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### RELEASE FORM

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### **APPROVAL LETTER**

The undersigned certify that they have read and recommend to the Midlands State University for acceptance of a dissertation entitled: Disaster Response (Relief Strategies) in Zimbabwe. Case of Tokwe Mukosi

**SUBMITTED BY: Elton Anesu Kufandada (R124285G)** in partial fulfillment of the requirements of a Bachelor of Science Honors Degree in Local Governance Studies.

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**DECLARATION**

I do confirm that this is my own piece of work and the use of material from other sources has been properly and fully acknowledged.

Name : .....

Signature: .....

Date: .....

## **DEDICATION**

I dedicate this work to my parents Mr T and Mrs I Kufandada, Annie Kufandada Kapitu and Mr Kapitu, Rumbidzai Bassie Mushope Siyado and Mr Siyado for the support financially, emotionally, and for being my pillars of strength

## ABSTRACT

The main thrust of the research was to investigate the effectiveness of disaster response in Zimbabwe. The topic is called disaster response (relief strategies) in Zimbabwe Case of Tokwe-Mukosi. The objectives of the study included identifying and establishing the various roles of different stakeholders, local government, Department of Civil protection, NGOs, Civil Society Organisations etc, in disaster response in Zimbabwe, determining the effects of disasters, establishing an effective plan for better emergency response and also examining the factors impeding effective disaster response in Zimbabwe. Disasters result in dire effects that often leave the affected families in need of humanitarian assistance. These effects include destruction of property, clothes, food, infrastructure, livelihoods and even loss of lives. The after effects of a disaster often impact negatively on the health of the affected communities. These include disease outbreaks like cholera and diarrhea etc. It is the duty of the Department of Civil Protection and other important stakeholders to minimize these effects by responding to the disasters through their different roles. These roles include providing humanitarian aid, coordination of all disaster response activities and making sure that the affected families are safe and well sustained. That is good disaster response. The process of implementing disaster response and its effectiveness varies from country to country. The objectives of the study were also addressed in the empirical evidence of the research whereby the study looked at disaster response from a global, regional and national point of view. The countries in perspective include the USA, Kenya, Mozambique and Sudan. The researcher used the descriptive research design that provided the structure of the research. The population size is 20 000 people and comprise of people from all age groups. The sampling techniques used include convenience sampling for the disaster victim and purposive/ judgemental sampling for the key informant interviews. The sample size is 150 people. The data collection instruments used include questionnaires and interviews. From the findings, the researcher noted that disaster response to the Tokwe- Mukosi flood disaster was affected by a number of factors which include lack of funds, lack of disaster response resource materials, poor community and district structures, poor road networks and resistance or lack of cooperation from the affected families. It also became evident that Chivi RDC department of Community Services is not very instrumental in disaster management in the district, rather, it is the District Administrator who spear head disaster response at district level. Even though the district has a disaster response plan in place, the plan needs periodic updating and testing to ensure optimum response in case of an emergency. It is also recommended that the state should look for more ways to strengthen its relations with Humanitarian and International aid donors so as to reduce the effects of a disaster. This research also revealed the fact that the local community of Nuanetsi Ranch does not know their roles in responding to a disaster. As such, the researcher recommends that more awareness campaigns should be carried out by the Department of Civil Protection together with its supporting partners in ensuring that communities are educated on their duties and roles in disaster response. This can help in reducing the effects of a disaster.

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## TABLE OF CONTENTS

RELEASE FORM .....	ii
APPROVAL LETTER .....	iii
DECLARATION.....	iv
DEDICATION .....	v
ABSTRACT .....	vi
ACKNOWLEDGEMENTS .....	vii
<b>TABLE OF CONTENTS</b> .....	viii
ACRONYMS .....	xiii
LIST OF TABLES .....	xv
LIST OF FIGURES .....	xvi
<b>CHAPTER I</b> .....	1
<b>INTRODUCTION</b> .....	1
1.0 Introduction .....	1
1.1 Background of the Study.....	1
1.2 Statement of the Problem .....	5
1.3 Research Objectives.....	6
1.3.1 General Objective .....	6
1.3.2 Specific Objectives .....	6
1.3.3. Research Questions .....	6
1.4 Significance of the Study .....	6
1.4.1 to the researcher:.....	7
1.4.2 to the University .....	7
1.4.3 to other stakeholders, (Government, Communities etc).....	7
1.5 Assumptions of the Study .....	7
1.6 Limitations of the Study.....	8
1.7 Delimitations of the Study.....	8
1.8 Definitions of Terms .....	10
1.9 Chapter Summary .....	10

<b>CHAPTER II</b> .....	11
<b>LITERATURE REVIEW</b> .....	11
2.0 INTRODUCTION .....	11
2.1 LITERATURE REVIEW .....	11
2.2 DEFINITIONS OF KEY TERMS .....	11
2.2.1 CONCEPTUAL FRAMEWORK OF DISASTER RESPONSE .....	12
2.3 LEGAL FRAMEWORK FOR DISASTER RESPONSE IN ZIMBABWE .....	14
2.4 EFFECTS OF DISASTERS .....	14
2.4.1 Internally Displaced Persons (IDPs) .....	14
2.4.2 Destruction of property, infrastructure, livelihoods and loss of lives .....	15
2.4.3 Health .....	16
2.5 ROLES OF DIFFERENT STAKEHOLDERS IN DISASTER RESPONSE .....	16
2.5.1 Role of the Department of Civil Protection .....	16
2.5.2 ROLE OF LOCAL AUTHORITIES .....	17
2.5.3 ROLE OF THE COMMUNITY .....	19
2.5.4 ROLE OF NON GOVERNMENTAL ORGANISATIONS (NGOs), UNITED NATIONS (e.t.c) .....	20
2.6 DISASTER RESPONSE IN THE UNITED STATES OF AMERICA.....	21
2.6.1 DISASTER RESPONSE IN KENYA.....	23
2.6.2 DISASTER RESPONSE IN MOZAMBIQUE.....	24
2.6.3 DISASTER RESPONSE IN JAPAN .....	25
2.7 FACTORS IMPEDING EFFECTIVE DISASTER RSPONSE .....	27
2.7.1 LACK OF PREPAREDNESS .....	27
2.7.2 LACK OF SKILLED PERSONNEL .....	27
2.7.3 LACK OF FUNDS .....	29
2.7.4 CORRUPTION .....	30
2.7.5 POOR COMMUNITY AND DISTRICT STRUCTURES .....	31
2.7.6 LACK OF COMMUNICATION.....	32
2.8 A PLAN FOR EFFECTIVE DISASTER RESPONSE.....	33
2.9 LITERATURE GAP .....	35
2.10 CHAPTER SUMMARY .....	35
<b>CHAPTER III</b> .....	36
<b>RESEARCH METHODOLOGY</b> .....	36



3.0 INTRODUCTION .....	36
3.1 RESEARCH METHODOLOGY .....	36
3.2 RESEARCH DESIGN .....	37
3.3 TARGET POPULATION .....	39
3.4 SAMPLING .....	40
3.4.1 CONVENIENCE SAMPLING .....	41
3.4.2 ADVANTAGES OF CONVENIENCE SAMPLING.....	41
3.4.3 DISADVANTAGES OF CONVENIENCE SAMPLING .....	41
3.4.4 PURPOSIVE / JUDGEMENTAL SAMPLING .....	42
3.4.5 ADVANTAGES .....	42
3.4.6 DISADVANTAGES .....	43
3.5 SAMPLE SIZE.....	43
3.5.1 SAMPLE FRAME.....	43
3.6 SOURCES OF DATA .....	44
3.6.1 PRIMARY DATA .....	44
3.6.2 ADVANTAGES OF PRIMARY DATA .....	45
3.6.3 DISADVANTAGES OF PRIMARY DATA .....	45
3.6.4 SECONDARY DATA .....	45
3.6.5 ADVANTAGES OF SECONDARY DATA .....	46
3.6.6 DISADVANTAGES OF SECONDARY DATA .....	46
3.7 DATA COLLECTION INSTRUMENTS.....	47
3.7.1 QUESTIONNAIRES .....	47
3.7.2 ADVANTAGES .....	47
3.7.3 DISADVANTAGES .....	48
3.7.5 INTERVIEWS.....	48
3.7.6 ADVANTAGES .....	49
3.7.7 DISADVANTAGES .....	49
3.8 ETHICAL CONSIDERATIONS.....	50
3.9 ESTABLISHING THE RELIABILITY.....	50
3.10 VALIDITY.....	51
3.11 PRE-TEST.....	51
3.12 DATA COLLECTION PROCEDURES.....	52
3.13 CHAPTER SUMMARY.....	52

<b>CHAPTER IV .....</b>	<b>53</b>
<b>DATA PRESENTATION, ANALYSIS AND INTERPRETATION .....</b>	<b>53</b>
4.0 INTRODUCTION .....	53
4.1 RESPONSE RATE FOR QUESTIONNAIRES .....	53
4.1.2 RESPONSE RATE FOR INTERVIEWS .....	54
4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS.....	55
4.2.1 GENDER DISTRIBUTION .....	55
4.2.2 OCCUPATION STATUS OF DISASTER VICTIMS .....	56
4.2.3 HOUSEHOLD SIZE OF DISASTER VICTIMS .....	57
4. 3 COMMON DISASTERS IN CHIVI DISTRICT .....	59
4.4 EFFECTS OF THE TOKWE-MUKOSI FLOOD DISASTER.....	60
4.4.1 HEALTH.....	60
4.4.2 FOOD SHORTAGES .....	61
4.4.3 DESTRUCTION OF CROPS, LIVELIHOODS and SHELTER .....	62
4.5 FACTORS IMPEDING EFFECTIVE DISASTER RESPONSE.....	64
4.5.1 LACK OF FINANCE .....	64
4.5.2 LACK OF RESOURCES AND EQUIPMENT.....	65
4.5.3 LACK OF PREPAREDNESS .....	67
4.5.4 CORRUPTION.....	69
4.5.5 POOR COMMUNITY AND DISTRICT STRUCTURES .....	70
4.5.6 POOR ROAD NETWORKS .....	72
4.5.7 RESISTANCE FROM RESIDENTS.....	73
4.6 ROLES OF VARIOUS STAKEHOLDERS IN DISASTER RESPONSE.....	74
4.6.1 Role of NGOs/ Private Sector.....	74
4.6.2 ROLE OF THE DEPARTMENT OF CIVIL PROTECTION.....	77
4.6.2.1 Coordination .....	77
4.6.2.2 Resource mobilization.....	77
4.6.2.3 Needs assessment.....	78
4.6.2.4 Humanitarian Assistance.....	79
4.6.3 ROLE OF THE COMMUNITIES .....	80
4.6.4 ROLE OF THE DISTRICT ADMINSTRATOR .....	81
4.6.5 ROLE OF LOCAL AUTHORITIES .....	82
4.7 DISASTER RESPONSE PLAN.....	83

4.8 CHAPTER SUMMARY .....	83
<b>CHAPTER V</b> .....	84
<b>SUMMARY, CONCLUSIONS AND RECOMMENDATIONS</b> .....	84
5.0 INTRODUCTION .....	84
5.1 SUMMARY .....	85
5.2 CONCLUSIONS .....	88
5.3 RECOMMENDATIONS .....	89
REFERENCE LIST .....	94
Appendix I .....	101
Appendix II .....	105
Appendix III .....	110

## ACRONYMS

ADRC- Asian Disaster Reduction Centre

ASEAN- Association of Southeast Asian Nations

DA- District Administrator

DCP- Department of Civil Protection

DCPCC- District Civil Protection Coordination Committee

DDF- District Development Fund

DoD- Department of Defense

EMA- Environmental Management Agency

FEMA- Federal Emergency Management Agencies

GFDRR- Global Facility for Disaster Reduction and Facility

IDPs- Internally Displaced People

IOM- International Organization for Migrations

NCPPC- National Civil Protection Planning Committee

NGOs- Non Governmental Organisations

PA- Provincial Administrator

PCP- Provincial Civil Protection

RDC- Rural District Council

RDDC- The Rural District Development Committee

UN- United nations

UNDP- United Nations Development Programme

UNICEF-The United Nations Children's Emergency Fund

UNISDR- United Nations International Strategy for Disaster Reduction

USAID-The United States Agency for International Development

WADCO- Ward Development Committee

WFP- World Food Programme

WVZ -World Vision Zimbabwe

ZINWA- Zimbabwe National Water Authority

ZRCS- Zimbabwe Red Cross Crescent

## LIST OF TABLES

<b>Table 2.1</b> Plan for effective disaster response.....	34
<b>Table 3.1</b> Sample Frame.....	44
<b>Table 4.1</b> Response Rate for Questionnaires .....	54
<b>Table 4.2</b> Response Rate for Key Informant Interview .....	54
<b>Table 4.3</b> Household size of disaster victims.....	58
<b>Table 4.4</b> Disaster response equipment.....	65

## LIST OF FIGURES

<b>Figure 1 .1</b> Map of the study area.....	9
<b>Figure 4.1</b> Gender of respondents of disaster victims.....	55
<b>Figure 4.2</b> Gender of respondents of key informants.....	56
<b>Figure 4. 3</b> Occupation status of disaster victims .....	57
<b>Figure 4.4</b> Household size of disaster victims.....	58
<b>Figure 4.5</b> Common disasters in Chivi .....	59
<b>Figure 4.6</b> Relief aid Contributors .....	75
<b>Figure 4.7</b> Major needs of the disaster victims.....	78

# CHAPTER I

## INTRODUCTION

### 1.0 Introduction

The chapter presents the study under clear assessment and clarification centering at the background of the study, statement of the problem, the objectives of the research, research questions, the assumptions of the study, the significance of the study, limitations and delimitations of the study and concludes with the summary. The study focuses on relief aid and strategies and their impact in mitigating the impact of disasters targeting Tokwe- Mukosi flooding as the case study. The study will review the prevailing situation in terms of disaster response in Zimbabwe and the best of what can be, which is the ideal situation. The aim of disaster response (emergency relief) is to give prompt help to look after life, enhance the general well-being and backing the confidence of the disaster victims. Such help may range from giving particular yet restricted guide, for example, helping disaster victims with transport, tents, and sustenance, to building up semi-permanent settlement in the relocation sites

### 1.1 Background of the Study

22 February 2000, Zimbabwe was attacked by a violent tropical cyclone with solid winds generally known as Cyclone Eline (The Herald January 2015). According to United Nations Country Team (2000), the violent wind affected the eastern and southern parts of the nation. Four provinces were affected by this cyclone and these are Manicaland, Matebeleland South, Masvingo and Midlands, United Nations Country Team (2000). 96 000 people in the aforementioned provinces required dire help in sustenance, cover, wellbeing, water and sanitation and also transport. Of the 96 000, around 20 000 individuals were dislodged and were left destitute. The floods of February 2000 in the Zambezi Basin alone for instance, left 700 individuals dead, more than 500 000 individuals destitute and over US\$1billion of infrastructural harm (Wamukonya and Rukato, 2001). Mostly affected were the vulnerable groups which



include the old people, women and children. According to Gwimbi (2012), in Zimbabwe, the floods were the most damaging in numerous years and highlighted the centrality of disaster response even at the community level. In spite of the presence of the department of Civil Protection at both national, provincial and district levels, experience has demonstrated that there is a requirement for limit working of the groups to arrange and react viably to rapid onset disasters, for example, flooding.

In response, the government of Zimbabwe engaged NGOs in mitigating the impact of the cyclone induced floods by providing some food, rescuing people and provision of tents. Some of the disaster victims of the flood failed to participate amid evacuation because of suspicion and absence of learning of the impacts of flooding. To make matters worse, a portion of the search and rescue personnel who arrived at the scene had little knowledge of the area Gwimbi (2012). This incapacitated the relief efforts as it led to delayed response.

In March 2003, Guruve and Muzarabani areas and some parts of the Zambezi basin were hit by Cyclone Japhet incited floods in Zimbabwe. According to Magogo (2014), more than 50 000 people suffered the brunt of cyclone Japhet in 2003. According to Madamombe (2004) because of past false alerts from the meteorological office, individuals were no more considering conjectures important as shown amid the Cylcone Japhet incited floods. An exact figure was issued by the meteorological office but it was however not considered important until reports of deaths surfaced as an after effect of the floods in Muzarabani and Guruve. As such, the relief efforts by the rescue teams were ineffective. He notes that all relief strategies should include the people. According to Madamombe (2004), Communication needs to be improved so that the potential victims can be reached. There is also need to create awareness on the impact of floods and how people should respond to such events at local level.

In 2007, Muzarabani in the Centenary locale of Mashonaland Central Province in Zimbabwe, substantial downpours joined by savage storms from 2 to 13 December resulted in flooding. The most damaged parts were the Chadereka ward situated 60 kilometers from Muzarabani Business Center, which has a populace of 6,657 family units. An aggregate of 1,000 families were also affected with 400 of them losing the majority of their properties. The majority of the decimated houses were developed utilizing mud rather than cement, which made them vulnerable tofalling apart. The provincial Department of Civil Protection managed to engage several NGOs for

example the Red Cross in providing food staffs, tents and clothes. According to Magogo (2014), response was slow from the expected authorities as evidenced by the continued rise in numbers of the people affected by floods even after the disaster. He further notes that the health and well being of disaster victims should be the main priority in any disaster response setting. This was not the case in the 2007 floods in Muzarabani as disease outbreaks of malaria and cholera surfaced.

According to Bere (2015), a development strategist, asserts that Zimbabwe's response challenges are more "strategic" than they are "technical", (The Herald January 2015). By strategic, Bere (2015) means a national incapacity to implement effective solutions, and technical, the presence of a skilled human resources base that will not struggle designing the necessary strategies, (The Herald January 2015). Bere (2015) provides a valid assertion when he argues that "the most important part of disaster response is disaster prevention, which in itself, is a strategic response", The Herald January 2015.

Bere (2015) advocates for a plan or model to be established which serves as a user guide in the implementation of disaster response. According to the Herald 12 January (2015), effective disaster management has specific protocols for responding to disasters which determine specific routines to be activated as soon as disaster is declared and these protocols include specific performance standards to be adhered to. Then there must also be periodic mock drills to test effectiveness of responses to specific disasters and disaster response starts with disaster preparedness whereby a potential rundown of every potential calamity and their potential effects and what targets would be the most vulnerable, The Herald January 2015. Most of these aspects do not exist in Zimbabwe's disaster response or if they do, then they have been disregarded, The Herald January (2015).

Madamombe (2004) contends that the majority of the floods that often occur in Zimbabwe are violent wind prompted or an after effect of substantial heavy rains and they are not tremendous as they are in different countries like Mozambique. In Zimbabwe, the Muzarabani territory is inclined to normal disasters like floods and dry seasons in view of its physical area. The 2000 and 2007 floods in Muzarabani uncovered shortcomings and insufficiencies of the country to react successfully to disasters, Tsiko (2011). However ineffective disaster response is not only a Zimbabwe problem; rather, it is a regional and even global phenomenon. This is because

disasters, be they natural or human inflicted, have occurred on every part of the globe at one time or another. According to the Resource book for Disaster Risk Management in Zimbabwe (2013), Africa is the only continent where the regional share of reported disasters in the world total has increased over the past decade. According to UNISDR (2014), the socio-economic losses, a substantial amount of financial and other resources for development has been diverted to disaster response and rehabilitation assistance to disaster victims each year. This has contributed to Africa's poor standing in disaster response. By contrast, developed countries have well defined structures to manage disasters and emergencies largely due to their socio-economic strength.

However this is not always the case, according to Howitt and Herman (2006), as Hurricanes Katrina, Rita, and Wilma successively lashed the gulf coast starting in late August 2005, nature's fury exposed serious weaknesses in the United States' disaster response capabilities. These problems were not simply the failure of particular places or leaders to be ready for disaster but rather an indication of more fundamental issues. They noted that ineffective disaster response during the crisis was due to actions taken by various actors in the moment of crisis, unqualified crisis managers or relief officers in charge, weak leadership by elected executives, and poor or late decision making. Others involve the quality of advance preparation: inadequate emergency plans.

Benivegna (2007) notes that there is much debate that exists regarding the effectiveness and timeliness of disaster response in the country. For example, he notes that a request from Federal Emergency Management Agencies (FEMA) for the Department of Defense (DoD) to respond to a particular disaster involves several checks and balances, which ultimately require that the Secretary of Defense or a designated representative approve the request prior to the allocation of military assets Benivegna (2007). Critics of this process claim the 21-step approval procedure takes too much time and delays the allocation of resources in disaster response, as such, this can lead to ineffective disaster response and as a result increases the impact of disasters. Perry and Lindell (2006) argues that loopholes could be seen in the America disaster response systems as evidenced by lack of effective communication during disaster, disaster declarations, role abandonment by relief workers during the crisis among others. As such, the disaster response problem becomes a global phenomenon bedeviling even developed countries for example America.

Regionally, disasters have turned into a hindrance even to the sustainable development in Africa. According to the African Regional Strategy for Disaster Risk Management (2007), disaster risk reduction policies and institutional mechanisms do exist at various degrees of completeness in African countries. However, their effectiveness is limited, hence the need for a strategic approach to improving and enhancing their effectiveness and efficiency by emphasizing disaster risk reduction.

This strategy was carried out after it emerged that development was at risk from disasters in Africa mainly because there are gaps in issues like institutional framework, governance, knowledge management and disaster response hence the integration of disaster risk reduction in disaster response management. According to Kalambay (2010), in 2009 in the Horn of Africa, around 23 million people required humanitarian food aid and more than 1.5 million people in 26 countries were affected by floods. weak response systems has not made the situation any better as he notes that the critical mass of trained persons needed to support countries in Disaster Preparedness and Response is not yet in place. He asserts that about eighteen countries lack human resources with even the basic training to manage emergency responses. In countries where trained persons exist, they are limited in number ranging between 1 and 5. In this connection, groups at danger in Africa get themselves considerably more helpless on account of a few frustrating elements, including: neediness, ecological debasement, insufficient trade of information and data among African nations, and lack of proper coordination at the continental level. This then demonstrates that regionally, disaster management and specifically emergency response is still not sufficiently compelling to avert the catastrophic effects of disasters. The aim is to provide sustainable disaster management systems for the effective implementation of disaster response in Zimbabwe for humanity (flood victims) and even economic activities.

## **1.2 Statement of the Problem**

Ideally, an effective response system is whereby there is promotion and facilitation of a rights-based approach to disaster response and timeously. Specifically, there is the engagement of NGOs and Civil Societies to ensure that human rights standards are incorporated into all disaster response activities, and that the disaster victims are completely counseled and can partake in all phases of the disaster. It should also give due consideration to guiding principles of internal displacement that is the ensuring the safety of persons against enforced relocation and their help

amid relocation and additionally amid return or relocation and reintegration. However the prevailing situation leaves a lot to be desired. The current situation in disaster response in Zimbabwe is not effective due to a number of reasons that will be explored later on and Tokwe Mukosi disaster exposed weaknesses in the system. It is characterized by lack of finances, poor coordination and communication, corruption among other factors which impede on effective disaster response. It is against this background that this research seeks to endeavor in a bid to proffer solutions for disaster response so that it becomes more effective.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

- ❖ To assess the impact of Disaster Response of Tokwe Mukosi Flooding

#### **1.3.2 Specific Objectives**

- ❖ To identify the role of different stakeholders, local government, Department of Civil protection, NGOs etc, in disaster response in Zimbabwe
- ❖ To examine factors impeding effective disaster response in Zimbabwe
- ❖ To determine the effects of disasters
- ❖ To establish an effective plan for better emergency response

#### **1.3.3. Research Questions**

- ❖ What roles are played by the local government, Department of Civil Protection, NGOs in disaster response in Zimbabwe?
- ❖ What are the factors affecting effective implementation of Disaster Response in Zimbabwe?
- ❖ What are the effects of disasters (environmental, social, health e.t.c)?
- ❖ Is there a plan that has been put in place by government and various stakeholders to follow or use as a guideline during disasters for the implementation of disaster response?

