by God's anger against people and none of the respondents attributed disasters in general, to angry forces of darkness.

Figure 5: General beliefs on the causes of disasters

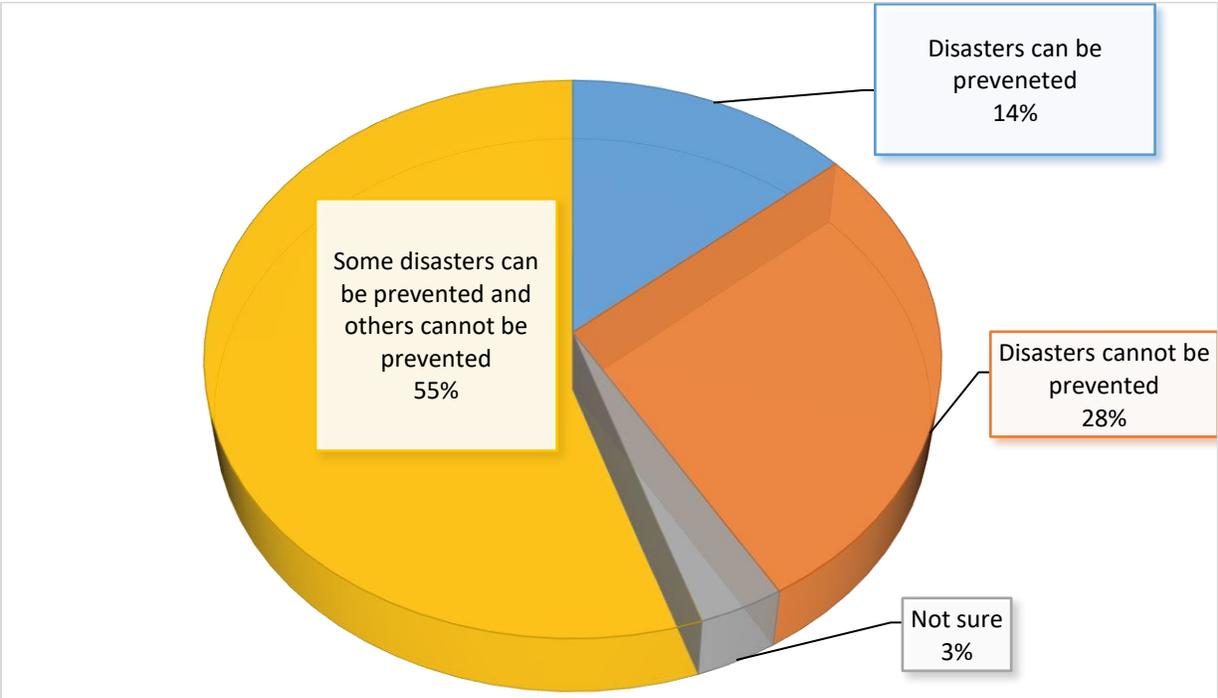


Since only 20% of respondents attributed disasters to human activities, the findings were not strongly in support of the current common arguments that human activities, which are causing climate change are a significant cause of natural disasters. If majority of respondents attributed disasters to non-human activities, that is, to natural occurrence (67%), signs of the end times (10%) and God’s anger (3%); such respondents could have seen disasters as unpreventable.

**4.2.4 Perceptions on disaster mitigation**

Disaster mitigation involves deliberate actions aimed at preventing disasters or minimising their impact. Respondents were asked for their opinions on whether, disasters could be prevented or not. Their opinions are shown in Figure 6: *Perceptions on disaster mitigation*

*Figure 6: Perceptions on disaster mitigation*



Perceiving disasters as something preventable or as something whose negative effects can be minimised is very important. This view of disasters facilitates efforts on disaster mitigation and preparedness. However, if all disasters are viewed as unpreventable, and beyond human control, it leaves the community as helpless and vulnerable victims. The danger of having this perception about disasters is that there will be no encouragement and motivation to put some effort towards disaster mitigation and preparedness.

More than half (55%) of the respondents were of the view that some disasters can be prevented and some disasters cannot be prevented. On the other hand, 28% were of the opinion that disasters cannot be mitigated against, whilst 14% believed that disasters can be mitigated against. Only 3% were not sure whether disasters can be mitigated or not. It was therefore possible to encourage the respondents to be involved in disaster mitigation and preparedness activities and programs in preparation for future disasters.

#### **4.2.5 Perceptions on disaster preparedness**

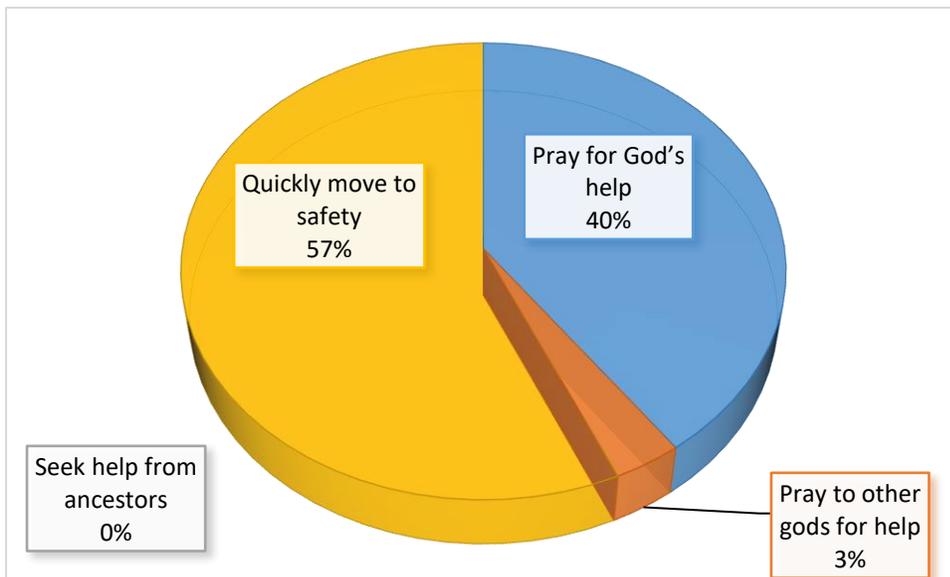
The majority (63%) of the respondents were of the view that a person can prepare for a disaster, whilst 37% were in disagreement. The 37% who did not agree that a person can prepare for a disaster can pose a big challenge in an institution, especially, if they are in leadership. Such people might take disaster preparedness trainings, workshops, and drills lightly. They can be a stumbling block in the process of organizational disaster preparedness programs and disaster risk reduction initiatives. Out of the 37% who were of the opinion that a person cannot prepare for a disaster, 10% were of the view that God can punish people using disasters. This view about disasters is very

risky because if an early warning message is issued such people who thought it was not possible to prepare for a disaster might not evacuate to safer places. Such people who do not believe that they can prepare for disasters might be at a greater risk of death or injury.

#### 4.2.6 Individual actions when a disaster is threatening to strike

Respondents were asked to indicate the first thing they would do if they realised that a disaster was just about to occur or strike. Their views were shown in Figure 7: Actions taken by individuals when a disaster is about to strike

Figure 7: Actions taken by individuals when a disaster is about to strike



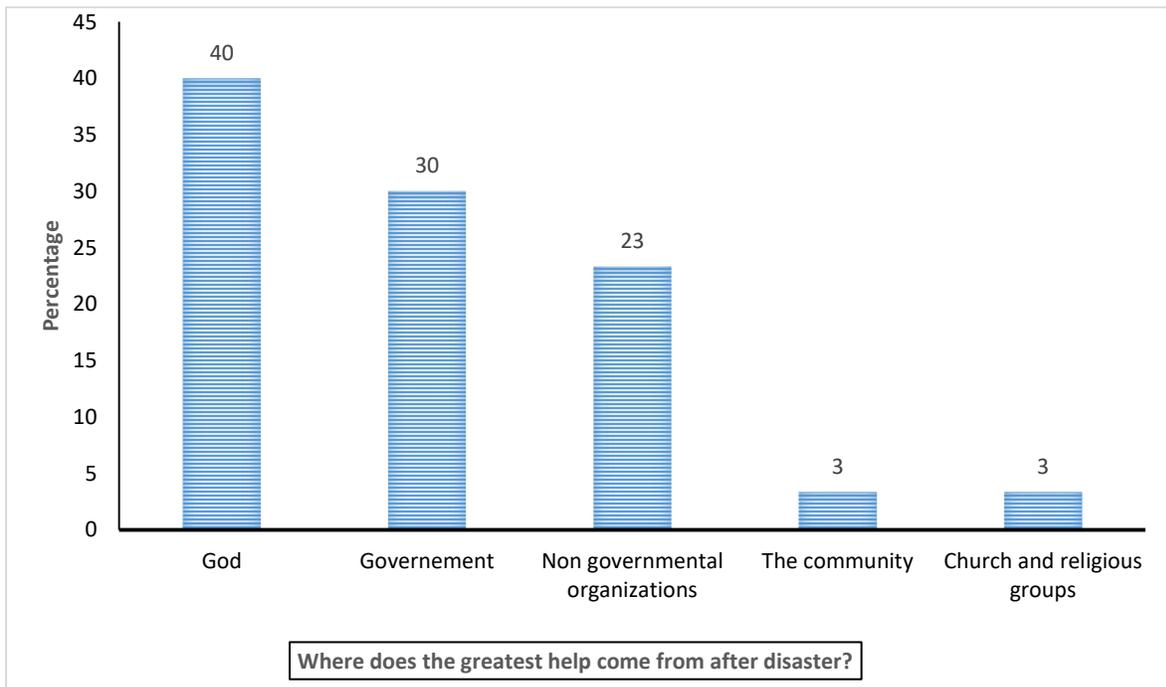
Slightly more than half (57%) of the respondents indicated that they would quickly move to safety if they realised that a disaster was about to occur or strike. Forty percent (40%) indicated that the first thing they would do was to pray for God's help, whilst 3% indicated that they would pray to other gods. The findings show that when a disaster is imminent, some individuals were likely to seek help and protection from God and other gods through prayers. Therefore, one's worldview of