### **1.4 Significance of the Study**

The results of this research will help stakeholders and victims of disasters in having effective and sustainable relief aids. This research distinguishes zones for development in a implementing emergency response and points of confinement on effectiveness by revealing the weaknesses that exist in the current disaster management systems in Zimbabwe. It pays particular attention on the

factors which may impede on successful implementation of disaster response systems in Zimbabwe. It will be a reflection on the type and relevance of relief aid and their sustainability to the victims of disaster and the community in general, so it may help the community and relevant stakeholders in developing effective disaster response systems. The research is critical to the scholarly world since it adds on to the learning base of disaster management by and large and specifically disaster response in Zimbabwe. This study endeavors in brief to survey the condition of risk management hence disaster response in order to reveal how it needs to go ahead. In essential terms, this Research will be vital to the accompanying partners

#### **1.4.1 to the researcher:**

- ❖ The research is in partial fulfillment of the Bachelor of Social Science Degree in Local Governance Studies at Midlands State University. The research is to provide a special understanding on the effect of disaster response in Zimbabwe.

#### **1.4.2 to the University**

- ❖ This research will give literature to both the students and the staff who in might in the future wish to investigate the issue at hand. The research can also act as a source of information in other studies of related information

#### **1.4.3 to other stakeholders, (Government, Communities etc)**

- ❖ The findings of the study will help the various stakeholders to identify hence formulate further strategies to fill in these gaps.

#### **1.5 Assumptions of the Study**

- ❖ Questionnaires and interviews are composed in English on the presumption that the respondents are educated enough to respond and that the data obtained will be substantial to this research.
- ❖ Respondents can trust the researcher as just a “researcher” (not thinking that he is a donor)
- ❖ Participants are going to respond to the research questions honestly and objectively.
- ❖ Responses on the interview tool for the key informants will capture the needed data that would lead to an accurate analysis about the problem.

## **1.6 Limitations of the Study**

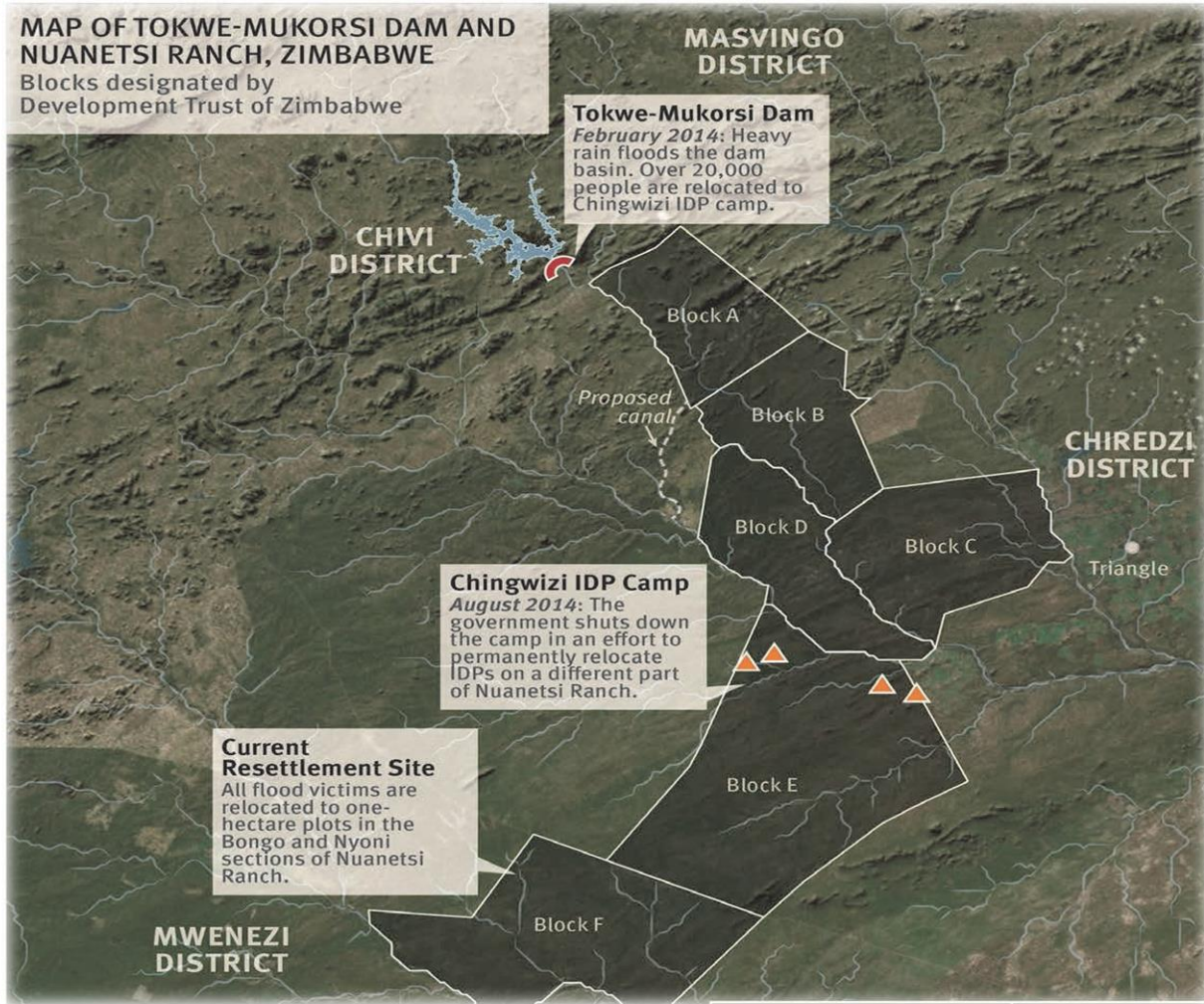
- ❖ Considering the fact that various organisations dealing with human rights have criticized the Government of Zimbabwe in allegedly abusing human rights on the Tokwe Mukosi saga especially on the issue of Internally Displaced People (IDPs), the researcher might face challenges in obtaining information from key informants like government officials for example Chivi Rural District Council and the district administration as they might be skeptical about revealing information about the Tokwe-Mukosi disaster
  - As a solution, the researcher will clearly state the objectives of the study to the key informants and how it is significant to various stakeholders.
- ❖ The Tokwe- Mukosi flood disaster traumatized the inhabitants and this may have huge bearing on the issues that are regarded to be tolerable for discussion. A few respondents may be in trepidation and not at freedom to disclose data.
  - In solving this problem, the researcher will proceed onward to the next respondents who will be interested in sharing the required information.
- ❖ Financial constraints will make travelling to research site a bit compromised as the researcher depends much on personal savings.
  - If other sources of funds cannot be established, the researcher will visit the area just once and maximize on the visit

## **1.7 Delimitations of the Study**

The study will be done in the Southern Masvingo region. The area covers Ngundu, Chisase, Masangula which are about 70 km from the dam site. Nuanetsi Ranch in Mwenezi District will be the main study area considering most of the flood victims were resettled there after the shutdown of Chingwizi Holding Camp. According to the Chingwizi Report Final (2014), about 6 500 families were evacuated to Nuanetsi Ranch which is about 20 000 people in total. Nuanetsi Ranch is estimated to be around 862 000 acres in extent. Mwenezi River bisects the district in two on its way to join the Limpopo River in Mozambique in the South. The A4 parkway is the

principle lane that interfaces the town of Beitbridge, on the outskirts with South Africa, to Masvingo. Nuanetsi ranch is then situated along the A1 highway between Masvingo and Beitbridge.

**Fig 1.1 Map of the study area**



The target population for the research will be the flood victims and also selected stakeholders such as members of the Department of Civil Protection Head Office and Chivi Rural District Council among others. The research will be generally focusing on addressing the factors which impede effective disaster response and particularly focusing on the impact of disaster response on the rural population of Tokwe-Mukosi. The research will not be focusing on risk assessment or analysis, disaster prevention and mitigation.



## **1.8 Definitions of Terms**

**Disaster** - According to Cardona (2003), is a social process triggered by a natural, socio-natural or human induced phenomenon which, due to vulnerability conditions to the population, infrastructure and economic systems, causes intense, serious and extended alterations in the normal functioning of the affected community to the extent that they are unable to autonomously respond to and resolve the problems using their own resources.

**Natural Disasters** – these are events or forces of ‘nature’ that are of meteorological, geological, biological or extraterrestrial origin, Department of Civil Protection Resource Book (2013)

**Floods** - a flood is an overflow of a large amount of water over dry land, Concise Oxford English Dictionary (2010),

**Disaster Response** -is the procurement of help or aid amid or promptly after an emergency to protect and meet the immediate needs of the affected families, Disaster Response and Preparedness in Southern Africa Guide (2008).

## **1.9 Chapter Summary**

The section explored the background of the study investigating the impact of disaster response by addressing the global, regional and national situation. The chapter also looked on the statement of the problem addressing the problem at hand illuminating the ideal and the prevailing situation in terms of disaster response. The significance of this study is to share knowledge to various stakeholders for example local Authorities, the university and the community. The chapter concluded with the delimitations which is the boundary or scope of the area under study and limitations of the research.

The next Chapter will focus on reviewing work done by other researchers on the area under study. The chapter will discuss theoretical and empirical literature within the area of study and will address the objectives of the study. The key themes and concepts to be examined in the next chapter of the research include the conceptual framework for disaster response in Zimbabwe and the legal framework it operates under, it will address the factors which hinder effective disaster response and will also provide case studies from various countries.

# CHAPTER II

## LITERATURE REVIEW

### 2.0 INTRODUCTION

This part will concentrate on checking work done by different scholars in the case under study. The chapter will discuss theoretical and empirical literature within the area of study in a comparative and analytical point of view. The key themes and concepts to be examined in this section of the research include the conceptual framework for disaster response in Zimbabwe and also the legal framework it operates under. It also discusses the effects of disasters and on a global scale. The researcher also addresses the research objectives by giving a comparative analysis of disaster response from various countries. It also looks at the roles of different actors in disaster response and also the factors which impede of effective disaster response. The researcher also provides a plan or framework for effective disaster response.

### 2.1 LITERATURE REVIEW

The purpose of a literature review according to Donald and Schindler (2000) is to familiarize the researcher with the lasted developments in the area of research. The researcher must be acquainted with the problems, hypotheses and results obtained by previous research in order not to duplicate efforts but to widen and deepen them. It aims to identify gaps in knowledge, as well as weaknesses in previous studies and to determine what has already been done and what is yet to be studied and what can be improved.

Literature for this chapter was obtained from secondary information like newspapers, textbooks, on line publications, archives, reports, journals and other secondary sources.

### 2.2 DEFINITIONS OF KEY TERMS

*Disaster Response* – Carter, N.W, (2008) defines disaster response as measures or actions taken immediately prior to and following a disaster impact. They are directed towards saving life,

protecting property, and dealing with the immediate damage and other effects caused by the disaster,

**Disaster** - This is a social process triggered by a natural, socio-natural or human induced phenomenon which, due to vulnerability conditions to the population, infrastructure and economic systems, causes intense, serious and extended alterations in the normal functioning of the affected community to the extent that they are unable to autonomously respond to and resolve the problems using their own resources. Cardona (2003)

**Floods** – a flood is an overflow of a large amount of water over dry land, Concise Oxford English Dictionary 11<sup>th</sup>ed (2010),

**Natural Disasters** – Department of Civil Protection Resource Book (2013) defines natural disasters as events or forces of ‘nature’ that are of meteorological, geological, biological or extraterrestrial origin. In other words, natural disasters are events which results from natural processes of the earth and usually result in serious damage of the environment, socially; economically etc. examples include hurricanes, tornados, or floods.

### **2.2.1 CONCEPTUAL FRAMEWORK OF DISASTER RESPONSE**

As a point of departure, the Chapter will start by explaining the concept of disaster response. It is part of a disaster management life cycle peculiar with such stages like mitigation, preparedness and recovery, the latter comes shortly after response. Warfield (2007) asserts that the Disaster management cycle illustrates the ongoing process by which governments, businesses, and civil society plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred. Disaster response then becomes the efforts to minimize the hazards created by a disaster. Examples include search and rescue; emergency relief and even temporary housing. Warfield (2007) asserts that there is usually a thin line between disaster response and recovery and there is actually no distinct point at which immediate relief changes into recovery and then into long-term sustainable development. But either way, response is the immediate action that takes place as soon as disaster strikes and ongoing action during disaster.

Conceptually, response can be seen as one element in a comprehensive approach to risk management that emphasizes four processes: risk reduction, promoting readiness, response to the

event and post-event recovery, Norman (2004). He asserts that response itself concentrates on damage and loss mitigation which may be human, economic or environmental.

Penning-Rowsell and Wilson (2000), defines it as the action taken ‘during’ a disaster by official agencies or unofficial bodies, including individuals, generally aimed at mitigating the adverse impacts of the disaster by reducing the extent of the event and its severity. However other scholars are advocating for an effective disaster response which does not start ‘during’ the disaster, but at the preparation stage of the disaster management life cycle. Mushore (2015) gives another dimension in disaster response effectiveness of disaster prevention as a way of capacitating disaster response as there would be little work to do. This is also according to the Hyogo Framework for Action 2005 which states that strengthening disaster preparedness is essential for effective disaster response. Mushore’ sentiments coincide with the development strategist Bere’s (2015) “strategic response” views. He argues that the success of responsiveness is greatly affected by access to early warning as well as individual reaction. He advocates for a disaster response mechanism that ensures that communities receive early warnings no matter how remote they are. Moreover according to the Zimbabwe National Contingency Plan 2012-2013, there should be adequate levels of preparedness in place by Government and all stakeholders to ensure effective response regardless of the scenario realized. As such, this improves the impact of disaster response

Rosenthal and Bezuyen (2000) stresses that the efficiency within which the disaster response system operate is becoming more important in determining the vulnerability of communities to the disasters that they face. Disaster response has to be properly planned such that it becomes efficient in such a way that it reduces the impact of a disaster. According to Yi and Ozdamar (2007), logistics planning in disaster response involves dispatching commodities (e.g. medical materials and personnel, specialized rescue equipment and rescue teams, food, etc) to distribution centers in affected areas and evacuation and transfer of wounded people to emergency units. He notes that during the initial response time, it is also necessary to set up temporary emergency centers and shelters in affected areas to speed up medical care for less heavily wounded survivors.

## **2.3 LEGAL FRAMEWORK FOR DISASTER RESPONSE IN ZIMBABWE**

The 1982 Civil Defense Act was the first piece of legislation for disaster management in the country of Zimbabwe. The 1982 Civil Defense Act was replaced by the Zimbabwe Civil Protection Act in 1989 which was then changed in the 2001 and it develops the meaning of what the term "disaster" implies for the nation of Zimbabwe. This enactment brought about the making of the Department of Civil Protection (DCP) and the National Civil Protection Coordination Committee (NCPCC) which derives its mandate on section 41.2. It is in charge of the execution of disaster risk management in the country. The permanent members from this committee are senior officers chosen from state services and offices and Non-Governmental organizations e. t. c. Different individuals, particularly from the private sector, are co-selected if necessary. This multi-sectoral representation is replicated at provincial and district levels.

The Act spells out that it is the duty of each resident of Zimbabwe to help any place conceivable to moderate the effects of disasters. The Civil Protection Act [Chapter20:06] spells out the forces vested in people and in addition associations on account of disasters, for example, floods. The obligation of disaster preparedness and disaster response rests with the Department of Civil Protection. However the department can approach any state organization or department or private organizations to help if necessary.

## **2.4 EFFECTS OF DISASTERS**

### **2.4.1 Internally Displaced Persons (IDPs)**

IDPs are persons or gatherings of persons who have been constrained or obliged to escape or to leave their homes or places of periodic living arrangement, specifically as an after effect of or with a specific end goal to maintain a strategic distance from the impacts of disasters, violence, conflict, infringement of human rights and who have not crossed a globally perceived state outskirts OCHA (2001). Over the years, disasters have resulted in a large number of internally displaced persons. These people once displaced, are left vulnerable to health hazards. UNHCR (2006) notes that removals have happened everywhere throughout the world, an expected number of 25 million, however Africa has the world most elevated record of these evaluated to be more than 13 million which is higher than whatever is left of the world set up together and the greater part of these are disaster instigated. Well over 700 000 individuals were displaced from

the region by Hurricane Katrina, Benivegna (2007). Cyclone Eline in Mozambique displaced over 650 000.

#### **2.4.2 Destruction of property, infrastructure, livelihoods and loss of lives**

The impact of disasters is further worsened in poor countries whose capacity to prevent, prepare, mitigate and respond is weak, Manikai (2009). In Zimbabwe, Cyclone Eline in February 2000 caused extensive damage to infrastructure (Dam walls collapsing, bridges, schools, houses etc), requiring huge reconstruction costs by the relevant sectors. Cyclone Japheth in 2002 caused the flooding of vast agricultural land, erosion of topsoil and crops and siltation of rivers and dams due to excessive prolonged precipitation (Chigana, 2004). The negative effects of these floods manifested themselves in the reduction of agricultural yields, death of livestock and the destruction of major surface water sources such as in Mukuvisi River and Lack Mutirikwi not mentioning other dams in most rural areas (Chigana, 2004). In America, Hurricane Katrina wiped out infrastructure in much of the Gulf coast area: water, electricity, telephones, sewage, roads, bridges, phone and radio towers were all destroyed or inoperable. According to Benivegna (2007), over 200 000 homes were severely damaged or destroyed by the Hurricane Katrina.

Disasters also effect on the livelihoods of people. In Bangladesh, a large sector of the population depends on rice production as a livelihood. Smith et al (2001) notes that the 1998 floods in Bangladesh led to a reduction in the main monsoon season rice crop of more than 10 percent of targeted production for the entire 1998/99 fiscal year and threatened the food security of tens of millions of people. In addition, he notes that the floods caused more than 2 300 deaths in the country. According to the Africa Regional Strategy for Disaster Risk Reduction Paper (2004) in 2000-2001, about 35 million people, equivalent to 13 per cent of the total population in Africa, were affected by disasters. The paper notes that in terms of economic losses, disasters significantly derail development in affected countries. For instance, in 2000 a flood in Mozambique brought down the nation's (GDP) by around 12 %, and the 1992 dry season lessened Zimbabwe's and Zambia's GDPs by around 9 %. Notwithstanding such extensive, discrete and high-effect disasters, intermittent yet limited dangers disintegrate the development capability and vocations of most of poor people and debilitate their adapting and survival capabilities.

### **2.4.3 Health**

Manyanya (2015) asserts natural hazards are a cause for concern in communities since they destroy and impact negatively on public health. He notes that people are usually left homeless without any food to survive upon for example Cyclone Eline induced floods in 2000 left thousands of people without food. When a disaster occurs, people are usually left susceptible to disease attack and entangled in poor sanitary conditions. Some people end suffering from malnutrition as a result of lack of variety of the foods they eat which in most cases is provided by the donors. They end up erecting temporary shelter from papers and the whole family sharing the same shelter. They lack proper sanitation and end up suffering from various diseases like diarrhea, dysentery and typhoid due to drinking unsafe water. Floods in particular will cause disease outbreaks of waterborne nature such as malaria and diarrhea as evidenced by the Cyclone Japhet of 2003 which resulted in a malaria outbreak. An effective and efficient disaster response system can reduce or prevent these diseases from aggravating the impact of a disaster.

## **2.5 ROLES OF DIFFERENT STAKEHOLDERS IN DISASTER RESPONSE**

### **2.5.1 Role of the Department of Civil Protection**

The Department of Civil Protection is a creation from the Civil Protection Act (2001) 1(2). Generally, the Department of Civil Protection has been the primary body tasked with the obligation of setting up emergency management in the country. The Department is currently housed within the Ministry of Local Government, Public Works, and National Housing, as the implementing body of the national government initiated disaster preparedness, mitigation and response programs (Chikoto and Sadiq 2012). The Department of Civil Protection has dependably and keeps on being in charge of planning all national reaction endeavors, furthermore, in view of the Civil Protection Act (2001) Chapter 10.06, its present essential capacities incorporate getting ready for, averting where conceivable, and alleviating the impacts of fiascos once they happen which is disaster response. Generally, the Department of Civil Protection's obligations envelop asset activation in readiness for overseeing and reacting to real crises and catastrophes. Notwithstanding spreading disaster management data, the office is additionally in charge of organizing the preparation of civil protection officers at all three levels of government in order to improve their aptitudes in giving alleviation or humanitarian help. Furthermore, according to the Civil Protection Act 2001; Part VI, Section 18(3), the Department

of Civil Protection helps to coordinate disaster response in consultation and cooperation with various support networks, including the Zimbabwe Defense and Police Forces

According to the Department of Civil Protection Resource Book (2013), as a response strategy, the department also carries out regular vulnerability and capacity assessments during periods of disaster, to collect baseline data and information gathering for relief responses. The department is the 1<sup>st</sup> organisation at any disaster scene providing humanitarian assistance to the victims. If the resources of the government are overwhelmed, the department will call on the President to call for a national disaster and regional and international assistance will be sought so as to reduce the effects of the disaster. It also has the role of coordinating its sub-committees at provincial and district levels that also provide emergency assistance and the implementation of disaster response. Zimbabwe's disaster risk management framework is initiated by the Department of Civil Protection bodies at the national, provincial and district levels, all with an end goal to encourage coordination and guarantee a successful relief aid system, Chikoto and Sadiq (2012).

### **2.5.2 ROLE OF LOCAL AUTHORITIES**

These are required to prepare for emergencies by delivering operational arrangements for the implementation of disaster response that will be enacted in case of a debacle, United Nations International Strategy for Disaster Reduction (2005). Local governments are proximate to disaster sites and have at least some emergency capacity, they can respond quickly to initial alerts. They have detailed knowledge of local conditions, and in many cases have agreements for mutual aid to secure additional help rapidly from nearby jurisdictions, Howitt and Herman (2006). In America, aid from state or national sources is provided mainly when local government capability is inadequate or has been exhausted. Also in Japan, according to the Asian Disaster Reduction Centre ADRC (2011), it is the direct responsibility of municipalities to carry out emergency response operations, such as firefighting, rescue, ambulance service within its territory whereas prefectural governments are authorized to render assistance.

In Zimbabwe, local governments are progressively playing an integral part in mitigating the effects of disasters through disaster response. Due to their proximity to communities and residents, local governments are required to prepare and respond to emergencies. The central government may have imperative specific assets and capacities, yet more distant away it



is generally less ready to react to calamities instantly. Local government work as one with the national government furthermore the Department of Civil Protection in upgrading composed endeavors, limited arrangements, which would determine the systems and methodology for issuing ready, departure strategies, among different components in improving their reaction capacities to relieve the impacts of catastrophes, United Nations International Strategy for Disaster Reduction UNISDR (2005).

Local governments for the most part have a key part in recognizing and comprehension the trustworthy perils and dangers that could affect on the wellbeing and supportability of their groups. as such, they are additionally anticipated to play the main part in a emergency response with the backing of the common and national levels in this manner reinforcing the decentralization strategy. According to Howitt and Herman (2006), the decentralizing of critical services within local authorities will assist them in the providence of relevant resources and equipment and also training to ensure that most of the search and rescue activities are done locally.

The Provincial Administrator or the (PA) is the Chairperson of the Civil Protection board. It comprises of heads of offices and Non Governmental associations. This council meets just once every month under ordinary circumstances, however when a debacle strikes, the gatherings turn out to be more incessant until the catastrophe has been contained. Advisory group consultations nourish into the Provincial Development Committee (PDC) meeting, which is hung on a quarterly premise.

At the district level there is the district civil protection committee and it is chaired by the DA. It is called the District Civil Protection coordinating committee (DCPCC). It consists of members from various government departments, for example the army, health, the police among others, as articulated in the Civil Protection Act (10:06).The terms of reference of this structure is also akin to those of the provincial civil protection committee. Moreover the plans of the District Civil Protection Committee also feed into the Rural District Development Committee (RDDC). Its main role in disaster management is to protect the local people from risks, emergencies and disasters through disaster preparedness, disaster response and also disaster recovery and

rehabilitation. The DCPCC also meet once each month and more often during a disaster so as to implement properly well coordinated disaster response.

### **2.5.3 ROLE OF THE COMMUNITY**

Local community-based emergency reaction approaches have turned out to be progressively essential in social orders confronting unpredictable and unverifiable dangers (Ikeda and Nagasaka, 2011). In all calamities, nearby groups play the first and regularly most vital part in reacting by safeguarding those influenced, giving medical aid and crisis cover, typically much sooner than outside associations land at the scene.

The first humanitarian actors on site after the occurrence of a disaster are the local community and local government. When a disaster occurs, the immediately affected people are the local community in which the event occurs. As such, over the years, institutions dealing with disaster management in general and disaster response in particular have made efforts to enhance local communities' response capabilities. As a result, they become community- resilient.

Twigg (2007) defines a disaster-resilient community as a community which has the capacity to absorb stress and destructive forces through resistance or adaptation and to manage or maintain certain basic functions and structures for disaster response. Disasters can be prevented or their impact on people and communities mitigated but the extent to which this happens depend on human action or inaction in response to high to high risk and vulnerability, Guzman (2001). Guzman's views allow us to recognize the importance of community action, such as capacity building, including planning response to potential disasters, and managing and mitigating their effects.

The desire to strengthen disaster management structures came immediately after Cyclone Eline induced floods to try and address the weaknesses identified in the management of the 2000 flood events (Madamombe 2004). Some of which involved lack of local community involvement especially in the decision making process of the disaster management. Some of the victims of Cyclone Eline did not cooperate during evacuation due to suspicion and lack of knowledge of the effects of flooding, Gwimbi (2007). Tsiko (2011) notes that reinforcing the capabilities of local communities to undertake most of their own search and rescue activities ,albeit, with the support

of provincial and national civil protection bodies, is the appropriate strategy for disaster response, as such, the community has a central role in ensuring the success of a disaster response activity.

Community participation in disaster response is very essential. Gwimbi (2001), notes that there is also the need to promote local community means of communication to disseminate early warning information. This view is echoed by the United Nations (2006) which has emphasized that disaster response systems must be community-centered. As such, their key role include disseminating information to local authorities or disaster management institutions about a disaster, providing essential information to humanitarian assistors and cooperating in evacuation efforts.

#### **2.5.4 ROLE OF NON GOVERNMENTAL ORGANISATIONS (NGOs), UNITED NATIONS (e.t.c)**

According to the Zimbabwe National Contingency Plan 2012-2013, partners including UN agencies and NGOs have continuously played a key role in providing financial, material and logistical support to the Department of Civil Protection to prepare and respond to floods. When a disaster exceeds national capacity to respond, the national authorities will request for international partners for assistance. NGOs have an important role to play in disaster response as they provide mainly humanitarian assistance to disaster victims. Humanitarian action, seen from the perspective of humanitarian agencies, is considered as the need to assist and protect people affected by disaster ,their lives, livelihoods and environments .In Zimbabwe, partners including UN agencies and NGOs have continuously played a key role in providing financial, material and logistical support to the Department of Civil Protection to respond to disasters. According to the Disaster Response and Preparedness in Southern Africa Guide (2011), the key role of international communities and NGOs in disaster response is to support national efforts in protecting the lives and dignity of people in need. In general, the goal of humanitarian action by NGOs therefore includes saving lives, alleviating human suffering, maintaining human dignity during a disaster, and working on disaster prevention as well as improving disaster response.

All NGOs providing humanitarian assistance in disaster response are guided by a handbook called the *Sphere Project: Humanitarian Charter and Minimum Standards in Disaster Response*.

It is an internationally recognized set of common principles and universal minimum standards for the delivery of humanitarian assistance in disaster response. Sphere standards guide humanitarian action across four primary areas:

- Water supply, sanitation and hygiene promotion;
- Food security and nutrition;
- Shelter, settlement and non-food items; and
- Health action.

In the Zimbabwe 2000 Cyclone Eline induced floods, some of the roles performed by NGOs like the Red Cross Crescent, OCHA, UNICEF in disaster response , included providing Aqua tablets, building temporary shelters (i.e. tents), food items (mealie meal, sugar e.t.c.), buckets among other things. In the 2003 cyclone Japhet induced floods in Muzarabani; NGOs like the Zimbabwe Red Cross also played a key role in disaster response by providing humanitarian assistance so as to reduce the effects of the disaster.

## **2.6 DISASTER RESPONSE IN THE UNITED STATES OF AMERICA**

As Hurricanes Katrina, Rita, and Wilma successively lashed the gulf coast starting in late August 2005, nature's fury exposed serious weaknesses in the United States' emergency response capabilities, Howitt and Herman (2006). The effects of the disasters were devastating. The Hurricane wiped out infrastructure in much of the Gulf coast area: water, electricity, telephones, sewage, roads, bridges, phone and radio towers were all destroyed or inoperable. According to Benivegna (2007), over 200 000 homes were severely damaged or destroyed by the Hurricane Katrina and over 700 000 people displaced.

In the United States, the initial and usually major responsibility for disaster response rests with the local authorities. The local authorities' role is to respond to disasters at the local level. Howitt and Herman (2006) term it as a "bottom-up" system of emergency management which has a long history and continues to make sense in most circumstances. Because local governments are proximate to disaster sites and have at least some emergency capacity, they can respond quickly

to initial alerts. They are closer to the people and can respond to disasters more swiftly than the rest of the country.

He notes that local authorities have detailed knowledge of local conditions, and in many cases have agreements for mutual aid to secure additional help rapidly from nearby jurisdictions. In the United States of America, relief aid from state or national sources is provided mainly when local authorities' capability responsible for that particular area is inadequate or has been exhausted. State government may have important specialized resources and capabilities, but farther away, it is usually less able to respond immediately. Its resources may have to travel considerable distance to get to a disaster site. Howitt and Herman (2006) argues that the reason for this set up is because Federal government responders are likely to be even more distant, hence much slower to arrive on a significant scale and lack both local knowledge and integration with local and state responders.

Perry and Lindell (2006) argues that quite clearly, the normal model or framework for disaster response in the United States of America was inadequate to handle the disaster of Hurricane Katrina and showed weakness in managing the fierce but less demanding challenges of Hurricane Rita and Hurricane Wilma. The Federal Emergency Management Agencies (FEMA) and the Department of Defense (DoD) were able to engage the Military in evacuating the disaster victims but this was not effective as was evidenced by the rising death toll and increasing numbers of "missing persons" during the disaster. Perry and Lindell (2006) cited amongst other reasons why relief strategies were ineffective during the disaster which include lack of quality of advance preparation for disaster response, inadequate emergency plans, poor follow-up to shortcomings revealed by tabletop exercises, role abandonment by relief workers during the crisis and failure to make investments in needed infrastructure. Still others relate to the larger context of national preparedness. These are the factors which hinders effective disaster response in the country.

Howitt and Herman (2006) also notes that Hurricane Katrina has shown that the United States has not progressed as far as some believed in building better disaster response capacity in the aftermath of September 11 and the establishment of the Department of Homeland Security.

### **2.6.1 DISASTER RESPONSE IN KENYA**

According to the National Policy for Disaster Management (2009), although Kenya's economy and by extension its population could be classified as highly vulnerable to natural and man-made disaster risks, the country does not have comprehensive disaster response framework and strategies guided by appropriate policy and legislative provision.

The 1999-2001 droughts, considered to be one of the worst droughts in Kenya, affected 4.5 million people, decimated nearly 60-70% of livestock in the Arid and Semi Arid areas, caused crop failure in most parts of the Rift Valley, Coast, Eastern and Central Provinces, resulting in substantial agricultural and industrial losses, costing the national economy billions of shillings. It is estimated that the Government, together with development partners and other stakeholders such as the UN agencies, Civil Society and the Private Sector, spent a colossal USD 340 million to respond to this drought. In response, the government of Kenya managed to engage the international community in providing humanitarian assistance especially food aid to the affected population. That is one of the major roles of NGOs in disaster response which is providing humanitarian aid to the disaster victims. However the disaster response was slow considering the country had no effective framework or model for managing disasters as evidenced by the high number of affected people (4.5 million). As a result, the disaster had a bigger impact on the population of Kenya.

A study entitled, "the cost of delayed response" carried out by disaster management experts in 2002 estimated that only USD 171million would have been required to effectively respond to this drought had there been an effective disaster management system in place. The extra amount was a cost to the national economy attributed to poor preparedness and delayed response to this drought episode, National Policy for Disaster Management (2009). It also notes that among other inadequacies, capacity for response is inadequate, because resource procurement is slow during emergencies and lack of trained personnel in disaster response. These frailties were all common in the disaster response of the 1999-2001 droughts in Kenya and they hinder successful implementation of disaster response.

## **2.6.2 DISASTER RESPONSE IN MOZAMBIQUE**

In Mozambique, the government institution which is tasked with disaster response in the country is the National Institute for Disaster Management. Created in 1999, its role is conducting mitigation efforts (such as collection and analysis of data), undertaking preparedness measures (e.g. awareness campaigns) and coordinating disaster response. It coordinates disaster response at the national, provincial and district levels as well as the community levels. For a country like Mozambique, because of its geographical location, the availability of an effective disaster response system should not be a question. By its physical location, on the southeastern coast of Africa, and located downstream from several major rivers, Mozambique is considered to be extremely prone to recurrent natural hazards, namely floods, tropical storms, drought, and earthquakes, Global Facility for Disaster Reduction and Facility GFDRR (2014).

Kobe (2005) notes that the 2000 floods were the worst floods in the living memory in Mozambique, with a death toll of 699 people, plus 650 000 displaced and 4.5 million affected in South and Central of the country. The floods also caused disruption of the economic and social activities with reported losses of more than \$US650 000 million. The impact of this disaster was aggravated by the country's lack of preparedness and non effective disaster response. Kobe (2005), notes that the floods overstretched the capacity of the government to respond to the disaster. As part of their response, the National Institute for Disaster Management managed to carry out search and rescue of people stranded in isolated areas using aircrafts, boats and trucks with international assistance, established temporary shelters for the thousands of homeless and evacuees, provision of humanitarian emergency relief, including food and non-food requirements in more than 100 temporary accommodation centers in radius of more than 1 000 Km in five provinces and also provision water purification equipment, sanitation and medical assistance in the camps.

In 2013, the country was again hit by floods of the same magnitude with the 2000 floods but with a different impact on the population. The 2013 floods affected most of Southern Mozambique, 30 people died as a direct consequence of floods in the Limpopo River basin, and up to 186 000 were displaced. Damages were estimated to exceed US\$250 million of which 50 percent on the road network and 30 percent in the agricultural sector. Comparing the 2000 and

2013 disasters in Mozambique will reveal that there was a sharp decrease in fatality rates and the impact of natural disasters indicates that disasters are being managed more effectively.

According to a guide by the Global Facility for Disaster Reduction and Recovery (GFDRR) (2014), this reflects lessons learned in the prior decade, including preparedness and effective disaster response. The 2000 floods were more devastating mostly because the disaster response was not effectively carried out as the country was not prepared enough and according to Mushore (2015), lack of preparedness hinders successful implementation of disaster response. Moreover, the National Institute for Disaster Management in 2000 only had 1 year of operation. In contrast in 2013, the GFDRR (2014) notes that the National Institute for Disaster Management in collaboration with other stakeholders had established storage facilities for disaster relief items in key areas like provincial capitals and other strategic sites. In these facilities the government keeps a minimum of disaster relief items that are readily available for initial relief operations in case of disasters which is a good preparedness plan for effective disaster response. As such, this will strengthen their disaster response and relief strategies and reduce impacts of disasters.

### **2.6.3 DISASTER RESPONSE IN JAPAN**

Japan has one of the most organized disaster response systems in the world largely because of its economic stability. Panda (2011) notes that indeed, high-income nations respond better to catastrophic disasters than low-income or middle-income countries. Countries with disposable incomes respond more effectively and recover more quickly to disasters which is also one of the reasons why Zimbabwe's response system is found wanting, the economic instability of the nation plays a key role in the effectiveness of its disaster response.

Renowned for its technological advancement, financial stability, potent administrative, military resources and a 100-year-old tradition of national disaster response planning, but still, its response management capability was found wanting, Panda (2011). Japan is one of the most disaster prone countries because of its geographical location across tectonic faults. Over the years, it has continuously developed its disaster response system. According to Asian Disaster Reduction Centre (2011), as a constituent element of the entire disaster management system, disaster response in Japan is managed at 3 levels the national, provincial and local level with voluntary bodies (e.g. NGOs, International Communities, e.t.c.).



The massive earthquake (known as the Tohoku earthquake) and the subsequent tsunami that struck Japan on March 11, 2011, and the following release of radiation from the Fukushima Daiichi nuclear power station, constitute one of the greatest disasters to strike Japan in recent times. It had devastating effects, Over 4 million buildings were damaged, electricity supplies were cut off, and drinking water pipes destroyed. The disaster also resulted in destruction and damage to roads, bridges, ports, railroads, buildings, and other infrastructure. An estimated 28,000 people were dead or missing and it affected about 15 million people.

As it transpired however, Japan's disaster response management failed because of systemic weaknesses, Panda (2011). The systemic failures of the Japanese government represented almost the same weaknesses that were identified in the US following Hurricane Katrina, Panda (2011). He notes that the reasons why relief responses were ineffective in the 2011 disaster were the direct results of inbuilt weaknesses. He lists them as follows:-

- Lack of political leadership.
- Delayed response of the central government to the disaster.
- Ineffectiveness of non-governmental response.
- Constraints on the military.
- Inefficient communication system.
- Socially vulnerable people

Lack of coordination, lack of communication, lack of ability to make decisions are all fundamental systemic flaws that need to be accepted and resolved if an effective disaster response management capability is to be developed, Panda (2011). In other words, these are the other factors which hinder successful implementation of disaster response. As such, the effects of disasters will continue to increase for as long as there is no proper framework and effectively coordinated disaster response system as is evidenced by the above case studies in various countries.

## **2.7 FACTORS IMPEDING EFFECTIVE DISASTER RESPONSE**

### **2.7.1 LACK OF PREPAREDNESS**

Disaster response starts with disaster preparedness whereby there is a potential list of all potential disasters and their potential impacts and what targets would be vulnerable. Disaster response is putting preparedness plans into action, Asian Disaster Reduction Centre (ADRC) (2011). The response may be helped substantially by any preparedness actions which were made before the disaster occurred. Bere(2015) provides a valid assertion when he argues that “the most important part of disaster response is disaster prevention by preparedness, which is in itself a strategic response”. He argues that effective disaster management has specific protocols for responding to disasters which determine specific routines to be activated as soon as a disaster is declared. These protocols include specific performance standards to be adhered to. Then there must also be periodic mock drills to test effectiveness of responses to specific disasters. This is all done through disaster preparedness.

Mushore (2015),notes that an effective disaster response is determined by an effective preparedness system. He advocates for a disaster response mechanism that ensures that communities receive early warnings no matter how remote they are. This is also according to the Hyogo Framework for Action 2005 which states that strengthening disaster preparedness is essential for effective disaster response. Moreover according to the Zimbabwe National Contingency Plan 2012-2013, there should be adequate levels of preparedness in place by Government and all stakeholders to ensure effective response regardless of the scenario realized.

Disaster Preparedness is there to guarantee that the materials important for reacting viably to emergencies are set up, and those confronted with responding know how to utilize the materials (Kent 1994).

### **2.7.2 LACK OF SKILLED PERSONNEL**

Bere (2015), a development strategist, asserts that Zimbabwe’s response challenges are more “strategic” and “technical”. By strategic he means a national incapacity to implement effective solutions, and technical, the presence of a skilled human resource base that will not struggle designing the necessary strategies for effective disaster response. He notes that with effective disaster management, the first team on site must be experts to rapidly assess the situation and undertake the first line of response to contain the situation because time is key in disaster

response. In order to increase the capacity to respond quickly to disasters, inventories of both human and non-human resources will be kept and maintained at the local, district and national levels. These ought to be well trained so that they acquire the necessary skills required for effective disaster response such as rescuing victims. There is need for skilled emergency medical doctors, logistics officers, heavy machinery operators, search and rescue personnel and also meteorology experts.

According to Oliver (2008) the impact of disaster response is negatively affected by a number of challenges which include being accountable for responsible use of donor funds, standards for training of crisis respondents, and timing of assistance, communications, and security. On the standards for training of crisis respondents, he advocates for the need of skilled personnel who can carry out relief responses adequately. There is need for regular training for the disaster management officers to enhance knowledge, skills, and competencies, to implement, monitor, coordinate, and respond to disasters. Mavhinga (2015), notes that government should invest in technical capacity for quick and accurate assessments of disaster situations.

For this reason, the Asian Disaster Reduction Centre (2011) notes that the Japan Disaster Management organisations are increasing its deployments of mobile rescue personnel skilled at descending from helicopters and bringing people back up, scuba diving, and providing emergency first aid treatment. It is also working to improve the rescue and first-aid capabilities of its divers and emergency medical technicians. It also notes that the response phase is different from other phases because it happens when the disaster actually strikes, hence the need for skilled personnel. Emergency response phase is characterized by such features as high uncertainty, limited timeframe, site accessibility problems, and necessity for decision-making, mobilization of forces and resources and quick response, Asian Disaster Reduction Centre (2011). As such, there is need for well trained and skilled personnel to implement disaster response. Panda (2011) notes that disasters are of many kinds and the responses have to be disaster-appropriate. This can only be achieved if there are skilled personnel for disaster response.

According to a study by Kalambay (2010), in 2009 in the Horn of Africa, around 23 million people required humanitarian food aid and more than 1.5 million people in 26 countries were affected by floods. weak response systems has not made the situation any better as he notes that the critical mass of trained persons needed to support countries in Disaster Preparedness and Response is not yet in place. He asserts that about eighteen countries lack human resources with even the basic training to manage emergency responses.

Magogo (2015) notes that most of the rescue teams who arrived at the 2003 Cyclone Japheth induced floods did not know what to do, citing lack of trained personnel as an impediment to effective disaster response in the country. To compound matters further some of the rescue teams had little knowledge of the area and became a danger to the victims as well as themselves. Howitt and Herman (2006)notes there should be enhanced training and exercise opportunities for disaster responders so that they develop not only the capacity and skills to execute emergency plans but also the nimbleness needed to improvise effectively in crisis.

### **2.7.3 LACK OF FUNDS**

In Kenya, the participating institutions charged with handling disasters in the country are faced with inadequate budgetary allocation and conditional donor support; such that the amount of money made available for the Disaster Management is far less than the realistic amount actually needed to manage successfully, National Policy for Disaster Management (2009). As such, poor funding will result in lack of awareness campaigns, lack of training for well equipped personnel, and the non-availability of specialized equipment for disaster response which then hampers effective disaster management in the country. Provincial and Districts boards of trustees ought to have an operational spending plan in place to encourage swift reactions in case of an emergency.

In Zimbabwe, the economic conditions of the country has seriously impacted negatively on the effectiveness of disaster response because the government is cash strapped thereby financially incapacitated to carry out effective disaster response. The reasons for the economic meltdown are varied but as Chikoto and Sadiq (2012) note, for as long as economic sanctions on Zimbabwe remain, they will continue to thwart the growth in the country's economy from reaching its potential and indirectly hindering the establishment of an effective emergency management

system. As such, the Department of Civil Protection (DCP) has not been funded adequately to respond to disasters effectively. Manikai 2015, notes that the current situation where the civil protection committees have no budget and hence have to resource mobilize to attend to disasters, delays reaction, resulting in injuries, destruction of property, loss of life and the impact of disaster is further aggravated.

Moreover, Madamombe (2004) states that the financial budget by the government yearly for disaster management is inadequate for effective and efficient disaster preparedness and response in the country. He notes that low budgetary allocation for disaster management and flood management is another problem facing emergency management in Zimbabwe. As such, the local structures at provincial and district levels which are the District and Provincial Civil Protection Planning Committees are not provided with money to finance their activities for disaster management. The local authorities too are financially incapacitated to effectively respond to disasters at the local level. As a result, this undermines the effectiveness of response in the event of a disaster.

Chikoto and Sadiq (2012) note that although it is encouraging that legal provisions are in place for setting up a National Civil Protection Fund to finance the development and promotion of civil protection measures such as responding to disasters, the viability of such procurement is subject to the state's monetary spending plan. Therefore, a framework just on paper, without the necessary funds, is liable to be doomed. Howitt and Herman (2006) note that, as an approach to improved disaster response practices, there should be sustainable budgetary commitments to build emergency response capabilities at all government levels.

#### **2.7.4 CORRUPTION**

According to Mavhinga (2015), rampant corruption and poor prioritization in allocation of resources also work to undermine government's capacity to respond to disaster situations. Corruption in this context is found when authorities mismanage funds or aid from the international community or donors. As such, relief aid will not be distributed adequately and as a result disaster victims will suffer. This will only work to impede on the success of disaster response.

According to Oliver (2008) the impact of disaster response is negatively affected by a number of challenges which include being accountable for responsible use of donor funds, standards for training of crisis respondents, and timing of assistance, communications, and security. According to the Global Corruption Perception Index 2014, Zimbabwe is ranked 156 of 175 corrupt countries. If this rampant corruption finds its way in disaster management especially in the supply of humanitarian aid and donations, it may greatly affect the disaster response. Food, items, e.t.c. that is donated to disaster victims should not find its way in the black-market. Relevant authorities receiving these donations should conduct audits of all the donations and should make sure that everything is accounted for. The impact of disaster response can be greatly affected by corruption.

### **2.7.5 POOR COMMUNITY AND DISTRICT STRUCTURES**

Manikai (2015) asserts that the impact of disasters are much more devastating at local level, hence local civil protection committees should be established nationwide. Tsiko (2011) notes that the 2000 and 2007 floods and cyclones experienced in the country exposed the (inherent) institutional weaknesses and limited capacity both at local community and national levels. The community and district structures are the disaster institutions for disaster management that are closer to the people. They should be able to implement disaster response at the community level especially for rapid onset disasters like floods, as such; these structures ought to be capacitated so that they implement disaster response more effectively.

According to UNISDR (2008) in Muhonda et al (2010), local community structures are not only usually the first responders to disasters but are also central actors in reducing disasters. Effective management of disasters at all stages of disaster management process, (mitigation, preparedness, response and recovery) requires therefore strengthening the capacity of local community structures, (Sahoo, 2005). Muhonda et al (2010) notes that local institutional structures lack the capacity to effectively respond to disasters. The case of Kanyemba floods in Mbire District which were experienced more recently in the area in 2010 clearly shows the weakness in the capacity of the local community structures. Community actors were unable to rescue the flood victims. Centralization of resources leads to uncoordinated and delayed response to rapid onset

disaster like flood emergencies (Gwimbi, 2004). If the scale of the disaster is big, a decentralized system enables the local leaders and community to act on their own, Panda (2011).

According to Kenya (2011), a Department of Civil Protection Coordination Committee member for Kanyemba, “there are no vehicles, funds to buy fuel and pay for the necessities allocated to the district for management of floods and droughts risk reduction activities. He notes that although “we are aware of the need to regularly sensitize communities and update the contingency plans to prepare for coming disasters, we lack the means such as vehicles to reach the community in Kanyemba and socialize them of the flood and drought risk”. This shows that the community structures to deal with disaster response at the community level are incapacitated. According to Mohanda (2010), the community structure, Ward Development Committee, lacks the technical knowledge and material resources for disaster response. He notes that the community structures received no training on how to conduct floods and drought risks assessment; develop floods and drought contingency plans to prepare for floods and drought; to rescue and help people evacuate in case of floods as disaster response strategies.

Centralization of resources and the bureaucratic nature of the Civil Protection Origination’s response mechanisms also delay response to disaster events like floods in Kanyemba. Mohanda (2010) argues that funds are only given to the Department of Civil Protection when a disaster is declared to immediately respond to the disaster. The community organizations also lack the material resources to quickly disseminate emergency information to the people in the community such as sirens and bicycles, Muhonda et al (2010). Further the community structures have no flood emergency facilities such as reliable communication equipments to link with the Department of Civil Protection Coordination Committee and boats to use in times of floods. This makes them helpless in the event of a flood as their only have to wait for the rescue teams from Harare to come and implement disaster response.

#### **2.7.6 LACK OF COMMUNICATION**

As Mohanda (2010) notes, communication in disaster response in Zimbabwe is weak because the vertical linkage between the community and district structures to the provincial and national structures is weak. He further notes that an important part of any response is the coordination and communication linkages with other organizations which will play a part in assisting the

populations affected. Lack of sufficient communication will impede on effective disaster response. Communication is essential for disaster response in terms of evacuation efforts whereby the district structures or local government, usually on the ground, communicate with the provincial or national structures about the intensity of the disaster at hand and the type of relief responses needed. Mohanda (2010) notes that the current set up of centralization of resources impedes effective communication which in turn hampers effective disaster response.