disasters could stimulate them to pray and they would get into the real action of praying. What might matter most is how long that process might take, because if it takes long it will delay or prohibit the evacuation process. This could be one of the reasons why some people who heard about the Cyclone Idai disaster early warning never thought the disaster would affect them. Some could have believed that, after their prayers for protection, they were going to be safe and all was going to be well with them. They did not evacuate to higher and safer ground.

#### 4.2.7 Where the greatest help comes from after disasters

During and after disasters, a lot of help might be given to the victims from various sources. Figure 8: Opinions on the greatest source of help after disasters. The greatest proportion (40%) believed that the greatest help after disasters came from God.

*Figure 8: Opinions on the greatest source of help after disasters*



On the other hand, (30%) were of the view that the greatest help came from the government. Twenty-three percent (23%) were of the opinion that, the greatest help came from non-governmental organizations, whilst 3% indicated that the greatest help came from the community and another 3% felt that churches and other religious groups offered the greatest help. Whilst the government and the non-governmental organisations offer significant help, there could be a problem of victims expecting too much from them and ignore or fail to take advantage of the local community and local religious groups that could be offering alternative help.

### **4.3 Cyclone Idai disaster**

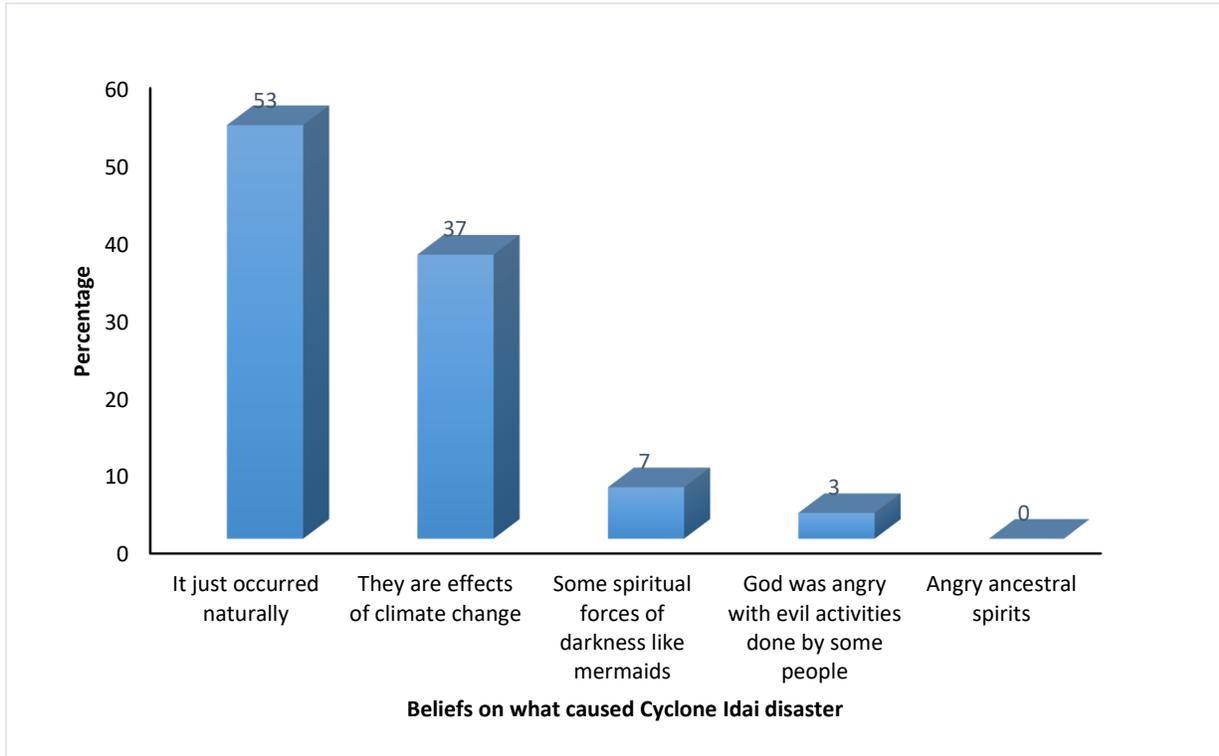
There were a few differences between perceptions on disasters in general and perceptions specifically on Cyclone Idai. The disaster was sudden and its greatest impact occurred during the night. The suddenness and the timing of the cyclone made evacuation very difficult. Many victims were taken by surprise whilst they were sleeping.

#### **4.3.1 Beliefs on what could have caused Cyclone Idai disaster**

Figure 9: Beliefs on what could have caused Cyclone Idai disaster. Slightly more than half (53%) were of the belief that Cyclone Idai just occurred naturally, 37% thought it was caused by climate change, 7% believed the cyclone was caused by some spiritual forces of darkness. None of the respondents attributed disasters in general, to spiritual forces of darkness. However, when the focus shifted specifically to Cyclone Idai, some (7%) believed that some spiritual forces of darkness such as mermaids could have caused the disaster. This finding was in consonance with findings by Nhamo and Chikodzi (2021) who reported that some people believed that Cyclone Idai

was caused by evil spirits associated with mermaids. Therefore, causes of disasters might not be generalised. People might have different perceptions for different disasters.

Figure 9: Beliefs on what could have caused Cyclone Idai



When asked about the possible causes of disasters in general, none of the respondents indicated that disasters could be caused by some spiritual forces of darkness like mermaids but some indicated that disasters could be caused by God’s anger because of evil human activities. Therefore, some of the respondents were viewing Cyclone Idai as a unique disaster which could have been caused by supernatural forces beyond human control and comprehension. Table 1

Table 1: Beliefs on causes of Cyclone Idai disaster and religion.

Table 1: Beliefs on causes of Cyclone Idai disaster and religion

		Religion					
		Christian	African Tradition	Muslim	Other	Atheist	
Beliefs on the causes of Cyclone Idai disaster		93%	7%	0%	0%	0%	
	It just occurred naturally	53%	63	3%	0	0	0
	They are effects of climate change	37%	20%	0	0	0	0
	Some spiritual forces of darkness like mermaids	7%	0	3%	0	0	0
	God was angry with evil activities done by some people	3%	0	0	0	0	0
	Angry ancestral spirits	0	3	0	0	0	0

Out of the 93% of respondents who believed in Christianity, 63% were of the opinion that Cyclone Idai disaster naturally occurred, 20% believed that the disaster was caused by climate change and surprisingly, 3% believed that Cyclone Idai was caused by angry ancestral spirits. Only 3% out of the 7% who believed in African Traditional Religion were of the view that Cyclone Idai was caused by some spiritual forces of darkness like mermaids.