For example, He notes Mbire District Civil Protection has no advanced communication tools like fax or internet to quickly link or communicate with other actors in the district and also higher structures. They rely only on police radio for communication which is not reliable as it is not in good condition and also dependent on weather. Poor communication systems will affect horizontal and vertical coordination for effective and timely management and response to disasters such as floods which are rapid onset disasters.

For example when floods occurred in Kanyemba in 2010, Kenya (2011) notes that it was difficult to link and mobilize other actors such as Lower Guruve Development Association (LGDA) and Word Vision Zimbabwe (WVZ) and also link to the provincial and national civil protection authorities as the radio system was not working properly. As such, this led to delayed response and as a result impeded on effective disaster response. Muhonda (2011)notes that poor communication systems hamper effective and timely response to disasters. He notes that the communication problem is further compounded by the bureaucratic nature of the information flow system and the centralization of resources at the national level whilst the local community structures where disasters take place there are no resources.

## **2.8 A PLAN FOR EFFECTIVE DISASTER RESPONSE**

Below is a basic plan for the implementation of disaster response. It serves as a user guide in the implementation of disaster response. It begins with a situational analysis of the disaster by the department of Civil Protection at district or provincial level. There is also the identification of the priority needs which is a needs assessment of the disaster victims. Activation of response funding tools and delivery of humanitarian relief assistance follows respectively which is the implementation of preparedness plans.



**Table 2.1 Plan for Effective Disaster Response**

<b>Priority Action</b>	<b>Responsible Institution</b>	<b>Supporting agencies</b>
Situation and rapid assessment of the disaster	DCP (district and provincial) with the Community and local government	Sector stakeholders
Identification of priority sector needs	DCP (district and provincial)	Sector Leads
Sector and inter-sector coordination meetings held regularly Issue situation reports (SITREPS) and updates of the disaster Provide media briefing and updates	DCP, (district and provincial)	Sector stakeholders

Activation of response funding tools	DCP, Stakeholders	Other stakeholders (e.g.)NGOs, UN Agencies, Red Cross)
Delivery of humanitarian relief assistance	DCP (district and provincial) & Sector Leads	Sector stakeholders , NGOs, UN Agencies, Red Cross)
Monitor emergency threshold and changes	Sector Leads	Sector stakeholders & DRM Focal Points

*Source: Zimbabwe National Contingency plan (2012-2013)*

## **2.9 LITERATURE GAP**

Globally, much attention has been given to other stages of disaster management (i.e. mitigation, preparedness and recovery or rehabilitation) and very little attention on the response stage in particular, let alone in Zimbabwe. Various scholars have however elucidated and evaluated on disaster response as a concept but did not enlighten further on the role of the community in disaster response. Furthermore, more could have been written on corruption as an impediment to effective disaster response and more could have been provided on the frameworks or models for better and effective emergency response.

## **2.10 CHAPTER SUMMARY**

This chapter looked at the information provided by other scholars in relation to the area under study. The chapter looked at the conceptual framework of disaster response exploring the effects of disasters on the communities. It also explained on the different roles played by various actors and stakeholders in disaster response (NGOs, DCP e.t.c). The chapter looked at the factors which impede on effective disaster response like lack of funds, preparedness and communication. It also provided the legal framework for disaster management in Zimbabwe. The chapter concluded with a model for disaster response which is just a standard for effective disaster response systems.

The next chapter will focus on the methods and procedures that were used by the researcher in obtaining information and data for the research. It will review the research design and

methodology. The chapter will also focus on the data collection instruments and evaluating them in terms of validity and reliability.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.0 INTRODUCTION**

The chapter reviews the methods and procedures that were used by the researcher in obtaining information and data for the research and evaluating them according to their validity and reliability. This chapter describes the research design and methodology used in the study, including target population, sampling methods and their justifications, sources of data, data collection instruments with their advantages and disadvantages, pre-test, data collection procedures, the validity and reliability of the data collection instruments and ethical considerations.

#### **3.1 RESEARCH METHODOLOGY**

According to Burns and Groove (2001), the research methodology facilitates the “attainment of the research aims”. Research methodology alludes to the tools and strategies that are utilized as a part of the research procedure. These are the techniques used to structure a study, gather and analyze the data in the course of the research investigation. It is a foundation in which facts are evoked and organized in appreciation of conceivable sources and in an important and clear way

that will empower a researcher to accomplish the objective of information investigation. Research methodology states how a researcher plans to address the research questions and it concentrates on the exploration procedure and the sort of instruments and techniques to be utilized. Research methodology is primarily concerned with data collected and why data is collected, the methods of collecting data used and how data is analyzed. Research methodology also facilitates the attainment of the research objectives. Essentially, according to Osondu (2004), research methodology has to do with methods adopted by the researcher in collecting data, which are relevant to the problem under consideration.

### **3.2 RESEARCH DESIGN**

To undertake a scientific study, all the components should fit together in a meaningful whole. To achieve this goal, the researcher needs to draw up a design, the strategy for conducting the study or the plan to obtain answers to the research questions.

A research design implies all the issues required in arranging and executing an exploration venture from the identification of a problem through to reporting and distribution of results, Avison (2005). A research design is a structure of the whole study which gives the paste that holds the research to be one unit. It ought to show the different ways to deal with or to be utilized as a part of taking care of the issue at hand, sources and data identified with the issue. A research design must identify the problem clearly and provide a plan of action that would be used to answer research questions and should guide the researcher in planning and implementing the study to achieve the intended goal. Essentially, the research design creates the foundation of the entire research work.

The researcher will use the descriptive design. It is utilized when the information involves deciding the extent to which the variables are connected and when depicting qualities of a wonder. It describes the existing achievements, attitude, behaviour or characteristic of subjects. In this context, descriptive design is only centered on the connections that exist, convictions, perspectives and procedures that go ahead in disaster response. The purpose of descriptive research is the investigation and depiction of genuine circumstances and to give data of the components as they happen, the thought being to distinguish issues in current practice with a perspective to enhance results. The researcher will use this design because it is suitable in expressing with precision, the implementation of disaster response.

The Qualitative analysis will mainly be utilized in this study as participants will be asked through questionnaires and interviews to describe and explain experiences during the flood disaster. However some quantitative data will compliment the qualitative research to help provide a complete picture of the research issue. Creswell (2003) notes that this type of research happens in a characteristic setting, a researcher goes to the association of the respondent to direct the study. The qualitative analysis is focused with the nature of data, subjective strategies endeavor to pick up a comprehension of the hidden reasons and inspirations for activities and build up how individuals translate their encounters, McDonald and Headlam (2009). Qualitative methods provide insights into the setting of a problem, generating ideas and/or hypotheses. Qualitative methods are generally associated with the evaluation of social dimensions, providing results that are usually detailed, offering ideas and concepts to inform a research. Qualitative research model which is narrative in nature will be used by the researcher to gain a deeper understanding of people's views, opinions and interpretations pertaining to the role and effectiveness of communities and relevant stakeholders in disaster response focusing on the insider view since reality is subjective.

Burns and Groove (2001) describe qualitative research as focusing on the human experience through systematic and interactive approaches. They note that the researcher gets to explore the meanings and interpretations of constructs rarely observed in quantitative research. Furthermore since the exploration is observational, it looks to investigate an inside and out comprehension of the encounters of the stakeholders involved in responding to the disaster, in depth analysis of the impact of an emergency and rich and detailed information about the affected populations. The qualitative method uses tools such as observations, interviews and discussion groups etc.

The quantitative analysis describes a phenomenon by measuring or quantifying it such that it may result in the quantification of data. According to Burns and Grove (2007), quantitative research is the "formal, objective, systematic process in which numerical data are used to obtain information about the world". The authors add that this method is used to describe variables, examine relationships among variables and determine cause-effect interactions between variables. Quantitative strategies focus on measuring information and sum up results from population of the number of inhabitants concerned. McDonald and Headlam(2009) notes that quantitative analysis may focus on gauging the frequency of different perspectives and

sentiments in a picked test for instance or total results. The researcher will use this method for example in presenting demographic characteristics of respondents from households, response rate of respondents amongst other quantifiable data. Furthermore quantitative techniques can likewise quantify the effect as indicated by helpful pointers. Conclusions produced using the examination of quantitative information demonstrates what number was affected by a calamity, where the largest zone of effect was, and what were the sector needs. According to the Family Health International (2005), in its simplest terms, the more representative the sample is, the more likely it is that a quantitative analysis will accurately and precisely reflect a picture of the impact of the disaster when generalized to the whole affected population. The quantitative analysis uses tools such as pie charts, surveys and graphs among others to collect numerical data

One of the advantages of using this type of analysis is in its reliability and that usually, quantitative techniques are intended to give rundowns of information that bolster speculations about the issue under study.

Nonetheless, the disadvantage of quantitative information is that it neglects to give a top to bottom depiction of the experience of the disaster upon the disaster victims. Knowing what number of individuals is influenced and their areas does not give adequate data to guide organizations and partners on what they ought plan for in providing relief aid or responding to a disaster, Family Health International (2005).

This can however be solved by augmenting quantitative method with qualitative method. As such, knowing why there is an issue and how individuals are influenced which is qualitative will consolidate with the numbers and areas which is quantitative to give knowledge on the best way to conduct the relief aid.

### **3.3 TARGET POPULATION**

According to Castillo (2009), the targeted population is a group of people that the researcher intends to carry out a research on. The researcher will collect data in Nuanetsi Ranch and the target population will be people aged 16 and above. The researcher targets this area because most of the disaster victims were moved from Chingwizi holding Camp by the government to this particular area. Moreover the researcher targets this population because these are the disaster victims, old enough to help the researcher with relevant information for the research. The target

population for the research are the flood victims of Tokwe-Mukosi and also different stakeholders such as the District Administrator of Chivi, members of the department of Environment of Chivi Rural District Council as they are mandated to carry out disaster response in some capacity at the local level, and also members of the Department of Civil Protection. The total population according to Chingwizi Final Report (2014) is 20 000 people. It is comprised of all age groups ranging from infants to old people of over 70 years.

### **3.4 SAMPLING**

At the point when the arrangement of every conceivable thing in a populace is huge it might be too excessive or tedious to do a far reaching examination of the greater part of the things, Westfall (2009). Sampling includes a procedure of selecting a subset of a populace to data with respect to the point of interest. The sample must have sufficient size to warrant statistical analysis. According to Westfall (2009), assessing or evaluating traits or attributes of the whole framework, procedure, item or venture through a delegate test can be more productive while as yet giving the required data. He takes note of that to be able to have the capacity to utilize an example to extrapolate the outcomes to the entire population requires the utilization of one of four measurable examining techniques. Cooper and Schindle (2003) note that there are 2 sorts of sampling procedures:

- Probability sampling
- Non-Probability sampling

It depends on the idea of irregular determination and comprises of a controlled strategy to guarantee that every component of the populace has a known non-zero possibility of being chosen. Examples of this method include simple random, systematic, stratified, cluster methods of sampling among other procedures. Probability sampling allows one to estimate how closely sample results approximate what would have been found out if instead the total population was considered (O'Leary:2004).

While then again, non-probability procedures is discretionary and is also subjective, every part does not have a known non-zero possibility of getting chose. Examples include incidental sampling, purposive sampling, quota sampling or export sampling. For this research, convenience sampling and purposive sampling will both be used. Convenience sampling will be

used especially on the disaster victims because they are many and are spread over a large area hence picking them conveniently will save time, funds and energy. Purposive sampling will specifically and purposively be used for selecting the key informants.

### **3.4.1 CONVENIENCE SAMPLING**

This is a non-probability sampling technique whereby members or respondents are chosen in view of their advantageous openness and closeness to the researcher. Convenience sampling is when all elements with similar qualities are drawn by the researcher in a bid to produce a representative sample of the whole population. The researcher in convenience sampling utilizes whomever he or she can discover who has the necessary qualifications for being required in the study and who consents to take an interest. This is because chances are high the researcher will not be able have access to a list of all the 20 000 disaster victims, as such, the researcher will draw out participants from the target population conveniently. The researcher will move from household to household distributing questionnaires without any particular order, rather conveniently, until the sample size is reached.

### **3.4.2 ADVANTAGES OF CONVENIENCE SAMPLING**

- Convenience sampling may assist in accumulating valuable information and data that would not have been conceivable utilizing probability testing procedures which demands more formal access to rundown of the whole population, e.t.c
- It is easy to use with few standards overseeing how the sample ought to be gathered.
- It is also a quicker way of obtaining data especially where time management is essential.
- Convenience sampling is less costly to carry out as compared to probability sampling techniques.

### **3.4.3 DISADVANTAGES OF CONVENIENCE SAMPLING**

- Convenience sampling can be subject to biasness because it can prompt under-representation or over-representation of specific gatherings inside the subset population especially if the researcher focuses on one site or place of gathering data.
- It can also lead to a sample which is not representative of the whole population

As a solution to the first problem, the researcher will not use one site of gathering data; rather he will use multiple sites moving from household to household collecting as much data and



information as possible.

In solving the 2<sup>nd</sup> problem, the researcher will use other sampling techniques like purposive/ judgemental to complement it with convenience sampling so as to get as much relevant data as possible. Moreover the researcher will use a much bigger sample size so as to try and get a sample representative of the whole population.

#### **3.4.4 PURPOSIVE / JUDGEMENTAL SAMPLING**

Purposive sampling is a non-measurable sampling procedure otherwise called judgmental sampling. In purposive sampling the analyst doing the exercise utilizes his/her insight or experience to choose the people to be examined. According to Oliver (2006), decision in judgmental sampling is based upon an assortment of criteria which may incorporate experience, capable knowledge and ideas of the case under study, and enthusiasm to take an interest in the study. Burns and Grove (2007) define purposive sampling as “judgmental sampling that makes the conscious selection by the researcher of certain subjects or elements to include in the study”

In this context, participants will be purposively selected based on their special knowledge and experience on disaster response in the Tokwe-Mukosi flood disaster, and also based on their capacity and readiness to participate in the study. These will form the key informants of the research topic and they include senior and principle administrative officers of the Department of Civil Protection, selected employees of the department of Environment at Chivi Rural District Council and the District Administrator of Chivi.

#### **3.4.5 ADVANTAGES**

- Judgemental sampling permits a researcher to get quality data as he would have purposively chosen the respondents subjectively of their profound knowledge and experience of the case under study which in this case is disaster response and Tokwe Mukosi flooding.
- According to Babbie (2001), it is also exceptionally helpful for circumstances where a researcher has to achieve the target rapidly and where examining for proportionality is not an essential focus.
- Judgemental sampling is flexible and meets multiple needs and interests.
- It prevents unnecessary and irrelevant items or information from entering into the

research per chance.

### **3.4.6 DISADVANTAGES**

- Purposive/ Judgemental sampling does not create a sample illustrative of the whole populace. Individuals are subjectively chosen, as such; other people will not have the opportunity to participate.
- It is not suitable for large samples where the size of both the population and sample size is considerably large.

The solution would be complementing purposive sampling with other methods or types of sampling techniques through a method of triangulation. As such, samples obtained will be representative of the entire population.

Since Judgemental sampling is not suitable for large samples where the size of both the population and sample size is considerably large, however this particular research is not affected since the target population and sample size for judgemental sampling is considerably small.

### **3.5 SAMPLE SIZE**

This is the number of respondents or participants that are going to be investigated in the study. It is a portion or sub part of the total population, Thakur (2009). According to Barlett et al., (2001) a sample size is an essential component of any experimental study in which the objective is to make inductions around a populace from a subset population. The researcher divided the target population into two sub-groups that is the disaster victims group (house hold group) and the key informants group. It is not possible for the researcher to study the whole population of Nuanetsi ranch which is about 20 000 people. According to Crouch et al (2001), a sample size of at least 10 % of the targeted populace is adequate for precise results in both quantitative and subjective reviews. However due to resource constraints, funds and time, the researcher will use a much smaller but representative sample size of 150. For the key informants group, the sample size is 6. The total sample size for the two groups i.e. (household and key informants) is 156. This includes staff members of the Department of Civil Protection and Chivi Rural District Council, and also the District Administrator of Chivi.

#### **3.5.1 SAMPLE FRAME**

This alludes to a rundown of the target individuals used to get a sample and also the way it is

conveyed, Doherty (1994). It a list of the available populace within which a researcher will draw out the participants from.

*Table 3.1: Sample Frame*

<b>Target Population</b>	<b>Population</b>	<b>Sampling Technique used</b>	<b>Sample Size</b>
Nuanetsi Ranch	20 000	Simple random	150
Department of Civil Protection (Head Office)	10	Purposive/ Judgemental	3
Chivi Rural District Council (Department of Environment)	15	Purposive/ Judgemental	2
Chivi District Administrator	20	Purposive/ Judgemental	1
<b>Total</b>			<b>156</b>

### **3.6 SOURCES OF DATA**

This is the accumulation information and is a precise method for obtaining data that is applicable to achieve the objectives of the research. The nature of this research requires a wide range of data collection sources or multiple methods of gathering data. As such, the researcher will use both primary and secondary sources of data. This allows different types of data sources to be used and it enhances data validity.

#### **3.6.1 PRIMARY DATA**

This refers to crude or raw information that is gathered by a researcher at the point it is produced;

Makore-Rukuni (2001). Primary data is first hand information or firsthand experience from original sources. It is gathered from the field through questionnaires, interviews, surveys and observations among others. Whilst observations are key instruments for data collection and for meeting the objectives of a research, they would have required this researcher to be on the ground during the flood disaster observing the disaster response efforts, strategies, and seeing what is being done. This is not feasible as disasters are unpredictable for a researcher to be present to observe and capture relevant data during the disaster. For this reason, the researcher will use only interviews and questionnaires as primary sources for collecting data.

### **3.6.2 ADVANTAGES OF PRIMARY DATA**

- The researcher acquires original and raw data which is more reliable.
- Information elucidation is enhanced as gathered information can be inspected and translated by the scientist relying upon his needs as opposed to depending on understandings made by gatherers of secondary information.
- The researcher has complete control over the process of the research and the target issues are addressed as far as its objectives and scope is concerned.
- Information that is obtained from primary sources is recent hence becomes specific to the research issue

### **3.6.3 DISAVANTAGES OF PRIMARY DATA**

- Gathering information utilizing original sources is a unreasonable recommendation as one needs to travel, funds and resource materials in huge amounts and outline everything.
- Primary data can be tedious as time to do investigations precisely is long when contrasted with secondary information.
- As a solution, the researcher will reduce quantities wherever possible and will mail out some interview guide questions to some key informants so as to reduce travelling costs if necessary.

The researcher will not rely on primary sources alone, secondary information which can be gathered in lesser time period will complement primary data.

### **3.6.4 SECONDARY DATA**

Secondary source is data that has already been collected for some other purposes, Saunders et.al (2009). Secondary data was collected from existing records or published articles to help the

researcher come up with the historical background, literature review and other issues on disaster response. Documents on the internet also gave the researcher relevant information on disaster management in general and disaster response in particular, how it is carried out at the national, regional and at the global level. Secondary sources of data include the use of the internet documents, articles, reports, textbooks, newspapers and journals amongst other existing records. The researcher also used resource books, documents and monthly reports from the department of Civil Protection as other sources of secondary information.

### **3.6.5 ADVANTAGES OF SECONDARY DATA**

- This information can be utilized to validate the study findings so as to achieve its objectives.
- The researcher has the capacity to contrast various sources, secondary information can assist acquainting with the zone under study and also in distinguishing crevices that needs filling.
- Secondary data is easy to access, cheaper and it gives an approach to get to the work of the best researchers everywhere throughout the world.

### **3.6.6 DISADVANTAGES OF SECONDARY DATA**

- It is highly susceptible to subjective inclinations exuding from individual and political ideologies.
- As time goes on, secondary data becomes outdated and therefore obsolete.
- The reliability and validity of the data may be difficult to check since some changes would have taken place.

The researcher will not include or present any political related information from respondents as a solution to prevent subjective biasness emanating from political ideologies or orientations.

This can be solved if a researcher uses updated and latest information to avoid using outdated and obsolete data.

Rajasekar et al (2013)notes that another way to find whether an online source is credible is to determine how popular and authoritative the source is. For websites and authors which have little popularity, one must consider the credentials of the source—if those are available and valid.

### **3.7 DATA COLLECTION INSTRUMENTS**

Burns and Grove (2001) noted that data can be collected in several ways depending on the study and can include a variety of methods; however, the research objectives must be accomplished with the instrument used. This research will use interviews and questionnaires. Interviews will be used on the key informants whilst questionnaires will be used for the disaster victims.

#### **3.7.1 QUESTIONNAIRES**

Burns and Grove (2001:426) states a questionnaire is a “printed self-report form designed to elicit information” and is developed with specific items to assist with the data collection. It is a research instrument consisting of a series of questions for the purpose of gathering information from respondents.

The researcher will use questionnaires to collect data in standardized format so that it is easy to analyze. These will be distributed in Nuanetsi ranch focusing on those affected by Tokwe-Mukosi flooding. This research tool is comprised of both open and closed ended questions. Open ended questions capture the unrestricted answers and opinions of the target population and it also allows them enough room to highlight their personal opinions on the research topic. As such, this provided the researcher the opportunity to gather qualitative data. Closed ended questions limit the respondents and this saves time. Some of the questionnaires will be delivered and collected later whilst others will be filled in by the participants in the presence of the researcher.

#### **3.7.2 ADVANTAGES**

- The instrument is utilized in light of the fact that normally individual characteristics don't impact information accumulation; consequently there is no questioner predisposition.
- It gives a perpetual and certain record of the information accumulation effort which can be quantified.
- Questionnaires additionally have the benefit of having a few respondents tended to at the same time
- Questionnaires provide more opportunity for participants to review their responses, research and review data tested by the survey in their homes.
- There is honesty and anonymity for the respondents through the use of questionnaires, as such; there is honesty from the respondents since there is no fear of victimization.

### **3.7.3 DISADVANTAGES**

- Effective communication components like non-verbal signs that are assembled through face to face meetings like outward appearances and motions which approve data are not available to a researcher.
- There is absence of direct communication in the utilization of surveys can make the information gathering vulnerable to error, can prompt erroneous findings.
- The research instrument can lead to limited amount of information being collected as they do not provide explanation to some certain questions
- Size and variety of a sample is restricted by individuals' capacity to understand or note down

As a solution, some of the questionnaires will be answered in the presence of the researcher so as to limit the loss of effective communication components like non-verbal cues, e.t.c.

This can be solved by creating user friendly questions that are easy to interpret so as to avoid misinterpretation of questions.

The researcher will complement open ended questionnaires with closed ended questionnaires so as to leave room for respondents to explain further.

The researcher will help participants or respondents who cannot read and write if he is available. Furthermore, the researcher will increase the number of the questionnaires so as to cover for the spoiled ones if there are any.

### **3.7.5 INTERVIEWS**

In this research, interviews will only be limited to the key informants. These include selected employees from the department responsible for disasters at Chivi Rural District Council, the staff members including the Principle and Senior Administration Officers of Operations in the Department of Civil Protection Head Office and the District Administrator of Chivi. The rationale for interviewing this target population was to get in-depth information and analysis on disaster response mechanisms, operational challenges and opportunities with the disaster response implementers. An interview can be fully structured whereby there are pre-determined questions recorded on a schedule whilst a semi-structured interview will allow the researcher room to modify the questions during the conversation and also probe interesting items coming

out of the interview. A semi-organized meeting on the particular parts of the study will be utilized so as to inspire right reactions with the goal that criticism is given instantly.

### **3.7.6 ADVANTAGES**

- According to Leedy and Ormrod (2001), Interviews can permit a researcher to illuminate vague responses, also when suitable, look for subsequent data. It is also adaptable as uncertainty can be removed and cross checking is permitted.
- One can observe the nonverbal responses during the interview which are in their right very important in bringing out emotion from respondent which provides the researcher with quality information and outlook of the respondents.
- Interviews are face to face, as such, they give space for rapid criticism to the scientist on account of the immediate connection between the questioner and person being interviewed.
- Interviews are also essential because the researcher can rethink the inquiries to meet the stream of the meeting therefore accomplishing valuable data.

### **3.7.7 DISADVANTAGES**

- They are costly and time consuming. This might lead to reduced sample size
- They require careful preparations and planning and this too, is very time consuming, this includes courses of action to visit and securing the important consents and even affirmation of those preparations
- There can be an element of bias when respondents are answering questions just to please the interviewer

As a solution, the researcher will not prolong the interviews and will also target people whom the researcher knows are willing to co-operate in giving valuable and qualitative information on disaster response issues.

Reducing the sample size but also maintaining a reasonable size enough to be representative of the target population is also another solution of dealing with the time consuming and also expenses incurred in coming up with interviews.

As a solution to the last problem, the researcher will first explain the importance of objectivity in answering the research questions to the respondents so as to limit biased responses.



### **3.8 ETHICAL CONSIDERATIONS**

According to Burns & Grove (2001:191), “Conducting research ethically begins with identification of the topic and continues through to the publication of the study therefore the conduct of research requires not only expertise and diligence but honesty and integrity,”

Every researcher should consider the ethical implications of the research. Research morals are focused on the degree to which a researcher is honorably and fairly receptive to his or her respondents, the overall population and also his own convictions. The researcher has to acknowledge that the value of the research should not exceed any human expenses included, security and secrecy of people in general should be regarded and dangers ought to be minimized. The researcher will promise on the confidentiality of the information from the respondents, as such the respondents can give detailed responses without fear of being exposed or victimized.

According to O’leal (2004:53) there ought to be informed consent in which potential respondents members are educated about the reason for the examination, the time frame and what is expected from the respondents. The consent will be read to each participant and both verbal and written consent (if necessary) will be obtained to indicate the willingness of respondents to participate. Respondents must be treated with dignity and should not be forced into participating in the research study.

Knowing that Nuanetsi ranch is mainly made up of disaster victims, some of the events during the disaster are still fresh in the victims’ minds hence the researcher ought to be very careful in asking and probing questions. The researcher will also ensure autonomy of the disaster victim respondents and shield them from any type of misuse. This can prompt a decent relationship between the participants and the researcher. More importantly, the target population includes a lot of elderly people; hence the dress code of the researcher will be appropriate so as to create a comfortable environment between the respondent and the researcher.

### **3.9 ESTABLISHING THE RELIABILITY**

Saliu (2004)notes that the reliability of data collection instruments is the consistency within which an instrument yields findings or collects data. According to Joppe (2000) cited in Golafshani (2003), reliability is the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is

considered to be reliable

Joppe (2000), states that in pre-testing the research instruments, the developed surveys will be dispersed at interims more than once to the same gathering of persons in order to find how reliable every component of the gathering is in the scoring of the instrument. The test and retest procedure is utilized to set up the unwavering quality of the instrument. A pre- test will be conducted by the researcher whereby there will be distribution of questionnaires to fellow colleagues and pre-testing interview questions so as to reveal vagueness and uncertainties to ensure reliability. The idea is to ensure a coordinated and consistent response from the participants and items that are not relevant to the topic under study would be removed.

### **3.10 VALIDITY**

According to Joppe (2000), validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. It is the extent to which a data collection method accurately measures or the degree to which the instrument measures what it is meant to measure, Saunders et al (2009). Saliu (2004), notes that data validity is the strategy embraced in guaranteeing that the instrument utilized has measured what it was intended to quantify. The instruments will be pretested using a similar sample where the total subjects were drawn from in order to guarantee the legitimacy of the study. The researcher will be assisted by fellow students on rating and assessing the relevance and content validity of the data collection methods on Burns and Grove's (2001.401) 4 - Point scale as follows:

1. Not relevant
2. Unable to assess relevance or item is in need of revision
3. Relevant but needs minor alteration
4. Very relevant and succinct

### **3.11 PRE-TEST**

There is no research instrument that is flawless; accordingly investigators will start by recognizing and redressing blemishes by pre-testing. Pre-testing is urgent in light of the fact that it helps with dispensing with vague inquiries and additionally in producing valuable input on the construction and stream of your expected meeting. Pre testing of examination instruments checks

for peculiarities and conceivable misinterpretations so that the research instruments will be straightforward. For this study, the researcher will pre-test the questionnaires and interview questions with a select few fellow colleagues in order to establish their clarity as it enables the researcher to remove any items which do not yield usable data. Pre-testing will also enable the researcher to determine how long it would take the households to complete the questionnaires and how long it would take the key informants and the researcher to complete an interview.

### **3.12 DATA COLLECTION PROCEDURES**

Various steps will be taken to ensure smooth gathering of data. In order to collect data from organizations, researchers have to seek permission or get consent to get access to the information. This is because more often than not, organisations do not allow the public to have access to its information and systems or operations for unnecessary scrutiny. As such, as part of the data collection procedure, the researcher will first ask for permission from the relevant authorities from which data will be obtained. The investigator will acquaint himself with the target population or associations as an understudy at Midlands State University who is carrying out a study as partial fulfilment of the Bsc Local Governance Studies Honors Degree and holding a letter from the school affirming the scholastic study.

For questionnaires, the researcher will personally administer the questionnaires to the households. Some of the questionnaires will be answered in the presence of the researcher if necessary and some will be left with respondents to be collected the next day.

For interviews, the researcher will arrange in advance with the relevant authorities the time and date in which they will be carried out. Upon the arrival of the meeting, the researcher will attempt to be at the site in time such that the meeting won't be cancelled. Amid the meeting, the questioner will manage time effectively and will record the answers as the meeting progresses if necessary.

### **3.13 CHAPTER SUMMARY**

The chapter looked at the research design and methodology. It employed qualitative methods but with some quantitative elements so as to get adequate information and data on the research study. The population is 20 000 comprised of all age groups. The chapter used interviews and questionnaires as qualitative methods for data collection and provided justifications for their usage. It also discussed the sampling methods that were used that are simple random sampling

and purposive/ judgmental sampling and also justifications for using them. The total sample size is 156. It concluded by establishing the reliability of the data collection methods, their validity and also the data collection procedures of the research and ethical considerations.

The next chapter will reveal the data findings, the presentations, analysis and also interpretation of the data. Data is going to be presented using pie charts, graphs and tables.

## **CHAPTER IV**

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

#### **4.0 INTRODUCTION**

In Chapter IV, exertion is made to display and examine the actualities accumulated from participants. The information presentation and depiction is guided by the research questions. Data for this Chapter will depend on the portrayals and perspectives of the participants on the case under study. The section concentrates on the study findings, the information presentation and the basic investigation and elucidation of the information gathered from the field of study. The chapter also provides the response rate of respondents that is disaster victims of Tokwe-Mukosi, Civil protection Head Office as well as the DA Chivi's office. It will also include demographic characteristics of respondents. Data for this chapter was collected using research instruments which include interviews and questionnaires. Data will be presented using tables, pie charts and bar graphs

#### **4.1 RESPONSE RATE FOR QUESTIONNAIRES**

As mentioned before, data for this research was collected using questionnaires and interviews. These were given to family units chosen through the 5 km stretch of area where a few of the disaster victims are resettled. Some of the questionnaires were distributed on a drop and pick basis and some were completed and answered in the presence of the researcher to help with question interpretation to the respondents and to get more data. A total of 150 questionnaires were administered in the Bongi and Nyoni parts of Chingwizi district in a bid to achieve the

objectives of the study under research. Of the 150 questionnaires distributed, 20 were completed in the presence of the researcher and 80 were dropped and picked later. A response rate of 100 % for questionnaires was not possible because when the researcher administered the questionnaires to the possible respondents, some returned the questionnaires unanswered because of other commitments like their daily jobs and others claimed that they were busy. Altogether, 100 questionnaires were finished which is still adequate to be illustrative of the objective populace and which can offers sufficient time for investigation. Sivo et al (2006) notes that the response rate that every researcher should pursue is 100%, in reality however, few researchers enjoy such a high figure. He adds that standards for response rates abound, usually centering on 70% or 80% which is still acceptable. Babbie (1990) suggested that a response rate of 50% is adequate for analysis and reporting, 60% is good, 70% is very good and they are all acceptable response rates.

The response rate for questionnaires is represented by the table below.

**TABLE 4.1 Response rate for Questionnaires**

<b>Target sample size</b>	<b>Total responses</b>	<b>Response rate</b>
150	100	67%

“Research Field Data /2016”

#### **4.1.2 RESPONSE RATE FOR INTERVIEWS**

The reason for key informant meetings was to gather information thoroughly from an extensive variety of pioneers and experts with direct learning about the Tokwe-Mukosi catastrophe. These specialists gave bits of knowledge on challenges confronted during disaster response implementation .The researcher at first targeted an aggregate of 6 key informant interviews. However just 5 were carried out yet this didn't impede the study. These include the Principle and Senior Administration Officers of Operations in the Department of Civil Protection Head Office, the District Administrator of Chivi and the director of Community Services at Chivi RDC, who did not give as much information as she directed the researcher to DA Chivi. Only one key informant interview was not successful because the respondent was having an emergency meeting. The researcher could not reschedule for another date because of lack of funds and time. The response rate for interviews is represented by the diagram below.

**TABLE 4.2 Response rate for Key informant interviews**

Target sample size	Total responses	Response rate
6	5	83%

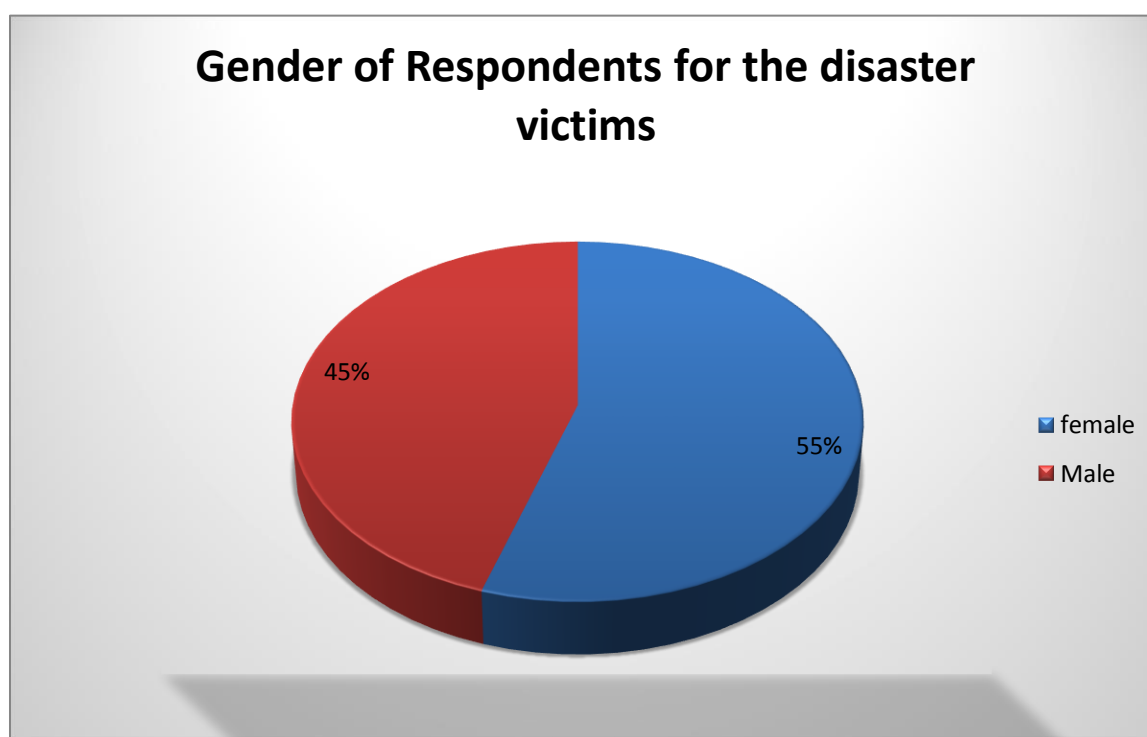
“Research Field Data /2016”

## 4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The demographic information of the participants gathered for the disaster victim respondents just incorporate sex, occupation status and family unit size.

### 4.2.1 GENDER DISTRIBUTION

**Fig 4.1 Gender of Respondents for the Disaster Victims**



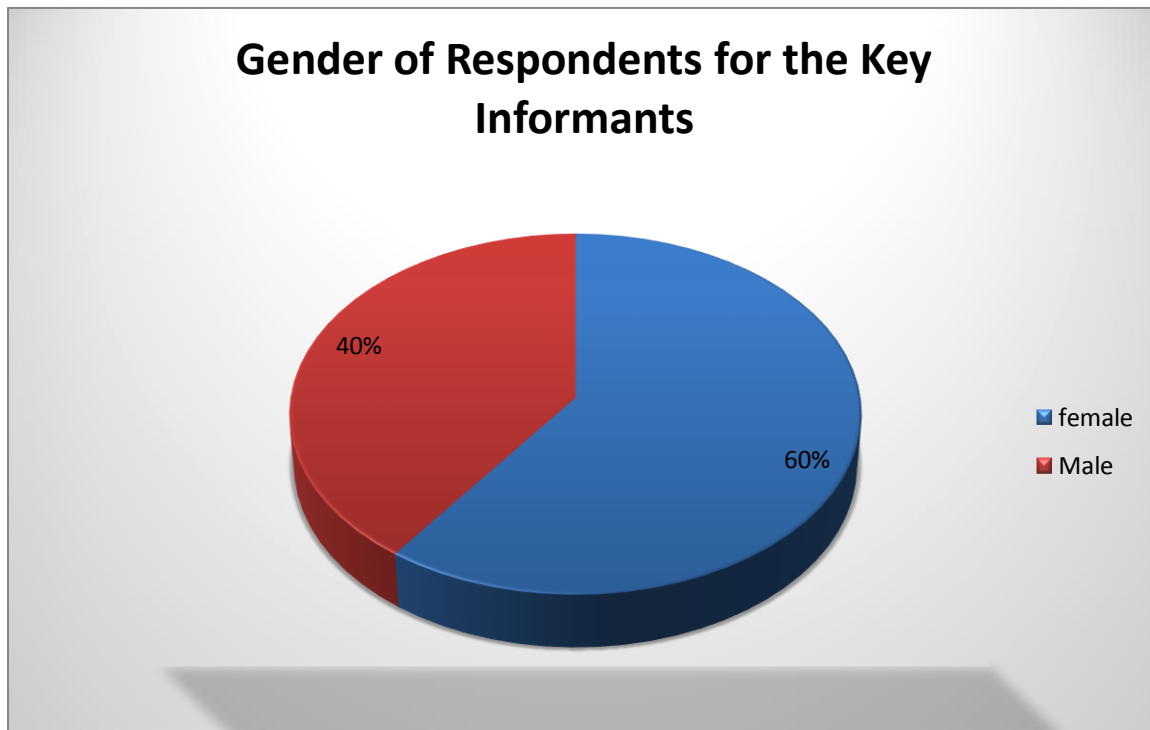
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As presented by the pie chart above, the proportion of males to females for the Tokwe-Mukosi disaster victims was 45% to 55% respectively whilst for the key informants it was 50% male to 50% females. This can be attributed to the fact that the disaster victims of the study area are living in plots and are small-scale subsistence farmers who grow food crops especially maize and as such, during the day; most males are away doing their agricultural activities in the fields like weeding etc. Other reasons for this situation can be attributed to male migration away from rural

areas and households are progressively being headed by women. This is consistent with studies carried out by Zimstat (2012) where it was found out that due to poverty, there is a high rate of male-migration away from rural areas.

The situation is however a bit different for the key informant target population as more females were recorded than their male counterparts. The margin between females and males for this target population was also not large, a factor which can be attributed to the quota system which advocates for equal representation of both males and females in top positions in government. The gender distribution of respondents for the key informants group is presented by the pie-chart below.

**Fig 4.2 Gender of Respondents for the Key Informants**



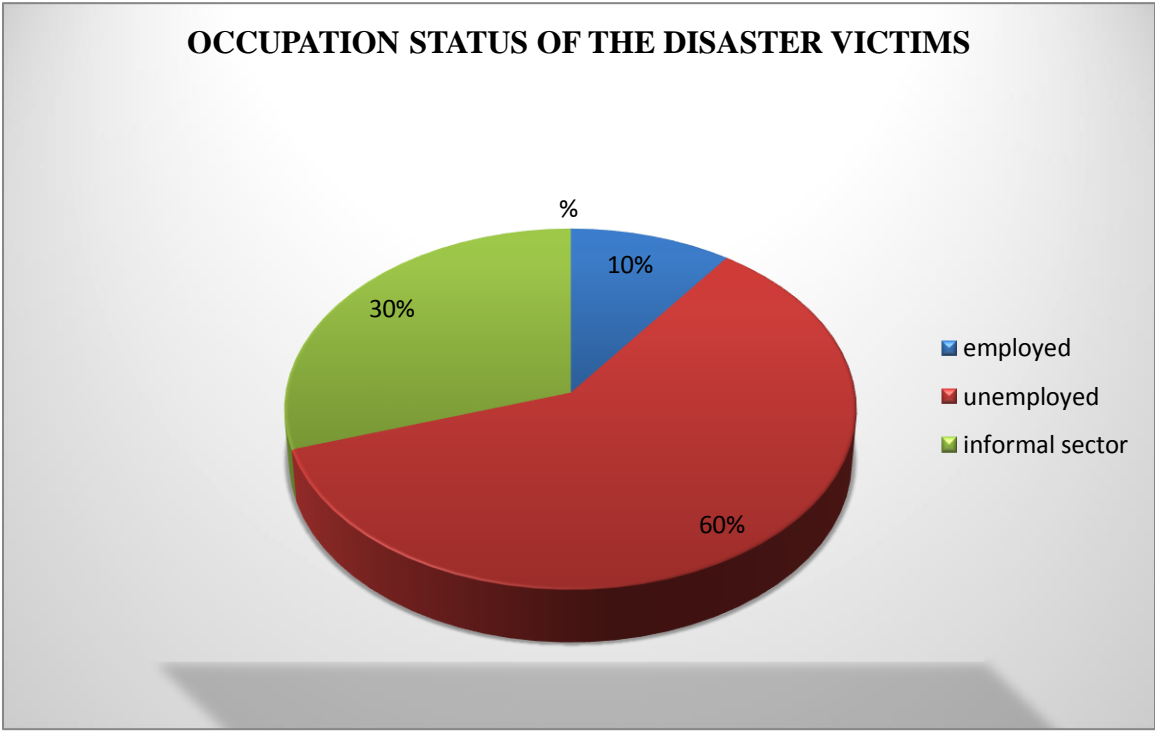
“Research Field Data /2016”

#### **4.2.2 OCCUPATION STATUS OF DISASTER VICTIMS**

The researcher noted that a considerable proportion of the disaster victim respondents provide labour in the neighboring commercial farms and sugar plantations of the study area. Those who are employed formally constitute the least percentage. The flood destroyed their crops and their

way of living. 60 % of the disaster victim respondents depend on crop production as they are not formally employed. The Tokwe-Mukosi flood destroyed their crops and hence livelihoods. This is also one of the effects of the flood disaster. The pie chart below presents the occupation status of the disaster victims.

**Fig 4.3 Occupation Status of the Disaster Victims**



“Research Field Data /2016”

**4.2.3 HOUSEHOLD SIZE OF DISASTER VICTIMS**

The standard household size of the disaster victim respondents is 6 people per household. 39 % of the disaster victim respondents’ households averaged from 6 to 10 people per household, which is the largest percentage. A significant proportion of the respondent’s households averaged from 5 to 7 people per household. This means all the humanitarian aid provided by relevant stakeholders should have considered the average number of people in a household so as to provide proper disaster response.

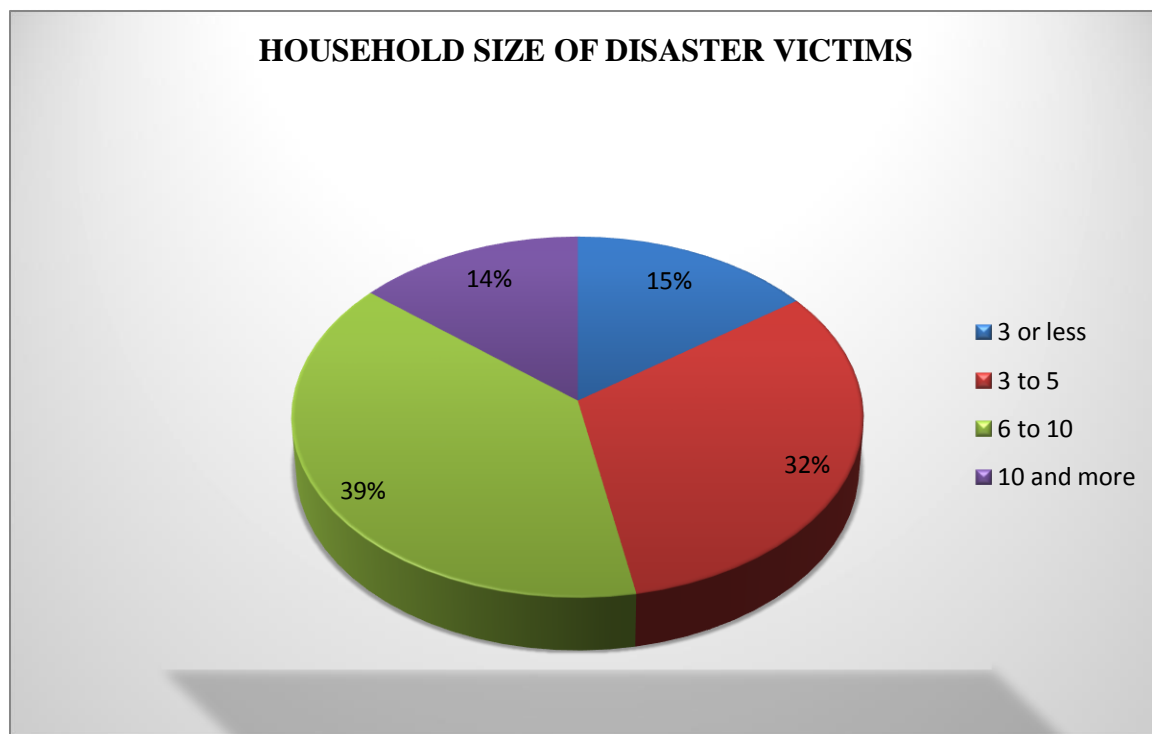


**Table 4.3 Household Size of the Disaster Victim Respondents**

Family Size	No. of disaster Victims
0-3	15
3 - 5	32
6 - 10	39
10 +	14
<b>Total</b>	<b>100</b>

“Research Field Data /2016”

**Fig 4.4 Household Size of Disaster Victims**

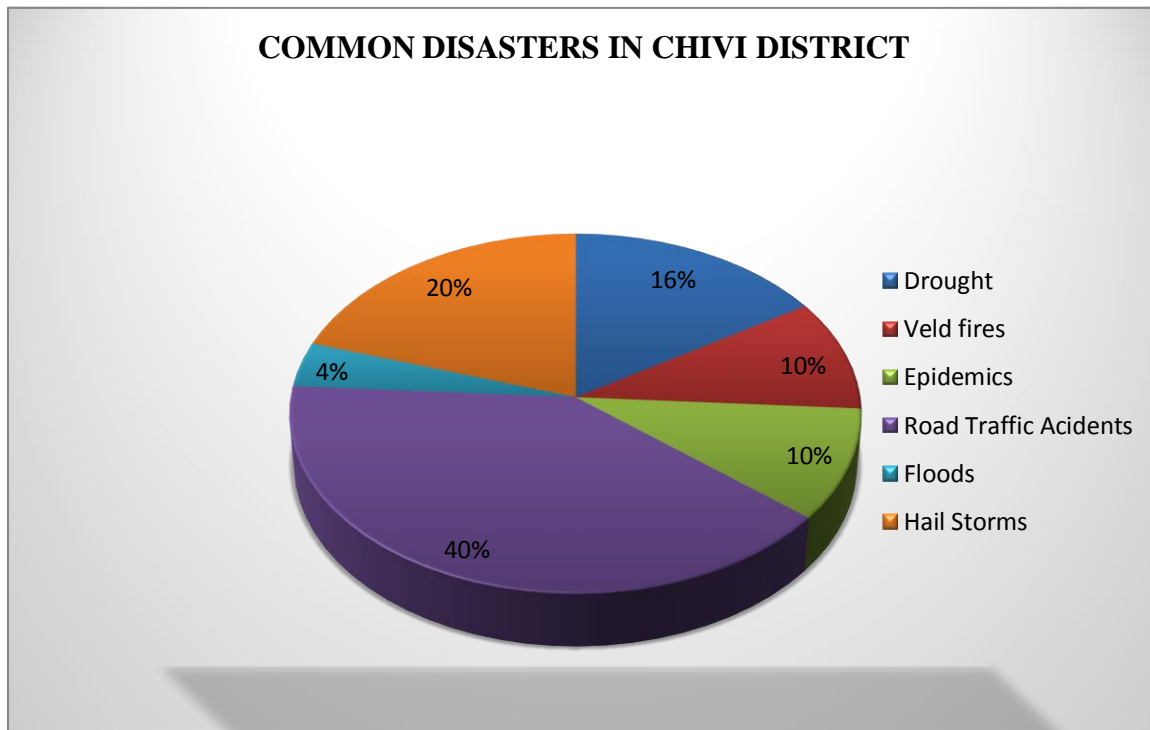


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### 4. 3 COMMON DISASTERS IN CHIVI DISTRICT

Bere(2015)notes that the most important part of disaster response is disaster prevention by through disaster preparedness. This means that the level of disaster preparedness also determines the success or failure of the disaster response. Information on the common disasters in Chivi will help disaster responders in the case of the next disaster. The frequency of occurrence of disasters will help stakeholders in better preparing for future disasters. However the Tokwe-Mukosi flood disaster was ironically, according to the DA of Chivi, the first recorded flood in the district. More so because according to Chingwizi Final Report (2014), the Tokwe-Mukosi flood disaster was not a natural disaster but was caused by humans. The information is presented by the pie chart below.