None of the Christians believed that Cyclone Idai was caused by God's anger because of the evil activities done by some people in the area. It was gathered from the key informant that, at the time of the disaster, many people in the hospital community, staff, patients and visitors who were coming to see and support affected relatives had many different theories about Cyclone Idai. The

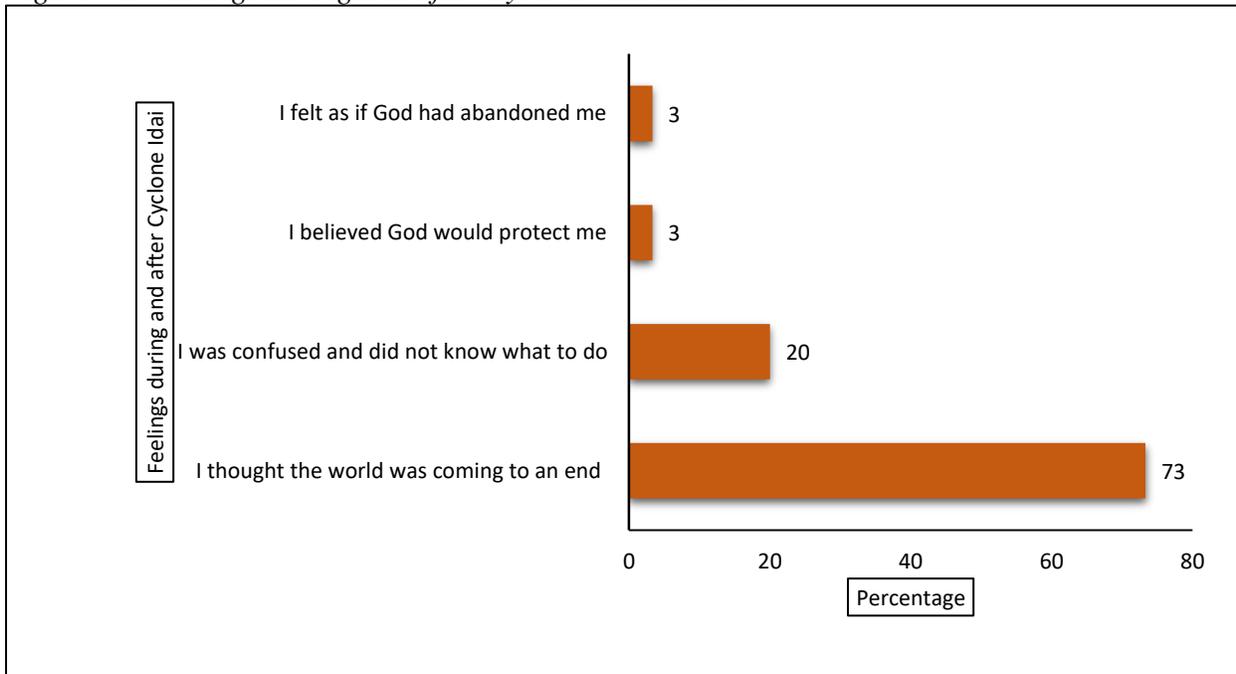
key informant pointed out that, many people believe that Cyclone Idai could have been caused by some unspecified supernatural forces. The people could not be specific whether it was God or some evil spirits. The study only focused on hospital staff. Therefore, the opinions of the general community on the possible causes of Cyclone Idai as briefly hinted by the key informant were beyond the scope of this study. The key informant indicated that he did not personally believe in the theory that Cyclone Idai was caused by God.

All (100%) of the respondents were of the view that Cyclone Idai affected some places more than others because the affected places were in the path of cyclone. None of the respondents attributed the variation in the severity of the impact of Cyclone Idai to some religious affiliation or some spiritual and ritual practices prior to the disaster. It implied that, in the respondents' view, those who survived the Cyclone Idai disaster were not holier than those who died, neither were they more prayerful.

#### **4.3.2 Feelings and thoughts during and after Cyclone Idai disaster**

During and after Cyclone Idai disaster, the affected people had many varying thoughts, feelings and questions. Figure 10 shows the distribution of feelings during and after Cyclone Idai disaster.

Figure 10: Feelings during and after Cyclone Idai disaster

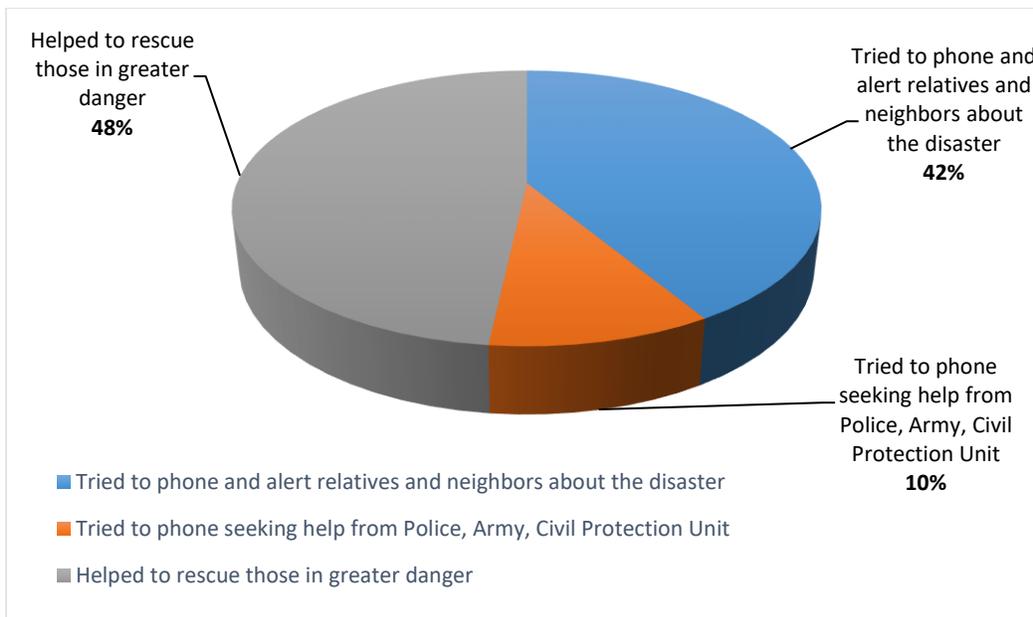


During and after Cyclone Idai disaster, the respondents had different feelings and thoughts. Close to three quarters (73%) thought the world was coming to an end, 20% were confused and did not know what to do, 3% believed that God would protect them and another 3% felt as if God had abandoned them. These findings supported findings by Earls (2020) who reported in a survey done among pastors in 2020 that, about 76% agreed that earthquakes and other natural disasters were a signs of the end times. The thoughts and feelings during and after disasters are partly shaped by one's religious beliefs. Those who believe in Christianity, believe in the second coming of Jesus Christ, which might be preceded by terrible suffering. This might explain why the majority (73%) of the respondents thought that the world was coming to an end and 3% felt as if God had abandoned them.

### 4.3.3 Cyclone Idai disaster response efforts and actions

Figure 11: Disaster response actions done during Cyclone Idai shows that a greater proportion (48%) were involved in the practical response of helping victims that were in greater danger. A slightly lower proportion (42%) tried to phone relatives to alert them about the disaster and to check on them. A much smaller proportion (10%) tried to phone the Police, Army and the Civil Protection Unit seeking help.

*Figure 11: Disaster response actions done during Cyclone Idai*



It was discovered that efforts to communicate with relatives and neighbours about the disaster and alert the Police, Army and Civil Protection Unit were fruitless in some cases because of poor network. Some communication line had been destroyed by the catastrophic storm and landslides. Communication problems were worsened because power had also gone out.

#### **4.3.4 Disasters mentioned in the Bible in relation to Cyclone Idai**

Most (93%) of the respondents indicated that the Bible mentions disasters such as floods, fire, earthquake, famine/hunger, diseases, and wars. Only 3% were not in agreement that the Bible mentions flood, fire, earthquake, famine, disease, and war disasters. Further, 83% of the respondents were of the view that Cyclone Idai was similar to some of the disasters mentioned in the Bible. However, others (17%) did not see any similarity or link between Cyclone Idai and the disasters mentioned in the Bible.

In addition to affirming the recording of disasters in the Bible, 90% of the respondents also pointed out that God gave people early warning in the communities affected by the different disasters mentioned in the Bible. However, 10% did not agree with the argument that communities that were affected by biblical disasters were given early warning by God. A specific flood disaster during Noah's time mentioned in Genesis 6:1 to Genesis 8:22 was further referred to. Some respondents (43%) were of the view that, those who failed to make a plan by building an ark like Noah did, lost their lives and property. Just below half (47%) of the respondents considered the building of an ark by Noah as a good example of preparing for a disaster after an early warning had been issued out.

However, a small proportion (10%) were of the opinion that, with or without the early warning, those who were destined to die would still die. This perception of 10% of the respondents can demotivate people from engaging in disaster mitigation and preparedness efforts, because

according to this belief, injury, death or survival depend on fate which is predetermined by some supernatural forces and not on disaster preparedness.

#### **4.3.5 Early warning before Cyclone Idai struck**

Just above half (57%) of the respondents heard about the Cyclone Idai early warning but never thought it was going to be a serious disaster. A smaller proportion (7%) heard about the early warning before the disaster but did not know what to do, whilst a few others (6%) heard about the early warning of the impending disaster and prayed to God for protection. About a third (30%) never hear about the Cyclone Idai early warning. The Cyclone Idai early warning messages were announced on radio, in local television news and on social media. The 30% who missed these messages might not have had a radio, television and a cell phone with a WhatsApp facility on which social media messages are usually send.