**Fig 4.5 Common Disasters in Chivi District**



“Research Field Data /2016”

## **4.4 EFFECTS OF THE TOKWE-MUKOSI FLOOD DISASTER**

### **4.4.1 HEALTH**

Sixty five percent of the disaster victim respondents stressed that one of the main effects of the Tokwe- Mukosi flood disaster was on health. Before the disaster victims were moved to Nuanetsi ranch from Chingwizi Transit camp, they were exposed to extremely high health hazards, as one female respondent pointed out...

*“The toilets were dirty and few. We would rather use bush toilets as they were much safer. There was no seclusion here and we also faced water shortages. We were living like rats because the place was so overcrowded. The next tent was less than a metre away,”*

The disaster victim also noted that most of the households at the relocation site had no legitimate bathing facilities and individuals would soothe themselves in the open, a situation which posed a serious health threat. She also said that initially, the tents came after about 3 days after the Tokwe-Mukosi flood disaster hence they were living in the open, susceptible to more assault by the ferocious rains. Another respondent noted *“The tents that were given were not very many and some individuals rested in the open, my grandchildren came down with a serious bug and all got sick.”* Manyanye (2015) notes that overcrowding is common in populations displaced by natural disasters and can facilitate the transmission of communicable diseases; measles and the risk of transmission after a natural disaster are dependent on baseline immunization coverage among the affected population. This situation is consistent with what Isidore et al (2012) says when he notes that the risk factors for increased infections, transmission and outbreaks are mainly associated with the after-effects of a natural disaster rather than the disaster itself. Isidore et al (2012) states that these after effects include displacement of populations, increased vector breeding sites, unplanned and overcrowded shelters, poor nutritional status or insufficient personal. Consequently, there are low levels of immunity to vaccine preventable diseases or insufficient vaccination coverage and limited access to health care services, Isidore et al (2012). The disaster victims were exposed to these health hazards as an effect of the flood disaster.

Fifty five percent of the disaster victim respondents additionally talked about the inaccessibility of protected clean water and sanitation offices after the Tokwe – Mukosi flooding. Water was insufficient. They said that a portion of the boreholes at the relocation sites they were living in had low water yield. Disaster victims needed to stroll more than 5 kilometers looking for clean

water for home use. Moreover, the occupants additionally highlighted that the water quality was not appropriate for human utilization and home use. Four percent of the disaster victim respondents told the researcher that they contacted diarrhea, but had no access to ample supplies of the anti-diarrhoea drugs. This means that many other disaster victims contacted this disease. This posed a serious health threat for the disaster victims. Manyanye (2015) asserts that “natural hazards are a cause for concern in communities since they destroy and impact negatively on public health as witnessed in the 2013 / 2014 Tokwe-Mukosi dam flooding leading to Chingwizi camp”.

In addition, the vast majority of the families had on average, of one tent for every family. As such, according to Chingwizi Final Report (2014), it was accounted for that there was no security as guardians needed to share their room to their kids. Children would loiter around during the evening and this prompted high moral decadence in the local community. For instance according Chingwizi final report (2014), there were unconfirmed reports that 98 girls between the ages of 12 to 14 had fallen pregnant soon after the flood disaster. The period also resulted in the widespread of Sexually Transmitted Diseases (STIs) for example HIV/AIDS, Chingwizi final report (2014). This was one of the effects on health implications of the Tokwe-Mukosi flood disaster.

#### **4.4.2 FOOD SHORTAGES**

Food shortages were also one of the main effects of the flood disaster. The flood destroyed food, crops and property which belonged to the local residents. 90% of the disaster victim respondents when asked about their major needs during the disaster responded that food was one of their major needs during the flood disaster because the flood had destroyed everything. Food paucity was a major quandary and the disaster victims would sleep on empty stomachs. A respondent noted...

*“We heard rumours government and donors would provide 123 tonnes of maize monthly to feed us. We only each in the beginning got 1 kg kapenta, 500g dried beans, 2 kg flour; 2 litres cooking oil; 500g salt, 2 kg sugar and a packet of candles. This was to last us a whole week, my son, this was not enough considering my large family of 7”*

According to the family sizes of the respondents provided for in fig 4.4, the average family size is 6. As such, the food donated would not sustain the whole family for a week considering the disaster victims' family sizes. Another elderly female respondent had this to say about food shortages as an effect of the flood disaster,

*"We could not cook because there was neither food nor pots as the floods destroyed everything. Our children would sometimes sleep hungry. Although we received some food donations, these were not enough to feed all my 5 grandchildren and myself"*

From the findings, it became evident that the flood disaster left poor victims without food as echoed by some participants who pleaded that they had no food, nothing to eat and that their children and the elderly suffered the most especially those on medication like ARVs and BP who needed to eat first before taking in any pills. As such, food shortages were one of the major effects of the Tokwe-Mukosi flood disaster.

#### **4.4.3 DESTRUCTION OF CROPS, LIVELIHOODS and SHELTER**

According to the Senior Administrative Officer at the Department of Civil Protection when asked of the effects of the Tokwe- Mukosi flood disaster, she noted that though people were moved to safer ground, the disaster detached them from their own land of their forefathers. She also noted that the economic effects were so severe that most of the affected people never managed to recover. 63 % of the disaster victim respondents lamented that the flood destroyed their crops and hence way of living. As evidenced by their occupation status in fig 4.3, the majority of the flood victims are unemployed and are small scale subsistence farmers who depend largely on food crops like maize, beans, and cotton e.t.c. , they sell the surplus if there is any. The flood disaster destroyed livelihoods because it destroyed many crops like maize, sugar cane, beans and cotton among other crops which some of the villagers made a living from. When asked what the effects of the flood disaster experience were, one female respondent said,

*"Apart from destroying my house property, the floods also damaged my hopeful maize crops that were already tussling, we might have harvested, but the floods destroyed everything, they should provide us with plots where we have space to produce our vegetables other than buy from vendors who are frequenting here from Triangle and making a killing, capitalizing on our hopeless situation."*

Some of the effects of the Tokwe-Mukosi flood disaster include loss of shelter, lives, destruction of infrastructure e.tc. From the findings, the researcher noted that when the flood disaster destroyed their shelter, they were each dispensed one tent for each family paying little attention to the household size. On that note the researcher noted an area of concern that the government did not have enough funds to provide enough tents for the disaster victims as part of their disaster response. The majority of the residents were overcrowded. This made the residents' life uncomfortable. One respondent told the researcher that some fathers-in-law were compelled to have the same tent with their little girls' in-law, a circumstance that is socially inadmissible inside society. Moreover the tents were reported to preserve high temperatures during warm weather and vice versa during cold weather making them uncomfortable and disposed to wear and tear.

Furthermore, children could not attend school because of the flood disaster. Children were cut of schooling because of the evacuation of their parents as the flood destroyed their homesteads. One pupil was quote in the Daily News of 16 February 2014 saying “we no longer go to school anymore; our uniforms and books were all swept away by floods”. As such, this shows that the Tokwe-Mukosi floods had devastating effects.

Thirty percent of the disaster victim respondents also felt the government of Zimbabwe through the Department of Civil Protection and other line ministries were very instrumental in reducing the effects of the Tokwe-Mukosi flood disaster. They actually complimented the government for minimizing the loss of lives when the catastrophe was approaching through the alleviation and disaster response that was implemented. All Civil Protection departments went ahead to arrange a multi-sectoral response to the flood disaster. Various government line Ministries, Civil Societies, the DCP ,private and public entities and also well wishers pooled resources including funds to assist the situation so as to reduce its devastating effects.

This is also echoed by the Principal Administrator of Operations in the DCP during an interview that the department was quite successful as it managed to coordinate the movement of people from the disaster area, coordination of departmental and management roles in responding to the disaster and also the distribution of relief material during and after the flood.

## **4.5 FACTORS IMPEDING EFFECTIVE DISASTER RESPONSE**

### **4.5.1 LACK OF FINANCE**

In an interview with ZTV, the Director of the department of Civil Protection Mr Madzudzo Pawadyira said his association was confronted with budgetary requirements which trade off its readiness and reaction for regular disasters.

*“In 2013 and 2014, Department of Civil Protection was allocated a mere US\$450 000 when they needed US\$5 million to deal with natural disasters,”* The independent.co.zw (2014)

According to the 2015 Estimates of Expenditure, the department received just US\$300 000 for the entire 2015 year. Presently given this present procurement, the majority of the procurement presumably goes towards current payment, for example, regulatory expenses and pay rates.

As such, this situation whereby there are no adequate funds to respond to disasters seriously undermine the impact of the disaster response. Magogo (2015) notes that this may also lead to a scenario whereby the Department may plan for a calendar year with the probability of compelling occasions at the back of the brain on the grounds that the monetary allowance did not accommodate such.

According to one of the key informants at DCP, the department gets on average \$US 300 000 from the Ministry of Finance. Responding to the Tokwe – Mukosi flood disaster alone was estimated to be over \$US20 million that is including the relocation and compensations of the disaster victims. As such, the amount the department gets from the Ministry of finance falls way short of the cost of amount enough to respond to a natural disaster. As a result, the effectiveness of disaster response is further undermined considering the Department cannot fund for all the activities and donations necessary to reduce the effects of a disaster.

Lack of funds affects disaster response not amid a disaster only, but also the aftermath of the disaster. As mentioned in the earlier chapters, In Zimbabwe, the economic conditions of the country has seriously impacted negatively on the effectiveness of disaster response because the government is cash strapped thereby financially incapacitated to carry out effective disaster response. The fiscal coffers of the Department of Civil Protection are very limited and as such, it becomes one of the major challenges why responding to the Tokwe- Mukosi flood disaster was not as effective.

The reasons for the economic meltdown are varied but as Chikoto and Sadiq (2012) note, for as long as economic sanctions on Zimbabwe remain, they will continue to thwart the growth in the country's economy from reaching its potential and indirectly hindering the establishment of an effective emergency management system.

#### **4.5.2 LACK OF RESOURCES AND EQUIPMENT**

Coupled with lack of finance, the researcher noted that disaster response of the Tokwe- Mukosi flood could have been better had there been adequate resources. Resources in the form of equipment including fuel for tracks to ferry disaster victims from one rescue point to another, helicopters, rescue boats etc. The DA of Chivi lamented that the district is ill equipped in terms of resources like equipment and materials needed to respond to disasters, for example vehicles for evacuations, ambulances for carrying the injured among others.

A key informant from the Department of Civil Protection noted that during the Tokwe Mukosi flood disaster, the department faced quite a number of challenges including lack of resources. He further noted that the department does not have enough funds to buy high profile disaster response materials like excavators or even track loaders. The department only uses vehicles and ambulances which are borrowed from other government departments and are also inadequate for disasters with a magnitude of Tokwe-Mukosi flood disaster. As such, disaster response becomes less effective.

The issue is even worse at district level whereby Chivi RDC Department of Community Services and the District Civil Protection Coordination Committee do not have rescue materials and resources needed to respond to a calamity at their disposal at all. The District Administrator of Chivi said that the district and its local Disaster Management structures are ill equipped. The respondent said...

*“If the department of Civil Protection Head Office in Harare is ill equipped and depends on borrowed equipment to respond to disasters what about the local structures e.g. the District Civil Protection Coordinating Committee (DCPCC).*

The researcher noted that this is one of the reasons why 60% of the disaster victims who answered questionnaires lamented that rescue efforts were slow. Some even thought response was delayed because they believed rescue was coming from Harare and yet this should not be the



case. From the findings, the researcher noted that the Department of Civil Protection does not have adequate disaster response materials like vehicles, firefighting equipment or ambulances of their own. Rather, they make use of equipment borrowed from other departments for example helicopters from the Air Force Zimbabwe (AFZ). The table below shows resource materials needed in disaster response but are not readily available as they are borrowed from other departments as according to a key informant at the Department of Civil Protection.

**Table 4.4 Disaster Response Equipment**

ITEM	Department
Food	Ministry of Social Welfare
Funds	Ministry of Finance/ NGOs
Tents	IOM/ UNICEF
Vehicles	Government
Bulldozers	x
Excavators	x
Trucks	NGOs, DDF
Helicopters	Air Force Zimbabwe
Sufficient Fuel	NGOs/ Government
Ambulance	Emergency Services
Fire fighting equipment	Fire Brigade, Local Authorities
Mobile clinics	Health, UN,

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Analyzing table 4.4, one can see that the department does not have enough resources of its own that are readily available at their disposal when a disaster strikes. As such, the researcher noted from these findings that during the Tokwe-Mukosi flood disaster, some of these equipments were not readily available hence could not be easily accessed. Although these would eventually be accessed, disaster response is time conscious. As such, this delayed rescue efforts thus

compromising effective disaster response hence many victims continued to suffer waiting for rescue.

### **4.5.3 LACK OF PREPAREDNESS**

Funds are at the very least, nominal or close to none at the district level. As such, these financial constraints affect disaster preparedness activities like carrying out educative and awareness campaigns, conducting workshops and mock training or drills to test the effectiveness of response materials. Disasters are unpredictable but the level of disaster preparedness also determines the effectiveness of disaster response. Disaster preparedness sets the stage for effective disaster response. According to the Civil Protection Act [Chapter 10.01], the DCPCC is supposed to meet regularly, at least twice a month, but the researcher noted that this is not the case in Chivi District as the committee rarely meets. The District Administrator of Chivi confirmed this when he said there is a propensity of meeting in the event of a disaster or when there are donors who want to meet the planning committee. He further notes that the DCP does not usually visit the local committees of disaster risk management in the district, saying that they only show up when a disaster occurs. This is poor disaster preparedness and it affects disaster response.

When Tokwe- Mukosi flooded, the department was well caught off guard. *“The Tokwe-Mukosi disaster took us by surprise, as we had not foreseen water rising to that level, but the fact that anything can happen any time,”* the Director of DCP Mr Pawadyira told the Guardian News (2014). The Tokwe-Mukosi flood disaster killed dozens and displaced thousands more, according to Magogo (2015); this renewed simmering concerns about Zimbabwe’s capability and preparedness to handling climate-linked disaster events. Magogo (2015) also noted that the Tokwe-Mukosi flood disaster was characterized by poor management and prioritization which emanated from a lack of proper disaster preparedness. As mentioned in the earlier chapters, awareness campaigns, mock drills, sensitizing communities of disasters are all common and necessary mechanisms of disaster preparedness. 60 % of the residents when asked by the researcher if they know their roles in disaster response simply answered “No”. 20 % of the disaster victim respondents did not even know they have a role to play in minimizing the effects of a disaster. From these findings, the researcher noted with concern that the Department of Civil Protection had not done enough in terms of awareness campaigns and educating communities of

their roles in disaster management or generally what to do during an emergency situation which is a vital component and practice in disaster preparedness.

According to an interviewee from DCP, the department held awareness campaigns educating communities on critical actions to follow during a disaster in all provinces not only in vulnerable regions. She added that if funds permitting, the Department will continue carrying on these as they are very informative in capacitating the local communities. 80 % of the disaster victim respondents confirmed to the researcher that they never attended any awareness campaign prior to the Tokwe- Mukosi flood disaster and this raises eyebrows on the level of disaster preparedness in the country. About 40% of these respondents told the researcher that that they did not even know of the functions or activities of the Department of Civil Protection. From this finding, the researcher discovered that the Department of Civil Protection is not well known with the masses or local people at the grassroots level, except only in the case of a disaster. This is also an area of concern on the level of preparedness in the Tokwe-Mukosi flood disaster which affected disaster response.

Given early warnings of the consequences of heavy rains that had lashed most parts of the country, it was expected government and its arm, the Department of Civil Protection, would be pro-active by preparing well for the threat of floods. Mavhinga (2015) notes that there was little sign of that preparedness as disaster unfolded due to flooding after the Tokwe-Mukosi Dam wall overflowed, leaving thousands of people marooned and hundreds of students out of school.

There is need to create awareness of disasters and how to respond to them by educating the communities as Mr Lameck Betera, an Administrative Officer in the Department of Civil Protection claims, *“there is need for educational campaigns sensitizing communities in vulnerable regions on critical actions to follow which include coping and survival strategies during a disaster”*. He said the department has carried out a number of these campaigns in vulnerable regions in most parts of the country and more will be carried out if funds permit. According to respondents at the Department of Civil Protection, as a measure in disaster preparedness, DCP works with ZINWA and the Meteorological Services Department who issue out early warnings to the public prior to a disaster. However the level of disaster preparedness is also affected by how ready communities are to understand these official warnings and react to a disaster, a question which a key informant from DCP answered “yes communities understand

warnings but more still needs to be done”. This can also be addressed in the education and awareness campaigns.

Seventy two percent of the disaster victims conceded that they did not receive any early warnings prior to the Tokwe- Mukosi flooding. From the findings, the researcher also noted early warnings were not possible since the disaster was more of man-made than natural. According to Chingwizi Final report (2014), given the fact that the Tokwe-Mukosi disaster was not natural but manmade, the flooding and subsequent emergency evacuation was clearly caused by a government planned dam construction project and ideally, the government should have compensated and properly relocated affected families prior to commencement of the construction. Early warnings are an integral part of disaster preparedness which in turn determines the success or failure of disaster response.

According to one enlightened disaster victim respondent who is a teacher at a local school, the government was caught sleeping and the effects of the Tokwe- Mukosi flood disaster could have been reduced had there been prepared enough. He noted that The Tokwe-Mukosi dam construction project itself took ages to complete. *“The state should have moved everyone to new relocation sites in the first place. Right at the onset of the construction of the Tokwe Mukosi dam, they should have been dedicated enough to evaluate the community living around the Tokwe-Mukosi dam so that they are relocated”*.

According to Human Rights Watch (2015), 6,393 families living around Tokwe-Mukosi needed to be relocated prior to the flood disaster. However by January 2014, partly due to resistance from families who wanted to be compensated before relocation, the government had relocated just 712 out of the 6,393 families, Human Rights Watch (2015). Had there been proper preparedness and had government managed to move most of these families before the flood disaster, disaster response could have been more effective. Less people would have been affected and as such, less people would have needed humanitarian assistance and responding to the flood disaster would have been more efficient.

#### **4.5.4 CORRUPTION**

According to Mavhinga (2015), rampant corruption and poor prioritization in allocation of resources also work to undermine government’s capacity to respond to disaster situations.

According to the Global Corruption Perception Index 2014, Zimbabwe is ranked 156 of 175 corrupt countries. There is no doubt that this rampant corruption has found its way in disaster management in Zimbabwe. From the research findings, the researcher noted that corruption was one of the major factors why disaster response in the Tokwe-Mukosi was not as effective.

According to the Human Rights Watch (2015), several Tokwe-Mukosi flood victims said they believed authorities at Chingwizi camp misused humanitarian aid as evidenced by some aid allegedly being diverted to the neighbouring towns of Chiredzi and Triangle where it was sold on the black market for profit. This, according to Oliver (2008), undermines the effectiveness of disaster response. A respondent had this say about the alleged corrupt activities,

*"The authorities were degenerate, disseminating the aid unjustifiably, and frequently diverting it. NGOs and well-wishers were not permitted to circulate garments, nourishment, covers, or different things to us directly. They were required to hand over every aid to PA Masvingo and some to Chivi RDC. From that point, a great part of the donations vanished."*

According to the Human Rights Watch (2015), researchers were sent to the two towns of Chiredzi and Triangle and, based on the NGO labels on bags of donated items; it confirmed that goods and humanitarian aid meant for the disaster victims at Chingwizi found its way and were being sold in the two neighbouring towns. According to the Human Rights Watch (2015), when the then Minister of Provincial affairs in Masvingo was asked about the allegations of theft of donations of Tokwe-Mukosi humanitarian aid, he said his officials had conducted three audits of all donations and everything was accounted for. The key informant's respondents did not raise the issue of corruption maybe for fear of victimization but according to 37 % of disaster victim respondents, the issue of corruption was a factor which affected humanitarian aid and food distribution hence disaster response. As such, the researcher noted that corruption is one ignored but major factor which affected Tokwe-Mukosi disaster response.

#### **4.5.5 POOR COMMUNITY AND DISTRICT STRUCTURES**

The District Administrator of Chivi chairs the Department of Civil Protection at district level. The researcher managed to interview the DA of Chivi who also chairs the District Civil Protection Coordinating Committee. When asked about some of the challenges the department

faced in implementing disaster response during the Tokwe- Mukosi flood disaster, the respondent confirmed to the researcher that the department faces quite a number of challenges generally and these were reflected during the flood disaster including poor community and local structures which are incapacitated. He said the local structures from district level to ward level does not have enough funds, materials and even human resources hence it was overwhelmed in responding to the Tokwe- Mukosi flood disaster. He said..

*There is restricted capability in responding to emergencies at the district level. When the disaster occurred, there was not much we could do as a committee except attending to the injured with our 2 vehicles and the police also assisted us in helping people and their belongings move to higher grounds. There were only 2 vehicles one for the Chairperson of the DCPCC and the other one for his assistant.*

Initially these were the only two vehicles available on the onset of the disaster. The researcher noted that this greatly delayed disaster response at the onset of the flood disaster as only 2 vehicles were readily available to ferry the affected. Effective disaster management system involves strengthening the capacity of local community structures, (Sahoo 2005). This is not the case with the community structures in Chivi as the DA conceded. According to the respondent, this problem posed to be one of the major factors why disaster response to Tokwe-Mukosi flooding was rather slow, because the community structures are incapacitated and they have to wait for help from various organisations. During a disaster, whilst the DCPCC's main role is to source for resources to rescue the affected people, they also need to respond to the disaster by catering for the immediate needs of the disaster victims. However due to the extent and size of the Tokwe-Mukosi flood disaster; the resources were not sufficient and adequate enough to meet the immediate basic needs of the victims.

The DA also said that the community organizations like the Ward Development Committees also lack the cheap but effective material resources that are required to swiftly publicize emergency information to the people in the local community such as sirens and bicycles. The respondent said that there should also be decentralization of funds from the centre to the local structures. She added that the problem is on the centralization of resources whereby only the Department of Civil Protection Head Office possesses most of the material resources needed to respond to a disaster. This led to uncoordinated and delayed response during the Tokwe-Mukosi flood

disaster because floods by their nature are rapid onset disasters; hence response teams especially the community structures usually on the ground, need to be on high alert with all the necessary resources in place to respond to the disaster.

The respondent also noted that Chivi District Civil Protection is not only weak in terms of material resources and funds, but also decision making powers. He said that when the disaster occurred, they could not just call for help from various NGOs as there are protocols and procedures to be observed. He stated that in case of an emergency, the district consults with the province who will in turn consult with the national level up to the executive. As such, the whole process and system of declaring a national disaster is lengthened due to consultations with the higher offices. As a result, during the Tokwe-Mukosi flood disaster, various NGOs would not just give handouts as they were waiting for the green light from the central government, a situation which slowed relief aid hence affecting disaster response.

Mavhinga (2015) also notes in terms of the Tokwe-Mukosi situation that *“it is critical that government has funds set aside for such eventualities as well as a standby team ready to spring into action to provide rapid response to emerging disasters. Additionally, government should invest in technical capacity for quick and accurate assessments of disaster situations and a rapid mechanism to activate support from the international community, because it is standard practice that international aid agencies will not offer support unless government declares a disaster situation and formally asks for assistance.”*

To sum it up, the researcher concluded from the findings that the system is rather bureaucratic in nature and it prolongs the information flow hence affecting the pace of responding to a disaster. According to Bere (2015), time is key in disaster response.

#### **4.5.6 POOR ROAD NETWORKS**

Magogo (2015) notes that reliable road networks can greatly change the manner in which Zimbabwe responds to disasters, prevents them or minimize their damage. 100 % of the key informant respondents noted that poor road networks were one of the major challenges during the flood disaster which affected disaster response. The DA of Chivi noted that even the relocation sites in the Lundi Section and Masangula were inaccessible which was also compounded by the continuous down pouring. She noted that because of the poor road networks,

the District got tractors from District Development Fund based at Tongaat Hullets, Hippo Valley and Mkwesine. These were especially used to pull vehicles from the muddy roads to ensure accessibility hence quicker disaster response. She also noted that Helicopters from the Air Force Zimbabwe also assisted the district in dealing with the inaccessible poor road networks.

#### **4.5.7 RESISTANCE FROM RESIDENTS**

One hundred percent of the key informant respondents noted that this was one of the major problems they faced in implementing disaster response during the Tokwe- Mukosi flood disaster. According to the DA of Chivi, families refused to be relocated to new sites without compensation upfront. She noted that the flood victims especially the elderly refused to accept the relocation proposals and demanded compensation. She added that this problem of resistance from residents started way before the flood disaster as residents would not cooperate even during the construction of the Tokwe-Mukosi dam. As such, this resistance from residents before the flood disaster affected disaster preparedness hence would affect response during the disaster. According to a respondent from DCP, during the disaster, the disaster victims claimed that they should receive full compensation first before leaving Chingwizi camp and that they should also be resettled on 5-hectare plots each family in line with initial government promises. The researcher noted that due to this resistance to relocate from some families, disaster response was greatly affected as the efforts of the government were in vain.

According to director of the Department Civil Protection Mr Madzudzo Pawadyira during an interview with the Guardian (2014), He noted that the affected families were being resistant to the DCP's efforts to relocate them to higher ground for their own protection. He was quoted by the Guardian saying, *"We don't have powers to forcefully move them, thus mostly depend on politicians to try and convince them to settle elsewhere, but with little success."* Viewed from this perspective, the researcher concluded that the disaster victims themselves also contributed in undermining the efforts of the relevant authorities in responding to the Tokwe- Mukosi flood disaster. As such, resistance from families was a major setback in ensuring a properly coordinated disaster response to the Tokwe-Mukosi flood disaster.



## **4.6 ROLES OF VARIOUS STAKEHOLDERS IN DISASTER RESPONSE**

### **4.6.1 Role of NGOs/ Private Sector**

According to a respondent from the Department of Civil Protection, the NGOs generally have a leading and important role in disaster response. He said NGOs have continuously played a key role in providing financial, material and logistical support to the Department of Civil Protection to prepare and respond to floods. He also said that the Department also works hand in hand with UNDP whose support in terms of disaster response comprise of funding, technical assistance in the form of local and international experts, and also equipment and materials. They are also instrumental in resource mobilisation from other development and humanitarian partners. According to the respondent, when the magnitude and impact of a disaster overwhelms the capacity of the government to respond, NGOs step in with the much needed humanitarian assistance. Some international organisations such as the International Organisation for Migration mission in Zimbabwe responded to the flood disaster by providing shelter, food and non-food items.

According to a respondent from the Department of Civil Protection, there were many NGOs who played a critical role in responding to Tokwe-Mukosi flood disaster which include ECHO, Cesvi-Italian NGO, World Vision, World Food Programme, IOM, OXFAM, UNICEF, ACTION FAIM, and USAID etc. He states that most remarkably is the Zimbabwe Red Cross which, as commanded by the ZRCS Act of 1981 is partner of the NCPCC and along these lines goes to coordination gatherings at all levels. The NCPCC asked for the Red Cross to mediate in the unfurling emergency in Tokwe-Mukosi dam and from that point forward the ZRCS did evaluations alongside the PCPCC and other donors, for example, ECHO and IOM. The Civil Protection Act Chapter 10:06 states that the department of Civil Protection can call on any government department or private sector to assist wherever such assistance may be required, hence in describing the relationship the DCP has with other stakeholders, a respondent from the Department noted that the relations are strengthened through the National Civil Protection Committee meetings. She added that the National Civil Protection Committee was very instrumental in producing a multi- sectoral approach in responding to the Tokwe- Mukosi flood disaster. The committee includes the DCP, EMA, ZINWA, IOM, City of Harare, Agritex, ZRP Sub Aqua Unit, Red Cross Cresecent, and the Ministry of Mines amongst other key stakeholders

and some of these also played key roles in Tokwe-Mukosi flood disaster response. 68 % of the disaster victims noted that various NGOs played an important role during the Tokwe-Mukosi flood disaster. One respondent noted..

*“We received food though it would not sustain us for long because there were many people who needed it. World Food Programme provided us with 0.75 litres of cooking oil, 10 kilograms of maize-meal and 2 kgs of beans or peas. Other NGOs were focusing more on health care not food so they would give us mosquito nets, Tarpaulins, NFI kits, AQUA tabs, and blankets. People from UN also provided us with medication from their temporary clinics”.*

According to the Human Rights Watch (2015), the UN agencies’ support in responding to the Tokwe- Mukosi flood disaster included providing basic health care from temporary clinics, food rations, temporary shelter materials, and hygiene kits; water supply through trucking and boreholes; emergency sanitation facilities; and psycho-social services. The UN agencies noted that, despite limited resources, its response in the flood disaster was guided by humanitarian principles premised on accountability to beneficiaries by providing humanitarian response in a humane, impartial, neutral, and independent manner.

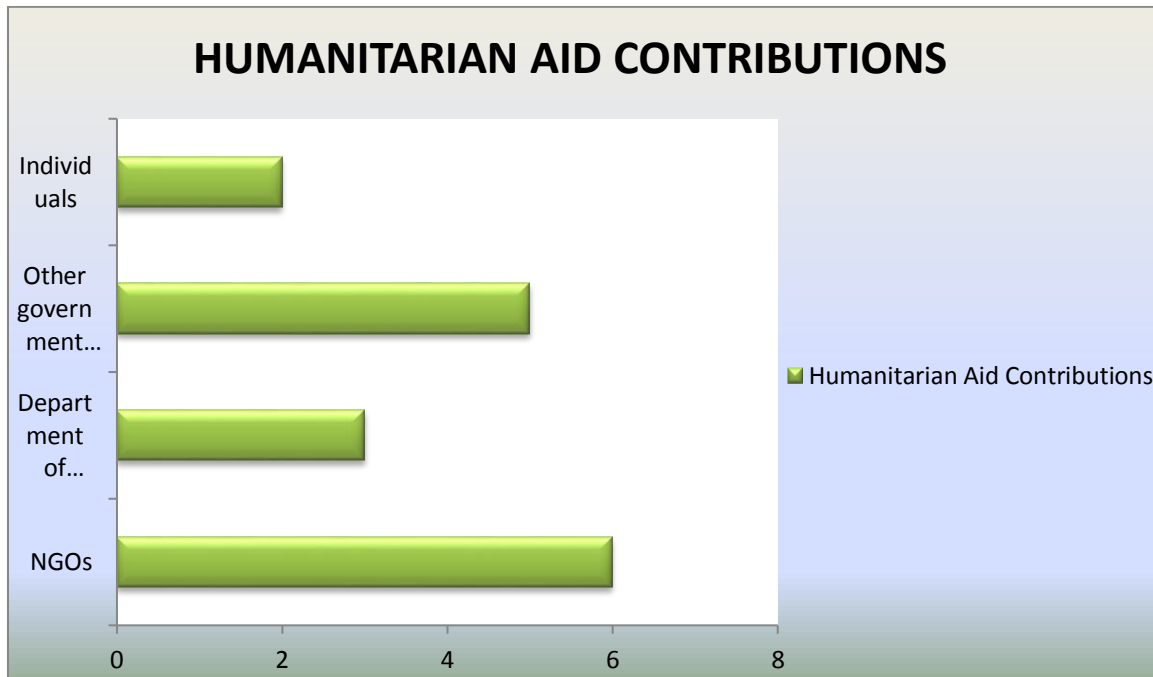
However, from an onlooker’s view the relief interventions by NGOs was addressing the plight of the Tokwe-Mukosi flood victims but it is only after an in depth analysis of the situation and consultation with the disaster victims that loopholes will surface. In as much as NGOs played an integral role of providing humanitarian assistance in Tokwe-Mukosi disaster response, some respondents felt more could have been done. 55% of the disaster victims told the researcher that considering their family sizes, the food aid was usually not enough and some NGOs withdrew their support very early. A move which according to a respondent from DCP of the Department Civil Protection, is per agreement with the government as during a disaster, NGOs provide assistance up to a certain point in time whereby government can be able to take over. According to Mr Moyo a spokesperson for World Food Programme (WFP) as quoted by the Human Rights Watch 2015, noted...

*“WFP assistance to the Tokwe- Mukosi flood victims was an emergency response for four months only. The termination of our assistance might mean an unfortunate reduction in support but it is our hope that government and other actors might be able to assist the flood victims*

going forward as there is a clear need to support the disaster victims who lost their crops during the Tokwe- Mukosi flood disaster”.

The graph below shows how instrumental NGOs were in providing relief aid to the flood victims of Tokwe- Mukosi flood disaster. About 95% of all disaster victim respondents noted that they received assistance ranging from food to transport to ferry them to relocation sites from NGOs and also the government etc.

**Fig 4.6 Relief Aid Contributors during the flood disaster**



“Research Field Data /2016”

## **4.6.2 ROLE OF THE DEPARTMENT OF CIVIL PROTECTION**

### **4.6.2.1 Coordination**

The Department of Civil Protection has always and continues to be responsible for coordinating all national response efforts, (UNISDR 2005). According to the Civil Protection Act (2001, Chapter 10:06), the primary functions of the department include preparing for, preventing where possible, and mitigating the effects of disasters once they occur which is disaster response. Respondents from the Department of Civil Protection noted that generally, the main role of the department during the Tokwe- Mukosi flood disaster was simply coordinating and providing relief aid. This means that the department takes a leading role in all relief strategies by coordinating all disaster response efforts from the community, ward, district, and provincial up to the national level. When a disaster with the magnitude of Tokwe-Mukosi occurs, it needs a multi sectoral approach in responding to the disaster. According to a key informant from DCP, during the Tokwe- Mukosi flood disaster, the department was able to coordinate disaster response through consultation and cooperation with various support networks, including the Zimbabwe Defence and Police Forces. This coordination role is also provided for in the Civil Protection Act 2001; Part VI, Section 18(3).

The respondent referred back to the Department's vision which is prevalence of a society of hazard avoidance and versatility, enhanced adapting capabilities and ideal emergency response through coordination of all key sectors, institutions and vulnerable communities within the context of sustainable development. She added that on top of coordination, the department also provided management activities during the Tokwe-Mukosi flood disaster. As such, the department was very instrumental in its coordinating and management role in responding to the Tokwe-Mukosi flood disaster.

### **4.6.2.2 Resource mobilization**

One key informant from the department noted that during the Tokwe- Mukosi flood disaster, the department was the main body responsible for resource mobilization and resource allocation so as to mitigate the effects of the disaster. During the Tokwe- Mukosi flooding, the Department of Civil Protection was able to source for resources from different organizations and people. According to a respondent from the department, they were able to gather resources from various NGOs, Private companies, church organizations and individual people including even musicians.

Some private companies provided the Department with transport services so as to ferry the affected families to their newly relocation sites.

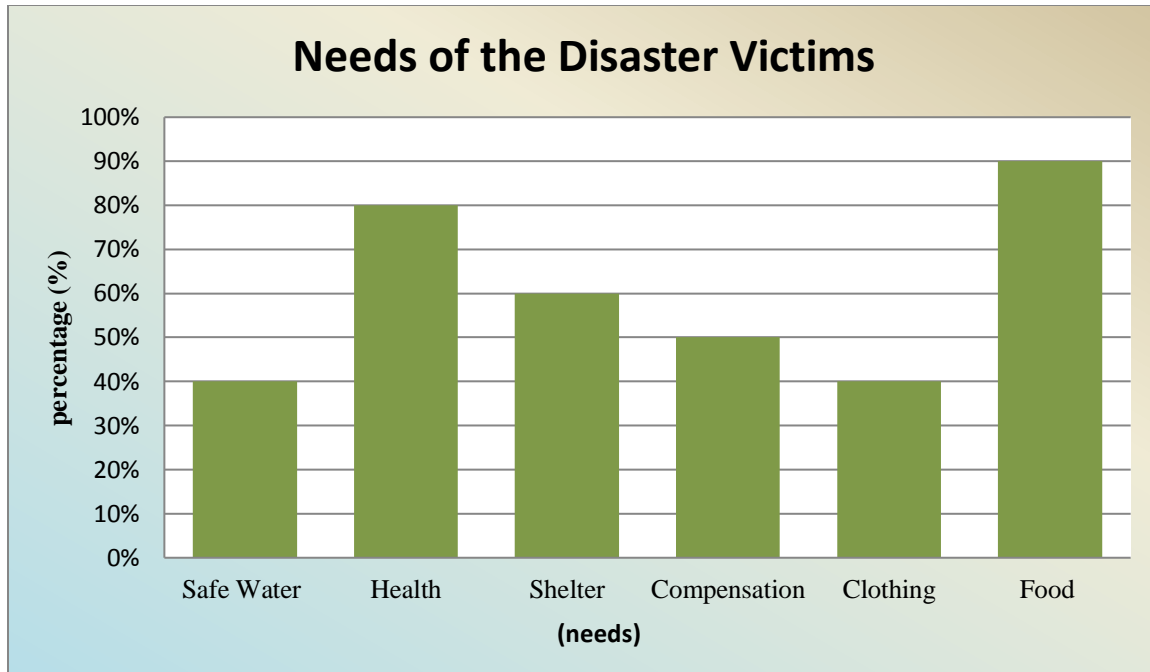
According to the key informant, resource mobilization was pivotal in ensuring the success of disaster response during to the Tokwe-Mukosi flooding. This is because the Department generally does not have enough resources yet alone to respond to a disaster with the magnitude of Tokwe-Mukosi with its devastating effects. As such, the department had to source for resources because it was overwhelmed. However the department did not only source for material resources, but also funds. This is the government arm in responding to disasters in Zimbabwe as such, through the government of Zimbabwe subsequently, propelled a crisis offer asking for USD 20 million from the global group to relocate the disaster victims to an impermanent area and gave philanthropic help to the same. All things considered, more than 3,000 family units were moved from the Tokwe-Mukosi to the Chingwizi provisional camp in March 2014 preceding being moved again to Nuanetsi ranch

#### **4.6.2.3 Needs assessment**

Needs assessment is another role which the department carries out during a disaster. When asked if they had carried out any needs assessment during the Tokwe- Mukosi flood disaster one key informant from DCP acknowledged that the situation was desperate so much so that they carried out very few of them as it was time consuming. She added that the major needs of the Tokwe-Mukosi flood disaster victims in order of priority was shelter, in which case they provided them with tents, they also needed safe water, food and clothing.

As mentioned earlier, food shortages were one of the major effects of the Tokwe- Mukosi flood disaster. According to the disaster victims, compensation was also a major need. The disaster victims stated that compensation was likewise a noteworthy concern as they wanted to make amends for their suffering. Some of the disaster victims claimed that they lost their livestock and property during movements and relocations. The diagram below highlights the major needs of the disaster victims as according to the needs assessment carried out by the DCP and various other organizations. The major need of the disaster victims included food which has the largest percentage.

#### **Fig 4.7 Major Needs of the Disaster Victims**



“Research Field Data /2016”

#### 4.6.2.4 Humanitarian Assistance

Another key role of the Department of Civil Protection in responding to Tokwe- Mukosi flood disaster was the providence of humanitarian aid/ assistance. According to fig 4.6, the department ranked 2<sup>nd</sup> in providing humanitarian assistance to the disaster victims. Considering that many disaster victim respondents said that they had lost all their food and properties in the flood disaster, the Department together with its partners stepped in and provided food aid and also non-food items to the disaster victims. A key informant from the department noted that the department was able to provide food aid to the flood victims which include mealie meal, vegetables, cooking oil, beans and also flour among others. The non food items they provided include aqua tablets, NFIs, buckets, blankets, clothes, candles amongst others.

According to the key informants from the Department of Civil Protection, the department was able to collaborate with various other government departments for example the air force. They noted that helicopters from the air force were used to rescue disaster victims who needed assistance where it was not feasible to use vehicles. One respondent noted that some people found cover in trees and had to sleep there until we used helicopters by tying ropes so as to rescue them.

From these findings, the researcher noted that the Department of Civil Protection was very instrumental in responding to Tokwe-Mukosi disaster by providing humanitarian assistance. In fact, the department should be at the forefront in responding to disasters in the country. According to a respondent from DCP, the department also provided human capital to the disaster victims. However the effectiveness of the relief aid provided can still be questioned according to some disaster victims. Some of the disaster victims admitted to receiving humanitarian aid from the Department of Civil Protection but however noted that relief aid did not come in time. This is a result of late implementation or poor planning.

#### **4.6.3 ROLE OF THE COMMUNITIES**

Sixty percent of the disaster victim respondents noted that they do not know their role in disaster response, which is a worrying percentage to say the least, and a key point of concern. The reason why more than half of these respondents do not know their role in disaster response is down to lack of awareness and educational campaigns by the relevant authorities which is the Department of Civil Protection at all levels from the community up to the national level. According to the respondents, prior to the disaster they were no awareness campaigns about disaster management in the district except during the construction of the Tokwe-Mukosi dam; those who stayed near the dam were evacuated for safety reasons.

According to a key informant at the Department of Civil Protection, there are community based disaster management programmes that have always been there. He notes that the idea is to fully engage and allow local communities to be engaged in all disaster management activities that is from the preparatory stage up to the rehabilitation stage. According to some of the disaster victim respondents, during the Tokwe-Mukosi flood disaster they did not know what to do because it was their first time to have experienced such a disaster. They could only move to higher grounds and climb up trees which is the logical thing to do.

The community was the most affected by the devastating effects of the Tokwe- Mukosi flood disaster. As such, according to a respondent at the Department of Civil Protection, there are coping and survival strategies to respond to a disaster, before outside interventions. These include rescuing the most vulnerable including children, the disabled and women first, proper dissemination of information and also cooperation with relevant authorities for evacuation strategies. However during the Tokwe-Mukosi flood disaster, respondents highlighted that they

did not just fold their hands at the face of calamity, they took some action in a bid to reduce or minimise the effects of the disaster which had affected them in various ways. In Chivi, a few bridges were flooded and according to some respondents, they had to create a makeshift bridge made out of tree branches and poles so as to cross to higher grounds. The need for awareness campaigns still cannot be ignored despite some respondents claiming they dealt well with the flood disaster in terms of evacuation.

#### **4.6.4 ROLE OF THE DISTRICT ADMINSTRATOR**

The District Civil Protection Coordinating Committee was a key actor in responding to the Tokwe- Mukosi flood disaster according to the District Administrator of Chivi. The DCPCC consists of members from a variety of state departments, for example the army, health, and the police among others, as provided for in the Civil Protection Act 10:06. According to the DA of Chivi who is also the chairperson of DCPCC, the department was one of the 1<sup>st</sup> key stakeholders to respond to the flood disaster by moving people and their properties to higher and safer grounds. According to the DA, the primary mandate of the District Civil Protection Coordinating Committee during the flood disaster was to protect the local people from risks, emergencies and disasters through disaster preparedness, disaster response and recovery.

The DA of Chivi also noted that the DCPCC managed to source resources during the Tokwe- Mukosi flood disaster from various organisations which include NGOs like the Red Cross Crescent and also the DDF. The DA noted that one of their major roles during the flood disaster was “*to make sure the families were moved to a safer place with their goods and properties*”. To that end, the DA engaged stakeholders like DDF which was very instrumental in providing tractors and vehicles, to help the affected families move to safer places. He added that the DDF also provided the District with manpower during the flood disaster and as the chairperson of the DCPCC; the DA coordinated all these efforts from various organisations during the disaster which is one of its roles.

From the findings, the researcher noted that the DA was the one of the key actors in responding to the Tokwe- Mukosi flood disaster. From the interview carried out in the department, the respondent noted that the role of the department during the Tokwe-Mukosi flood disaster was to coordinate disaster response interventions, including planning, budgeting and mobilising resources for such interventions.



#### **4.6.5 ROLE OF LOCAL AUTHORITIES**

Local governments due to their proximity to the people are bestowed with some of these duties hence Local Authorities and also District Administrators as local government practitioners must see to it that people within their areas of jurisdiction are well protected against any disasters and risks, they must respond to initial alerts of a disaster. To that end, there should be departments specifically for managing disasters at Rural District Councils. However from the findings, the researcher noted that during the Tokwe- Mukosi flood disaster, Chivi RDC department of Community Services only provided fuel especially for the DA and his assistant so that they could use to ferry people from the disaster site to safer ground.

According to the director of the Chivi RDC Department of Community Services, who later directed the researcher to the DA's office for accurate and more data on the Tokwe-Mukosi flood disaster, the local authority is not really involved in disaster management in the district considering there have no funds to extend their priorities, and also because the work is done by the DA as the chairperson of the DCPCC. She conceded that the local authority only followed orders from the DA during the Tokwe-Mukosi flood disaster. Furthermore, the DA of Chivi also revealed that the Chivi RDC was just used as a standpoint where most aid donated by NGOs for the disaster victims were directed for onward distribution to beneficiaries. This is on account of international aid agencies being disallowed from providing aid to the disaster victims as the mandate would empower government to practice more prominent control over the appropriation of the donated items.

However according to the DA of Chivi when asked if disaster response was successful, he noted the issue of lack of funds and material resources as a major drawback in responding to the Tokwe-Mukosi flood disaster. According to the respondent, more could have been done in averting the disaster as he lamented lack of vehicles and even though they got fuel from Chivi RDC, the fuel was not enough. The researcher noted that apart from challenges of limited vehicles of vehicles to ferry disaster victims, the government as a whole was facing a severe crisis of fuel for its fleet. As such, they were successful in responding to the flood disaster to some extent given the magnitude of the disaster and the level of preparedness of the department.

#### **4.7 DISASTER RESPONSE PLAN**

According to the Senior Administration Officer from the Department of Civil Protection, disaster response plans are available at provincial, district and even ward levels. He added that the idea is to mainstream disaster risk management in all sectors and institutions such that people will know what to do and who to call in a disaster situation. To that end, the Operations Officer added that even Institutions now have disaster response plans. These include Chinhoyi University Hotel, Environmental Management Agencies, even National Parks amongst others. The researcher noted that this is a positive step from the Department in terms of strengthening disaster response in Zimbabwe.