#### **4.4 How can religious beliefs positively influence disaster mitigation, preparedness, response and recovery**

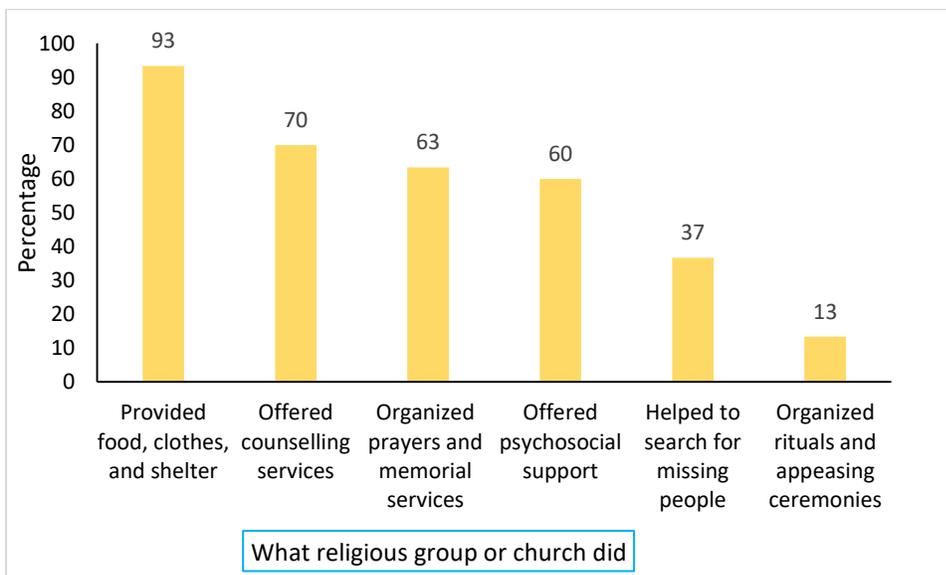
Religious beliefs, faith, and some religious programs influenced Cyclone Idai disaster mitigation, preparedness, response and recovery. Most (97%) of the respondents affirmed that their religious beliefs and faith helped them during and after the Cyclone Idai disaster by giving them hope and courage and motivated them to help other disaster victims who were in greater need. A very small proportion (3%) reported having a peace of mind as a result of their religious beliefs and faith. They believed that their prayers invoked some divine protection and that gave them hope for survival. Losing hope in an unfolding disaster situation weakens the affected people and makes

them more vulnerable. However, having hope and a positive attitude in a disaster situation can help the affected people to fight harder for survival.

#### 4.4.1 Activities done by religious groups or churches in response to Cyclone Idai disaster

Ninety-seven percent (97%) of the respondents received orders or encouragement from their church or religious leaders to do something before, during and after the Cyclone Idai disaster. Different religious groups did different activities to help Cyclone Idai disaster victims. Figure 12: What was done by religious groups or churches after Cyclone Idai disaster shows what was done by religious groups or churches after Cyclone Idai disaster. Those were various disaster response actions by the different religious groups.

Figure 12: What was done by religious groups or churches after Cyclone Idai disaster



Provision of food, clothes and shelter was done by religious groups and churches of 93% of the respondents. Religious leaders encouraged their follower to give generously. Seventy percent (70%) of the respondents reported that their religious groups or churches offered counselling

services, 63% reported that their religious groups and churches organized prayers and memorial services. Further 60% reported that their religious groups or churches offered psychosocial support. A lesser proportion (37%) of the respondents were involved in the search for survivors and missing people. The findings were in agreement with findings by Zakiyuddin (2015) who reported that during the Indonesia earthquake and subsequent tsunami in 2004 religion and religious values were important in disaster response.

The memorial services and prayers were very helpful in facilitating the healing process especially among those who had lost some close family members and friends. The grieving process was made complex because some never saw their deceased relatives who were washed away to the sea or buried by the landslides and rocks.

A lot of encouragement and motivation came from the church leaders. It was reported by the key informants that church leaders came to the hospital for pastoral visits to those who were admitted in hospital after Cyclone Idai disaster. The religious leaders did not only focus on their church members, but went further to reach out to other patients who were not from their own churches.

#### **4.4.2 Cleansing and appeasing ceremonies after Cyclone Idai disaster**

Figure 12: What was done by religious groups or churches after Cyclone Idai disaster shows that some (13%) of the respondents indicated that their religious groups or churches organized rituals and appeasing ceremonies after Cyclone Idai disaster. Cleansing and appeasing ceremonies and rituals are often done where the community strongly feels that a disaster or misfortune was caused

by supernatural forces of darkness. Therefore, it means that some religious groups or churches were convinced that Cyclone Idai disaster was caused by some evil forces of darkness. It was reported from the key informants that types of cleansing and appeasing ceremonies done after Cyclone Idai disaster varied with religion and denomination. It was also reported that despite the cleansing ceremonies having been done, it was alleged that places where homes and entire families were buried by the mudslides and rocks, voices of the deceased were being heard claiming that they were alive. However, such complex spiritual problems are not usually addressed during the disaster recovery phase.

Whilst cleansing ceremonies might have helped some Cyclone Idai disaster victims and the community at large to have the confidence to move on with life after the disaster, they might have some disadvantages. With, the assurance that all evil forces of darkness lingering in the disaster area were expelled through the cleansing ceremonies, the community might have a false hope of security. If the disaster was exacerbated by the poor geographical location of homes on steep slopes, such people were advised by the government to relocate to safer places. However, such people may refuse to relocate to safer places arguing that after the rituals and cleansing ceremonies there will be no more danger or threat. Such communities remain at risk and in danger of future similar disasters. Practical risk factors in a community are not eliminated by cleansing ceremonies.

#### **4.4.3 Teachings on disaster mitigation and preparedness by religious groups or churches**

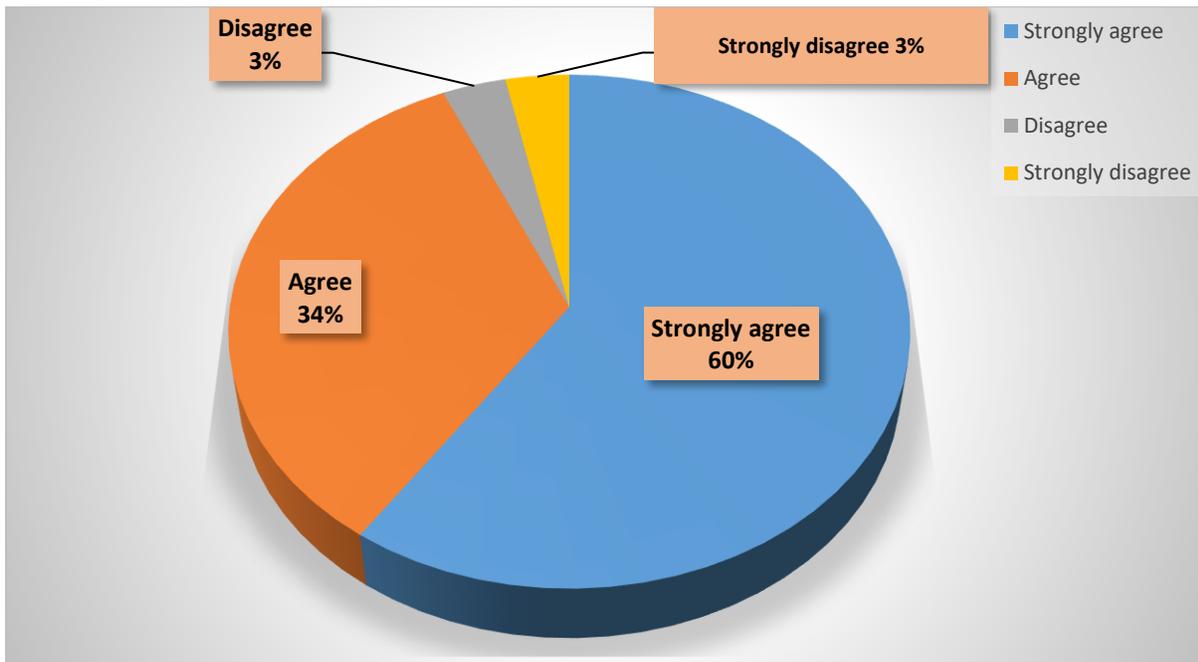
Most (93%) of the respondents reported that their churches or religious groups sometimes taught about disaster mitigation and preparedness. A very small proportion (7%) indicated that their

churches or religious groups never taught about disaster mitigation and preparedness. Therefore, religious groups or churches can play a pivotal role in information dissemination with regards to disaster mitigation, preparedness, response and recovery.