However according to the DA of Chivi, the 2014-2017 disaster response plan for the district was merely followed during the Tokwe Mukosi flood disaster. This he said, was caused by a lack of periodic testing of the disaster response plan and also because the DCP rarely meets the DA to update the response plan. According to one key informant during an interview at DCP when asked if the disaster response plans address periodic testing, she responded that the Operations Officer in the department works together with Fire Brigade to test the institutions equipment. She also added that the disaster response plans also include evacuation guidance like the one CUT Hotel uses. Disaster response during the Tokwe- Mukosi flood could have been more effective had the District followed their 2014- 2017 disaster response plan so as to reduce the adverse effects of the flood disaster.

#### **4.8 CHAPTER SUMMARY**

The chapter focused on collected field data presentation gathered from interviews and questionnaires, its critical analysis and interpretation. The research findings from the research questionnaires and interviews in this chapter were guided by the research questions and were based on the objectives of the research. Some of the information gathered from study was presented through bar graphs, tables and pie charts. The researcher noted that disaster response to the Tokwe- Mukosi flood disaster was affected by a number of factors which include lack of funds, lack of disaster response resource materials, poor community and district structures, poor road networks and resistance or lack of cooperation from the affected families. It also became apparent that Chivi RDC department of Community Services is not very instrumental in disaster

management in the district, rather, it is the District Administrator who spear head disaster response at district level.

The next chapter will present the sum

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 INTRODUCTION**

Chapter IV comprise of the summary, conclusions and the recommendations of the study. It summarizes all the previous chapters of the research. As indicated in Chapter I of the study, the general objective of this study was to assess disaster response in Zimbabwe. In order to achieve this, the researcher sought to get answers through research questions. As such, this chapter generally summarizes the acquired study results presented in Chapter IV by drawing lines

between study results and what cited literature say about disaster response in Zimbabwe. The chapter also draws and outlines the conclusions and recommendations of the research. The recommendations are basically based on the findings of the research and will also address the objectives of the research under study.

## **5.1 SUMMARY**

Chapter I introduces the research, looking at the background of the study to have a better understanding of the issue at hand. This study was propounded by the severe effects of disasters in Zimbabwe as a result of inefficient and ineffective disaster response. As such, the background of the study gave background knowledge of the research that has prompted this study. The situation was addressed globally, regionally and nationally. More information was provided on other disasters that have occurred in different parts of the country over the years and looking at the relief responses that have been rendered and how successful were they. This was followed by the statement of the problem which is basically the issue forming the central concern of the study and this statement contains brief information on the problems to be solved by the research bringing out the prevailing situation and the ideal situation in terms of disaster response. This was answered through the collection and analysis of data. This was followed by the objectives of the study. The general objective of this research was to assess the effectiveness of disaster response in Zimbabwe. The objectives were clear and helped the researcher in addressing the research problem. This was done through the research questions. With a specific end goal to successfully complete the study, the objectives of the research were clearly outlined in a bid to guide the researcher in formulating the research questions of the study. The research questions correspond with the research objectives. This was followed by the significance of the study whereby the researcher outlined and explained the benefits that could be derived from the research under study. The study is important to the researcher, the university and the academic world and also to relevant stakeholders that is government, communities' e.t.c. This was followed by the assumptions of the study whereby the researcher gave out what he believes are facts but could not be verified. These would go on to influence the research findings. The researcher went on to identify all the terms that needed to be defined in a bid to give meaning to stand out terms or words from the context they are used within the research. Furthermore, the

research was conducted within the delimitations and confines of Southern Masvingo in Nuanetsi Ranch in Chivi District.

Chapter II basically looked at literature that is relevant to the study. This was done by addressing the objectives of the study outlined in Chapter I of the research. It incorporated the extraction of amassed information that is learnt or obtained from what others have officially distributed. It also provided a platform for comparison of disaster response in various developed and developing countries. The primary aim of the research was to assess the effectiveness of disaster response in Zimbabwe. Relevant literature was used to explore data from various scholars on disaster response. The countries in perspective include disaster response in the United States of America, in Japan, Mozambique, and Sudan. The idea was to address the objectives of the research from a global, regional and national perspective taking cognizance of how other countries respond to emergencies or how they react in a disaster situation. The chapter looked at the effects of disasters which are environmental, social and even physical. These include loss of livelihoods, destruction of food crops, and destruction of infrastructure amongst other effects of disasters. Disaster response in Zimbabwe faces a lot of challenges. These include corruption in humanitarian aid provision, lack of funds, lack of skilled personnel or human resources, poor community and district structures and also lack of disaster response materials among others. These factors hinder the successful application of the system. Hence when disasters occur, their effects are more severe because of a weak response system. The chapter also outlined and explained the different roles of relevant stakeholders in disaster response. The main body charged with responding to disasters in Zimbabwe is the Department of Civil Protection. Other stakeholders include NGOs, Local government, Civil Societies, Private and Public Organisations among others. All these stakeholders all play an integral role in ensuring that disaster victims are well taken care of during the event of a disaster hence minimizing its effects. The chapter concluded by providing a disaster response plan for effective disaster management in Zimbabwe.

Chapter III started by defining and explaining what research methodology is. The researcher used the descriptive design which is focused with connections that exist, convictions, perspectives and procedures takes place in implementing disaster response. The study used both the quantitative and qualitative approaches through a process of triangulation to deal with the shortcomings of each method. The target population for the research was the flood victims of

Tokwe-Mukosi flood disaster and also key informants such as the District Administrator of Chivi, the Director of the Department of Community Services at Chivi Rural District Council and Operations Officers at DCP who provided valuable data to the research. The researcher used the descriptive research design. The population size is 20 000 people and is composed of people from all age groups that is from infants to people age over 60. The sampling techniques used were probability sampling techniques which include Purposive/ Judgmental sampling and Convenience sampling. The total sample size was 150. Data was collected using both sources of data that is primary and secondary sources. Data was collected using interviews and questionnaires. Interviews were used for the key informants and questionnaires for the disaster victims. The chapter also provided how and why the researcher considered some of the research ethics in the carrying out of the study. The chapter also discussed how the researcher would establish data reliability and validity. Pre- testing of the research instruments was done to check for anomalies and possible misinterpretations from the instruments. Chapter III concluded by explaining the steps the researcher will take to ensure smooth gathering of data which is the data collection procedure.

Chapter IV revealed and analyzed the research findings collected from the data collection process. In analyzing the data, the researcher was testing the hypothesis among several variables. The aim was to assess the significance of the findings from the disaster victims and the various organisations where data was collected. Data was presented in the form of pie charts, tables, pictures, histograms amongst other visual formats. Out of a total of 150 questionnaires administered, 100 were completed which is 67 %. For the key informant interviews, the total sample size was 6 and 5 interviews were successful giving it a percentage of 83. The chapter also outlines and explains these variables in the demographic data for gender, household size etc. This was instrumental as it allowed the analyzing of the relationship between sets of data. Some of the major findings discovered from the field of study is that implementation of disaster response in Chivi was affected by a number of reasons which include lack of funds, resistance from the local residents to relocate or to cooperate, lack of disaster resource materials and also poor road networks in Chivi made it difficult to transport the affected families from the disaster area to relocation sites effectively. The researcher also discovered that Chivi RDC department of Community Services is not really involved in disaster management or disaster response in particular; this is done instead, by the DA of Chivi who also is the chair of the DCPCC.

## **5.2 CONCLUSIONS**

In this study, the researcher identified a large number of obstacles and challenges based on a literature research and findings from the data collected that the country faces in disaster response. Results of this study have revealed that disaster response in Zimbabwe is inefficient and unreliable. This has been caused by a lack of commitment from relevant authorities for establishing proper and constantly updated disaster response plan which clearly sets out the roles of different stakeholders in a disaster situation so as to have an organized multi- sector approach in the implementation of disaster response. This is compounded by difficulties which incorporate lack of funds, lack of disaster response material, lack of human resources, incapacitated district and community structures, corruption in the distribution of humanitarian aid, poor road networks among others. Lack of disaster victim's cooperation and participation is also drawing back efforts by relevant stakeholders in effective disaster response as is the case with Tokwe- Mukosi flood disaster victims who refused relocation proposals. These challenges are being faced by various stakeholders responsible for disaster response in the country. These include local structures for disaster management at from ward, district, provincial and also the Department of Civil Protection itself and this has resulted in poor disaster response in the country.

The Tokwe-Mukosi flood disaster had catastrophic and severe effects which could have been reduced had there been an effective disaster response system. The findings from the department revealed to the researcher that local governments that is the District Administration, are progressively playing an integral role in mitigating and responding to disasters. As mentioned before, lack of funds and material resources continue to draw them back as they increasingly affect effective disaster response at all levels. However, the researcher noted with great concern that Chivi RDC is failing to mainstream disaster management in their Council affairs and operations. The department of Community Services in which disaster management falls under at the Council, is not only incapacitated in terms of resource materials but it is also not committed enough in disaster management. In terms of disaster response, Chivi RDC is not really involved as it leaves all the work to the District Administrator. The researcher concluded that disaster management in Chivi District is spearheaded by the District Administrator who also chairs the DCPCC.

From the above observations, the researcher however applauds the Department of Civil Protection, the State and other NGOs, Private entities and individuals for working together with other stakeholders like Zimbabwe Red Cross Crescent in responding to the Tokwe-Mukosi flood disaster through the provision of basic services and humanitarian aid. This was instrumental in reducing the adverse effects of the flood disaster which was the worst flood recorded in Zimbabwe as according to its effects.

### **5.3 RECOMMENDATIONS**

Notwithstanding of a wide presence of humanitarian agencies, donors and NGOs that work hand in glove with the State in responding to disasters, a lot still needs to be done. As such, this study has propounded the following recommendations to offer solutions and answers as a way forward to future effective disaster response in Zimbabwe. The recommendations are mostly based on the research findings and also address the objectives of the study. It is the researcher's belief that the recommendations will go a long way in improving disaster response in the country.

- ❖ Due to the fact that a lack of proper disaster preparedness led to poor ineffective disaster response during the Tokwe- Mukosi flood disaster, it is recommended that the relevant authorities including the DCP must look for ways to reinforce disaster preparedness in a bid to improve disaster response as the two concepts are connected. Disaster preparedness comprise of procedures that permit different units of scrutiny, individuals, various organisations, societies and local communities to respond effectively to a disaster or emergency. As such, strategies should be put in place that ensure that response is effective and efficient, accommodative of sustainable development, and that ensures that recovery and disaster rehabilitation are inherent elements of disaster response. Since disasters know no boundaries, the impact of a disaster can be extensively minimized if the level of disaster preparedness of the relevant stakeholders, local communities and individuals are high. This is because the success or failure of post-disaster action and activities is also determined by pre-disaster forecast, awareness and exigency within DCP, local government and NGOs.
- ❖ Disaster victims bemoaned allegations of corrupt activities from authorities during the Tokwe- Mukosi flood disaster. In a bid to prevent corrupt activities in humanitarian aid, audits of all donations should be conducted so that everything is accounted for.



Authorities receiving humanitarian aid from NGOs, individual donors and other Private and Public Organisations, e.t.c should put extra effort to oversee food distribution and ensure transparency and accountability. Furthermore, humanitarian agencies providing aid in response to disasters should be guided by humanitarian principles centered on answerability to beneficiaries by implementing disaster response in an impartial, humane, neutral, and sovereign manner.

- ❖ Local and Community structures in Chivi should be capacitated. These are the institutions closer to the people and they have firsthand experience of the effects of a disaster. As such, these structures ought to be capacitated in a way that strengthens their capacity to respond to a disaster. In preparation for a disaster, the local governance structures must introduce a coordinating system with the media and NGOs to assist out in carrying out rescue and relief operations. State assistance, which should at the minimum be rightly applied, should comprise of a wider framework for restoring the disaster victim's livelihoods and the compensation for their society property or assets for the loss of revenue.
- ❖ It is also recommended that the State continue to maintain and strengthen its relations with humanitarian agencies and NGOs as guided by the Kampala Convention Article 9 (3). The article notes that where suitable government should receive aid from international organisations, charitable civil society organisations and other relevant stakeholders during a disaster. Furthermore on the same issue, The Civil Protection Act Chapter 10:06 notes that the department of Civil Protection can call on any government department or private sector to assist wherever such assistance may be required. Therefore relations should continue being strengthened such that when a disaster occurs, disaster response will be effective through a multi- sector approach. As such, this will reduce the effects of a disaster.
- ❖ Women, children and the disabled were the most affected during the Tokwe-Mukosi flood disaster. As such, there is need to prioritize women and other vulnerable groups during disaster response. Therefore it is recommended that in accordance with the Kampala Convention article (9.2.c) Authorities should ensure the safety of the vulnerable groups during a disaster by providing special protection and support to the elderly,

women, the disabled, children, mothers with young children, expecting mothers and other susceptible groups.

- ❖ Communities are very vulnerable to disasters and as such, it is recommended, as a primary strategy of reducing this vulnerability to increase the community's capacities, their resources and materials, and their coping strategies. As such, it is highly recommended that community based disaster management approaches should be taken into consideration. Communities should be engaged in disaster management and response activities and they should be allowed to participate fully in the management of disasters to reduce the effects of these disasters.
- ❖ Disaster response during the Tokwe-Mukosi flood disaster was rather slow. There is need for government to sit down, revise, adhere, adjust or amend certain legal frameworks which are very bureaucratic in nature in terms of disaster response. The procedures of pronouncing a catastrophic event to be a national disaster is delayed due to hierarchal consultations. As such, this delays disaster response hence slows the process of providing humanitarian aid to the affected communities or disaster victims. This is because humanitarian actors wait for a green light from the relevant authorities or central government to respond to a disaster.
- ❖ It is also recommended that communities are educated and awareness campaigns are carried out in all provinces sensitizing the local communities of the common disasters and how to respond to them when they occur. In most instances, the DCP has carried out awareness campaigns in areas which are prone to disasters, but educative campaigns should be carried out in all districts such that more people are made aware of disaster management and their roles in disaster response because clearly, the people of Chivi do not know. Furthermore, communities will be made aware of the common hazards, which if they are not addressed or attended to, will become disasters. From these educative campaigns, communities will appreciate their conditions hence their roles in disaster response, as such they will be better prepared in case of an emergency and this will reduce the effects of a disaster.
- ❖ Based on the findings and the experiences of Tokwe- Mukosi flood disaster as reported by the DCP, the DA and the affected families, there is need to formulate a policy framework that can be used to cope with these kinds of disasters, both in urban and rural

areas, particularly the low-lying areas like Mwenezi, Muzarabani and also urban communities' wetland zones. The Tokwe Mukosi flood disaster saved as a lesson for the whole country for future disaster response activities. An effective policy framework is needed that guides the activities of those responding to disasters from the community and up to the national level to ensure a properly coordinated disaster response, as such, the effects of a disaster are minimized.

- ❖ Considering that there has also been a lack of skilled disaster response personnel, it is therefore recommended that the government should train more people so as to have more skilled personnel. These include emergency doctors, logistics officers, heavy machinery operators, relief volunteers, meteorology experts and also Search and Rescue Personnel.
- ❖ Lack of funds was a major setback in responding to the Tokwe-Mukosi flood disaster. It is also recommended that relevant authorities should be committed enough to abide by the lawful procurement that are set up for setting up a National Civil Protection Fund to back the improvement and advancement of the department, for example, disaster response. This comes in the wake of understanding that financial incapacity is the one noteworthy problem being confronted by the nation in a disaster response
- ❖ More over on the issue of funds, Regional partnerships in responding to disasters are also recommended. The strengthening of regional, sub-regional, national and local capacities for disaster preparedness for effective and efficient response will ensure cooperation in addressing the issue of lack of funds, resources etc. for example the Association of Southeast Asian Nations (ASEAN), it is a regional organization in Southeast Asian countries which can trigger the rapid disbursement of funds within two to four weeks after a disaster. Considering lack of funds was a major problem during the implementation of disaster response in Tokwe-Mukosi flooding, this can ensure that funds are available for disaster response so as to reduce the effects of disasters.
- ❖ According to the findings, disaster response plans are now available in most districts of Zimbabwe but it is still recommended that there should be periodic updates of the disaster response plans and regular disaster preparedness exercises should be promoted by the periodic testing of the response plans.
- ❖ Last but not least, it is also recommended that the Ministry of Finance and Parliamentarians should attend National Civil Protection meetings so as to get an

appreciation of the duties and roles of the department of Civil Protection in disaster response.

- ❖ This dissertation managed to address all the necessary aspects of the research questions that were initially set. However, typically, there were aspects of the research questions that could not be answered effectively as was hoped for. This is because some issues in most organisations are not acceptable for discussion because of their complex nature. One such is the issue of corruption which is an impediment to effective disaster response not only in Zimbabwe, but most developing countries. This is a new avenue that could be explored in future studies. The researcher recommends other researchers to build and develop on the issue of corruption in disaster response.

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## Appendix I



### INTERVIEW

**{Chivi Rural District Council (Department of Environment), Chivi District Administrator}**

My name is Elton Anesu Kufandada, a student at Midlands State University currently doing a research project on **“Disaster Response (relief strategies) in Zimbabwe, Case of Tokwe Mukosi”** as partial fulfilment of the BSC Honours Degree in Local Governance Studies. I kindly request your response to the questions contained in this interview. Your answers will be treated confidentially and only used for the furtherance of this research without any prejudice whatsoever to the respondent. Your kind participation and contribution as well as your experiences and opinion could be of great value to this research.

i. What is a disaster?

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ii. What is disaster response?

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iii. What are the most common disasters in the district?

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iv. What is the department doing in terms of managing disasters in the country?

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v. Do you think the Department of Civil Protection is doing enough in terms of managing disasters in the district? Explain

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vi. Is there any disaster response plan in the district?

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vii. What are the means of communication during a disaster? E.g. HF radio, normal phone lines?

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viii. How dependable are these communication means?  
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ix. What were the effects of the Tokwe Mukosi flood disaster in the district (environmental, social, economical, e.t.c?)  
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x. Are there any disaster response measures or activities that are in place to reduce the effects of these disasters?  
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xi. Who were the key actors in disaster response in the Tokwe Mukosi flood disaster?  
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xii. What roles did the above mentioned key actors play in the flood disaster?  
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xiii. What is the role of local government in disaster response?

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xiv. What challenges did the district face in terms of implementing disaster response in the Tokwe- Mukosi flood disaster?

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xv. What can be done by relevant stakeholders in addressing the above mentioned challenges?

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**Thank You for Your Cooperation**

## Appendix II



### INTERVIEW

{Department of Civil Protection (Principle Administrative Officer and Senior Administrative Officer)}

My name is Elton Anesu Kufandada, a student at Midlands State University currently doing a research project on “**Disaster Response in Zimbabwe, Case of Tokwe-Mukosi flood disaster**” as partial fulfilment of the BSC Honours Degree in Local Governance Studies. I kindly request your response to the questions contained in this interview. Your answers will be treated confidentially and only used for the furtherance of this research without any prejudice whatsoever to the respondent. Your kind participation and contribution as well as your experiences and opinion could be of great value to this research.

- i. How would you define ‘effective disaster response?’

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- ii. What is the main role of the department in terms of disaster response in the country?

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iii. What were the effects of the Tokwe-Mukosi flood disaster? (Environmental, social, economical.)

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iv. What kind of assistance did your organisation give to those affected during the Tokwe-Mukosi flood disaster?

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v. How successful was the Department of Civil Protection in responding to Tokwe-Mukosi disaster?

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vi. Is there a disaster risk management plan in place for effective disaster response?

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vii. Does the plan address periodic testing? Explain

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viii. Does the plan include evacuation guidance?

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ix. Do you have any warning systems in place for better emergency response?

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x. How ready are communities to understand official warnings and react?

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xi. Did the department carry out any needs assessment during the Tokwe-Mukosi Flood Disaster?

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xii. If yes, what would you say were the major needs of the Tokwe-Mukosi disaster victims?

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.....  
.....

xiii. Identify by ticking, resource materials readily available to the DCP for disaster response in the country. Where applicable, include the organization which provides the materials.

Food	
Funds	
Tents	
Vehicles	
Bulldozers	
Excavators	
Trucks	
Helicopters	
Sufficient Fuel	
Ambulance	
Fire fighting equipment	
Mobile clinics	

xiv. Identify by ticking, human resources available for disaster response in the country.

Emergency doctors	
Logistics officers	
Heavy machinery operators	
Search and Rescue Personnel	
Relief volunteers	
Meteorology Experts	

xv. **The Civil Protection Act [Chapter20:06]** states that the department of Civil Protection can call on any government department or private sector to assist wherever such assistance may be required. What is the relationship between the department and other stakeholders in disaster response with reference to Tokwe Mukosi flood disaster?

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xvi. What is the average budget of the government per year allocated for disaster response or relief?

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.....

xvii. Did your organisation ever hold any awareness campaign educating communities in regions vulnerable to disasters on critical actions to follow during flood times?

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xviii. What are some of the challenges that the department faced in implementing effective disaster response during the Tokwe-Mukosi flood disaster?

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xix. Any suggestions you can give in terms of addressing the above mentioned challenges?

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**Thank you for your cooperation!!!**

## Appendix III



### Questionnaire for the general public (disaster victims)

#### Questionnaire

My name is Elton Anesu Kufandada, a student at Midlands State University currently doing a research project on “**Disaster Response (relief strategies) in Zimbabwe case of Tokwe Mukosi**” as partial fulfilment of the BSC Honours Degree in Local Governance Studies. I kindly request your response to the questions contained in this questionnaire. Your answers will be treated confidentially and only used for the furtherance of this research without any prejudice whatsoever to the respondent. Your kind participation and contribution as well as your experiences and opinion could be of great value to this research.

#### INSTRUCTIONS

- i) Tick [✓] the correct response unless stated otherwise.*
- ii) Write your answers on the spaces provided below.*
- iii) Do not write any names, ID number or contact details on the questionnaire*

#### SECTION A: DEMOGRAPHIC VARIABLES

Please tick [✓] where applicable

1. **Sex**

Male

Female

2. **Age**

16-20years

21-2years

30-39 years

40-49 years

Over 50 years

3. **Marital Status**

Married

Single

Divorced

Widowed

4. **Educational Levels**

Primary [ ]

Secondary [ ]

Tertiary [ ]

5. **Professional Qualifications**

Certificate [ ]    Diploma [ ]    Degree [ ]    Postgraduate [ ]    other (specify)  
.....

6. **Occupation** .....

7. **Household size**.....

**SECTION B:**

*Tick [✓] where necessary and explain responses on the space provided below.*

8. What do you understand by the term “disaster response”?

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.....  
.....

9. Does effective disaster response help to improve disaster management in Zimbabwe?

Agree

Strongly Agree

Not sure

Disagree

Explain your answer

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10. Do you agree that the community has a role to play in implementing disaster response?

Agree

Strongly Agree

Not sure

Disagree

If you agree, what role does it play?

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11. Was the government (Department of Civil Protection) and other stakeholders successful in responding to the Tokwe-Mukosi flood disaster?

Agree

Strongly Agree



Not sure

Disagree

Strongly disagree

Explain your answer

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12. What were the effects of the flood disaster experience? The effects of disasters include loss of lives, loss of livelihoods, disease outbreaks, and destruction of property, crops, livestock e.t.c.

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**SECTION C. Implementation of Disaster Response**

13. What were your most urgent needs during the period of the flood disaster? Needs like food, shelter, clothing, medication, e.t.c.

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14. Were you offered any humanitarian assistance? Humanitarian assistance like food, shelter (tents), clean water, clothes, e.t.c.

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.....

b. If yes, what were they?

.....  
.....  
.....  
.....

c. Would you say the aid donated or the humanitarian assistance rendered came in time?

Yes [    ]

No [    ]

15. Was the aid donated or humanitarian assistance received able to address your urgent needs?

.....  
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.....  
.....

16. Are there any organisations that donated aid to you? Organisations like the Red Cross Crescent, UNICEF, OCHA, World Food Programme, e.t.c

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b. if Yes, list them and the type of aid donated

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**SECTION D: Challenges and Way forward**

17. Did you notice any challenges that the government might have faced in helping you cope with the Tokwe-Mukosi flood disaster? These challenges might include lack of vehicles, lack of funds, poor roads, lack of search and rescue personnel e.t.c...

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18. What do you think can be done by the government in terms of helping the “community” to cope and respond to disasters more effectively?

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19. What recommendations or suggestions can you give for the general improvement of disaster response in the country of Zimbabwe?

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**Thank you for your cooperation!!!**