Further, all (100%) of the respondents confirmed that their churches or religious groups took it as one of their roles or responsibilities to help disaster victims. With this sense of obligation and commitment, religious groups or churches can be of great help in times of disasters, especially soon after the disaster strikes and before professional disaster response teams arrive on the scene. Some places were inaccessible for the aid workers and healthcare staff to reach the disaster victims and the only help came from fellow community members and local churches. If members of the local communities had a strong belief emanating from their religious beliefs and values that it was their duty to voluntarily help Cyclone Idai victims, it means their religion played a very pivotal role during Cyclone Idai response.

Figure 13: Can churches or religious groups significantly contribute towards disaster mitigation, preparedness, response and recovery? shows the distribution of responses whether churches or religious groups significantly contribute towards disaster mitigation, preparedness, response and recovery. The majority (60%) strongly agreed and 34% just agreed that churches or religious groups can significantly contribute towards disaster mitigation, preparedness, response and recovery. In contrast, 3% disagreed and another 3% strongly disagreed with this view. Therefore, the greater proportion (93%) of the respondents saw the potential in religious groups as agents that can significantly contribute towards disaster mitigation, preparedness, response and recovery.

Figure 13: Can churches or religious groups significantly contribute towards disaster mitigation, preparedness, response and recovery?



Religious leaders are respected among their congregations and may be in a very strategic position to facilitate disaster mitigation, preparedness, response and recovery activities in their communities. Their voice is respected. When they take the lead in doing something, their many followers usually follow them.

#### 4.4.4 Teachings on climate change by religious groups and churches

Close to three quarters (70%) of the respondents were taught about climate change at their churches and religious groups. However, 30% were not taught anything on climate change in their religious groups or churches. Therefore, the majority of the religious groups or churches have talked about climate change in their gatherings at some point. More organised and more tailor-made teachings

on climate can be designed for different religious groups for use among different age groups in their respective religious gatherings.

The majority (70%) of respondents believed that religious groups or churches have an advantage in teaching about or tackling global problems like climate change because they can easily positively influence their large followers. Their existing administrative structures can be used to disseminate information. On the other hand, 23% of the respondents were of the view that religious groups or churches can take the lead in tackling global problems like climate change and the rest of the community can join in. A small proportion (7%) of the respondents were of the opinion that if religious groups or churches are involved in dealing with global problems such as climate change, God will bless their efforts.

#### **4.5 Discussion and Interpretation**

Different respondents had different religions and different views and perceptions on Cyclone Idai disaster. These findings are in line with the Worldview model in Figure 1, which explains the self and its worldview, which depends partly on one's religion. Therefore, hospital staff with different religions had different views of Cyclone Idai disaster and also reacted differently to the disaster. Through their religious groups, their actions in response to Cyclone Idai disaster were different.

Given that, the majority (80%) of the respondents were of the view that disasters were caused by things that were beyond human control, this perception could be a stumbling block in disaster management. This attitude or perception does not help in the fight against climate change, where

human activities are expected to be designed or adjusted to improve and rejuvenate the natural environment and minimise climate change and disasters. The perception, demotivates the potential that people have in taking action towards disaster mitigation and general disaster risk reduction. The view that some disasters were preventable, has the potential to empower the community.

However, the view that disasters were not preventable disempowers and paralyses the community because the community might view itself as a helpless victim of all forms of disasters. Instead, the community should be proactive and aggressive in addressing and mitigating problems that affect them. The view by the majority of respondents that people can prepare for disasters could be helpful to both, the hospital and religious group in preparing for any future disasters.

The findings that, some individuals were likely to seek help and divine protection from God and other gods in times of disasters confirms that religion influences people's actions during disasters. Therefore, one's worldview of disasters could stimulate them to pray for protection. What might matter most is how long that process might take, because if it takes long it will delay or prohibit the evacuation process in the face of disasters. This could be one of the reasons why some people who heard about the Cyclone Idai disaster early warning never thought the disaster would affect them. Some could have prayed and believed that, after their prayers for protection, they were going to be safe and all was going to be well with them. They did not evacuate to higher and safer ground early enough. Therefore, religious beliefs could hinder urgent disaster response actions such as quick evacuation to safety. A few professionals with the wrong views or understanding of a disaster

have the potential to give the wrong influence to a lot of ordinary and less educated members of the community who look up to educated professionals for guidance.

Beliefs in the existence of spiritual forces of darkness such as mermaids and their alleged evil actions are influenced by religious beliefs. Cyclone Idai was believed by some respondents to have been caused by mermaids. This could be one of the reasons why some respondents believed in praying first when a disaster was imminent. Prayers are seen as the defence mechanism used against forces of darkness. Similarly, cleansing ceremonies after the disaster were seen as a way of wading off all evil spirits and prohibit them from causing further harm. However, the greatest danger was the false sense of security that the people living in disaster-prone or risk areas could have acquired after the said ceremonies.

Channels and methods of disseminating disaster early warning messages may need to be broadened and intensified. If some respondents (30%) in the working class who were in Chipinge town missed the Cyclone Idai disaster early warning message, it might mean that a greater percentage of people in remote communities would have missed it. Religious groups could have used their networks and structures to disseminate Cyclone Idai disaster early warning communication if they had been alerted by their church members who work at the hospital.

Some activities done by different religious groups or churches in response to Cyclone Idai significantly helped during and after the disaster. Therefore, such activities can be scaled up in the case of future disasters. Further, religious groups can be empowered with skills to improve on the

services they were already providing. For instance, they can be helped with professional counselling skills so that when they offer counselling to disaster victims, they will be able to do it more professionally, hence more effectively. The local community members are often the first ones to attend to a disaster scene before other qualified and professional responding teams. Thus, the religious groups or churches can effectively respond to disasters if they are given basic skills on disaster response.

Religious groups complement the work done by healthcare staff, the government and non-governmental organizations during disaster response. The link between the religious groups and the hospital through hospital staff who are members of many different religious groups can be broadened and strengthened. The hospital can benefit a lot from local religious groups in times of disasters. The local religious groups and the local community at large can also use hospital staff as resource persons during teachings, trainings and workshops on disaster management related topics.

Religion plays a crucial role in the perception of disasters and this was partly evidenced during Cyclone Idai disaster which struck in 2019. Religious beliefs can positively affect disaster mitigation, preparedness, response and recovery. During Cyclone Idai disaster, many churches responded by providing food, shelter, clothing and offered counselling services. Some churches were also involved in search for victims. Some staff at Chipinge District Hospital responded to Cyclone Idai disaster from the hospital side and also responded to the disaster from the church side. Therefore, religious groups are strategically positioned to significantly contribute towards

disaster mitigation, preparedness, response and recovery. Religious groups have the advantage that they can make use of their skilled and professional church members who work at the hospital and whom they can use as resource persons. The hospital, non-governmental organizations and other stakeholders who are the key responding agents during disasters can make greater use of religious groups as community agents that can play a critical role in times of disasters. For more effective participation, during disasters, religious groups can be empowered through training on essential and basic knowledge and skills needed for disaster mitigation, preparedness, response and recovery.

## **CHAPTER 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

The chapter covered the research summary, research findings, and recommendations. The research findings were put in three main categories. The first category was the relationship between religious beliefs and disaster mitigation, preparedness, response and recovery. The second category was on the perceptions about Cyclone Idai disaster and the last category was on how religion and religious beliefs can positively influence disaster mitigation, response, and recovery. The chapter ends with recommendations to Chipinge District Hospital, Ministry of Health and Child Care, and religious leaders.

### **5.2 Research summary**

The research highlighted the role of religion in the perception of disasters with a special focus on the influence of religious beliefs on disaster mitigation preparedness, response and recovery at Chipinge District Hospital. It also focused on the perceptions on Cyclone Idai disaster and how religious groups and religious beliefs could be used to positively contribute towards disaster mitigation, preparedness, response and recovery. Quantitative data was gathered using a questionnaire and qualitative data was gathered using key informant interviews. The Statistical Package for Social Scientist (SPSS) and Excel were used for quantitative data analysis. Most of the respondents were religious and their religious groups or churches were involved in responding to Cyclone Idai disaster. It was realised that religious groups or churches can be instrumental in influencing their members towards disaster mitigation, preparedness, response and recovery activities.

### **5.3 Research findings**

The findings have been put in three major categories. These were: the effect of religious beliefs on disaster mitigation, preparedness, response and recovery; perceptions about Cyclone Idai disaster; and ways of using religious groups or churches and their beliefs to positively influence disaster mitigation, preparedness, response, and recovery.

#### **5.3.1 The effect of religious beliefs on disaster mitigation, preparedness, response and recovery**

Almost all the respondents had a religion and most of them were Christians, whilst very few believed in the African Traditional Religion. Mainly, disasters in general were believed to occur naturally and were also partly caused by human activities. A few respondents also believed that disasters were a sign of the end times as mentioned in the Bible, whilst very few associated disasters with God's anger. Some disasters can be mitigated against whilst it is difficult or impossible to prevent some disasters. It is possible to prepare for a disaster before it strikes. Quick evacuation and praying for divine intervention were the major activities done by respondents in the face of an impending disaster. Greatest help after a disaster was believed to come from God, government, non-governmental organizations, the community and the religious groups or churches.

#### **5.3.2 Perceptions about Cyclone Idai disaster**

The majority of respondents believed that Cyclone Idai just occurred naturally. Others attributed it to effects of climate change, whilst a few believed it was caused by some spiritual forces of darkness such as mermaids. All respondents believed that the places and people that were affected

more by Cyclone Idai disaster than others were in the path of the cyclone and not because they were more sinful or more wicked. Most of the respondents thought the world was coming to an end as Cyclone Idai unfolded and some were confused and did not know what to do, whilst others felt God had abandoned them. However, very few respondents believed God would protect them. In addition to their health professional duties, through their religious groups or churches, respondents helped to rescue those in greater danger, others tried to phone to alert or follow up on relatives with regards to the disaster, whilst a few others tried to phone for help from the Police, Army and Civil Protection Unit.

Most respondents indicated that the Bible mentions earthquake, famine, disease and war related disasters and they also considered Cyclone Idai disaster as a similar disaster to disasters mentioned in the Bible. The majority of respondents also pointed out that God gave some early warning to the communities affected by disasters mentioned in the Bible. Most respondents heard about the early warnings before Cyclone Idai struck but the majority never thought it would be a serious disaster and a few prayed for divine protection. Some never heard about the early warning and were taken by surprise.

### **5.3.3 Ways of using religious groups or churches and their beliefs to positively influence disaster mitigation, preparedness, response, and recovery**

Religious groups were significantly involved in Cyclone Idai response and they have the potential to do more in future disasters. Most of the respondents were encouraged, motivated and in some cases instructed by their religious leaders to help Cyclone Idai victims. Some religious groups or

churches provided food, clothes and shelter, some offered counselling, some organized prayers and memorial services and others offered psychosocial support. To a lesser extent, some were involved in the search for survivors and the missing people.

Therefore, the sense of obligation to help those in trouble and the calling to save lives at risk demonstrated by religious groups provide a firm foundation upon which more formal and structured disaster mitigation, preparedness, response and recovery programs can be built. Religious groups or churches and their leaders can be empowered to be local agents of community disaster management. They already have the advantage of infrastructure such as church buildings, church clinics and hospitals and church schools, all of which are very pivotal during disaster response and recovery. In addition to the church clinics and hospitals providing the usual medical care, church buildings and schools can be used as temporary evacuation centres. Religious groups also have the potential to command a big following of members who can do a lot of disaster response work on voluntary basis. However, for effective counselling and psychosocial support, volunteers from religious groups may need some basic training.

Cleansing and appeasing ceremonies were done by religious groups of a few of the respondents as part of disaster response and recovery . Whilst the rituals could have helped to comfort victims and give them an assurance of safety from evil forces of darkness, the community remained exposed and vulnerable to disasters of a similar nature, which might occur naturally without any evil forces of darkness being involved. There was a risk that a false sense of security that came

after cleansing and appeasing ceremonies could hinder practical processes such as quick evacuation in case of future disasters.

#### **5.3.4 Summary**

It was found out that, religion plays an important role in disaster mitigation, preparedness, response and recovery. However, the involvement of religious groups in community disaster management during and after Cyclone Idai disaster, despite being significant, was not highly organised and structured and members of religious groups offered counselling services but did not have the technical skills. There is great potential to make use of religious groups and gatherings as platforms through which disaster mitigation, preparedness, response and recovery activities can be launched. The hospital can take advantage of connecting with religious groups and their leaders by making use of the hospital staff members who are members of such religious groups. The hospital can easily pass on information on disaster preparedness to religious groups through their staff members. Hospital staff had a dual role of offering medical services during Cyclone Idai disaster and also offering non-medical support through their different religious groups.

#### **5.4 Recommendations**

A number of recommendations were made in this study. Further, the findings also promote future research in the religion and disaster management discourse. The recommendations were categorised based on, to whom they were being directed. Recommendations were directed to Chipinge District Hospital, the Ministry of Health and Child Care, and Religious leaders.

#### **5.4.1 Chipinge District Hospital**

It was discovered that religion played an important role in the hospital staff's perception of disaster mitigation, preparedness, response and recovery. The religious values and principles, the individual's faith and the influence of religious leaders contributed in moulding the hospital staff's perception of disasters. Therefore, it is recommended that Chipinge District Hospital:

- Make use of their religious staff members as conduits through which information on disaster mitigation, preparedness, response and recovery can be passed on to the staff members' religious groups in the surrounding community. Disaster early warning messages can be communicated through this channel. For instance, hospital staff members can be asked to pass on disaster early warning information to their church WhatsApp platforms, where many church members could benefit. Verbal announcements on disaster early warning information can be made during religious gatherings attended by some of the religious hospital staff members. Hospital-religious groups relationship can be strengthened.
- Build up a network of volunteers from religious groups in the surrounding communities who can be trained in various tasks, duties and responsibilities that might be needed during disasters, prior to the actual disasters. Hospital staff from various religious groups could be used as the bridge between the hospital and their different religious groups. Members from the religious groups were already volunteering, but their efforts might not have been well coordinated and the volunteers lacked prior training. The training of volunteers who can help during disasters can be done by the hospital because its staff can offer facilitation services.

#### **5.4.2 Ministry of Health and Child Care**

It was found out that, almost all the respondents from Chipinge District Hospital were religious. Their different religions and faiths directly and indirectly influenced their actions during disaster response. Therefore, religion plays a pivotal role in the way hospital staff behave, act and feel within and outside the hospital. It is therefore recommended that the Ministry of Health and Child Care:

- Establish a Hospital Chaplaincy department at Chipinge District Hospital, which formally helps staff, patients and patients' families to deal with traumatic experiences such as severe suffering and sudden loss of many lives during disasters. Further, Chaplaincy Department can also help to correct matters of religion and faith among staff which can directly and indirectly, negatively affect staff's attitude and actions towards disaster management.
- Train local religious leaders as voluntary chaplains who can help victims including hospital staff during mass-casualty disasters such as Cyclone Idai where many people will need professional counselling but taking into account the religious values, faiths and beliefs of the affected. The religious leaders offered counselling during Cyclone Idai but many of them were not professionally trained in counselling. Therefore, equipping and empowering the the religious leaders prior to disasters will help to make them more effective during actual disasters.
- Make use of hospital chaplains to engage religious leaders of religious groups that have beliefs that may be a hindrance to disaster mitigation and preparedness programs. Professional chaplains can engage religious leaders who wrongly advise their followers to refuse to evacuate after receiving disaster early warning messages and those who reject vaccination against threatening diseases. This level of engagement can help religious

leaders to review and change their rules or policies if they make their members more vulnerable to disasters. Religious misconceptions, myths and misguided teachings can be corrected.

### **5.4.3 Religious leaders**

It was discovered that, almost all the professional hospital staff who took part in this study were affiliated to some religious group. The different religious groups were involved during the Cyclone Idai response and recovery phases. People had different understandings and interpretations of the Cyclone Idai disaster and some were still confused and traumatised about relatives who went missing and were never found. Therefore, it is recommended that the religious leaders:

- Make use of the healthcare professionals in their religious groups as resource persons in dealing with issues such as disaster mitigation, preparedness, response and recovery. These professionals can also be used as link persons by the religious groups when they need facilitators from the hospital to train their members on essential topics such as disaster management, climate change and health promotion in general.
- Include climate change and disaster management in religious or church programs and activities because religious groups are equally vulnerable to these global challenges of climate change. Religious people have not been spared by disasters. Therefore, religious groups and their respective groups ought to take disaster mitigation and preparedness seriously.
- Cooperate with other stakeholders who will be working on disaster preparedness and climate change awareness campaigns and will be in need of the audience of their religious groups. Religious leaders can allow such stakeholders access to their congregations and

also encourage their congregations to participate in community or national programs aimed at disaster risk reduction.

- Use their church platforms to disseminate information on disaster early warning messages. Some religious groups are making use of social media and the same platform can be used to warn religious group members of an impending disaster.
- Continue to offer counselling services and prayers to traumatised individuals who lost their loved ones, especially those who went missing and were never found. Religious leaders can check for post-traumatic stress disorder among religious group members and help them seek professional help and support from the hospital.

#### **5.4.4 Recommendations for further research**

This research mainly focused on Cyclone Idai disaster and the Chipinge District Hospital as the study area. The research focused on one disaster and a very limited geographical area. Although it was beyond the scope of this study, it was discovered that when some respondents were talking about Cyclone Idai, they also made reference to Covid 19 pandemic as an equally dreadful disaster which they associated with satanic forces of darkness. It is therefore recommended that:

- More research be done on other disasters such as the Covid 19 pandemic, where the disaster mitigation, preparedness and response included vaccination which was despised and rejected by some religious leaders who ended up wrongly influencing even some healthcare professionals. Instead of healthcare professionals campaigning for the vaccination programs which were being done by the hospital where they worked, some were decampaigning the vaccination exercise based on their religious beliefs. Some healthcare

professionals only got vaccinated when they were threatened that they were risking losing their jobs if they refused to be vaccinated. Religion had a significant influence.

- Similar studies can be done beyond the hospital, targeting ordinary villagers in communities affected by Cyclone Idai disaster. The views and opinions of ordinary community members might differ from those given by the healthcare professionals in this study with regards to the religion and the perception of Cyclone Idai disaster.

## **5.5. Conclusion**

Religion plays an important role in influencing how people perceive the world around them. The understanding of disasters and how to respond to them can be directly and indirectly be affected by one's religious beliefs. This study highlighted that, different people gave different opinions on what could have caused Cyclone Idai disaster. Cyclone Idai was viewed by some as: a natural occurrence, as some effect of climate change, as a result of stanic forces of darkness and as God's anger caused by some evil activities done by some people in the affected area. Further, the study also revealed that, religious groups played an important role during the Cyclone Idai disaster response by providing, food, clothing, shelter, counselling, psychosocial support and prayers to the affected victims.

It was recommended that, religious leaders and their respective religious groups can be empowered to offer more organised and more professional help during disasters. Healthcare staff can be used as conduites of important disaster mitigation, preparedness, response and recovery information between the hospitals where they work and the religious groups where they worship. It was realised that, there was need for further research, especially focusing on other disasters such the Covid 19

pandemic where some religious leaders discouraged or prohibited their followers who included healthcare professionals from being vaccinated against Covid 19.

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## Appendices

### Appendix 1: Research questionnaire

#### QUESTIONNAIRE

My name is Luke Teddy Chigwanda and I am studying for a degree in Bachelor of Health Services Management. I am carrying out a research on, **The role of religion in the perception of disasters: A case study of Cyclone Idai disaster at Chipinge District Hospital in 2019.** It is against this background that I kindly request you to assist with information that will assist me in carrying out the research. The data collected will be treated as confidential and will only be used for academic purposes. Your co-operation will be appreciated.

#### INSTRUCTIONS:

May you please answer the following questions by writing the number which corresponds to your chosen answer in the boxes on the right side of the questions.

<b>(i) Demographics:</b>			
		<b>Question</b>	<b>Answer</b>
<b>1</b>		Gender:	
	1	Male	
	2	Female	
<b>2</b>		What is your age range?	
	1	18-25	
	2	26-35	
	3	36-45	
	4	46+	

<b>3</b>	What is your religion?	
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- 1 Christian
- 2 African Traditional Religion
- 3 Muslim
- 4 Other religions
- 5 Atheist

**(ii)** Religious beliefs and disaster mitigation, preparedness, response and recovery.

<b>4</b>	What causes disasters?	
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- 1 They occur naturally.
- 2 Human activities cause climate change and result in disasters.
- 3 God's anger
- 4 Angry gods, ancestors, witches and any other forces of darkness.
- 5 They are signs of the end times

<b>5</b>	Is it possible to mitigate or prevent disasters?	
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- 1 Yes
- 2 No
- 3 Not sure
- 4 Some disasters can be prevented and other disasters cannot be prevented.

<b>6</b>	Can a person prepare for a disaster?	
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- 1 Yes

2 No

<b>7</b>	Which of the following statements do you agree with most?	
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- 1 God can punish people using disasters.
- 2 Ancestors can punish people using disasters.
- 3 Other gods can punish people using disasters.
- 4 I agree with answers 1, 2 and 3 above.
- 5 Disasters result from human activities that damage the environment.
- 6 Disasters are a natural occurrence.

<b>8</b>	How religious are you?	
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- 1 Very religious
- 2 Religious
- 3 Somewhat religious
- 4 Not religious

<b>9</b>	What is the first thing you do if you realise that a disaster might affect you?	
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- 1 Pray for God's help.
- 2 Pray to other gods for help.
- 3 Seek help from ancestors.
- 4 Quickly move to safety.

<b>10</b>	Where does the greatest help come from after disasters?	
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- 1 The community.
- 2 Government
- 3 Non governmental organizations
- 4 Church and religious groups.

5 God

(iii) Perceptions about Cyclone Idai disaster

<b>11</b>	What do you think caused Cyclone Idai disaster?	
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- 1 It just occurred naturally.
- 2 Angry ancestral spirits.
- 3 God was angry with evil activities done by some people.
- 4 Some spiritual forces of darkness like mermaids.
- 5 They are effects of climate change.

<b>12</b>	Why do you think Cyclone Idai affected some places more than others?	
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- 1 These places were in the path of Cyclone Idai.
- 2 It has some spiritual explanation.
- 3 People in other places did traditional rituals to protect their places or territory.
- 4 People in other places prayed to God for protection.

<b>13</b>	How did you feel during and after the Cyclone Idai disaster?	
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- 1 I felt as if God had abandoned me.
- 2 I believed God would protect me.
- 3 I was confused and did not know what to do.
- 4 I thought the world was coming to an end.

<b>14</b>	What efforts or action did you make when Cyclone Idai struck?	
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- 1 Tried to phone and alert relatives and neighbors about the disaster.
- 2 Tried to phone seeking help from Police, Army, Civil Protection Unit.
- 3 Helped to rescue those in greater danger.

<b>15</b>		Does the bible mention these disasters: floods, fire, earthquake, famine/hunger, diseases, and wars?	
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- 1 Yes
- 2 No

<b>16</b>		Did you link Cyclone Idai to any bible disasters?	
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- 1 Yes
- 2 No

<b>17</b>		Were people given early warning by God is some of the disasters mentioned in the Bible?	
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- 1 Yes
- 2 No

<b>18</b>		Consider the example of the flood during Noah's time in the bible, where people were warned about the disaster before it struck. (Genesis 6:1-8:22).	
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- 1 Those who failed to make a plan by building an ark lost their lives and property.
- 2 With or without the warning, those who were going to die would still die.
- 3 What Noah did was a good example of preparing for a disaster after early warning.

<b>19</b>		Did you hear about the early warning before Cyclone Idai struck?	
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- 1 No
- 2 Yes, but I did not know what to do.
- 3 Yes, and I prayed for God's protection.
- 4 I heard about it but never thought it was going to be a serious disaster.

**(iv) How can religious beliefs positively influence disaster mitigation, preparedness, response and recovery**

<b>20</b>		How did your faith help you during and after the Cyclone Idai disaster?	
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- 1 It gave me hope and courage and motivated me to help other disaster victims.
- 2 It gave me peace of mind.
- 3 It did not make any difference.

<b>21</b>		Did you get any orders or encouragement from your church or religious leaders to do something before, during and after the disaster?	
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- 1 Yes
- 2 No

<b>22</b>		Does your church or religion teach about preventing disasters?	
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- 1 Yes
- 2 No

<b>23</b>		Does your church or religious group take it as one of its roles or responsibility to help disaster victims?	
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- 1 Yes
- 2 No

<b>24</b>		What did your religious group or church do to help Cyclone Idai victims?	Tick here
	1	Provided food, clothes, and shelter.	
	2	Offered counselling services.	

3	Offered psychosocial support.	
4	Helped to search for missing people.	
5	Organized rituals and appeasing ceremonies.	
6	Organized prayers and memorial services.	
<b>25</b>	Has your church or religious group taught its members about climate change, disaster mitigation, preparedness, response and recovery?	

1 Yes

2 No

<b>26</b>	Do you think churches and religious groups can significantly contribute towards disaster mitigation, preparedness, response and recovery?	
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1 Strongly agree

2 Agree

3 Disagree

4 Strongly disagree

<b>27</b>	What advantages do churches and religious groups have in tackling or addressing global problems like climate change?	
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1 They can positively influence large numbers of followers.

2 They can take the lead in tackling problems and the communities follow.

3 God will bless their efforts.

## **Appendix 2: Key informant interview guide**

### **KEY INFORMANT INTERVIEW GUIDE**

My name is Luke Teddy Chigwanda and I am studying for a degree in Bachelor of Health Services Management. I am carrying out a research on, **The role of religion in the perception of disasters: A case study of Cyclone Idai disaster at Chipinge District Hospital in 2019.** It is against this background that I kindly request you to assist with information that will assist me in carrying out the research. The data collected will be treated as confidential and will only be used for academic purposes. Your co-operation will be appreciated.

**INSTRUCTION: May you please give your views on the following questions.**

1. What do you know or believe are the causes of disasters?
2. How does religion affect the attitude of staff towards disaster mitigation, preparedness and response? Consider both negative and positive influence.
3. How do members of staff perceive disasters in relation to God, ancestors, other gods and spiritual forces of darkness?
4. How did churches and other religious groups help before, during and after Cyclone Idai within this hospital and around the community?
5. What more do you think churches or religious groups can do towards disaster mitigation, preparedness, response and recovery ?

### **Appendix 3: Informed consent form**

#### **INFORMED CONSENT FORM**

#### **THE ROLE OF RELIGION IN THE PERCEPTION OF DISASTERS: A CASE STUDY OF CYCLONE IDAI DISASTER AT CHIPINGE DISTRICT HOSPITAL IN 2019.**

Principal Investigator: LUKE TEDDY CHIGWANDA,

Phone number(s) 0772588277

#### **What you should know about this research study:**

- 1.** I give you this consent so that you may read about the purpose, risks, and benefits of this research study.
- 2.** The main goal of research studies is to gain knowledge that may help to improve disaster mitigation, preparedness, response and recovery.
- 3.** I cannot promise that this research will benefit you directly.
- 4.** You have the right to refuse to take part, or agree to take part now and change your mind later.
- 5.** Whatever you decide, it will not affect your job or status in your community.
- 6.** Please review this consent form carefully. Ask any questions before you make a decision.
- 7.** Your participation is voluntary.

#### **PURPOSE**

You are being asked to participate in a research study of the role of religion in the perception of disasters with a special focus of cyclone Idai. The purpose of the study is to assess your experience, skills, knowledge, and attitudes towards disaster mitigation, preparedness, response and recovery. You were selected as a possible participant in this study because you reside in an area that was affected by Cyclone Idai.

### **PROCEDURES AND DURATION**

If you decide to participate, may I please kindly ask you to fill the questionnaire that I will give you. May you please fill the whole questionnaire, expressing your views clearly. May you please write your answers on the boxes provided at the end of the question by putting the number that corresponds to your answer. It might take you 20 minutes to fill the questionnaire.

### **RISKS AND DISCOMFORTS**

The study does not involve any foreseeable risks that may end up harming you.

### **BENEFITS AND/OR COMPENSATION**

This is an academic study and therefore, I cannot and do not guarantee or promise that you will receive any direct benefit from this study. It might benefit the community.

### **CONFIDENTIALITY**

If you indicate your willingness to participate in this study by signing this document, may I assure you that your name will not appear on the questionnaire that I will ask you to fill. To maintain

anonymity, please do not write your name on any of the pages of the questionnaire. In addition, all the information gathered from you will be kept confidentially.

The information that you will provide will help me meet the requirements of my studies and the overall findings might also be used in coming up with strategies of improving disaster mitigation, preparedness, response and recovery in the community. The Africa University Research Ethics Committee may need to review gathered information for supervision and compliance checks.

### **ADDITIONAL COSTS**

I do not foresee any additional costs to you which will result from participating in this study.

### **VOLUNTARY PARTICIPATION**

Participation in this study is voluntary. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty. There are no consequences for your decision to withdraw from participating in the research.

### **SIGNATURE**

### **OFFER TO ANSWER QUESTIONS**

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think it over.

### **AUTHORIZATION**

You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above, have had all your questions answered, and have decided to participate.

---

Signature of Participant or legally authorized representative

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Time

If you have any questions concerning this study or consent form beyond those answered by the investigator, including questions about the research, your rights as a research participant or research-related injuries; or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Africa University Research Ethics Committee.

**Appendix 4: Research Budget (USD\$)**

**THE ROLE OF RELIGION IN THE PERCEPTION OF DISASTERS: A CASE STUDY OF  
CYCLONE IDAI DISASTER AT CHIPINGE DISTRICT HOSPITAL IN 2019**

<b>EXPENDITURE</b>	<b>Units</b>	<b>Unit Cost</b>	<b>Activity Cost</b>	<b>Total</b>
		<b>US\$</b>	<b>US\$</b>	<b>US\$</b>
<b>Stationary</b>				
Box file	1	3	3	
Counter books	1	2	2	
Questionnaire Printing (40 questionnaires at \$0.5 per copy)	40	0.5	20	
<b>Subtotal</b>			<b>25</b>	<b>25</b>
<b>Statutory Fees</b>				
Africa University Research Ethics Committee Fee		10	10	
<b>Subtotal</b>			<b>10</b>	<b>10</b>
<b>Travelling Costs</b>				
Transport to Chipinge District Hospital to collect data - trip	1	30	30	
<b>Subtotal</b>			<b>30</b>	<b>30</b>
<b>Communication</b>				
Emails and Phone calls to Supervisor	5	2	10	
Phone call: appointments and follow ups to Chipinge District Hospital	5	1	10	
<b>Subtotal</b>			<b>20</b>	<b>20</b>
<b>GRAND TOTAL</b>				<b><u>85</u></b>

## Appendix 5: Time Frame

<b>DATE</b>	<b>ACTIVITY</b>
24 February 2022	Submission of Proposal to AUREC
4 March 2022	Receipt of AUREC approval letter
11- 15 March 2022	Data collection
16-22 March 2022	Data analysis
23-25 March 2022	Writing Chapter 4
26-31 March 2022	Writing Chapter 5
1 April 2022	Submission of first draft of completed thesis to supervisor
8 April 2022	Working of suggested corrections
15 April 2022	Submission of thesis final draft

**Appendix 6: Approval letter from Chipinge District Hospital**



Ministry of Health & Child Care  
Chipinge District Hospital  
P.O. Box 200  
Chipinge



Tel: +263-227-2901/2946, Cell:  
+263-776-094 241

14 February 2022

To whom it may concern

Dear Sir/Madam

**RE: PERMISSION FOR MR. LUKE TEDDY CHIGWANDA TO CARRY OUT  
RESEARCH AT CHIPINGE DISTRICT HOSPITAL**

The above matter refers.

We acknowledge the receipt of your request to carry out research at Chipinge District Hospital entitled:

**The role of religion in the perception of disasters: A case study of Cyclone Idai disaster at Chipinge District Hospital in 2019.**

We have no objection. Therefore, you are granted permission to carry out your research.

Yours faithfully

Mr B Garutsa

District Health Service Administrator

PP *Handwritten signature*



**Appendix 7: Approval letter from Supervisor**



*“Investing in Africa’s Future”*

**DEPARTMENT OF PUBLIC HEALTH AND NURSING: COLLEGE OF  
HEALTH, AGRICULTURE AND NATURAL RESOURCES**

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To: AUREC Administrator

Dear Madam

**RE: PERMISSION TO SUBMIT TO AUREC FOR LUKE CHIGWANDA  
PROGRAMME: BACHELOR DEGREE IN HEALTH SERVICES MANAGEMENT**

This letter serves to confirm that I have supervised the above-mentioned student and he has satisfied all the requirements of the college in developing his research proposal and is ready for ethical review.

Your facilitation for review of the proposal is greatly appreciated.

Thankyou



Mr. Tawanda Thabani Dzvairo

**Research Supervisor**

**Appendix 8: AUREC Approval letter**



**AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)**

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611 Fax: (+263 20) 61785 website: www.africau.edu

Ref: AU2476/22

18 March, 2022

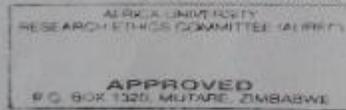
TEDDY CHIGWANDA  
C/O CHANS  
Africa University  
Box 1320  
**MUTARE**

**RE: THE ROLE OF RELIGION IN THE PERCEPTION OF DISASTERS: A CASE STUDY OF CYCLONE IDAI DISASTER AT CHIPINGE DISTRICT HOSPITAL IN 2019**

Thank you for the above titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following.

- a) Research proposal
- b) Data collection instruments
- c) Informed consent guide
- **APPROVAL NUMBER** AUREC 2476/22  
This number should be used on all correspondences, consent forms, and appropriate documents.
- **AUREC MEETING DATE** NA
- **APPROVAL DATE** March 18, 2022
- **EXPIRATION DATE** March 18, 2023
- **TYPE OF MEETING** Expedited  
After the expiration date this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before expiration date.
- **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.



Yours Faithfully

**MARY CHINZOU -  
ASSISTANT RESEARCH OFFICER: FOR CHAIRPERSON  
AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE**