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Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

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A thesis submitted in fulfilment of the Degree of Doctor of Philosophy,
Department of Development Studies, School of Social Sciences, Faculty of Humanities, at the University of the Witwatersrand, Johannesburg, South Africa

Supervisor: Professor Muchaparara Musemwa

DECLARATION

I declare that this thesis is my original work and that it has never been submitted to any other institution to obtain other qualifications. It is submitted for the degree of Doctor of Philosophy in Development Studies at the University of the Witwatersrand, Johannesburg.

Date: 09/06/21 **Signed:** 

ABSTRACT

This study examines the nexus between social vulnerability, disasters and community development with a particular focus on the 2014 Tokwe-Mukosi dam flood. It advances its central argument by asserting that social vulnerability, particularly lack of political power, exposes marginalised and vulnerable communities to natural disasters and it makes it difficult for them to recover from these calamities, while at the same time jeopardising community development. The thesis is qualitative in nature and was informed by data gathered through interviews, observation and focus group discussions. The study, thus, makes it clear that, while the Tokwe-Mukosi flood can be viewed as a natural disaster by the government of Zimbabwe and other groups of people, it is worth noting that, from a social vulnerability perspective, the disaster was deeply rooted in power inequality between the government and the affected families. The thesis further exposes the reality that when social vulnerability manifests itself in political powerlessness, it leads to the violation of fundamental human rights, particularly the rights of disaster victims. Through the social vulnerability perspective, the thesis reveals how disasters are shaped by prevailing socioeconomic and political factors within nations. This has been realised through an examination of the pre- and post-disaster experiences of the Tokwe-Mukosi villagers. The study also unearthed the fact that political powerlessness, imbedded in social vulnerability also produces informational uncertainty which impedes development initiatives and efforts by the affected families to improve their wellbeing.

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I am also indebted to my research participants, particularly families displaced by the Tokwe-Mukosi flood disaster for setting aside their day-to-day activities and precious time in a bid to respond to my questions.

Last but not least, I thank my husband Richard Mazuru, for all the financial support and encouragement he gave me during the course of my studies. He was a very strong pillar that I could lean on at any given time.

May the Lord bless you all.

DEDICATION

I dedicate this thesis to my late parents, Josephine Chirinda and Stephen Tirivanhu Ziki. Had it not been for the strong educational foundation and moral grooming they gave me, I could not have reached this far. May their dear souls continue to rest in peace.

ACRONMYS AND ABBREVIATIONS

AIDS: Acquired Immune Deficiency Syndrome

ACRWC: African Charter on the Rights and Welfare of the Child

CDD: Community Driven Development

CEDAW: Convention on the Elimination of all Forms of Discrimination Against Women

CPU: Civil Protection Unit

DRM: Disaster Risk Management

ESAP: Economic Structural Adjustment Programme

FTLRP: Fast Track Land Reform Programme

HIV: Human Immunodeficiency Virus

ICESCR: International Covenant on Economic, Social and Cultural Rights

ICOLD: International Commission on Large Dams

IDP: Internally Displaced Persons

NGO: Non-Governmental Organisations

STI: Sexually Transmitted Infections

UDHR: Universal Declaration of Human Rights

UNCRC: United Nations Convention on Children's Rights

UNESCO: United Nations Educational, Scientific and Cultural Organisation

UNICEF: United Nations Children's Fund

WASH: Water, Sanitation and Hygiene

WHO: World Health Organisation

ZANU (PF): Zimbabwe African National Union (Patriotic Front)

ZBC: Zimbabwe Broadcasting Corporation

ZIMCOLD: Zimbabwe Commission on Large Dams

ZINWA: Zimbabwe National Water Authority

ZRP: Zimbabwe Republic Police

Table of Contents

Contents

DECLARATION i

ABSTRACT ii

ACKNOWLEDGEMENTS iii

DEDICATION iv

ACRONMYS AND ABBREVIATIONS v

CHAPTER ONE 1

INTRODUCTION 1

1.1 Background of the study 1

1.2 Statement of the problem 3

1. 3 Justification of the study 5

1.4 Objectives of the study 7

1.5 Delimitations of the study 8

1.6 Limitations of the Study 10

1.7 Methodology 11

1.7.1 Research Design 12

1.7.2 Research instruments 13

1.7.2.1 In-depth Interviews 13

1.7.2.2 Focus group discussions 14

1.7.2.3 Observation 15

1.7.2.4 Documents and archives 15

1.8 Sampling 17

1.8.1 Purposive sampling 17

1.8.2 Snowball sampling 18

1.9 Chapter Outline 18

1.10 Conclusion 20

CHAPTER TWO 21

LITERATURE REVIEW AND THEORETICAL FRAMEWORK 21

2.1 Introduction 21

2.2 Overview of disasters 21

2.3 Socio-economic impact of floods 22

2.3.1 Mortality and diseases 22

2.3.2 Destruction of livelihoods 25

2.3.3 Homelessness and displacement of people 27

2.3.4 Destruction of infrastructure 28
2.3.5 Disruption of education 30
2.3.6 Gendered impacts of floods 32
2.3.7 Environmental alterations 33
2.3.8 Positive impacts of natural disasters 34
2.4 Theoretical Framework 36
2.4.1 Sustainable livelihood approach 37
2.4.2 Social vulnerability framework 39
2.4.2.1 The five Ws of social vulnerability 42
2.4.2.2 The importance of using the social vulnerability framework 43
2.5 Conclusion 45
CHAPTER THREE 46
HISTORICAL BACKGROUND OF TOKWE-MUKOSI DAM 46
3.1 Introduction 46
3.2 History of Tokwe-Mukosi Dam construction 46
3.3 Motive behind the construction of Tokwe-Mukosi Dam 50
3.4 The ambiguities of Tokwe-Mukosi Dam 53
3.5 Who were the flood victims? 57
3.6 Conclusion 58
CHAPTER FOUR 59
THE SOCIO-ECONOMIC AFTERMATH OF THE TOKWE-MUKOSI FLOOD 59
4.1 Introduction 59
4.2 The impact of the flood on the lives of the victims 59
4*.2.1 Destruction of houses and household properties* 59
4.2.2 Loss of livelihoods 61
4.2.3 Shortage of land after evacuation 63
4*.2.4 Destruction of social networks* 67
4.2.5 Disturbance to education 69
4.2.6 Negative health implications 73
4.3 Conclusion 77
CHAPTER FIVE 79
PROBLEMATISING THE NEXUS BETWEEN POWER IMBALANCE AND NATURAL DISASTERS 79
5.1 Introduction 79
5.2 Social vulnerability and the disaster management cycle 80
5.2.1 Impact of power imbalance on the mitigation phase 81
5.2.2 Power imbalances in the preparedness phase 82

5.2.3 Power imbalances in the response phase 84
5.2.4 Power imbalances in the recovery phase 85
5.3. Conclusion 92
CHAPTER SIX 94
GOVERNMENT INDIFFERENCE TO NATURAL DISASTERS AND THE VIOLATION OF HUMAN RIGHTS 94
6.1 Introduction 94
6.2 Conceptualisation of human rights 94
6.3 Specific rights violated by the government 96
6.3.1 Right to food 96
6.3.2 Right to adequate housing 99
6.3.3 *Right to water and sanitation* 100
6.3.4 Right to health 104
6.3.5 Right to life 105
6.3.6 Right to Education 105
6*.3.7 The right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment* 107
6.3.8 Violation of national and international standards on IDPs 109
6.4 Why respect for human rights in disaster times is critical for community development? 113
6.5 Conclusion 115
CHAPTER SEVEN 116
AFTERMATH OF THE FLOOD: ANXIETY AND DESPERATION OF THE VICTIMS 116
7.1 Introduction 116
7.2 The uncertainties suffered by the flood victims after the disaster 116
7. 2. 1 How long were they going to continue surviving on disaster relief? 117
7. 2. 2 When and where will they eventually be resettled? 119
7. 2.3 Are they ever going to get adequate information about their future welfare? 121
7. 2.4 Are they ever going to have decent homes? 122
7. 2. 5 Where will they get the resources to start livelihood activities? 123
7. 2. 6 Are they going to have social networks in the new resettlement areas? 126
7. 2. 8 Are their children going to have a bright future? 129
7.3 Conclusion 130
CHAPTER EIGHT 132
CONCLUSION 132
8.1 Introduction 132
8.2 Summary of the key findings 132
8.3 Areas for future research 137

References 139
Unpublished Sources 139
Newspaper articles 139
Published Sources 142
Appendices 168

List of Tables

Table 1.1 Sample of participants for the study ……17

List of Maps

Map 1.1 Masvingo Province and its districts and the location of the Tokwe-Mukosi Dam…. 9

Map 1.2 The site of Tokwe-Mukosi Dam before its construction..... 10

List of Pictures

Picture 4.1 A homestead submerged by Tokwe-Mukosi flood……. 60

Picture 4.2 Flood victims offloading maize bags from a truck...…….66

Picture 4.3 Tent classrooms at Chingwizi Primary School……...……...71

Picture 5.1 Houses constructed with poles and dagga in one-hectare plots ……....89

Picture 6.1 Densely packed tents at Chingwizi Camp……..…….…….101

Picture 6.2 Temporary toilet at Chingwizi camp…….…… 102

Picture 6.3 Flood victims queuing for limited water supply at the camp…..…… 103

Appendices

Appendix 1: Guide for in-depth interviews ……...168

Appendix 2: Guide for focus group discussions……171

Appendix 3: In-depth Interviews Participant information sheet……173

Appendix 4: Focus group discussions Participant Information sheet……...174

Appendix 5: Observation Participant Information sheet……176

Appendix 6: Approval letter from the Ministry of Local Government, Public Works and National Housing ……177

Appendix 7: Approval Letter from Zimbabwe National Water Authority……178

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Between 27 January and 11 February 2014, a devastating flood occurred on the Tokwe-Mukosi Dam in Masvingo Province, in the process affecting 12 surrounding villages namely: Jahwa, Zifunzi, Mharadzano, Chikandigwa, Vhomo, Chekai, Chikosi, Ndove, Matandizvo, Tagwirei, Nongera, and Mashenjere.[1] The flood submerged houses, destroyed property, drowned crops and livestock and left many families living upstream of the dam homeless and destitute.[2] According to the government of Zimbabwe officials, the flood was caused by heavy rains in the lake's catchment area which led to the unexpected rapid filling of the dam.[3] The former Minister of Environment, Water and Climate, Saviour Kasukuwere, stated that the rainfall that Masvingo Province received between December and February 2014 surpassed a 40-year record, which resulted in the flood.[4] He further noted that the flood caught the government unprepared as it had projected that the dam would only fill up after four years.[5] However, for the affected people, the government together with the Civil Protection Unit (CPU), responded slowly and inadequately to the disaster as they took seven days to evacuate the flood victims to safe areas.[6] CPU is a government department responsible for Disaster Risk Management in Zimbabwe. The role of CPU involves prevention and mitigation of disasters risks, preparedness, planning, early warning and response to rehabilitate affected elements.[7]

While the government advanced the narrative that the flood was a fairly common natural disaster triggered by heavy rains during the rainy season, the flood victims, human rights groups and the general public had a different perspective of the disaster. The slow response on the part of the government and the CPU to the disaster led some organisations and individuals to suspect that the flood was intentionally engineered or at least exacerbated by the government to forcibly displace the villagers from the vicinity of the dam without

[1] Interview with T. Garanewako (not his real name), Chingwizi Transit Camp, 4 May 2014. See also G. Maponga, 'The gods must be angry' in Herald 12 February 2014, https://www.herald.co.zw/the-gods-must-be-angry/.
[2] Interview with F. Marevesa (not his real name) Chingwizi Transit Camp, 4 May 2014.
[3] Zimbabwe Parliamentary Debates, 12 February 2014
[4] Ministerial statement on Tokwe-Mukosi Disaster, Parliament of Zimbabwe (13 February 2014).
[5] Ibid.
[6] *Zimbabwea Independent*, 'The Tokwe-Mukosi disaster: CPU exposed' 21 February 2014.
[7] Department of Civil Protection Unit

compensation.[8] The government was also blamed by the affected families and dam engineers for instructing the dam contractors to close the sluice gates (tunnels) in the dam to prevent water from flowing downstream, thereby causing a flood upriver, which, in turn, affected the communities located upstream.[9] The flood affected 20 000 people and led to the displacement of 2 500 families to Chingwizi Transit Camp which was located in Nuanetsi Ranch, in Mwenezi District.[10]

It is against this backdrop that the study examines factors that exacerbated the vulnerability of the Tokwe-Mukosi villagers to the flood disaster, as well as impeding full disaster recovery of this community. This is achieved by assessing the power imbalance between the government and the affected families, thereby situating this disaster within the context of social vulnerability. Social vulnerability refers to the inability of people, organizations and societies to withstand adverse impacts of hazards due to characteristics inherent in social interactions, institutions and systems of cultural values.[11] It includes aspects associated with systems of good governance, social equity, access to basic human rights, levels of literacy and education, the existence of peace and security, traditional values, customs and beliefs and overall collective organizational systems.[12] While social vulnerability encompasses a variety of facets as revealed in the above definition, this study is much concerned with governance issues and power inequalities between the government and the local community at grassroots level. From the social vulnerability perspective, this study critically analyses the social and economic effects of the flood disaster by examining the extent to which it altered the livelihoods of the flood victims and community development particularly in the post disaster period. In this study, community development is understood to mean the capacity of a society to sustain its own economic progress.[13] In other words, these are development initiatives undertaken by community members to improve their wellbeing. This is premised on the understanding that in every community, people engage in different social and economic

[8] Interview with four flood victims who requested anonymity, Chingwizi Transit Camp, 4. May 2014. See also P. Muzulu, 'Tokwe-mukosi floods engineered by govt' in *Newsday*, 2 April 2014, https://www.newsday.co.zw/2015/02/tokwe-mukosi-floods-engineered-govt/

[9]Interview with F. Marevesa (not his real name), Chingwizi Transit Camp, 4 May 2014. See also Human Rights Watch, Homeless, landless and destitute: The plight of Zimbabwe's Tokwe-Mukosi flood victims, (February 2015).

[10]Zimbabwe Parliamentary Debates, 12 February 2014. See also Human Rights Watch, Homeless, Landless, and Destitute: The Plight of Zimbabwe's Tokwe-Mukosi Flood Victims, (February 2015).

[11] R. Subramanian, *Disaster Management*, (New Delhi, Vikas Publishing House, 2018).

[12] Ibid.

[13] See A. Mahon-Santos, 'Transnational social networks and social development: Hometown associations in Mexico and the United Nations' in N. J. Negi, and R. Furman, (eds) *Transnational social work practice*, (New York, Columbia University Press, 2010).

activities with the aim of improving their lives as well as bringing positive changes to their societies. In rural communities, such activities include farming projects such as poultry, piggery and gardening schemes as well as socio-cultural activities such as burial societies, and church clubs, among others. Attention is paid to the consequences of the flood disaster in order to assess how it directly or indirectly impacted the welfare of the affected families using 'community development' lens. Community development should, thus, be viewed as community improvement or community betterment.[14] Community development is an important analytical tool for this research because it helps to unravel the socioeconomic and political ramifications of the flood disaster on the development initiatives and activities of the Tokwe-Mukosi community.

1.2 Statement of the problem

Disasters, both natural and human-made, are increasing in number and severity.[15] They have serious adverse physical, psychological and economic impacts on society and the affected community. Disasters are known to jeopardize development processes and to eradicate years of local development successes.[16] Several communities around the globe have become victims of disasters such as floods, landslides, high wind speeds, extreme temperatures, wildfires, volcanic eruptions, tsunamis, droughts, and hurricanes, among others.[17] Among these different kinds of disasters, floods have the greatest damage potential of all natural disasters worldwide, affecting the greatest number of people at any given time.[18] Millions of people across the world every year, on average, suffer from the misery and danger of flooding in their streets and homes.[19] Many nations in the world have encountered or are encountering floods, for example,

[14] P. Phillips, and R. Pittman, *An introduction to community development* (New York, Routledge, 2014).
[15] M. S. Pawar, *Community development in Asia and Pacific*, (New York, Routledge, 2009). See also M. Pelling, and B. Wisner, *Disaster Risk Reduction: Cases from Africa*, (London, Earth scan, 2012).
[16] I. Chirisa, 'Social protection amid increasing instability in Zimbabwe: Scope, institutions and policy options' in M. Getu, and S. Devereux, (eds) *Informal and Formal Social Protection Systems in Sub-Saharan Africa*, (Kampala, African Books Collective, 2013). Also see A. N. Khan, and M.A. Jan, 'Community based disaster risk management in Pakistan' in A. Rahman, *et al* (eds) *Disaster Risk Reduction Approaches in Pakistan*, (New York, Springer, 2015).
[17] M. Stanhope, and J. Lancaster, *Public Health Nursing: Population-Centered Health Care in the Community*, (Missouri, Elsevier Health Sciences, 2015).
[18] C. H. Pham, *Floods and Farmers: Politics, Economics and Environmental Impacts of Dyke Construction in the Mekong Delta/Vietnam*, (Berlin, LIT Verlag Münster, 2012). See also M. Ahern, and Kovats, S. 'The health impacts of floods' in R. Few, and F. Matthies, (eds) *Flood Hazards and Health: Responding to Present and Future Risks*, (London, Earthscan, 2013); and J. Torti, 'Floods in South East Asia: A Health Priority' in *Journal of Global Health*, (Vol 2, No. 2, 2012).
[19] J. Parkinson, and O. *Mark, Urban Storm Water Management in Developing Countries*, (London, IWA Publishing, 2005).

Bangladesh (2004 and 1998), India, China (2004), Vietnam (1999), Indonesia (2005), Germany (2002), Pakistan (2010), and Thailand (2010).[20]

African countries are not immune to flood occurrences. They have had their fair share of flood disasters. For example, between 1999 and 2005 terrible floods hit West and Central African countries, claiming 1516 casualties.[21] The worst-hit countries were Niger, Ghana, Benin and Nigeria.[22] Similarly, in 2002, heavy rains in East Africa caused floods in Rwanda, Kenya, Burundi, Tanzania and Uganda, forcing tens of thousands to be displaced from their homes. In 2009, torrential rains and flooding affected 600 000 people in 16 West African countries and the devastating effects were felt in Burkina Faso, Senegal, Ghana and Niger.[23] Southern Africa has also been experiencing these natural calamities. In 2000, several Southern African nations, including Mozambique, Botswana, South Africa and Zambia, experienced serious floods as a result of heavy rains.[24] Zimbabwe has also not been spared from these spates of flood disasters. For several years, people living in low-lying parts of the country, such as: Muzarabani, Tsholotsho, Mwenezi and Guruve, have been experiencing floods which have caused severe destructions to crops and livelihoods, homes, schools, roads and bridges.[25] Some of the most deadly floods occurred during the February 2000 Cyclone Eline floods and the March 2003 Cyclone Japheth floods which mostly affected Manicaland, Masvingo, Mashonaland central and Matabeleland South Provinces.[26] In 2014, the Tokwe-Mukosi area, which is the catchment area of my current case study, received its portion of devastating floods, which saw a considerable number of casualties and displacements. However, the latest flood disaster that caught my attention when I was carrying fieldwork for the current research was

[20] PIANC Report 107, Sustainable Waterways within the context of Navigation and flood management, 2009. Also see K.A. Kronstadt *et al*, *Flooding in Pakistan: Overview and Issues for Congress*, (Collingdale, Diane Publishing, 2010); A. F. Younus, *Vulnerability and Adaptation to climate change in Bangladesh: Process, Assessment and Effects,* (New York, Springer, 2014); and R. Sharif, *et al*, 'Implications of Environmental Considerations for floods in Pakistan' in *IOSR Journal of Environmental Science, toxicology and food Technology*, (Vol 6, No. 1, 2013).

[21] K. Diagne, and A. Ndiaye, 'History, governance and the Millennium Development Goals: Flood Risk Reduction in Saint-Louis, Senegal' in M. Pelling, and B. Wisner, (eds), *Disaster Risk Reduction: Cases from Urban Africa,* (New York, Routledge, 2012).

[22] Ibid.

[23] A. Di Ruocco, *et al*, 'Urbanisation and climate change in Africa: Setting the Scene' in S. Pauleit, *et al, Urban Vulnerability and Climate Change in Africa: A Multidisciplinary Approach,* (New York, Springer, 2015).

[24] J. Allen, *Floods,* (Minnesota, Capstone, 2001).

[25] C. Manyeruke *et al*, 'The Effects of Climate Change and Variability on Food Security in Zimbabwe: A Socio-Economic and Political Analysis' in *International Journal of Humanities and Social Science* (Vol 3, No. 6, 2013).

[26] P. Gwimbi, Flood Hazard Impact and Mitigation Strategies in disaster-Prone Areas of Muzarabani District (Zimbabwe): Exploring the Missing Link, (Ossrea, Addis Ababa, 2004); P. Gwimbi, 'The effectiveness of early warning systems for the reduction of flood disasters: some experiences from cyclone induced floods in Zimbabwe' in *Journal of Sustainable development in Africa*, (Vol 9, No. 4, 2007); E. K. Madamombe, Integrated Flood Management Case Study1 Zimbabwe: Flood Management Practices: Selected Flood Prone Areas Zambezi Basin, World Meteorological Organization, 2004.

the March 2019 Cyclone Idai, which happened to be the worst natural disaster ever to hit Zimbabwe. This cyclone severely affected Chimanimani and Chipinge districts of Zimbabwe where it caused more than 154 deaths, while 189 people went missing.[27] Some parts of Bikita, Gutu and Zaka districts were also affected though the damage was only to property with no loss of human life. Cyclone Idai also caused many fatalities, destructions and displacements in Mozambique and Malawi.[28]

Nevertheless, despite the considerable number of flood disasters to have hit Zimbabwe, the efforts of the Zimbabwean government and the CPU to manage these calamities are minimal. In some of these disasters, particularly the 2000 and the 2003 floods, the government failed to give effective early warning to the disaster-prone communities while inadequate assistance was given to the disaster victims in the post-disaster period. The same trend was also evident during the Tokwe-Mukosi flood disaster, which caused a lot of suffering among many families. In fact, the government, through the CPU, has not done enough so far to mitigate the negative impacts and occurrences of these flood disasters. In those catastrophes, it is the marginalized communities that heavily suffer particularly those who lack political power to make their plight heard by government. In this study, such kind of vulnerability is viewed as 'social vulnerability' and it has severe negative implications on community development.

1. 3 Justification of the study

This study presents a systematic, pragmatic assessment of the concepts of social vulnerability, natural disasters and community development. In essence, the study explores how lack of political power hinder marginalised communities to withstand the adverse impacts of hazards, leading to disasters. While there is literature on disaster social vulnerability, it mainly focuses on how inherent social inequalities expose women, children, the elderly and the disabled to disasters. For example Neumayer and Plümper examine the gendered impact of natural disasters on life expectancy.[29] They conclude that during natural disasters, high mortality rates are rampant among women and girls because of the biological and physiological differences

[27] UNICEF Zimbabwe 2019, Cyclone Idai situation Zimbabwe.
[28]A. Rwodzi, 'Climatological Anomalies, Food Politics and the Poor in Africa' in A. Nhemachena and M. Mawere, (eds) *Necroclimatism in a Spectral World (Dis)order? Rain Petitioning, Climate and Weather Engineering in 21st Century Africa,* (Bamenda, Langaa RPCIG, 2019).
[29] E. Neumayer, and T. Plümper, 'The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002' in *Annals of the Association of American Geographers,* (Vol 97, No. 3, 2007).

between males and females, as well as social norms and gender roles.[30] Scholars like Peek analysed the vulnerability of children in disasters arguing that children are psychologically susceptible and they may develop post-traumatic stress disorder (PTSD) or related symptoms.[31] Peek also observed that children have special needs that require different forms of physical, social, mental, and emotional support than adults.[32] By way of consolidating these perspectives, this study emphasizes the need to also consider unequal power relations that are inherent within natural disaster events. An analysis of power imbalances is thus an important tool of understanding social vulnerability in disaster situations. While the study acknowledges the view that women, children, the elderly and the disabled are more susceptible to disasters in certain circumstances, it also advances the idea that such vulnerability is triggered or perpetuated by political inequalities which see marginalised communities being deprived of resources to resist the dangerous hazards they are exposed to. In this regard, political marginalisation becomes the root cause of that vulnerability, hence it is an integral dimension of social vulnerability. Surprisingly, this dimension has not yet been thoroughly explored within the discourse of social vulnerability in disasters. Using social vulnerability lenses, this study brings forward the perception that communities that are politically marginalised are more susceptible to hazards and they suffer more because their voices are not heard and taken seriously by governments during disaster mitigation, prevention, response and recovery phases.

Moreover, though there is existing literature on flood disasters in Zimbabwe, it does not directly speak to my area of study. Mudavanhu and Bongo, for example examine the coping strategies adopted by children in disaster situations with a particular focus on Muzarabani district.[33] Mudavanhu and Bongo argue that the coping mechanisms adopted by children in this district include participating in paid labour and gathering of wild fruits for home consumption and for sale as well as begging.[34] The same authors argue that such coping mechanisms deprive children of the time to play and socialise with friends, thereby affecting child development.[35] The current study, therefore, does not undermine Mudavanhu and Bongo's study but it adds a new dimension to how to view disasters. As already highlighted, the new facet imbedded in my study is to draw the link between social vulnerability, natural disasters and community

[30] Ibid.
[31] L. Peek, 'Children and disasters: Understanding vulnerability, developing capacities, and promoting resilience-An introduction' in *Children, youths and environments,* (Vol 18, No. 1, 2008).
[32] Ibid.
[33] C. Mudavanhu and P. P. Bongo, 'Children's coping with natural disasters: Lessons from floods and droughts in Muzarabani District, Zimbabwe,' in *Children, youths and environments*, (Vol 25, No. 3, 2005).
[34] Ibid.
[35] Ibid.

development. The study also acknowledges Gwimbi's research on flood disasters in Zimbabwe. For instance, his 2007 work on the effectiveness of early warning systems for the reduction of flood disasters in Zimbabwe focuses on analysing the importance of early warning systems in order to minimise the impact of floods on communities.[36] While Gwimbi's study is vital, especially in pointing out the importance of early warnings in disasters, this study brings into light the idea that early warnings work perfectly in societies where power inequalities are minimal. In nations characterised by power imbalances, politically marginalised communities usually suffer despite the existence of early warnings. In addition to his 2007 study, Gwimbi's 2009 study on linking rural community livelihoods to resilience building in flood risk reduction in Zimbabwe focuses on the necessity of building resilient communities that have the capacity to survive disasters in future.[37] The current study also admits the importance of resilience building in disasters which Gwimbi articulates in his study. However, for such resilience to be evident and effective, there is a need to expound on the underlying power relations that leave vulnerable communities to disasters. Addressing social vulnerability, especially power imbalances does not only help in building resilience in communities but it also promotes community development. Thus, the juxtaposition of social vulnerability, natural disasters and community development is a vital topic in disaster studies because it unravels the often hidden socio-economic and political factors that leave vulnerable communities exposed to the brunt of natural disasters.

1.4 Objectives of the study

The central objective of this study is: 'To examine the correlation between social vulnerability and the Tokwe-Mukosi dam flood.' In order to satisfy this objective, the following related objectives were addressed:

i. To examine the extent to which power imbalances aggravated the susceptibility of the Tokwe-Mukosi community to the 2014 flood disaster.
ii. To assess the implications of the Tokwe-Mukosi flood on the socioeconomic wellbeing of the affected villagers.
iii. To analyse the impact of power imbalances on the recovery of the affected families from the disaster.

[36] P. Gwimbi, 'The effectiveness of early warning systems for the reduction of flood disasters: some experiences from cyclone induced floods in Zimbabwe' in *Journal of Sustainable development in Africa*, (Vol 9, No. 4, 2007).
[37] P. Gwimbi, 'Linking rural community livelihoods to resilience building in flood risk reduction in Zimbabwe' in *Jàmbá*: *Journal of Disaster Risk Studies*, (Vol 2, No. 1, 2009).

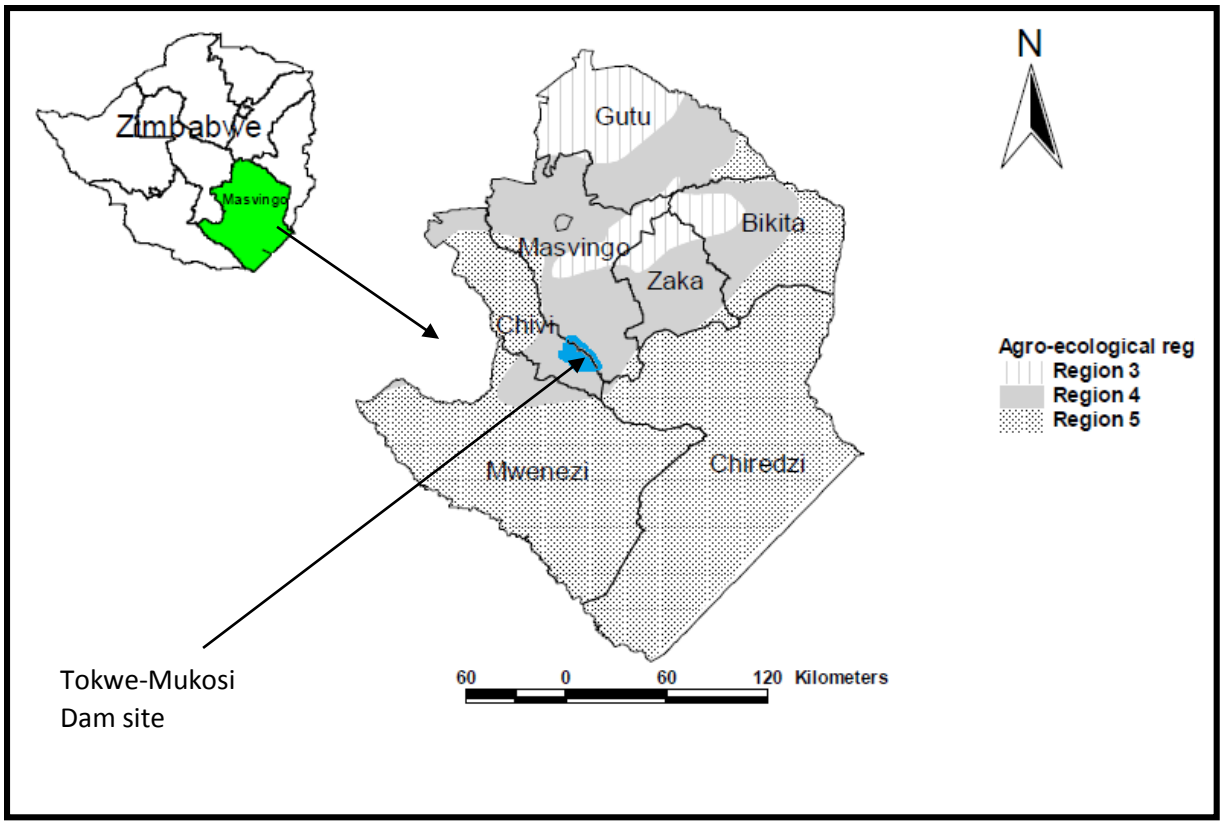
iv. To examine the overall impact of the Tokwe-Mukosi dam flood on community development.

1.5 Delimitations of the study

This study was carried out in Mwenezi District, located in Masvingo Province in Zimbabwe. Mwenezi District is a critical site in this study because that was the district where the flood victims were resettled after the disaster. From the time the flood victims were displaced by the disaster (February 2014), up to the period when the gathering of empirical findings ended (August 2019), the displaced villagers had been staying in this District. Nevertheless, the study also focuses on the other two districts, namely, Chivi and Masvingo for the major reason that the dam is located on the border of these two districts. The other reason why Chivi and Masvingo districts are vital in this study is that some of the villagers who were displaced by the flood were originally from these districts. Masvingo is one of Zimbabwe's ten provinces.[38] Besides being the name of a province, both the city and district bear the same name, 'Masvingo'. Masvingo is the fifth largest city in Zimbabwe.

As shown in map 1.1 below, Masvingo is located in the drier South-Eastern Lowveld of Zimbabwe.[39] The province has an area of 56 566km^2, a population of approximately 1,3 million people and seven districts run by rural district councils, namely, Bikita, Chiredzi, Chivi, Gutu, Masvingo, Mwenezi and Zaka.[40]

[38] D. Chikodzi *et al*, 'Reclassification of agro-ecological regions of Zimbabwe-The rationale, methods and expected benefits: The Case of Masvingo Province' in *Journal of sustainable development in Africa*, (Vol. 15, No.1, 2013).
[39] Ibid.
[40] Ibid.



Map 1.1 Masvingo Province and its districts and the location of the Tokwe-Mukosi Dam (Source: Chikodzi *et al*, 2013).

Tokwe-Mukosi Dam is situated downstream on the confluence of Tokwe and Mukosi rivers.[41] This is shown in the aerial image in Map 1.2 below. The dam is located between latitude $20^{0}43$'S and longitude $30^{0}52$'E, [42] on Grid Reference TN 815 070 on map 2030 (1/50 000 series) and 75 km south of Masvingo city with an access road to the vicinity of the dam site leading off the main Masvingo-Beit Bridge Road, about 80km south of Masvingo City.[43]

[41] Design Report by the Department of water development, October 1992.
[42] Ibid.
[43] Ibid.



Map 1.2 The site of Tokwe-Mukosi Dam before its construction (Source: Google maps, 2014)

1.6 Limitations of the Study

The limitations of this study were largely methodological. It took time for the researcher to get approval from the state to collect data because this flood disaster has been a politically charged matter from the onset. The Tokwe-Mukosi flood disaster and its aftermath generated intense criticisms, especially from the general public and Human Rights organisations, about the manner in which the government of Zimbabwe responded to the humanitarian crisis. Getting approval to conduct interviews with relevant authorities was initially difficult because of fears and suspicions that the research would produce information which would give the ruling party, the Zimbabwe African National Union-Patriotic Front (ZANU-PF), negative publicity. However, I repeatedly visited the relevant authorities, assuring them of my commitment to maintain confidentiality over the findings as well as paying strict adherence to ethical research practices. Once convinced, government authorities approved my request. Similarly, some government authorities and individuals (including flood victims) were hesitant to be interviewed for fear of losing their jobs while others were afraid of being politically victimised.

The researcher dealt with these challenges by assuring all the participants of anonymity and confidentiality.

1.7 Methodology

For this study, the qualitative research methodology was used. Qualitative research is an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem.[44] This research methodology explores human experiences in their natural settings and uses multi-methods to interpret, understand, explain and bring meaning to their circumstances.[45] It is an approach to data gathering which comprises in-depth investigation of human perceptions, attitudes and experiences, as well as the associate processes by, and or the contexts within which these occur.[46] This form of inquiry relies on observations and analyses which subjectively measure an individual's introspection, interpersonal interactions and those with relevant communities, the identification of which is purposive.[47] Qualitative research comprises several methodologies such as observations, interviewing and focus group discussions.[48] This methodology helped the researcher to get a deeper understanding of the nexus between power imbalances and the Tokwe-Mukosi flood disaster, paying attention on how this catastrophe altered the socioeconomic wellbeing of the disaster victims. Qualitative research enabled the researcher to gain profound insight into the different challenges that were faced by the flood victims in the aftermath of the disaster and how this affected community development. This was facilitated through the use of observation, in-depth interviews and focus group discussions. The researcher also used the case study research design to get a detailed understanding of the life experiences of the flood victims before and after the disaster. This research design is explained in the following sections.

[44] J. W. *Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, (Thousand Oaks, SAGE Publications, 2014).
[45] N. Arsenault, and G. Anderson, 'Qualitative Research' in G. Anderson, and N. Arsenault, (eds) *Fundamentals of Educational Research*, (New York, Routledge, 2005).
[46] I. Boxill, *et al, Introduction to Social Research: With Applications to the Caribbean* (Kingston, Canoe Press, 1997); see also H. Mohajan, 'Qualitative Research Methodology in Social Sciences and Related Subjects' in *Journal of Economic Development, Environment and People*, (Vol 7, No. 1, 2018).
[47] I. Boxill, *et al, Introduction to Social Research: With Applications to the Caribbean,* (Kingston, Canoe Press, 1997.
[48] Ibid.

1.7.1 Research Design

A research design is the plan, structure, and strategy of investigation that is used to obtain answers to the research questions.[49] As highlighted in the previous section, this study employed a case study research design. A case study design is an empirical inquiry that focuses on a particular unit which may be an individual, a family, an organisation, a community, an event or any other type of a single entity.[50] This study focused on a community that was affected by the Tokwe-Mukosi dam flood. Since a case study design falls under the broad spectrum of a qualitative research methodology, it has the merit of allowing the researcher to investigate a phenomenon within its real-life context.[51] This design also helps researchers to explore and investigate a contemporary phenomenon through a detailed contextual analysis of a limited number of events or conditions, and their relationships.[52] Instead of studying large samples, only a small manageable sample was studied, with the anticipation that this would yield greater possibility of obtaining more accurate data.

The case study approach was found to be best suited for this research because several flood disasters have occurred in Zimbabwe affecting different communities in different ways. As highlighted earlier in this chapter, examples of these flood disasters include the 2000 Cyclone Eline and the 2003 Cyclone Japhet induced floods in the Muzarabani and Tsholotsho areas of Zimbabwe and also Cyclone Idai floods that hit Chimanimani and Chipinge districts of Zimbabwe from 17 to 19 March 2019. An analysis of all these disasters enabled the researcher to give an articulation of how the Tokwe-Mukosi flood disaster differs from other calamities that hit the country. In this case, the Tokwe-Mukosi flood allowed the researcher to get in-depth data about the experiences of the flood victims. As Mills notes, a case study involves an in-depth exploration of a specific bounded system utilizing multiple forms of data collection.[53] This means that the data collection is pointed in focus such that it provides rich, detailed and in-depth information. However, one strong weakness of a case study is that the researcher may individually influence or be influenced by the case.[54] To avoid influencing or being influenced by the case studied, the researcher employed data triangulation. Data

[49] N. Blaikie, *Designing Social Research*, (Cambridge, Polity Press, 2009).
[50] J. W. Anastas, *Research Design for Social Work and the Human Services*, (New York, Columbia University Press, 2000). See also J. W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, (New Delhi, SAGE publications, 2013).
[51] Ibid.
[52] Z. Zainal, 'Case study as a research method' in *Jurnal Kemanusiaan*, (Vol 5, No. 1, 2007).
[53] A. J. Mills, *Encyclopedia of Case Study Research*, Volume 1, (Thousand Oaks, SAGE Publications, 2010).
[54] V. Anderson, *Research Methods in Human Resource Management*, (London, CIPD Publishing, 2004).

triangulation is the use of different methods of research, sources of data or types of information to address the same research question.[55] This study used primary data gathered using different data collection instruments such as interviews, observations and focus group discussions. The research also used secondary data in the form of various published and unpublished sources such as books, journals and government reports.

1.7.2 Research instruments

As already highlighted in the previous section, data for this study were gathered through in-depth interviews, observations, focus group discussions and archival and documentary analysis. These are discussed in detail in the sections that follow.

1.7.2.1 In-depth Interviews

An in-depth interview is a qualitative data gathering technique that entails a direct, one-on-one engagement with an individual participant. It can take place face-to-face, or in certain situations over the phone or video calling.[56] In-depth interviews are conducted when the researcher has identified one or more people whose knowledge or participation in an event will shed significant light on whatever topic or problem is of interest to him or her.[57] The advantage of using in-depth interviews is that greater detail and insight can be gained due to the one-on-one focus with the respondent.[58] In this study, purposive and snowball sampling methods were used to select key participants. Key participants in this study included the flood victims, chiefs, headmen and village heads of the affected areas, health workers, teachers (notably of the schools affected) and Non-Governmental Organisations (particularly those that donated aid to the victims). The Masvingo Provincial Administrator and District Administrators (now called District Coordinators) of Chivi, Mwenezi and Masvingo districts were also interviewed.

The in-depth interviews focused on the perceived causes of the flood, the flood victims' perceptions on the disaster, and the effects of the flood on the socio-economic well-being of the local communities. The purpose of interviewing chiefs and village heads was to find out the extent to which the flood disaster affected their subjects. The Masvingo Provincial

[55] R. Hale, and P. Whitlam, *Powering up Performance Management: An Integrated Approach to Getting the Best from your People,* (Hampshire, Gower Publishing Ltd, 2002).

[56] W. Stacks, *Primer of Public Relations Research,* (New York, Guilford Press, 2011).
[57] Ibid.
[58] J. Wiid, and C. Diggines, *Marketing Research,* (Cape Town, Juta and Company Limited, 2009); See also E. Grigoroudis, and Y. Siskos, *Customer Satisfaction Evaluation: Methods for Measuring and Implementing Service Quality,* (New York, Springer Science and Business Media, 2009).

Administrator was interviewed on issues concerning the compensation that was given to the flood victims as well as resettlement plans for the affected families. Teachers were also interviewed about the effects of the flood on school children's education. The researcher also interviewed health workers, particularly nurses about health issues which were encountered by flood victims after the disaster.

However, the limitation of in-depth interviews is that sometimes participants are not willing to share all the information that is needed, or worse, participants may not always tell the truth.[59] To deal with this often-cited demerit of in-depth interviews, the researcher gave the respondents assurance that the information was meant for academic purposes only and that she was going to maintain anonymity through the use of pseudonyms names instead of real names.

1.7.2.2 Focus group discussions

Focus Group Discussions (FGDs) were also used by the researcher to solicit data from the flood victims about the challenges they confronted during and after the disaster. A focus group study is a carefully planned series of discussions designed to obtain perceptions on a defined area of interest in permissive and non-threatening environments.[60] FGDs comprise pre-selected six to eight individuals, who have similar characteristics or who share some experience of the issues that are covered under the research topic.[61] The strength of FGDs is that they make it possible to uncover information about an issue that may not come out in individual interviews.[62] A total of four FGDs were carried in the study, two at Chingwizi Transit Camp and two at Chingwizi resettlement area. Of the two FGDs that were conducted at the transit camp, one comprised eight women and the other one was made up of eight men. This was done with the aim of understanding the challenges that were exclusive to females and males. In the resettlement area, one FGD, which comprised both genders, was carried out with the aim of understanding the common prospects and challenges they were experiencing as a result of the flood and the displacement. The second FGD in the resettlement area was made up of teachers from Chingwizi Primary School (a makeshift school) in the resettlement area. The reason the

[59] G. M. Du Plooy, *Introduction to Communication*, (Kenwyn: Juta and Company Ltd, 1995).
[60] M. M. Hennick, *International Focus Group Research: A handbook for the Health and Social Sciences,* (Cambridge, Cambridge University Press, 2007).
[61] Ibid.
[62] E. W. Austin, and B. E. Pinkleton, *Strategic Public Relations Management: Planning and Managing Effective Communication Campaigns* Vol. 10, (New York, Routledge, 2010).

researcher conducted FGDs with teachers was to have an insight of how the flood and the displacement affected school pupils academically.

However, the major disadvantage of using FGDs is that some participants may not feel comfortable about revealing their opinions in a group.[63] To curb this weakness, the researcher supplemented FGDs with individual interviews.

1.7.2.3 Observation

Besides in-depth interviews and FGDs, the study also used observation to gather data from the flood victims. Under observation, the researcher observes and systematically records the behaviour of individuals to describe later.[64] Through the use of this instrument, the researcher managed to have prolonged engagements with the flood victims in the study area and she made 14 visits so as to have a clear picture of the outcomes of the flood. The researcher also wanted to ascertain how the victims were coping in the aftermath of the disaster. The strength of observation is that through it one obtains information on what people do rather than what they say they do.[65] As Hall and Hall assert, through observation, the researcher is able to perceive interactions among group members.[66] Thus the use of observation was crucial in this study because it enabled the researcher to get a clear picture of the lives of the flood victims after the disaster, thereby allowing her to get first-hand information. Through observation, the researcher was able to take pictures of the life set-up of the displaced families.

1.7.2.4 Documents and archives

The study also used archival material as well as official documents as sources in the writing of this thesis. Archival research refers to a method of data collection involving the use of records or previously existing information.[67] As Jackson notes, the advantage of using archival research is that it minimises the problem of reactivity because the data have already been collected and the researcher does not have to interact with the subjects.[68] Furthermore, archival research is

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[63] P. Hermon, and E. Altman, *Assessing Service Quality: Satisfying the Expectations of Library Customers*, (Chicago, American Library Association, 2010).
[64] F. Gravetter, and L. Forzano, *Research Methods for Behavioral Sciences*, (Stanford, Cengage Learning, 2012).
[65] B. M. Kolb, *Market Research for Non-Profit, Community and Creative Organizations*, (New York, Routledge, 2008).
[66] N. A. Hall, and R. Hall, *Applied Social Research*, (South Yarra, Macmillan Education AU, 2008).
[67] A. Cotterell, and A. Russell, GCSE Social Science, (Oxford, Heinemann Education, 1988). See also
L. Dahlberg, and C. McCaig, Practical *Research and Evaluation: Start-to-Finish Guide for Practitioners*, (Thousand Oaks, SAGE Publications, 1988).
[68] S. Jackson, *Research Methods Modular Approach*, (Stamford, Cengage Learning, 2004).

easy when studying issues that are too politically "hot" to inquire about in any other way.[69] The researcher thus used archival sources from the National Archives of Zimbabwe in Harare about the history of the construction of Tokwe-Mukosi dam especially on the dates of the construction as well as the arguments that were raised for the construction of the dam. In addition to these documents from the National Archives of Zimbabwe, the researcher also used documents from various governmental departments and ministries. Some of the documents and reports used were obtained from the Ministry of Water Resources Development and Management. These reports had information about the dates for the construction of the dam, reasons for the construction of the dam as well as the construction costs. The study also used information from the Zimbabwe Parliamentary debates reports, otherwise referred to as the *Hansard*. Some of these parliamentary debates contain information about the reasons why the dam was constructed, the dates, the financial constraints encountered by the government of Zimbabwe during the construction of the dam as well as the dates of the flood disaster and the nature of the response that was given by the government.

However, though archival research has many advantages, it also has some limitations. One of its weaknesses is that researchers cannot be sure whether the data are reliable or valid since the information was collected by another person or organisation for different purposes.[70] In addition, researchers cannot be sure whether what is in the archives represents everything that was originally collected as some of the data may have been purged at some time for various reasons and researchers might not know this.[71] The other weakness of archival research is that archives are official documents produced to serve a specific purpose, that is, to reflect the official thinking of the day and quite often the voices of ordinary people are frequently left out. In order to curb the above-mentioned weaknesses, the researcher used many data collection instruments such as Observation, FGDs, interviews and books and journals so as to confirm the validity and reliability of the information she got from archives. The use of different data collection instruments is vital when conducting a research because each research instrument complements or caters for the weaknesses of another instrument.

[69] H. R. Bernard, *Research Methods in Anthropology: Qualitative and Quantitative Approaches,* (Maryland, Alta Mira Press, 2011).
[70] S. Jackson, *Research Methods Modular Approach*, (Stamford, Cengage Learning, 2004).
[71] Ibid.

1.8 Sampling

Key informants for the study were selected using purposive sampling and snowball sampling. I explain these sampling techniques below.

1.8.1 Purposive sampling

Purposive sampling is a non-probability selection which involves taking a random sample of a small number of units from a larger target population.[72] In purposive sampling, each sample element is selected for a purpose, usually because of its unique position.[73] As a strategy, purposive sampling usually targets individuals who are particularly knowledgeable about the issues under investigation.[74] Purposive sampling was important in this study because it enabled the researcher to choose key participants from several groups of people who were affected by the flood as well as those who assisted or mingled with the flood victims during and after the overflow catastrophe. Therefore, through the use of purposive sampling, 127 participants were selected to participate in the study. The population was represented as follows:

Population	**Total members**	**Sample**
Chiefs	6	3
Village heads	30	5
District Administrators	3	3
Provincial Administrators	1	1
NGOs	8	4
Health workers	60	6
School teachers	50	10
Affected families	2500	95

Table 1.1 Sample of participants for the study (Source: Author)

[72] S. Halperin, and O. Heath, *Political Research: Methods and Practical Skills*, (Oxford, Oxford University Press, 2012).
[73] R. Bachman, and R. K. Schutt, *The Practice of Research in Criminology and Criminal Justice*, (Thousand Oaks, SAGE Publications, 2013).
[74] R. J. Engel, and R. K. Schutt, *The Practice of Research in Social Work*, (Thousand Oaks, SAGE Publications, 2012).

1.8.2 Snowball sampling

In addition to purposive sampling, the researcher used snowball sampling. Snowball sampling involves using some players to identify other participants.[75] Snowball sampling is useful for hard-to-reach or hard-to-identify populations; hence some members of the population know each other.[76] This sampling procedure therefore helped the researcher to identify people facing similar challenges among the flood victims.

1.9 Chapter Outline

The thesis is made up of eight chapters including the introduction and conclusion. **Chapter One** comprises the introduction which lays out the purview of the study, mapping out the main domain of the research.

Chapter Two reviews the literature on flood disasters and their consequences across the globe. It also discusses two theoretical frameworks underpinning the study, namely, the sustainable livelihood approach and social vulnerability framework. The sustainable livelihood approach is used as a lens to view the impact of the disaster, building resilience and the prevention of future disasters while the social vulnerability framework focuses on identifying and examining factors that cause and exacerbate the vulnerability of communities to disasters. The two frameworks help in shaping and informing subsequent chapters, namely chapters three, four, five, six, seven and eight.

Chapter Three provides the historical background of the Tokwe-Mukosi dam, tracing the trajectory of events surrounding this dam. Though the official construction of the dam began in 1998, eighteen years after Zimbabwe's independence, the chapter traces the history of the dam back to the colonial period, highlighting the arguments that were advanced for the construction of the lake. Reasons behind delays in the commencement of the project as well as its completion are also detailed in this chapter. The chapter also traces the history of the flood victims, including their original villages and their livelihood activities. It asserts that this historical background is important because it enables succeeding chapters to examine the extent to which the flood altered the lives of the victims. The chapter also lays the background of the power imbalances that characterised the whole disaster.

[75] E. S. Adler and R. Clark, *An Invitation to Social Research: How It's Done*, (Stamford, Cengage Learning, 2014).
[76] R. J. Engel, and R. K. Schutt, *The Practice of Research in Social Work*, (Thousand Oaks, SAGE Publications, 2012).

Chapter Four examines the socio-economic ramifications of the flood. By using the Sustainable Livelihoods Approach, the chapter looks at different effects of the flood such as the submerging of houses and crops as well as drowning of livestock analysing the extent to which the disaster left the victims homeless and destitute. Attention is in addition placed on how the flood affected community and individual health, education, livelihoods as well as social networks. These disaster corollaries are analysed using the 'community development' perspective in order to determine the ways and the magnitude to which initiatives and activities that were undertaken by the disaster victims to improve the well-being of their families and communities were jeopardised. The chapter highlights that though many studies have been conducted the world over with regards to disasters and their socio-political impact, an analysis of these catastrophes from a community development perspective is still an under-researched area, particularly in Zimbabwe.

In **Chapter Five,** the researcher problematises the nexus between power imbalances and the flood disaster. Through the use of the social vulnerability framework, the chapter articulates how the Tokwe-Mukosi villagers' vulnerability to the disaster was triggered and exacerbated by political exclusion. Major attention is paid to the four phases of the 'disaster management cycle' namely: 'mitigation', 'preparedness', 'response' and 'recovery' in trying to exhibit how political marginalisation increased the susceptibility of the victims to the disaster as well as hindering their recovery from the catastrophe. The chapter stresses that viewing disaster vulnerability from the 'political powerlessness' perspective is important because most of the studies that have looked at social vulnerability in disasters have tended to largely concentrate on gender, age, economic status, and ethnicity issues. Yet, political exclusion may be the overarching factor eliciting these social vulnerabilities.

Chapter Six builds on the preceding two chapters and examines how state indifference which was entrenched in social vulnerability perspective violated the rights of the flood victims. This is based on the fact that the government's response to the disaster was far from satisfactory, almost to the point of being negligent. The chapter takes into account various international instruments that have provisions on human rights in general and the rights of disaster victims and internally displaced persons. The chapter enunciates how government negligence in the management of the flood disaster infringed on rights to food, water and sanitation, health, education, housing, privacy, as well as the right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment. It also scrutinises how the violation of these rights has affected community development.

Chapter Seven examines the uncertainty, anxiety and desperation faced by the displaced families after the disaster. These different uncertainties raise a number of different questions such as: When and where will they eventually be resettled? How long are they going to continue surviving on disaster relief? Are they ever going to get adequate information about their future welfare? Are they ever going to have decent homes? Where will they get the resources to start livelihood activities? Are they going to have social networks in the new resettlement areas? Are their children going to have a bright future? Are the new resettlement areas going to have adequate infrastructure? The chapter also places emphasis on how the lack of a clear plan by the state to resettle the disaster victims and to map their future (six years) after the disaster caused all these uncertainties. The impact of these uncertainties on community development is also discussed in this chapter.

Chapter Eight concludes the thesis by recapping the major findings of the study as well as the major conclusions drawn in the study. It also suggests areas that may require further research with regards to natural disaster management by governments.

1.10 Conclusion

This introductory chapter has set out the scope of the study. It has outlined the aim of the study, which is to investigate the link between social vulnerability and disasters, focusing on the Tokwe-Mukosi dam flood which took place between 27 January and 11 February 2014. The chapter has also outlined the research objectives of the study. These objectives are under the umbrella of one overarching objective which is to examine the correlation between social vulnerability, the Tokwe-Mukosi dam flood and community development. This objective, along with the subsidiary ones, provides a platform to set out the thematic parameters of the thesis. The problem statement has also been discussed in this chapter together with the rationale for the investigation. The methodology, limitations as well as delimitations of the study have also been discussed. An outline of all the chapters that constitute this study has also been given in this introductory chapter.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

It is fundamental for researchers to familiarise themselves with existing research prior to collecting their own data.[77] This chapter examines existing literature that focuses on flood disasters and their impact on development in general and community development in particular. The chapter also reviews literature pertaining to disasters and social vulnerability. The theoretical framework underpinning this study is also discussed in this chapter.

2.2 Overview of disasters

The world is rapidly experiencing natural disasters such as floods, droughts, cyclones, heat waves and stronger storms.[78] Most of these disasters are triggered or intensified by climate change.[79] Natural disasters have a devastating impact on development and these can cancel out progress made on poverty reduction.[80] These natural calamities happen and affect both the developing and the developed countries. Nevertheless, while disasters happen everywhere and can affect everyone, developing countries in particular experience pervasive risk of severe human and property losses resulting from both human and natural catastrophes.[81] This level of risk is largely attributable to low national income which amounts to social and economic stress, inadequate physical infrastructure, weak education and preparedness for disasters as well as insufficient fiscal and economic resources to carefully implement the preparedness, response, mitigation and recovery components of integrated emergency management.[82] In developing nations, government assistance in situations of disasters is often limited due to the already grave financial burdens they face.[83] Nevertheless, while financial constraints have been strongly

[77] M. Easterby-Smith, *et al, Management Research: An Introduction*, (London, SAGE Publications, 2002).
[78] R. Wuthisuthimethawee, 'Disaster and climate change' in G. R. Ciottone *et al* (eds), *Ciottone's Disaster medicine*, (Amsterdam, Elsevier Health Sciences, 2015).
[79] Ibid
[80] M. Schmid, 'Vulnerabilities: At the heart of the risk' in J. Bolay *et al* (eds) *Technologies and Innovations for Development: Scientific Cooperation for a Sustainable Future,* (New York, Springer Science & Business Media, 2012).
[81] A. S. Gbadegesin, *et al*, 'Urban Vulnerability to Climate and natural hazards in Nigeria: Coping with global environmental change, disasters and security – Threats, challenges, vulnerabilities and risks' in H. G. Brauch, *et al*, (eds) *Hexagon Book series on human and environmental security and peace*, Vol 5, (Berlin, Springer- Verlag, 2010).
[82] L. J. Henderson, 'Emergency and Disaster: Pervasive Risk and Public Bureaucracy in Developing Nations' in *Public Organization Review: A Global Journal,* (Vol 4, No. 2, 2004).
[83] T. D. Lukamba, 'Natural disasters in African countries: What can we learn about them' in *Journal for Transdisciplinary Research in Southern Africa*, (Vol 6, No. 2, 2010).

linked with the damaging impacts of disasters experienced by the developing world, in some cases, social inequalities exacerbate the susceptibility of marginalized communities to disasters.

2.3 Socio-economic impact of floods

Out of over 7000 natural disasters that occurred during the last decades, more than seventy-four percent were water related.[84] Although there are many natural disasters that are impacting the world, flood disasters are undoubtedly the most recurrent, posing major impediments to achieving human security and sustainable socio-economic development.[85] De Jesus *et al* state that floods impact over half a billion people every year worldwide and might affect two billion by 2050.[86] Much of the socio-economic effects of floods that have been revealed by several studies are presented below. These effects include destruction of livelihoods, homelessness and displacement of people, destruction of infrastructure, mortality and diseases, disruption of education, as well as several environmental alterations.

2.3.1 Mortality and diseases

One of the harmful impacts of floods is mortality and morbidity. Natural disasters such as floods create tremendous human misery, including death, both when they occur and in their aftermath.[87] Floods are the leading cause of deaths from all natural disasters worldwide, with 6, 8 million deaths recorded in the 20th century.[88] In Asia, research has shown that flood disasters have caused many fatalities. A study by Kirsh *et al* revealed that 3000 people were killed in Vietnam's 1997 floods, 1100 people died in Bangladesh's 1998 floods, and 1320 died in China's 1998 floods.[89] Torti's study also revealed that in 2011, an estimated 567 deaths occurred due to floods in Thailand, 85 deaths in Vietnam, 30 deaths in Laos and 102 in Philippines, with a total of 1302 deaths in South East Asia due to direct causes of flood

[84] N. Douben, and R. M. W. Ratnayake, 'Characteristic data on river floods and flooding: facts and figures' in J. V. Alphen *et al*, (eds) *Floods, from Defence to Management*, (New York, Taylor and Francis, 2006).
[85] UNESCO, *The United Nations World Water Development Report – N° 3 - 2009 – Global Trends in Water-Related Disaster (an insight for policymakers)*, (Paris, UNESCO, 2009).
[86] G. De Jesus, *et al*, 'SAGE-B: A Dynamic dam-break flood emergency management system' in D. De Wrachien, (ed) *Flood Recovery, Innovation and Response II*, (Southampton, WIT Press, 2010).
[87] International Monetary Fund, *Bangladesh: Poverty Reduction Strategy Paper*, (Washington D. C, International Monetary Fund, 2005).
[88] T. D. Kirsh *et al*, 'Impact of 2010 Pakistan floods on Rural and Urban Populations at six Months' in *Journal List – PloS Curr*, (Vol 4, No. 1, 2012). See also A. Holloway, 'Disaster mitigation' in D. Clark (ed), *The Elgar Companion to Development Studies*, (Cheltenham, Edward Elgar Publishing, 2006).
[89] Ibid.

disasters. [90] The 2010 Pakistan floods killed approximately 1700 to 2000 people, injured 2926 people and destroyed 436 health care facilities.[91]

In Africa, the fatalities and diseases caused by floods have also been documented. Onifade *et al* note that in July 2012, floods in the central part of Nigeria, Plateau state, claimed 39 lives.[92] Onifade *et al* further state that in June 2014, some residents lost their lives in the flood that swept carpet bus at Galilee area of Olodo and Apetete in the city of Ibadan.[93] In Ethiopia, Di Ruocco *et al*'s research on urbanisation and climate change in Africa revealed that the 2006 floods killed more than 100 people in Addis Ababa after heavy rains caused a river to overflow.[94] Similarly, 20 people were also killed in Dar es Salaam in 2011 floods.[95] In Sudan, the 2007 floods also killed 30 people while in Mozambique 900 people lost their lives to the 2000 floods.[96] Likewise, between August and September 2020, terrible floods hit East Africa and the Sahel region, causing 194 deaths in Kenya, 8 deaths in Ethiopia, 10 deaths in Chad, 6 deaths in Uganda and 33 deaths in Niger.[97] The March 2019 cyclone Idai-induced floods caused 1303 fatalities in Mozambique, Zimbabwe and Malawi.[98] Thus, the fatalities being caused by floods is worrisome the world over. While the present study acknowledges all these studies, it seeks to bring into light the fact the magnitude and severity of these fatalities is shaped by the circumstances in which the disaster occurs. In countries that have poor disaster preparedness/resources coupled by political power disparities, the number of fatalities tend to increase. This is the reason why the study stresses the need to view disasters from a political powerlessness perspective.

Existing literature has also shown that apart from causing deaths, floods can also lead to ill health due to several factors in the post disaster period. A study by Ahern *et al* on global

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[90] J. Torti, 'Floods in South East Asia: A Health Priority' in *Journal of Global Health*, (Vol 2, No. 2, 2012).
[91] T. D. Kirsh, *et al*, 'Impact of 2010 Pakistan floods on Rural and Urban Populations at six Months' in *Journal List – PloS Curr*, (Vol 4, No. 1, 2012). See also K.A. Kronstadt *et al*, Flooding *in Pakistan: Overview and Issues for Congress*, (Collingdale, Diane Publishing, 2010); and J. Niazi, *Cost of floods on Pakistan's Economy*, (Hamburg: Anchor Academic Publishing, 2010).
[92] O. A. Onifade, *et al*, 'Impacts of flood disasters on Sustainable National Development in Ibadan North local Government, Oyo State' in *Arabian Journal of Business Management review*, (Vol. 4, No. 2, 2014).
[93] Ibid.
[94] A. Di Ruocco, *et al*, 'Urbanisation and climate change in Africa: Setting the Scene' in S. Pauleit, *et al, Urban Vulnerability and Climate Change in Africa: A Multidisciplinary Approach,* (New York, Springer, 2015).
[95] Ibid.
[96] T. D. Lukamba, 'Natural disasters in African countries: What can we learn about them' in *Journal for Transdisciplinary Research in Southern Africa*, (Vol 6, No. 2, 2010).
[97] International Federation of Red Cross and Red Crescent societies, Africa: Floods and multiple disasters, 06 September 2020.
[98] A. Rwodzi, 'Climatological Anomalies, Food Politics and the Poor in Africa' in A. Nhemachena and M. mawere, (eds) *Necroclimatism in a Spectral World (Dis)order? Rain Petitioning, Climate and Weather Engineering in 21st Century Africa*, (Bamenda, Langaa RPCIG, 2019).

health impacts of floods revealed that in the immediate post-flood disaster period, diseases such as cholera, cryptosporidiosis, nonspecific diarrhoea, poliomyelitis, rotavirus, typhoid and paratyphoid are often extensive.[99] Ahern's view is in sync with the findings of Brende's study on the stress effects of floods. Brende's research revealed that after the August 2005 floods in New Orleans in the United States of America, there was concern about a potential outbreak of serious health problems such as hepatitis A, cholera and typhoid fever because of contaminated food and drinking water.[100] Similarly, research conducted by Tapsell on the hidden impacts of flooding in England showed that after the April 1998 floods, the health and social impacts were significant upon individuals and households of the two communities namely, Banbury and Kidlington near Oxford.[101] De Pee *et al*'s study on the impacts of the 2004 Indian Ocean Tsunami indicated that flooding disasters lead to communicable diseases.[102] De Pee *et al* further posit that the incidence of mosquito-borne diseases such as malaria and dengue fever increase if flooding creates large breeding sites for mosquitos due to stagnant water.[103] In the same way, a research conducted by Christie and Hanlon on Mozambique's 2000 floods discovered that there were many cases of malaria infections, diarrhoea, conjunctivitis and scabies particularly in Xai-Xai district.[104] While all these studies have managed to reveal several diseases that are caused by flooding, there is also need to consider the indirect impacts of disasters on human health. This includes an analysis of the extent to which the coping mechanisms adopted by the affected communities can expose them to certain health risks.

Furthermore, while the current study acknowledges research on floods and diseases, it stresses the need to examine the differential health impacts of flood disasters. A study by Keim on the health impacts of floods revealed that the effects of flood disasters are different on high income countries and low income countries.[105] For Keim, low income countries tend to suffer more from diseases such as respiratory infections, cholera, malaria and wound infections compared to high income countries. While acknowledging Keim's observation, this study

[99] M. Ahern, *et al*, 'Global Health Impacts of Floods: Epidemiologic Evidence' in *Epidemiologic Reviews*, (Vol 27, No 1, 2005).
[100] O. J. Brende, 'Stress effects of floods' in G. Fink, (ed) *Stress of War, Conflict and Disaster*, (Oxford, Academic Press, 2010).
[101] S. Tapsell, 'The hidden impacts of flooding: Experiences from two English communities' in M. A. Marino, and S. P. Simonovic, (eds), *Integrated water Resources Management*, (Oxfordshire, LAHS Publications, 2001).
[102] S. De Pee, The Indian Ocean Tsunami of December 26, 2004 in P. Pilot (eds) Nutrition and Health in Developing Countries, (New York, Springer Science & Business Media).
[103] Ibid.
[104] F. Christie, and J. Hanlon, *Mozambique and the great flood of 2000*, (Bloomington, James Currey Publishers, 2001).
[105] M. E. Keim, 'Floods' in K. L. Koenig and C. H. Schultz, (eds) Disaster Medicine: Comprehensive Principles and Practices, (Cambridge, Cambridge University Press, 2009).

advances the view that even within low-income countries, social vulnerability prevents economically and politically marginalised groups from having adequate health treatment and facilities. The same factors that expose certain communities to disasters may persist even after the disaster, thereby exposing the affected families to different health hazards.

2.3.2 Destruction of livelihoods

A vast majority of academic work dealing with floods reveals that flood disasters pose serious negative impacts on people's livelihoods. For example, a study by Niazi on the cost of floods on Pakistan's economy revealed that floods have negative implications on livelihoods in general and agricultural production in particular.[106] Niazi argues that floods destroy farm land and drown livestock thereby causing poverty and misery among the farmers whose survival is dependent on agriculture.[107] Similarly, in Bangladesh, studies on the impacts of flood disasters on livelihoods are also documented. Younus' research on flood vulnerability and adaptation to climate change in Bangladesh showed that floods are the main obstacle to the economic improvement of the nation.[108] Younus states that recurrent flood disasters in Bangladesh as a result of climate change are negatively affecting agriculture which is the backbone of Bangladesh's economy. While Niazi and Younus' studies are vital especially in articulating the impacts of flood disasters on rural livelihoods, they tend to focus more on agriculture. This study emphasises the need to look at other rural livelihoods that are affected by floods in addition to agriculture. The same gap that exists in Niazi and Younus' studies is also evident in Khattri's work on rural livelihoods and natural disasters in India.[109] Khattri's study revealed that while rural livelihood in India is predominantly agriculture in nature, there has been a decline in the population of cultivators in Bahraich District due to floods.[110] Khattri argues that due to recurrent floods, habitants in Bahraich District are more prone to borrowing loans, yet most of them are failing to pay back the loans due to losses they incur from the floods.[111] Similarly, in New Zealand, Glavovic and Smith's study revealed the negative implications of floods on farming activities. In their work, Glavovic and Smith indicate that the February 2004 floods in New Zealand adversely affected rural livelihoods by inundating 2000 farms as well

[106] J. Niazi, *Cost of floods on Pakistan's Economy*, (Hamburg, Anchor Academic Publishing, 2010).
[107] Ibid.
[108] A. F. Younus, 'Flood vulnerability and adaptation to climate change in Bangladesh: A review' in *Journal of Environmental Assessment Policy and Management*, (Vol. 16, No. 3, 2014).
[109] Khattri, P. 'Rural Livelihoods and Natural Disasters: Observations from Flood Affected Bahraich District of Uttar Pradesh' in *Indian Anthropologist*, (Vol. 47, No. 2, 2017).
[110] Ibid.
[111] Ibid.

as destroying 800 farms in Manawatu-Wanganui region.[112] In addition to the aforementioned studies, researches that focus on the impact of flood disasters on agriculture are also evident in Europe. For example, a study by Posthumus *et al* revealed that exceptional rainfall during the summer months in 2007 caused extensive flooding in parts of England and Wales which seriously affected large tracts of rural land.[113] However, as highlighted earlier in this section, there is also need to interrogate the extent to which non-agricultural activities or livelihoods are affected by floods. Thus, in addition to available literature, the current study advances the claim that catastrophic events such as floods trigger not only harvest failures but a series of knock on shocks to the local economies and societies. These effects may affect backward and forward production linkages within the community and the nation at large.

Studies that have been carried out in Africa have also revealed that flood disasters have devastating effects on crops and food security. For example, Okpara conducted a study on the effects of climate change in the Niger River Basin of West Africa and he pointed out that floods have become the most common natural disaster in the Niger River Basin and are frequently accompanied by loss of crop lands and livelihoods.[114] In Kenya, Nduru and Kiragu note that floods and droughts constitute fifty-three of natural disasters in the country and they expose individuals and entire communities to a variety of associated risks particularly related agricultural loss.[115] In Southern Africa, the effects of floods on livelihoods have also been documented. Mawere's research on climate change and environmental management strategies in Africa revealed that floods induced by cyclone Eline and Cyclone Japhet in 2000 and 2003 respectively destroyed livestock and crops and also caused environmental degradation especially in Mozambique and Zimbabwe, thereby threatening these countries with food insecurity.[116]

What makes Mawere's study more relevant in the development discourse is that he does not only focus on the direct impacts such as loss of livestock, crops and farmlands but he also

[112] B. C. Glavovic, and G. Smith, *Adapting to climate change: Lessons from Natural Hazards Planning*, (New York, Springer Science and Business Media, 2014).
[113] H. Posthumus, *et al* 'Integrated land and water management in flood plains in England' in P. Samuels, *et al* (eds), *Flood Risk Management: Research and Practice; Extended Abstracts*, (Boca Raton, CRC press, 2008).
[114] Okpara, J. N. *et al* 'Study of climate change in Niger River Basin, West Africa: Reality not a myth' in B. R. Singh, (ed) *Climate Change: Realities, Impacts Over Ice Cap, Sea Level and Risks*, (Rijeka, InTech, 2013).
[115] G. Nduru and S. Kiragu, 'Climate variability risks, perceptions and coping mechanisms in Kenya' in L. Bloemertz *et al*, (eds) *Risk and Africa: Multi-disciplinary Empirical Approaches*, (Zurich, LIT Verlag Münster, 2012).
[116] M. Mawere, 'Climate Change and Environmental Management Strategies in Africa' in M. Mawere, (ed) *Theorising Development in Africa: Towards Building an African Framework of Development*, (Bamenda, Langaa RPCIG, 2017).

cross-examines the extent to which these direct impacts may cause indirect consequences such as prostitution among girls and women. However, this study makes a further examination of other indirect effects stemming from flood disasters besides the issue of prostitution articulated in Mawere's study. These indirect impacts have not been articulated by many scholars who researched on flood disasters, particularly in Southern Africa. Even research on the March 2019 Cyclone Idai is silent on the issue of indirect implications of disaster. For example, Rwodzi's study on cyclone Idai disaster is centred on the politicisation of food handouts by politicians who take advantage of the desperate situations created by the disaster.[117] While acknowledging Rwodzi's study, the current study examines different direct and indirect impacts of flood disasters on community development efforts.

2.3.3 Homelessness and displacement of people

Another serious negative consequence of flood disasters which has been noted by many scholars and researchers is the destruction of homes which often leads to displacement of people. Between 1998 and 2002, Europe suffered over 100 major damaging floods including the catastrophic floods along the Danube and Elbe Rivers in 2002 which caused the displacement of about half a million people and at least £25 billion in insured economic costs.[118] In 2005, many villages in Romania and Bulgaria were destroyed by flash floods along the Danube and in 2006, 30 000 people were displaced by floods in the Danube basin.[119] In Asia, floods also caused the displacement of many people. Some of the serious flood disasters that caused large displacements in Asia include the 2009 floods in India which displaced at least five million people and also the 2010 floods in China and Pakistan which displaced at least 15 million and 11 million people respectively.[120] A study by Oxfam also indicated that in August 2017, extreme monsoonal floods affected more than 43 million people in Bangladesh, Nepal and India displacing more than 1200 people.[121]

Similar displacements have also been recorded in Africa. Diagne, and Ndiaye argue that heavy floods in East Africa brought menacing floods and mudslides forcing tens of

[117]A. Rwodzi, 'Climatological Anomalies, Food Politics and the Poor in Africa' in A. Nhemachena and M. mawere, (eds) *Necroclimatism in a Spectral World (Dis)order? Rain Petitioning, Climate and Weather Engineering in 21st Century Africa*, (Bamenda, Langaa RPCIG, 2019).
[118] C. Day, 'E U flood action programme' in J. V. Alphen *et al*, (eds) *Floods, from Defense to Management,* (London, Taylor and Francis, 2006).
[119] UNESCO, *Managing disaster risks for World Heritage*, (Paris, UNESCO, 2010).
[120] Norwegian Refugee Council, Displacement due to natural hazard induced disasters: Global estimates for 2009 and 2010.
[121] Oxfam international, *Uprooted by climate change: Responding to the growing risk of displacement*, (Oxford, Oxfam, 2017).

thousands to leave their homes in Rwanda, Kenya, Burundi, Tanzania and Uganda in 2002.[122] In West Africa, Mosha's study showed that in 2009 torrential rains and floods left many people homeless in nations such as Senegal, Ghana, Niger and Burkina Faso.[123] Southern Africa has not been spared by these displacements. The 2000 floods in Mozambique and Zimbabwe also left 2 million people homeless.[124] However, while all these studies are vital in understanding the relationship between flood disasters and displacement of human populations, there is also the need to further examine the implications of such displacements on community development, which is the central theme of this study. While scholars like Oliver-Smith have analysed the impact of large scale population displacements such as loss of jobs, identity, relations, and culture, these aspects were not analysed within the context of community development.[125] Besides that, the majority of this literature focuses on national and regional levels and not on small communities within a country. This study therefore examines the impact of floods on small communities. This is largely because of the fact that for development to take place, it should start at grassroots level (bottom-up approach), supporting poverty reduction initiatives of people living in these areas. Yet when these small communities are being affected by disasters, the 'bottom-up' approach to development may also be thwarted. A focus on small communities also unravels the value that these communities have in development, which has been neglected by studies that focus on large areas.

2.3.4 Destruction of infrastructure

Another notable impact of flood disasters that has been pointed out by many scholars is infrastructural damage. Floods disrupt infrastructure, including communication infrastructure and consequently people's employment and income maybe adversely affected.[126] Damage to infrastructure causes disruptions to supplies of clean water, waste water treatment, electricity,

[122] K. Diagne, and A. Ndiaye, 'History, governance and the Millennium Development Goals: Flood Risk Reduction in Saint-Louis,Senegal' in M. Pelling, and B. Wisner (eds), *Disaster Risk Reduction: Cases from Urban Africa,* (New York, Routledge, 2012) See also, Intergovernmental Panel on climate change, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: Special Report of the Intergovernmental Panel on Climate Change,* (Cambridge, Cambridge University Press, 2012).
[123] A. C. Mosha, 'The effects of climate change on urban human settlements in Africa' in B. Yuen, and A. Kumssa, (eds) *Climate change and Sustainable Development in Africa and Asia,* (New York, Springer Science and Business Media, 2010).
[124] J. Allen, *Floods*, (Minnesota, Capstone, 2001).
[125] A. Oliver-Smith, *Disasters and Large-Scale Population Dislocations: International and National Responses*, (Oxford, Oxford University Press, 2019).
[126] International Monetary Fund, *Bangladesh: Poverty Reduction Strategy Paper*, (Washington D. C, International Monetary Fund, 2005).

transport, communication, education and healthcare.[127] Tuan and The's study on the impact of natural disasters revealed that the 2009 floods in Vietnam caused the collapse of 1 027 schools and destroyed numerous roads, bridges, sea dykes and telecommunication systems particularly in Thua Thien Hue Province.[128] In their study, Tuan and The examine the negative socio-economic effects that stem from the destruction of infrastructure due to floods. Their argument is that floods isolate villages, prevent people from accessing services and lead to the suspension of business activities, thereby posing serious economic challenges.[129] Besides Vietman, many other Asian countries have also suffered from infrastructural damage due to floods. Niazi states that during the 2010 floods in Pakistan, many schools, and roads were damaged, leaving people without food and medical attention.[130] In New Zealand, a research conducted by Glavovic and Smith revealed that the February 2004 floods damaged critical infrastructure and caused the closure of key regional roads in the Manawatu Wanganui region.[131] Glavovic and Smith further stated that several trains were derailed and the main gas supply to the Hawkers Bay was disrupted for over a week due to extensive damage to bridges (four were destroyed and 21 were damaged).[132] While all these studies are crucial in the sense that they exhibit the damages caused by floods on infrastructure, there is also need to analyse the impact of infrastructural damages on community development especially in the context of rural areas.

Likewise, in Africa, research has also revealed that the continent has suffered from infrastructural damage. In Nigeria, Adedeji, *et al* argue that the 26 August 2011 floods in Ibadan destroyed property and the Ibadan University library, including the Zoological Garden.[133] On the same note, the 2007 floods in Sudan caused a lot of damage to roads and bridges.[134] In Zimbabwe, studies of the impact of flood disasters on infrastructure have also been conducted. Dube *et al* for example examine the impact of flood disasters on built

[127] O. A. Onifade, *et al*, 'Impacts of flood disasters on Sustainable National Development in Ibadan North local Government, Oyo State' in *Arabian Journal of Business Management review*, (Vol. 4, No. 2, 2014).
[128] T. H. Tuan, and B. D. The, 'Natural disasters in Vietnam, A synthesis from a socio-economic perspective' in D. Guhar- Sapir, and I. Santos, (eds) *The Economic Impacts of, Natural* disasters, *(*New York, Oxford University Press, 2013).
[129] Ibid.
[130] J. Niazi, *Cost of floods on Pakistan's Economy*, (Hamburg, Anchor Academic Publishing, 2010); See also K. A. Kronstadt, *et al*, Flooding *in Pakistan: Overview and Issues for Congress*, (Collingdale, Diane Publishing, 2010).
[131] B. C. Glavovic, and G. Smith, *Adapting to climate change: Lessons from Natural Hazards Planning,* (New York, Springer Science and Business Media, 2014).
[132] Ibid.
[133] O. H. Adedeji, *et al*, 'Building Capabilities for Disaster and Hazard Preparedness and Risk Reduction in Nigeria: Need for Spatial Planning and Land management' in *Journal of Sustainable development in Africa*, (Vol. 14, No 1, 2012).
[134] T. D. Lukamba, 'Natural disasters in African countries: What can we learn about them' in *Journal for Transdisciplinary Research in Southern Africa*, (Vol 6, No.2, 2010).

environment, with a particular focus on Tsholostho district.[135] Dube *et al* argue that seasonal floods in Tsholostho cause damage on the built environment, including human shelter, bridges and roads in communities located along the Gwayi, Zombani and Manzamnyama rivers, and communities settled near Gariya and Bhudani dams.[136] The same authors state that while the government of Zimbabwe has at times tried to restore the damaged shelter and infrastructure through some reconstruction processes, recurrent forceful floods in this area often destroy the same infrastructure.[137] While this thesis appreciates the contribution of all these studies to disaster literature, it emphasises the need to analyse the extent to which power imbalances affect the reconstruction of damaged infrastructure in the post-disaster period.

2.3.5 Disruption of education

Research has shown that floods just like many other disasters pose some negative consequences on the education sector. The UNICEF and UNESCO global initiative on out-of-school children cites disasters as one of the key factors inhibiting school attendance of approximately 57 million school-aged children.[138] For instance, the 2010 floods in Pakistan affected 1.8 million children and more than 8, 600 schools were fully or partially damaged.[139] In Bangladesh, the results of baseline data collected just after the 1998 floods showed some evidence of negative effects of shocks on children's grades of schooling.[140] In Cambodia, Shaw and Tran's study on Climate change issues in education sectors demonstrated that school absenteeism and drop out are high in flood-prone areas.[141] Their study indicated that the 2000 floods in Cambodia destroyed approximately eighteen percent of the country's schools and impacted heavily on the education of 500 000 children.[142] The destruction of infrastructure such as roads, bridges and

[135] E. Dube, *et al*, 'Managing flood disasters on the built environment in the rural communities of Zimbabwe: Lessons learnt' in *Jamba journal of disaster risk studies*, (Vol 10, No. 1, 2018).
[136] Ibid.
[137] Ibid.
[138] UNESCO-UNICEF, *Towards a Learning Culture of Safety and Resilience: Technical Guidance for Integrating Disaster Risk Reduction in the School Curriculum*, (New York, UNESCO-UNICEF, 2014).
[139] Ibid.
[140] S. Parker, and C. Tubbs, 'Aggregate economic shocks during middle childhood' in M. Lundberg, and A. Wuermli, (eds) *Children and Youth in Crisis: Protecting and Promoting Human Development in Times of Economic Shocks*, (Washington D.C, World Bank Publications, 2012).
[141] R. Shaw, and P. Tran, 'Climate change issues in education sectors: An environmental entry point of risk reduction' in R. Shaw, and P. Tran, (eds), *Environment Disaster Linkages*, (Bingley, Emerald Group Publishing, 2012).
[142] Ibid.

schools has a serious negative impact on education. For instance, if the roads are washed away by the floods, the school buses will not be able to transport children to school.[143]

In Africa, floods have also caused many disturbances in education. Awopetu *et al*'s study on the impact of floods on the socio-economic status of residents of Wadata and Gado-Villa communities established that the 2012 floods destroyed educational facilities which included school buildings, and learning materials such as books and furniture.[144] The same study revealed that the destruction of educational facilities resulted in school children's learning activities and school attendance being disrupted for a prolonged period of time.[145] In southern Africa, the 2000 Cyclone Eline floods destroyed more than 3300 classrooms in Manica, Sofala, Tete and Zambezia Provinces in Mozambique, affecting more than 260 000 school children.[146] In South Africa, Cyclone Eline floods damaged more than 340 schools in Northern Mpumalanga, Eastern Cape and Kwazulu-Natal provinces.[147] Research in Zimbabwe has also exposed the disruptive impacts of flood disasters on children's education. Mudavanhu's research on the impact of flood disasters on child education in Muzarabani discovered that recurring floods in this area are compromising children's right to quality education.[148] Mudavanhu argues that that floods in Muzarabani area cause loss of learning hours, lack of qualified teaching personnel, outbreak of waterborne diseases, high absenteeism and low syllabus coverage leading to children's poor academic performance.[149] However, while Mudavanhu's study discusses the impact of flood disasters on children's education, there is also need to examine the extent to which the political environment within a country can influence the vulnerability and copying capacity of those children. In other words, those educational impacts are not divorced from power relations in a country.

[143] G. Haddow *et al*, *Introduction to Emergency Management*, (Burlington, Butterworth-Heinemann, 2010).
[144] R.G. Awopetu *et al*, 'The impact of flood on the socio-economic status of residents of Wadata and Gado-Villa communities in the Markudi metropolitan area of Benue state, Nigeria' in, C. A. Brebbia, (ed), *Disaster Management and Human Health Risk 111: Reducing Risk, Improving Outcomes*, (Boston, WIP Press, 2013).
[145] Ibid.
[146] J. Torres *et al, UNESCO Guidelines for Assessing Learning Facilities in the Context of Disaster Risk Reduction and Climate Change Adaptation: Introduction to learning facilities assessment and to the VISUS methodology*, (Paris, UNESCO Publishing, 2019)
[147] Ibid.
[148] C. Mudavanhu, 'The impact of flood disasters on child education in Muzarabani District, Zimbabwe' in *Jàmbá: Journal of Disaster Risk Studies*, (Vol 6, No. 1, 2014).
[149] Ibid.

2.3.6 Gendered impacts of floods

The impacts of flood disasters are not uniform on both genders. Many studies have shown that women are more susceptible to disasters compared to men. Ear and Inouye for example conducted a study which explored the reasons behind the susceptibility of women in Asia-Pacific countries to disasters.[150] Ear and Inouye's study found out that the biological and physical make up of women, gender roles, lesser social status, and cultural norms are the major factors that leave them more exposed and vulnerable to the risk of natural disasters. The same authors pointed out India, Sri Lanka, Indonesia and Bangladesh as some of the countries that often witness higher numbers of female deaths due to the aforementioned factors. These factors have also been identified by Neumayer and Plumper in their study which focused on the gendered nature of natural disasters.[151] Neumayer and Plumper argue that the three factors that lead to high mortality rates among women are biological and physiological differences between the genders, socially constructed responsibilities and the everyday economic status of women. However, the difference in the two studies lies in the fact that Neumayer and Plumper place more emphasis on the role played by the socio-economic status of women in increasing their vulnerability to disasters. On the contrary, Ear and Inouye argue that cultural norms are the major factor that worsens the impact of disasters on women. While the present study acknowledges Ear and Inouye's findings, there is also need to examine how gender roles and cultural norms interconnect with political powerlessness to exacerbate the negative impacts of flood disasters on the female gender.

Furthermore, while Neumayer and Plumper's study concludes that low socio-economic status is the major driving force behind women's susceptibility to disasters, it is also important to draw the link between the socio-economic position of women and the overall political environments within nations. This is largely because the socio-economic wellbeing of individuals and communities cannot be divorced from political factors. Hence, there is need to also use a political perspective when analysing the gendered impacts of natural disasters.

Research has also shown that apart from being killed or getting injured during disasters, women and girls are also susceptible to sexual abuse. A study by Azard *et al* on the flood-

[150] J. Ear and D. K. Inouye *Women's Role in Disaster Management and Implications for National Security*, Asia-Pacific Center for Security Studies (2017).
[151] E. Neumayer, and T. Plumper, 'The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981-2' in *Annals of the American association of geographers,* (Vol 97, No. 3, 2007).

induced vulnerabilities and problems encountered by women in Northern Bangladesh showed that women are vulnerable to sexual abuse due to their gender.[152] The study revealed that around thirty-five of women had the experience of being harassed by a male during the social disruption caused by flooding.[153] In Sri Lanka, Women's Group and the Women and Media Collective, for instance, reported incidents of rape, molestation and physical abuse of women and girls in the course of unsupervised rescue operations and while residing in temporary shelters.[154]

Cases of sexual abuse during flood disasters have also been recognised in Southern Africa. A report by the United Nations Population Fund on the floods that hit Southern Africa in January 2015 indicated that there were recorded cases of sexual abuse of women in Malawi's displacement camps.[155] All these studies reveal that women can be sexually abused during the evacuation process or during their stay in temporary camps. Complementing these studies, the current study stresses the need to examine how the sexual abuse faced by women and girls during and after flood disasters affects the wellbeing of their families as well as the development of their communities. Sexual abuse is an example of a serious development concern which does not only expose the victims to diseases but also impede their effective participation in different development activities which are meant to advance communities.

2.3.7 Environmental alterations

Flood disasters also have environmental implications. According to Devalsam *et al*, heavy rainfall accompanied by flooding cannot only cause tremendous damage to buildings and homes, but also kill woody and herbaceous plants.[156] Hickey and Salas posit that in most extreme events like the Big Thompson River flood of 1976 in Colorado, vegetation cannot withstand the power of the floodwaters and is broken or uprooted.[157] Thus, floods often lead to the destruction of fauna and flora, damage to rare and endangered species, damage to natural

[152] A. K. Azad *et al*, 'Flood Induced Vulnerabilities and Problems Encountered by Women in Northern Bangladesh' in *Disaster Risk Science*, (Vol. 4 No. 4, 2013).
[153] Ibid.
[154] B. S. Turner and H. H. Khondker, *Globalization East and West*, (London, SAGE Publications, 2010).
[155] United Nations Population Fund, Floods hit hundreds of thousands in Southern Africa; women and girls most vulnerable, 2015.
[156] E. Devalsam *et al*, 'Flood Impact on Farmlands in Itigidi, Abi Local Government Area, Cross River State, Nigeria' in *International Journal of Humanities and Social Science*, (Vol 1, No. 9, 2011).
[157] J. T. Hickey, and J. D. Salas, Environmental effects of extreme floods: US-Italy Research Workshop on the Hydrometeorology, Impacts and Management of Extreme Floods, 1995.

recreational resources and dispersal of weed species.[158] Floods can also cause soil erosion thorough the washing away of top soil by flood waters.[159] The removal of top soil by erosion is a loss to agricultural productivity as top soil is the part of soil horizon with higher levels of organic matter and nutrients and generally better structure.[160] Environmental pollution is another negative effect of floods. The pollution of the environment due to floods is a threat to human settlements as it extends the spread of diseases and the diffusion of harmful matters.[161] While the negative environmental effects of flood disasters have been widely researched, there remains a need to draw a link between environmental impacts and the socio-economic wellbeing of the flood victims, particularly with reference to Zimbabwe.

2.3.8 Positive impacts of natural disasters

While flood disasters generally cause negative repercussions, socially, economically and environmentally, in some cases, these can also have positive outcomes. Existing literature has also shown that floods can have positive benefits on the environment. In their study on the impacts of flood disasters on sustainable national development in Ibadan state, Onifade *et al* argue that flood events can result in long-term benefits to agricultural production by recharging water resource storage especially in drier inland areas and by rejuvenating soil fertility by silt deposition.[162] Onifade *et al* further state that floods play an important role in maintaining key ecosystem functions and biodiversity.[163] The same study revealed that floods link the river with land surrounding it, recharge the connectivity between aquatic habitats and move both sediment and nutrients around the landscape, and in to the marine environment.[164] Bariweni *et al* also share the same sentiments in their research on the environmental effects of flooding in the Niger Delta Region.[165] Their study revealed that flooding adds a lot of nutrients to lakes and rivers which leads to improved fisheries. Thus, the two studies show that flooding can improve agricultural production as well as fishery activities. Nevertheless, all these positive environmental impacts benefit communities that live close to rivers or other reservoirs. In the

[158] O. A. Onifade, *et al*, 'Impacts of flood disasters on Sustainable National Development in Ibadan North local Government, Oyo State' in *Arabian Journal of Business Management review*, (Vol 4, No. 2, 2014).
[159] Ibid
[160] Ibid.
[161] UN-Habitat, Mitigation, *Management and control of floods in South Asia*, (London, Earthscan, 2002).
[162] O. A. Onifade, *et al*, 'Impacts of flood disasters on Sustainable National Development in Ibadan North local Government, Oyo State' in *Arabian Journal of Business Management review*, (Vol 4, No. 2, 2014).
[163] Ibid.
[164] Ibid.
[165] P. A. Bariweni *et al*, 'Some Environmental Effects of Flooding in the Niger Delta Region of Nigeria' in *International Journal of Fisheries and Aquatic Sciences*, (Vol 1, No.1. 2012).

event that the floods cause the displacement of people, the affected community rarely benefits from these ecological advantages.

Apart from environmental benefits, positive effects of disasters on the socio-economic wellbeing of communities have been documented. Although most studies indicate that flood disasters have severe negative impacts on people's livelihoods and income, research conducted by Garbero, and Muttarak in Thailand revealed that flood disasters might actually increase people's income in the short-medium term.[166] In their study, Garbero, and Muttarak focused on the impact of the 2010 floods and droughts on community welfare in rural Thailand and they concluded that instead of experiencing an income reduction, there was actually an increase in income for villages with more severe flood exposure.[167] Gaberro and Muttarack attributed this income increase to government financial support. The Thai government, as Garbero, and Muttarak note allocated a budget of approximately US$550 million to help flood victims, a reason why there was income increase among the flood victims. The same authors state that the Thai government financial aid enabled the rural communities to continue investing both in agriculture and education, after experiencing climate shocks. Nevertheless, while Garbero, and Muttarak's study revealed some increase in income among the flood victims due to government financial aid, it is crucial to note that this is an exceptional scenario which does not work in countries characterised by power imbalance between the government and the masses. Such power imbalance prevents governments from giving effective support to affected communities.

Some scholars also argue that disasters attract donations which sometimes leave the affected communities in a better condition than before the natural disaster. A research carried out by Telford and Cosgrave on the international humanitarian system and the 2004 Indian Ocean earthquake indicated that the Tsunami created an unprecedented response mainly from voluntary bodies and private donors, with a total sum estimated at US$ 13.5 billion.[168] Nonetheless, not all disasters attract large amounts of humanitarian aid. Some disasters draw limited donations, leaving the affected communities impoverished. Further still, in some instances, even if some disaster(s) attract significant humanitarian assistance, the donations may fail to reach the intended beneficiaries due to high level of corruption in some countries.

[166] A. Garbero, and R. Muttarak, 'Impacts of the Droughts and Floods on Community Welfare in Rural Thailand: Differential Effects of Village Educational Attainment' in *Ecology and Society*, (Vol. 18, No. 4, 2013).
[167] Ibid.
[168] J. Telford, and J. Cosgrave, 'The international humanitarian system and the 2004 Indian Ocean earthquakes and tsunamis' in *Disasters*, (Vol 31, No. 1, 2007).

There are also some studies which have shown that disasters can provide the affected communities with an unexpected opportunity to challenge undemocratic governance systems that increase the vulnerability of the grassroots to disasters as well as those that impede quick recovery after a calamity. Donovan notes that disasters provide an opportunity to challenge ingrained behaviours and governance systems that are detrimental to wellbeing.[169] Sharing the same view, Amaratunga and Haigh argue that disasters, especially through the reconstruction phase can provide members of a community with an opportunity to influence policies, decisions and interventions that affect them, including assessment, planning, construction and monitoring.[170] This means that disasters can increase the participation of people in building disaster resilience. Without undermining the findings of the above studies, it is vital to take into cognisance of the fact that in countries like Zimbabwe where there is too much political centralisation, grassroots participation is often difficult to implement.

2.4 Theoretical Framework

This section discusses the theoretical framework for disaster vulnerability upon which this study is anchored. A theoretical framework consists of concepts together with their definitions, and existing theory/theories that are used to undergird a particular study.[171] The theoretical framework of a specific study consists of the theories that are relevant to a practitioner's research and how they interact.[172] Using a theoretical framework helps to embed research within previous knowledge and enables researchers to reveal what their contribution to knowledge is going to be.[173] As such, the theoretical framework that guides this study is made up of two theories namely: sustainable livelihood approach and social vulnerability framework. Both theories provide the framework that assists the researcher to examine the factors that contributed to or exacerbated the vulnerability of the Tokwe-Mukosi flood victims to the 2014 disaster as well as to analyse the extent to which community development was affected. In the next sections, I discuss the aforementioned theories in detail.

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[169] J. Donovan, *Designing to Heal: Planning and Urban Design Response to Disaster and Conflict*, (Collingwood, Csiro Publishing, 2013).
[170] D. Amaratunga and R. Haigh, 'Conclusion' in D. Amaratunga and R. Haigh, (eds) *Post-Disaster Reconstruction of the Built Environment: Rebuilding for Resilience*, (New Jersey, John Wiley & Sons, 2011).
[171] N. M. Masanja, *Practical Handbook to Dissertation and Thesis Writing: An easy-to-use guide to dissertation or thesis writing*, (Mwanza, NMM Printers, 2019).
[172] R. Couch *et al*, 'Research and evidence-based health' in S. Battersby, (ed) *Clay's Handbook of Environmental Health*, (New York, Routledge, 2016).
[173] Ibid.

2.4.1 Sustainable livelihood approach

The sustainable livelihood approach has been in vogue since the 1990s. The approach was developed by the Department for International Development (DFID) of the United Kingdom and Northern Ireland, in collaboration with the Institute of Development Studies (IDS) and other development organisations.[174] The notion of sustainable livelihood is generally believed to have arisen out of the 1992 Earth Summit held in Rio de Janeiro and its promotion of Agenda 21.[175] The main aim of Agenda 21 is that everyone must have the opportunity to earn a sustainable livelihood,[176] with the overall aim of alleviating poverty.

At the core of the sustainable livelihood approach is the assessment of different capitals that are deemed to strengthen livelihood at the level of the individual, household, village or group.[177] These capitals are classified as human (skills, knowledge, and abilities), social (networks, connectedness, and relationships), physical (buildings, equipment and water supply), natural (land, water, trees and biodiversity) and financial (savings, credits and regular income).[178] The availability of these assets and, thus, people's livelihoods is affected by being in a vulnerable context consisting of trends (resource trends, economic trends and technological trends), shocks (natural shocks, economic shocks and conflicts) and seasonality (prices, production and labour).[179] Thus, the different forms of capital are assessed in terms of their vulnerability to shocks and the institutional context in which they exist.[180] Once this process is understood, then interventions can be put in place to enhance livelihoods and their sustainability.[181] The process is about understanding the current situation and developing suggestions for improvement based upon that understanding.[182] The sustainable livelihood approach is meant to avoid a situation where intervention is unguided, giving little positive

[174] S. Morse, and N. MacNamara, *Sustainable Livelihood Approach*, (New York, Springer Science and Business Media, 2013).
[175] E. K. Petersen, and M. L. Pedersen, The Sustainable Livelihoods Approach from a psychological perspective Approaches to Development, Working Paper, 2010.
[176] Ibid.
[177] S. Morse, and N. MacNamara, *Sustainable Livelihood Approach*, (New York, Springer Science and Business Media, 2013).
[178] F. Eyhorn *et al*, *Organic Farming for Sustainable Livelihoods in Developing Countries? The Case of Cotton in India*, (Zürich, vdf Hochschulverlag AG, 2007).
[179] Ibid.
[180] S. Morse, and N. MacNamara, *Sustainable Livelihood Approach*, (New York, Springer Science and Business Media, 2013).
[181] Ibid.
[182] Ibid.

impact or is at worst is detrimental. This theory places people, particularly, rural people at the centre.[183] According to the sustainable livelihood approach, development activity should be:

a) People-centred;
b) Responsive and participatory;
c) Multi-level;
d) Conducted in partnership
e) Sustainable;
f) Dynamic;
g) Committed to poverty eradication.

In the context of natural disasters, the sustainable livelihood approach seeks to provide answers to the following questions:

i. Where were the affected communities located?
ii. Which households were affected (how many and to what extent)?
iii. What were the damages and losses suffered by the households with regard to their assets?
iv. How were the income-earning activities affected?
v. What would it take to restore/capacitate a household back to make a living?
vi. What assistance is required to build resilience and reduce future risk?
vii. What will it take to make the affected households' livelihoods sustainable?

The sustainable livelihood approach is relevant to this study because it helped in understanding the livelihood situation of Tokwe-Mukosi people before the occurrence of the flood disaster. It also aided the researcher to explore the different forms of capital that strengthened the livelihoods of Tokwe-Mukosi flood victims prior to the disaster, including human, social, natural, physical and financial. Using the sustainable livelihood approach therefore, assisted in the examination of how these forms of capital were disrupted by the flood disaster. The same framework enabled the study to ascertain the number of households that were affected by the disaster and the extent to which their livelihoods were affected.

However, despite its aforementioned strengths, the sustainable livelihood approach does not seek to establish different factors that trigger or worsen the susceptibility of

[183] F. Eyhorn *et al*, *Organic Farming for Sustainable Livelihoods in Developing Countries? The Case of Cotton in India*, (Zürich, vdf Hochschulverlag AG, 2007).

communities to future disasters. As Serrat rightly puts across, the sustainable livelihood approach underplays the elements of the vulnerability context, such as micro-economic trends and the political environments of societies.[184] Moreover, the sustainable livelihood approach does not give direct or sufficient attention to the role of power and power relations in shaping rural livelihoods.[185] This is an important consideration as the issue of power relations is central to the present study and therefore cannot be left out or ignored. In order to curb these limitations, the study also employed the social vulnerability framework. The social vulnerability framework is explained in some detail in the following section.

2.4.2 Social vulnerability framework

In conjunction with sustainable livelihood approach, the study also adopts the social vulnerability framework. This framework looks at the causes of vulnerability to disasters. The concept of 'social vulnerability' found its way into disaster literature in the 1970s and 1980s.[186] Following a statement by US geographer Gilbert Fowler White that floods are 'Acts of God' but flood losses are largely acts of men, hazard researchers started to challenge the 'natural' quality of some so-called 'natural disasters'.[187] For most of the twentieth century, disaster management focused on the physical world, emphasising infrastructure and technology.[188] Thus, the concept of social vulnerability came into use within the disaster management context in the 1970s when researchers recognised that vulnerability also includes socio-economic and political factors that affect community resilience.[189] Both of these factors usually affect marginalised groups of people within societies and nations.

The social vulnerability framework to disasters is adopted as a theoretical framework that considers a broad range of social, economic and political factors that shape disasters.[190] It is based on the argument that natural disasters affect everyone although not everyone will

[184] O. Serrat, *Knowledge solutions: Tools, methods and approaches to drive development forward and enhance its effects*, (Mandaluyonga, Asian Development Bank, 2010).
[185] J. F. Eder, 'The role of gender in the reduction of fishing in the Coastal Philippines' in M. Cruz-Torres and P. McElwee (eds), *Gender and Sustainability: Lessons from Asia and Latin America*, (Tucson, University of Arizona Press, 2012).
[186] Crisis and Risk Network Report, Factsheet Social Vulnerability to Disasters, November 2010.
[187] Ibid.
[188] B. E. Flanagan *et al*, 'A Social Vulnerable Index for Management' in *Journal of Homlant security and energy management*, (Vol 8, No. 1. 2011).
[189] Ibid.
[190] M.D. Masud-All-Kamal, 'Livelihood Coping and Recovery from Disaster: The Case of Coastal Bangladesh' in *Current Research Journal of Social Sciences* (Vol 5, No. 1, 2013).

experience the devastating event in the same way.[191] People experience disasters in different ways. It draws on the ideas from the sustainable livelihood framework, especially looking at the assets of vulnerable people and their linkages with institutions, policies and processes.[192] Just like the sustainable livelihood approach, the core of the social vulnerability framework is people and their livelihoods.[193] The concept of vulnerability is therefore crucial in understanding why a hazard becomes a disaster and for whom.[194] The framework states that in order to understand the underlying reasons why people are vulnerable, there is need to look beyond the immediate threat or hazard and examine the pre-disaster physical, social and political environment in which a person or group lives.[195] While traditional disaster response considers disasters and vulnerability separately, recent research perceives disaster as the interaction between hazards and people's vulnerability, hence 'social vulnerability.'[196] This has been captured in Bradshaw's popular equation:

$$R = H \times V$$

Where **R** is risk of a disaster, **H** is hazard and **V** is vulnerability.[197] Cannon also buttresses this argument by claiming that an extreme climatic event is not a disaster until a vulnerable group of people is exposed.[198] This means that disasters are a complex interaction of two opposing forces namely natural hazards and a vulnerable society.[199] The social vulnerability framework states that natural events are not equally distributed in a given locality; instead, societal factors determine which groups are more vulnerable to these events.[200] As such, a person's vulnerability is determined by the interaction of natural events and social, economic and political factors.[201] However, this approach does not deny the significance of natural hazards

[191] G. Dolan and D. Messen, 'Social Vulnerability: An emergency manager's planning tool' in *Journal of Emergency Management*, (Vol 10, No. 3, 2012).

[192] Ibid.
[193] Ibid.
[194] M.D. Masud-All-Kamal, 'Livelihood Coping and Recovery from Disaster: The Case of Coastal Bangladesh' in *Current Research Journal of Social Sciences* (Vol 5, No. 1, 2013).
[195] G. Dolan and D. Messen, 'Social Vulnerability: An emergency manager's planning tool' in *Journal of Emergency Management*, (Vol 10, No. 3, 2012).
[196] M.D. Masud-All-Kamal, 'Livelihood Coping and Recovery from Disaster: The Case of Coastal Bangladesh' in *Current Research Journal of Social Sciences* (Vol 5, No. 1, 2013).
[197] S. Bradshaw, *Gender, development and disasters*, (Cheltenham, Edward Elgar Publishing, 2013).
[198] T. Cannon, 'Vulnerability analysis and disasters' in D.J. Parker, (ed) *Floods*, (London, Routledge, 2000).
[199] P. T. Blaikie, *et al*, *At risk: Natural disasters, people's vulnerability and disasters,* (New York, Routledge, 2012).
[200] D. Lonesco, *The Atlas of Environmental Migration*, (New York, Taylor and Francis, 2016).
[201] M.D. Masud-All-Kamal, 'Livelihood Coping and Recovery from Disaster: The Case of Coastal Bangladesh' in *Current Research Journal of Social Sciences* (Vol 5, No. 1, 2013).

as trigger events, but puts the main emphasis on the various ways in which societal systems operate to generate disasters by making people vulnerable.

Social vulnerability, according to this approach, depends on how society treats or responds to its members or groups in terms of accesses to resources.[202] The concept of social vulnerability expresses the multi-dimensionality of disasters by focusing attention on the totality of relationships in a given social situation which constitute a condition that in combination with environmental forces produces a disaster.[203] Examples of social vulnerability include power relations that exclude certain groups or individuals from benefiting from disaster risk reduction or post-disaster recovery efforts.[204] As such, power relationships manifest themselves between individuals or socio-economic groups, within institutional frameworks or culturally determined dialogues about stressors.[205] Within the context of power relationships, power imbalances expose the powerless individuals or communities to natural disasters.

Political factors that can lead to vulnerability of people to disasters largely stem from dictatorial regimes that lack democracy and democratic processes of handling disasters. The existence of democratic institutions, as noted by Ward and Shively, provides transparency in government operations, a free and open discussion of policies and governmental actions without fear of threats and intimidation, an uncensored transmission of information and ideas though the media, and an electoral process which provides incentives for those in power to do all they can to reduce the suffering of their constituents.[206] These incentives are not present in authoritarian governments where the rulers wield unchallenged power over decision making and implementation of policies. Political and social institutions such as democracy can therefore be powerful factors influencing both the pre- and post-shock responses to natural disaster events.[207] For that reason, it is vital to trace the history of any disaster so as to unravel the political and social context surrounding that calamity.

I found Social vulnerability framework to be of much relevance to my study because it informed my exploration of the social, economic and political background of the Tokwe-

[202] D. Lonesco, *The Atlas of Environmental Migration*, (New York, Taylor and Francis, 2016).
[203] A. Oliver-Smith, 'Theorising vulnerability in a globalised world: A political ecological perspective' in G. Bankoff and G. Frerks (eds), *Mapping Vulnerability: Disasters, Development and People*, (New York, Routledge, 2013).
[204] K. Warner, Perspectives on Social Vulnerability: Selected papers from the first summer academy on social vulnerability, 22-28 July 2006.
[205] Ibid.
[206] P. Ward, and G. Shively, 'Vulnerability, income growth and climate change' in *World Development,* (Vol 40, No. 5, 2011).
[207] Ibid.

Mukosi flood victims prior to the flood disaster. I was, therefore, able to examine how social vulnerability interacted with the flood hazard to cause a humanitarian disaster. The same framework also assisted me to examine how political and economic powerlessness left the Tokwe-Mukosi community exposed to the flood and hindered their recovery in the aftermath of the disaster.

2.4.2.1 The five Ws of social vulnerability

According to Warner, social vulnerability framework assesses the vulnerability of people using five questions of: what, who, where, when, and why, which are explained as follows:

a) What is social vulnerability?

Social vulnerability to disasters refers to the inability of people, organisations and societies to withstand adverse effects from multiple stressors to which they are exposed.[208] These impacts are due, in part, to characteristics inherent in social interactions, institutions and systems of cultural values.[209]

b) Who is most affected by social vulnerability?

After providing the definition of social vulnerability, the framework further looks into the groups of people which are susceptible to social vulnerability. It states that marginalised groups such as the poor, women, children and elderly tend to be the most affected by shocks like natural disasters.[210] However, in this study I focus on politically marginalised communities as another group of people who suffer from social vulnerability.

c) Where is social vulnerability the biggest problem?

Social vulnerability is found pervasively and more extremely in developing countries.[211] However, this generalisation flies in the face of evidence on the ground because even in developed countries, social vulnerability also exists. For example, during the occurrence of Hurricane Katrina in New Orleans, despite the fact that Mayoy Ray Nagin had ordered a mandatory evacuation of the city prior to the disaster, there were insufficient provisions to

[208] K. Warner, Perspectives on Social Vulnerability: Selected papers from the first summer academy on social vulnerability, 22-28 July 2006.
[209] Ibid.
[210] Ibid.
[211] Ibid.

evacuate the homeless, the poor, the elderly, the infirm and those who did not have cars.[212] Hence, social vulnerability is a worldwide phenomenon.

d) When is social vulnerability most apparent?

According to this approach, social vulnerability is most apparent in the immediate work of disasters and other shocks where unequal patterns of suffering and recovery are often pervasive.[213] Social vulnerability can also be a pre-existing condition that affects a society's ability to prepare for and recover from a disruptive event.[214] Shocks introduce new vulnerabilities as people are exposed to stress induced by reconstruction.[215] In this thesis, I focus on both the pre-disaster and the post-disaster periods in order to analyse the extent to which the whole disaster was shaped by social vulnerability.

e) Why does social vulnerability persist?

The theory states that while individuals within a socially vulnerable context may break through the 'vicious cycle', social vulnerability itself can persist because of structural factors, that is, social and political influences that reinforce vulnerability.[216] In a time when policy directives increasingly focus on reducing aspects of vulnerability such as poverty, hunger, and diseases among others, it is critical to understand these reinforcing factors and to address systems in which social vulnerability occur.[217]

2.4.2.2 The importance of using the social vulnerability framework

The social vulnerability framework is made vital by three characteristics that enable research to contribute substantially to the understanding of how to reduce risk more effectively, and in ways that enhance efforts to reach development targets. These three characteristics include a focus on people, complex social systems and non-structural solutions.

- **Focusing on people**

The social vulnerability approach focuses on people who are at greatest risk to be negatively impacted and in greatest need to receive assistance, not only when a disaster or other shocks

[212] Crisis and Risk Network Report, Factsheet Social Vulnerability to Disasters, November 2010.
[213] Ibid.
[214] Ibid.
[215] K. Warner, Perspectives on Social Vulnerability: Selected papers from the first summer academy on social vulnerability, 22-28 July 2006.
[216] Ibid.
[217] Ibid.

occur but on an ongoing basis.[218] In addition, social vulnerability goes beyond individual risks that vulnerable people face.[219] The focus on social vulnerability considers multi-scalar phenomena examining the overall relationships of and between individuals, organisations, society and environment in order to build profound and systematic resilience to shocks.[220]

- **Complex social systems**

The social vulnerability approach enables researchers to examine the interaction and relative importance of factors within social systems that contribute to social vulnerability.

- **Considering non-structural solutions**

Social vulnerability approach recommends moving beyond structural measures or risk reduction.[221] The idea largely stems from the fact that in the past, floods and other risks were mitigated through structural measures such as construction of dams, flood walls, irrigation systems and other changes to the built environment.[222] Risk reduction was synonymous with achievements in engineering.[223] However, increasing losses worldwide suggest that structural measures alone cannot fully address vulnerability reduction.[224] According to this framework, structural failure can sometimes cause severe disasters, for example, the failure of levees in New Orleans in 2005 during Hurricane Katrina triggered massive floods which were very difficult to address because of a complexity of issues of social vulnerability that had been largely ignored.[225] Thus social vulnerability as a framework targets root causes of social inequity and aims to strengthen people's capacity to respond to and recover from disasters.[226]

The social vulnerability framework is crucial to this study because it assists in the scrutiny of social, economic and political factors that shaped the Tokwe-Mukosi flood disaster. These aspects are examined in the context of pre-disaster and post-disaster period. Using this framework, the study examines how the Tokwe-Mukosi flood victims became socially vulnerable. This is largely because social vulnerability as a framework targets root causes of

[218] Y. Nakagawa, and R. Shaw, 'Social Capital: A Missing Link to Disaster Recovery' in *International Journal of Mass Emergencies and* Disasters (Vol 22, No. 1, 2004).
[219] Ibid.
[220] K. Warner, Perspectives on Social Vulnerability: Selected papers from the first summer academy on social vulnerability, 22-28 July 2006
[221] Ibid.
[222] Ibid.
[223] Ibid.
[224] Ibid.
[225] Ibid.
[226] Ibid.

social inequality and aims to strengthen people's capacity to respond to and recover from disasters. As such, the adoption of this framework helps the research to analyse the extent to which community development was disrupted by the catastrophic flood event.

2.5 Conclusion

This chapter has reviewed literature related to this study. The literature examined is on the economic, social, and environmental impacts of floods throughout the globe. The literature reviewed shows that floods destroy people's livelihoods such as livestock, crops and agricultural land. Infrastructural damage, especially roads, bridges, rails, schools and houses is another negative consequence of floods which many researchers have examined. Moreover, several cases of displacements of people have been revealed by many scholars as another negative impact of floods. Owing to the vulnerability of women in general, the chapter has also reviewed literature on the factors that increase the susceptibility of women and girls to flood disasters. Health impacts of flood disasters such as increased incidences in diseases like malaria, typhoid and cholera have also been reviewed. More importantly, the chapter has revealed that most of the literature tends to focus on the effects of floods, leaving a gap on a further analysis of the link between power relations, flood disasters and community development.

The theoretical framework underpinning this study has also been articulated. The study is guided by the sustainable livelihood approach which in disaster situations seeks to ascertain the number of households that were affected, the location of these households, the degree of damages as well as measures that can be taken to build resilience. However, because the sustainable livelihood approach does not focus on factors that trigger the susceptibility of communities to disasters, such as power relations in societies, the study also adopted the social vulnerability framework to supplement the sustainable livelihood approach. The social vulnerability framework looks at all socio-economic and political factors that increase the susceptibility of communities to disaster as well as those factors that hinder effective disaster recovery. Since the social vulnerability framework emphasises the need to examine the pre-disaster and post-disaster physical, socioeconomic and political environment surrounding calamities, the next chapter is anchored on proving such background. This enables subsequent chapters to unpack the social vulnerability factors embedded in the Tokwe-Mukosi flood disaster.

CHAPTER THREE

HISTORICAL BACKGROUND OF TOKWE-MUKOSI DAM

3.1 Introduction

This chapter examines the history of the construction of Tokwe-Mukosi Dam, tracing it from the colonial era right into the post-colonial epoch. On the same note, the reasons behind the construction of the dam, the causes of its delayed completion and the displacements that took place prior to and after the advent of the February 2014 flood disaster are also interrogated. More importantly, the chapter scrutinizes the experiences of the villagers displaced by the flood. It focuses on the primary livelihoods, survival strategies and development experiences, that is, short, medium and long term trends that shaped the socio-economic processes in the area. This background information is important because it allows the following chapters to analyse different socio-economic and political factors that triggered or at least exacerbated the vulnerability of the Tokwe-Mukosi community to the flood disaster.

The same background also allows the study to examine the extent to which the construction of the dam in general, and the eruption of the flood in particular altered the living conditions of the flood victims as well as their community development. The overarching argument that is raised in this chapter is that, while the flooding of the dam was a natural hazard, the consequences that came with the flooding were man-made, reflecting the unpreparedness of the Zimbabwean government to deal with such disasters. This catastrophe, in many ways, epitomises the on-going political and economic crisis that had afflicted Zimbabwe since the decade of the 1990s to this date.

3.2 History of Tokwe-Mukosi Dam construction

Every development project has a unique history that is a product of predictable or unpredictable events.[227] Tokwe-Mukosi dam is one such project, with a long history which is imbedded in a myriad of complex circumstances. The dam is located on the confluence of Tugwi and Mukosi Rivers in the southern border of Masvingo and Chivi Districts of Masvingo Province.[228] It is a concrete-faced rock-filled dam which has a height of 89.2m and the depth of water is 82.7m

[227] R. W. Stoffle, and D. L. Rasch, *Carribean Fishermen farmers: A social assessment of Smithsonian king crab mariculture*, (Michigan, University of Michigan 1986).
[228] Ministry of Water Resources Development and Management: Tokwe-Mukosi Dam Project Summary Report (10 May 2013).

when full.[229] The dam has a surface area of 9 640 ha, a catchment area of 7 120 km and a capacity of 1 802 600 mega-litres (ML), making it the largest inland dam to be ever constructed in Zimbabwe.[230] According to the International Commission on Large Dams (ICOLD), large dams have a height of 15 meters and above, [231] hence, based on that classification, Tokwe-Mukosi is a large dam.

Although the actual construction commenced in February 1998, the dam was planned during the colonial era by the colonial government.[232] According to Hulme, the Southern Rhodesian government planned to build a massive dam on the Tugwi River in a deep narrow gorge just below the confluence of the *Makorsi* (Mukosi) and *Tugwi* (Tokwe) rivers.[233] The site of the dam was identified by J. M. Parton, the Provincial Engineer in the Ministry of Water Development who was based in Fort Victoria (present day Masvingo) in 1962.[234] As a result, in August 1964, the tender board authorised the Ministry of Water Development to approach engineers Coyne and Bellier, the top specialists in the field of arch dam design in colonial Zimbabwe to carry out special trial load computer studies and model tests on preliminary dam shapes so as to determine how the dam could be possibly constructed.[235] A preliminary project report on the Tokwe-Mukosi scheme was prepared by the Ministry of Water Development in January 1965 and Coyne and Bellier were again commissioned to study the design of the dam together with a proposal for an associated electricity generating station. The final report was issued in September 1967.[236] In 1968, a thorough series of tests were carried out on rock samples from the site, under the auspices and direction of Coyne and Bellier.[237] This was to determine processes and materials that could be needed for the construction of the dam before real construction commenced.

While the initial decision to construct the dam was made in 1964 after realising the need for hydro-electric power and irrigation water in southern Lowveld of Zimbabwe, its actual

[229] Mukosi Dam (Site No. ETI/20) Design Report 1992
[230] Ministry of Water Resources Development and Management:Tokwe-Mukosi Dam Project Report, 10 May 2013.
[231] International Commission on Large Dams.
[232]Mukosi Dam (Site No. ETI/20) Design Report, Department of Water Development, October 1992).
[233] G. Hulme, *While YOU'RE BUSY making other plans: Memories of the Save Valley of Zimbabwe,* (Hampshire, Dungbeetle Press, 2015).
'Makorsi' and 'Tokwe' are other names for 'Mukosi' and 'Tugwi' and this is where the name Tokwe-Mukosi is derived from.
[234] The Government of Rhodesia, Preliminary project report on the engineering work for Tokwe-Mukosi Scheme. Compiled by: The Ministry of Water Development,1965.
[235] Ibid.
[236] Mukosi Dam (Site No ETI/20) Design Report, Department of Water Development October 1992.
[237] Ibid.

construction faced a plethora of impediments. The commencement of the construction process was initially disturbed by Zimbabwe's war of liberation which intensified from 1966-1979.[238] As a consequence, Coyne and Bellier's efforts were put on halt in 1967 and only resumed after the war. This is largely because wars have negative repercussion on all economic activities and large scale projects are often not spared.

When Zimbabwe attained independence in 1980, the newly elected government proceeded with the construction of the Tokwe-Mukosi Dam. In 1985, Coyne and Bellier were re-assigned by the post-colonial government to carry out various studies for the ministry. Amongst the tasks carried out was a review of the preliminary design and an up-dating of the cost,[239] for construction of the dam given that a long time had now elapsed before commencement. In 1989, due to renewed interests in the scheme, the two engineers undertook a new design study of the dam and the design report was issued in January 1990. To this new design was added a fresh concept of a non-spilling concrete arch dam, with two drop-inlet spillways.[240] The shape of the arch then proposed was not entirely satisfactory and although the design was used for preliminary cost estimate, it was recommended that a more sophisticated stress analysis be undertaken and Coyne and Bellier were commissioned once again to prepare a feasibility study report on the project. This incorporated the design of an arch dam, the irrigation works and a study of a hydro-electric power station to be associated with it.[241] In their last design of 1992 for Coyne and Bellier designed a proposal of concrete arch dam with crest overflow and the aim was to mitigate the damaging effect of spilling water falling on the downstream foundations.[242]

The actual construction started in 1998 and the main contractor for Tokwe-Mukosi Dam was Salin-Impregilo Joint Venture, a consortium of two major Italian companies.[17] Thus, it took 18 years for the post-colonial Zimbabwean government to commence the construction and shortage of funds has been cited as the major reason behind this delay.[243] However, there are high chances that the resumption of Tokwe-Mukosi Dam construction in 1998 was a

[238] Ministry of Water Resources Development and Management: Tokwe-Mukosi Dam Project Report, 10 May 2013.
The Second Chimurenga war was fought between the white minority regime of Ian Smith's Rhodesian Front, and The Zimbabwe African National Union (ZANU) led by Robert Mugabe and the Zimbabwe African People's Union (ZAPU) led by Joshua Nkomo.
[239] Mukosi Dam (Site No ETI/20) Design Report, Department of Water Development October 1992.
[240] Ibid.
[241] Ibid.
[242] Ibid.
[243] Water Resources Development and Management: Tokwe-Mukosi Dam Project Summery Report, (10 May 2013.)

strategy by the ruling party to regain its waning popularity in Masvingo, as was happening throughout the whole country because that was the era when the economy of Zimbabwe was heading towards a major crisis, which was exerting even more pressure on the ruling party to remain relevant.

Due to economic constraints, the construction of the Tokwe-Mukosi Dam went through a start-stop-start-stop process for many years, that is, from February 1998 to April 1999, from 2001 to 2005 and from May 2011 to December 2016.[244] When construction of the dam recommenced in May 2011, it was projected to be complete by November 2013. However, because of the economic challenges that were bedevilling the country during that period, the dam was only completed on the 9th of December 2016, and it was officially commissioned by the late former president of Zimbabwe, Robert Mugabe on the 18th of May 2017.[245] Thus, it took 18 years for the post-colonial Zimbabwean government to complete the construction of the dam, a sign that economic meltdown is a stumbling block to timely and effective execution of large scale development projects.

The economic crises that affected the timely construction and completion of the dam in post-colonial Zimbabwe have a long history which can be traced back to the late 1990s following the implementation of Economic Structural Adjustment Programme (ESAP). ESAP was adopted in 1991 and it had far-reaching negative socio-economic impact including a sharp decline in national output, retrenchments, and increase in the cost of living due to the removal of government subsidies.[246] Apart from ESAP, the other factors that triggered Zimbabwe's economic quagmire included the 1997 enormous gratuity pay-outs to veterans of the liberation struggle, the country's involvement in the 1998 DRC war, and the Fast Track Land Reform Programme (FTLRP).[247] In 1997, Robert Mugabe, the then President of Zimbabwe made an executive decision overnight to give each of 50 000 war veterans of the liberation struggle some unbudgeted Z$ 50 000 each.[248] The disbursements of these unbudgeted funds saw the Zimbabwean dollar falling by seventy-five percent within a few hours,[249] thereby worsening

[244] Ibid.
[245] Human Rights Watch, Homeless, Landless, and Destitute: The Plight of Zimbabwe's Tokwe-Mukosi Flood Victims, (February 2015). See also G. Maponga, 'Tokwe-Mukosi,dam complete' in Chronicle 19 January 2017).
[246] A. LeBas, *From Protest to Parties: Party-Building and Democratization in Africa*, (Oxford, Oxford University Press, 2013).
[247] T. Murisa, and T. Chikweche, *Beyond the Crisis: Zimbabwe's prospects for transformation*, (Harare, Weaver Press, 2015).
[248] A. Noel, *My head held up High*, (Bloomington, Xlibris, 2014).

[249] R. G. Masiiwa, *On the public role of the Bible in Zimbabwe: Unpacking Banana's "re-writing" call for a socially and contextually relevant Biblical Studies*, (Bamberg, University of Bamberg Press, 2015).

the economic crises in the country. The involvement of Zimbabwe in the DRC war exacerbated the economic crisis because the country was spending an estimated US$33 million per month,[250] thus, a further blow on an already weakened economy. All these expenditures in an economic crisis-ridden Zimbabwe contributed in the delay of the completion of the dam because funds were diverted to less critical areas. The FTLRP in which the government of Zimbabwe took over land from white farmers attracted a lot of criticisms from human rights activists due to the brutal manner in which it was conducted.[251] This further crippled the economy in general and agricultural sector in particular. All these factors coupled with disrespect for property and human rights, absence of the Rule of Law and deficiencies in governance and democratisation worsened the relationship between Zimbabwe and its international development partners to a degree that further collapsed the economy.[252] These human rights violations saw Mugabe losing ties with Western countries, implying that it was also difficult for him to get financial assistance to fund the various socio-economic development projects, Tokwe-Mukosi dam included.

3.3 Motive behind the construction of Tokwe-Mukosi Dam

All infrastructural development projects are built for a purpose or for specific reasons.[253] According to McCartney, the major purpose of large dam construction is to fulfil a variety of human needs, the most important of which are providing water for irrigation, water supply to cities, generating hydro-electric power, improving navigation, flood control, recreation and tourism.[254] These reasons are in tandem with the motive behind the construction of Tokwe-Mukosi Dam. The Rhodesian government's major aim in wanting to construct the Tokwe-Mukosi Dam was to provide water for irrigation purposes, particularly the commercial sugar

[250] R. Kamidza, *From Antagonism to Re-engagement: Zimbabwe's Trade Negotiations with the European Union, 2000-2016*, (Bamenda, Langaa RPCIG, 2017).
[251] E. Tofa, 'The Bible and the quest for democracy and democratisation in Africa: The Zimbabwe experience' in Masiiwa, R. G. and Joachim, K. (eds) *The Bible and politics in Africa*, (Bamberg, University of Bamberg Press, 2012).
[252] R. Kamidza, *From Antagonism to Re-engagement: Zimbabwe's Trade Negotiations with the European Union, 2000-2016*, (Bamenda, Langaa RPCIG, 2017).
[253] M. J. Tumbare, *The management of the Zambezi River Basin and the Kariba Dam,* (Lusaka, African Books Collective, 2010).
[254] M. P. McCartney, Decision Support systems for large dam planning and operation, International Water Management Institute, 2007. Also see P. Wangu *et al*, *The large dam dilemma: An exploration of the impact of Hydro Projects on people and the environment in China* (New York, Springer, 2014); J. A. Dixon *et al*, *Dams and the environment: Considerations in the World Bank projects* (Washington D. C, The World Bank, 1989); and T. Scudder, *The future of large Dams: Dealing with Social, Environmental, Institutional and Political costs*, (London, Earthscan, 2005).

planters around the vicinity.[255] Although there were other reservoirs in the surrounding area such as Kyle and Bangala dams, as well as Esquilingwe Weir, they did not serve the area around Tokwe-Mukosi Dam. Instead, these catered for the existing Hippo Valley and Triangle Sugar Estates located south of Tokwe-Mukosi Dam.

Apart from that, the colonial government perceived water from the Tokwe River as well as the land surrounding the Tokwe-Mukosi as largely under-utilized and it was for this reason that it decided to construct the dam.[256] Tokwe River was considered as having a good annual runoff but was unexploited, hence the dam was meant to enable the implementation of a large area of irrigation with the consequential benefits of increased employment and additional agricultural production both for the export market and for local consumption and assorted agro-based industries.[257] Further, the dam was meant to provide water for more than twenty-five thousand hectares of land in the Lowveld areas such as Triangle, Hippo Valley, Chiredzi which were dominated by sugar plantations.[258] It was also thought that water from Tokwe- Mukosi would be directed to surrounding areas like Rutenga, about 80 kilometres south of the dam to the needs of small, medium and large scale farmers as well as resettled communal/peasant farmers.[259] Masvingo province is relatively dry, with average annual rainfall ranging from around 1000mm to under 300mm.[260] As such, the construction of this dam was tailor-made to benefit the aforementioned areas which receive low rainfall.

Similarly, in the post-colonial era, when the newly elected government decided to proceed with the project, it cited irrigation promotion as one of the major reasons behind the construction of the dam.[261] The dam was meant to enhance agricultural production in the region through irrigation and mechanised farming.[262] Irrigation plays an important role in improving agricultural production especially in arid areas. According to Narasaiah, half of the world's

[255] Mukosi Dam (Site No. ETI/20) Design Report, Department of Water Development, (October 1992).
The 'Rhodesian government' was the white government that ruled Zimbabwe before the country's attainment of Independence in 1980. The name 'Rhodesian' was derived from Cecil John Rhodes who masterminded the colonisation of Zimbabwe and many Southern African countries. Hence Zimbabwe was called Southern Rhodesia whilst Zambia was called Northern Rhodesia.
[256] Mukosi Dam (Site No. ETI/20) Design Report, Department of Water Development, (October 1992).
[257] Ibid.
[258] Ibid.
[259] Ibid.
[260] Scoones, I. *et al* 'Zimbabwe's land reform: Challenging the Myths' in Cliffe, L. *et al* (eds) *Outcomes of post-2000 Fast Track Land Reform in Zimbabwe,* (New York, Routledge, 2014).
[261] Mukosi Dam (Site No. ETI/20) Design Report, Department of Water Development, (October 1992).
[262] Ministry of Water Resources Development and Management: Tokwe-Mukosi Dam Project Summary Report, (10 May 2013).

large dams were built exclusively or primarily for irrigation and an estimated thirty to forty percent of the 271 million hectares of irrigated lands worldwide rely on dams.[263] The fact that Zimbabwe and many other African countries are agro-based economies entails that robust commercial agriculture cannot be realised if not complemented by irrigation. What also makes dam construction imperative is climate variability which is affecting many parts of the world. In this regard, sub-Saharan Africa is often affected by recurrent droughts and this implies that it is now difficult for commercial farmers to rely on rain-fed agriculture, hence the motive for constructing dams for irrigation purposes. The World Commission on Dams states that governments in semi-arid countries have tended to construct dams with large storage facilities to match water demand with stored water supply and for security against the risk of droughts.[264] Due to the critical role these large dams play, these dams are estimated to contribute to twelve to sixteen percent of world food production.[265] However, often the construction of these large dams do not benefit the local communities as they are often evicted from their homes without restitution.

In addition to irrigation purposes, Tokwe-Mukosi Dam was also constructed to generate hydroelectricity for sugar estates farmers in the Lowveld areas of Chiredzi and Triangle.[266] It should be noted that whilst many nations are embracing other forms of energy supply, the use of hydropower is still pervasive in many countries. According to Narasaiah, hydropower provides nineteen percent of the world's total electricity supply and is used in over 150 countries.[267] Zimbabwe, therefore, falls in the bloc of countries that are still relying extensively on hydropower.

Besides irrigation and hydropower supply, other reasons for the construction of the Tokwe-Mukosi dam include tourism enterprises such as hotels, lodges and restaurants as well as recreational activities like boating, rowing, fishing and canoeing.[268] Therefore, capitalist development can be argued to be part of the reason for the construction of the dam. Large dams thus present major investments and in some cases may be the largest single investment in the

[263] M. L. Narasaiah, *Irrigation and Economic growth,* (New Delhi, Discovery Publishing House, 2007).
[264] World Commission on Dams, *Dams and Development: A new Framework for decision making*, (New York, Routledge, 2016).
[265] M. L. Narasaiah, *Agriculture and water,* (New Delhi, Discovery Publishing House, 2007).
[266] Ministry of Water Resources Development and Management: Tokwe-Mukosi Dam Project Summary Report, (10 May 2013).
[267] M. L. Narasaiah, *Microcredit and agricultural development,* (New Delhi, Discovery Publishing House, 2007).
[268] Ministry of Water Resources Development and Management: Tokwe-Mukosi Dam Project Summary Report, (10 May 2013).

country.[269] Hence, large dams are a symbol of civilisation to many countries especially the developing world. However, as already highlighted, such infrastructure development sometimes come with detrimental effects on local communities. The following section discusses in detail the ambiguities surrounding the construction of Tokwe-Mukosi dam and other related projects.

3.4 The ambiguities of Tokwe-Mukosi Dam

Although the construction of large dams can be justified economically and politically, there is an abundance of issues which need to be considered as these are often overlooked by those in favour of dams (including governments, construction companies and engineering firms). While large dam construction can be celebrated at national level, at a local level it may bring undesired consequences. One of the major consequences of large dams is that they are particularly infamous for displacing massive numbers of people.[270] By way of illustration, Kariba Dam which was constructed between 1956 and 1959 displaced 57 000 Tonga and Korekore people who lived along either side of the Zambezi River in Zimbabwe, Zambia and Mozambique.[271] Similarly, the Cahora Bassa Dam in Mozambique cost so many rural families their livelihoods, land and homes.[272] Just like the above-mentioned reservoirs, the construction of Tokwe-Mukosi Dam led to the displacement of over 20 000 people. Between 2012 and 2013, the government of Zimbabwe displaced 712 families from the vicinity of the dam to pave way for the construction of the dam. These families were resettled in Masangula, Chisase and Chingwizi areas of Nuanetsi Ranch in Mwenezi District.[273] The families were compensated with four hectares of land per family for building dwellings and planting crops under dryland

[269] World Commission on Dams, *Dams and Development: A new Framework for decision making*, (New York, Earth Scan, 2016).
[270] A. Sidiqov, 'From resettlement to conflict: Development-Induced displacement and violence in Tajikistan' in J. Heathershaw and E. Herzig, (eds) *The transformation of Tajikstan: The sources of statehood*, (New York, Routledge, 2013). See also J. McGregor, *Crossing the Zambezi: The Politics of Landscape on a Central African Frontier*, (Harare, Weaver Press, 2009); D.M. Hughes, 'Whites and Water: How Euro-Africans Made Nature at Kariba Dam' in *Journal of Southern African Studies*, (Vol 32, No. 4, 2006); J. Tischler, *Light and Power for a Multiracial Nation: The Kariba Dam Scheme in the Central African Federation*, (New York, Palgrave McMillan, 2013); M. M Cernea, For a new economics of resettlement: A sociological critique of the compensation principle, *International Social Science Journal*, (Vol 55, No. 17, 2003); and K.K. Usha *et al*, *Independent People's Tribunal on Dams, Environment and Displacement, Social, Legal and Information Centre*, (New Delhi, Human Rights Law Network, 2012).
[271] M. J. Tumbare, *The Management of the Zambezi River Basin and Kariba Dam*, (Lusaka, African Books Collective, 2010).
[272] A.F. Isaacman and B. S. Isaacman, *Dams, Displacement and Delusion of Development: Cahora Basa and its Legacies in Mozambique*, (Athens, Ohio University Press, 2013).
[273] Human Rights Watch, Homeless, Landless, and Destitute: The Plight of Zimbabwe's Tokwe-Mukosi Flood Victims, (February 2015).

farming conditions, regardless of the fact that in 2011, the government had promised that each displaced family would receive a seventeen-hectare plot of land and that each household would be compensated based solely on property evaluation.[274] What is crucial to note here is the fact that the 712 families that were displaced between 2012 and 2013 were not the original targeted number as the government had initially planned to displace a total of 6,393 families during the same period.[275] The major reason that was cited for the failure by the government to relocate all these families was lack of adequate funds to compensate the affected families.[276] This was after some families resisted relocation before compensation. These families, together with many others were part of the 20 000 people who were later affected by the February 2014 flood, leading to their subsequent [forced] displacement.[277] The excuse of the scarcity of funds to compensate the families is somewhat unconvincing given the history of the Zimbabwean government's misplaced priorities discussed earlier in this chapter.

Given the aforementioned circumstances, the "natural disaster" narrative put forward by the Zimbabwean government becomes controversial. The flooding of the dam can be taken as an event that came as an opportune moment for the government of Zimbabwe to evade paying out compensation for the local populace that was awaiting displacement compensation. This reflects the power imbalances between the state and the flood victims. While authorities, including the then Minister of Environment, Water and Climate, Saviour Kasukuwere and Masvingo Provincial Affairs Minister, Kudakwashe Bhasikiti, maintained that the flood was a natural disaster resulting from climate change which resulted in a highest record of rainfall in the country,[278] some people and organisations had a different perspective. Many people including flood victims, dam project workers and an engineer familiar with the construction of Tokwe-Mukosi dam contend that the flood could have been prevented through letting out water downstream of the dam through water regulation tunnels in the dam wall.[279] The engineer of the Tokwe-Mukosi dam stated that since the dam was still under construction, the decision to keep water in the dam was supposed to be taken only after people living in the dam basin had

[274] Interview with an official from Masvingo Provincial Administrator (name withheld to maintain anonymity), Masvingo, 3 February 2017. See also Human Rights Watch, Homeless, Landless, and Destitute: The Plight of Zimbabwe's Tokwe-Mukosi Flood Victims, (February 2015).
[275] Interview with an official from Masvingo Provincial Administrator (name withheld to maintain anonymity), Masvingo, 3 February 2017.
[276] Ibid.
[277] Ibid.
[278] Human Rights Watch, Homeless, Landless, and Destitute: The Plight of Zimbabwe's Tokwe-Mukosi Flood Victims, (February 2015).
[279] Ibid.

been safely relocated.[280] According to the Human Rights Watch, one man, a victim of the flood disaster asserted that:

> When armed soldiers came to evict us at the end of January 2014, we pleaded with them to open the tunnels in the dam wall and allow water to flow downstream of the dam but they refused. The leader of the soldiers who addressed us said, "President Mugabe directed that this dam should be constructed so that it contains water in it, and you ask us to let the water out? No. It is time for you to leave now. You will receive your compensation later, when [the] government gets the money.[281]

Some of the victims also stated that the soldiers told them that the government did not have funds to compensate them but that was not going to stop the evictions.[282] The use of soldiers to forcibly evict the villagers without compensation signifies the power inequality between the government and the masses. This strongly suggests that the government of Zimbabwe could have capitalised on the 2013/2014 heavy rains to induce the flood so as to evict people who had been resisting evictions without compensation. As Paul asserts, natural disasters are never hundred percent natural.[283] For Paul, by choosing an optimal level of disaster prevention and mitigation including preparedness, governments are able to lessen the impact of natural disasters on human beings.[284] However, in the case of Zimbabwe, what the government did was contrary to what Paul asserts. During interviews with the flood victims, some claimed that the flood was strategically induced by the government to forcibly displace them from their ancestors' lands without compensation.[285] A 45-year-old man who was among the families affected by the flood said:

> When the flood took place, we were waiting for the disbursement of our compensation since we had told the government that we were not going to relocate before we were given compensation. However, the government in a bid to avoid giving us our compensation took advantage of the heavy rains and blocked the tunnels on the downstream of the dam which resulted in the flood. We were therefore left without any option except to vacate as we were now risking our lives.[286]

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[280] Ibid.
[281] Ibid.
[282] Separate interviews with Mr Choto and Mr Tizirayi (not their real names), Chingwizi Resettlement Area, 3 February 2017.
[283] B. K. Paul, *Environmental Hazards and Disasters: Contexts, perspectives and management*, (Sussex, Black well, 2011).
[284] Ibid.
[285] Separate interviews in Chingwizi Resettlement area with Mr Kachena (not his real name), 2 February 2017; Mrs Chirwenga (not her real name), 2 February 2017; and Mr Mutsikiwa (not his real name), 3 February 2017.
[286] Interview with, Samaita (not his real name), Chingwizi resettlement area, 3 February 2017.

Forced displacement, inadequate compensation and power imbalances are, therefore, connected. Inadequate compensation has been cited by many scholars as one of the major challenges faced by development-induced displaced persons. Many people across the globe who were displaced to pave way for large dam constructions received no/inadequate compensation. For example, when Tucurui Dam in Brazil was constructed, 30 000 people were relocated and the Brazilian government and the administering agency, ELETRONORTE had a woefully inadequate resettlement policy that included only a minority of those located upstream from the dam and obligated many people to fend for themselves in the settlements upriver and along the Trans-Amazon Highway.[287] Even those who were included in the resettlement scheme were inadequately compensated for their losses. Likewise, the Tonga and Korekore people who were displaced when Kariba Dam was constructed did not receive compensation for the lost land and they feel embittered to this day.[288] Taking all these cases into account, it becomes clear that the construction of large dams is a double-edged sword in the sense that these large-scale infrastructure projects bring development to nations while impoverishing the local people by displacing them without full compensation.

Nevertheless, Tokwe-Mukosi Dam presents a 'worst case' in the sense that the victims suffered a double tragedy, that is, lack of compensation and the flood disaster. As McCartney notes, the contribution of large hydraulic infrastructure, particularly dams to development remains controversial.[289] For McCartney, large dam construction often fails to pay sufficient attention to the plight of the poor people adversely affected by the construction and operation of the dam.[290] Shourijeh *et al* in the same vein argue that generally, the needs are met upon the completion of the structure, yet the environmental, economic and social costs are often undervalued during the design, planning and implementation phases.[291] As such, large dams accentuate the unequal income distribution since the benefits accrued are almost exclusively in favour of the rich, whilst the poor cannot escape the poverty trap. The main beneficiaries of dams are construction companies, consulting engineers and corrupt politicians and government officials who work in tandem to promote such dams. In other words, from an economic point

[287] A. Oliver-Smith, *Define displacement: Grassroots resistance and the critique of development*, (Texas, University of Texas Press, 2010).
[288] M. J. *Tumbare, The Management of the Zambezi River Basin and Kariba Dam*, (Lusaka, African Books Collective, 2010).
[289] M. P. McCartney, *Decision Support systems for large dam planning and operation, International Water Management Institute*, 2007.
[290] Ibid.
[291] P. T. Shourijeh *et al*, Kuran River Hydropower cascade development and its socio-environmental impacts in L. Berga *et al* (eds), *Dams and Reservoirs, Societies and Environment in the 21st Century*, (New York, Tylor and Francis, 2006).

of view, large dam construction can generate high economic returns, but from a social and community perspective, such projects often perpetuate poverty especially among the grassroots communities who are vulnerable to evictions and its effects. This reflects power imbalances in the sense that the poor who cannot voice out their concerns suffer through displacement and inadequate compensation to pave way for the creation of wealth they never enjoy. As shall be discussed in the following chapters, Tokwe-Mukosi dam generated many socio-economic problems to the local villagers, leaving them in abject poverty. Such negative implications are a reflection of the social, economic and political environment of the country.

3.5 Who were the flood victims?

The villagers who were displaced by the flood were the Karanga people under the respective chieftainships of Nyajena, Shumba, Shindi, Chivi and Nemauzhe.[292] Chiefs Nyajena and Shumba are in Masvingo District, while Chiefs Nemauzhe, Shindi and Chivi are in Chivi District.[293] While these chiefs themselves were not displaced by the flood disaster because their homesteads were not in the vicinity of the dam, it is important to note that some of their people (subjects) were the ones who were displaced by the flood and resettled in Nuanetsi Ranch in Mwenezi District, Masvingo Province.[294] The displaced people were subsistence farmers whose livelihoods were largely derived from growing drought-resistant crops such as rapoko, millet and finger millet due to the semi-aridness of the area which they were residing in.[295]

However, some of these people, especially those who resided close to the two rivers practiced river-bank farming where they utilised the rich alluvial soils. Some also supplemented their livelihoods through gardening and this was largely facilitated by the perennial rivers Tokwe and Mukosi [296] Other families had small portions of sugar cane plantations in the river plains. Also, small-scale fishery activities were practised to supplement other livelihood activities. As could be seen, the proximity of these communities to the two rivers allowed them to generate income by embarking on an array of livelihood activities. This means that Tokwe and Mukosi rivers provided sustainable food security to the local

[292] Interview with an official from Masvingo Provincial Administrator (name excluded to maintain confidentiality), Masvingo, 17 March 2015.
[293] Ibid.
[294] Ministry of Water Resources Development and Management: Tokwe-Mukosi Dam Project Summery Report, (10 May 2013).
[295] Report on Nyanjena Chieftainship and Community: Nyajena Tribal Trust Land: Victoria District
[296] Interview with A. Makamba and K. Moyo (not their real names), Chingwizi Resettlement Area, 16 October 2016.

communities such that access to the rivers served as a common property resource to the local communities. In addition to these agro-based livelihood activities, these families engaged in other income-generating initiatives such as poultry projects, sewing clubs, peanut-butter processing, and cross-border trading with the aim of survival and improving their prospects of a better life.

3.6 Conclusion

This chapter has discussed the historical background of the Tokwe-Mukosi Dam. It has highlighted that the dam has a long history which dates back to the 1960s, when Zimbabwe was still under the British colonial rule. However, just like many other projects which can face some obstacles, the initial construction of the dam was impeded by Zimbabwe's war of liberation. In the post-colonial era, lack of adequate funds was one of the major stumbling blocks behind the early commencement and completion of the project. It took close to two decades for the post-independence Zimbabwean government to construct the Tokwe-Mukosi Dam. While large dams and other developmental projects are believed to be of paramount importance in boosting national development, the alterations that they pose on the local communities and their landscapes should always be given due regard by governments, project owners and constructors. These changes can be positive or negative and can impact local communities economically, socially, culturally and politically. The Tokwe-Mukosi disaster induced a flood disaster which affected and displaced more than 20 000 people living in the vicinity of the dam. These people were subsistence-farmers who also utilised the Tokwe and Mukosi rivers for different livelihood activities such as flood plain gardening and fishery. The families also engaged in other income-generating initiatives. However, the flood displaced these people to Nuanetsi Ranch in Mwenezi District where they experienced different socio-economic consequences. These ramifications are discussed in the following chapter.

CHAPTER FOUR

THE SOCIO-ECONOMIC AFTERMATH OF THE TOKWE-MUKOSI FLOOD

4.1 Introduction

Every natural disaster has social, economic, political, cultural as well as environmental implications on the affected community. This chapter explores the social and economic consequences of the Tokwe-Mukosi flood calamity. Using the sustainable livelihood approach, the chapter provides answers to the following questions: Which households were affected? What were the damages and losses suffered by the households with regard to their assets or properties? How were their income-earning activities affected? The chapter argues that the flood ruptured the social and economic wellbeing of its victims. The chapter also uses a community development perspective to examine the extent to which these socio-economic aftermaths affected community betterment and advancement.

4.2 The impact of the flood on the lives of the victims

The flood caused a wide range of negative socio-economic effects on the victims. These effects are articulated below.

4.2.1 Destruction of houses and household properties

As highlighted in the introduction, the sustainable livelihood approach which is one of the theoretical frameworks guiding this study seeks to find out the damages and losses suffered by households with regard to their assets or properties. The data collected from interviews and FGDs revealed that some houses were submerged, resulting in most of the victims losing their belongings, including household furniture. Picture 4.1 below shows one of the homesteads that were inundated by floodwater. Forty-five percent of the flood victims who were interviewed stated that they lost household properties to the flood because the rising waters gave them little time to collect their possessions. They asserted that they only managed to take with them the clothes they had on and they left behind their treasured assets such as household furniture, wheelbarrows, and ploughs. Some women who participated in a focus group discussion held at Chingwizi Transit Camp pointed out that they lost their kitchen utensils and other items such as clothes and blankets.[297] The flood victims also indicated that their few belongings that had

[297] Focus group discussion with female flood victims, Chingwizi Transit Camp, 25 May 2014.

survived the flood were damaged by the rain while they were awaiting evacuation.[298] Before the flood, victims were evacuated to Chingwizi Transit Camp, some of them had spent seven days in the open, mostly by the road side, waiting to be ferried to the camp,[299] leading to further destruction of household possessions.

Further destruction to household properties was experienced at the camp. Hardly two months after their relocation to the camp, the flood victims experienced a heavy storm which ripped off roofs and blew away tents leading to the destruction of the few belongings left after the flood that had led to their relocation in the first place.[300] It is vital to take into consideration that rural people place great value on their household possessions because they get those belongings through their hard-earned income. As such, loss of household possessions impedes community development as the affected households will need to replace their lost possessions, an act which diverts income away from productive activities.



Picture 4.1: A homestead submerged by Tokwe-Mukosi flood (Source: Chronicle, 20 January 2015)

[298] Separate interviews with Banga (not his real name), Fuve (not her real name) and Chiedza (not her real name), Chingwizi Transit Camp, 24 March 2014.
[299] Separate interviews with two male and three female flood victims (names withheld for confidentiality purposes), Chingwizi Transit Camp, 24 March 2014.
[300] Ibid.

4.2.2 Loss of livelihoods

Apart from causing destruction of homes and loss of household belongings, the flood also affected the livelihoods of the Tokwe-Mukosi community. An analysis of the impact of disasters on livelihoods is vital because livelihoods are the basis of life in any given society. This is in tandem with the other objective of the sustainable livelihood approach, that is, to assess the income-earning activities affected by a particular disaster. Some flood victims lost their crops and grains to the flood. In an interview the researcher conducted at Chingwizi Transit Camp, a 55-year-old man whose grains were washed away by the flood reported thus:

> I lost 12x50kg bags of sorghum and 5x50kg bags of groundnuts which were supposed to sustain my family for a period of about 10 months. Every time I think about all these losses, tears just roll down my cheeks because we don't have adequate food at this camp. My children are starving here.[301]

A 43-year-old widow who experienced similar loss from the same calamity reiterated that:

> The flood drowned my three-hectare field of maize. What pained me more is that the maize crop was almost ripe. I also lost grains that I had harvested the previous year because my homestead was inundated. I cannot fully believe that I have been reduced to a beggar yet before the disaster I had the capacity to sustain myself and my family.[302]

In a similar narrative, another male flood victim narrated how he desperately watched the flood as it drowned his crops when he said:

> The flood inundated my crops. It was in February and I had four hectares of maize, two hectares of sorghum, and one hectare of groundnuts. I was expecting a bumper harvest because my crops were almost ripe. However, all of my yields were drowned by the flood because my field was close to the dam. I am so depressed because right now my family is suffering from hunger and poverty yet we were expecting good harvests.[303]

What is clear from the above interviews is that the flood created a situation where homesteads were left food insecure. These responses highlight the persistent trauma that is still with the affected families. It is, therefore, evident that food insecurity aggravates poverty within households and communities, thereby hampering the effective participation of people in community development activities. Yet, as Oumou laments, household food security and nutrition are good entry points for community participation because food insecure people are usually marginalised from development activities as they often do not have the time, resources,

[301] Interview with Muzondidya (not his real name), Chingwizi Transit Camp, 24 May 2014.
[302] Interview with Maguma (not her real name), Chingwizi transit camp, 24 May 2014.
[303] Interview with Mutimwii (real name withheld), Chingwizi Transit Camp, 24 May 2014.

energy or interest to participate.[304] Some flood victims also lost their livestock to the flood. Among the people who were interviewed, twenty percent asserted that their livestock, mainly cattle and donkeys were drowned by the flood because their kraals were adjacent to the dam. Fifteen percent of the displaced families also stated that they lost their livestock during their stay at Chingwizi Transit Camp due to lack of pastures and water. Thus, loss of livestock caused serious consequences to the economic and social wellbeing of the flood victims considering the critical roles livestock play in rural communities. Livestock in rural areas provide milk, meat, manure and draught power. Domesticated animals can also be sold to provide income for the families. According to Das, in rural communities, poverty is vastly experienced with the lack of livestock.[305] Therefore the loss of livestock by the displaced villagers jeopardized community development considering the multiple benefits derived from livestock ownership. Flood impact, therefore must be understood in terms of the disruption and destruction it can cause to livelihoods.[306] This is largely because loss of livelihoods may shift people back into poverty or worsen their existing poverty.

The research findings also revealed that apart from losing their crops, grains and livestock, the flood also affected different income generating projects that used to cushion the Tokwe-Mukosi villagers before the disaster. One woman, a widow revealed that she was pained by the loss of all the groceries and wares which belonged to her cooperative. She asserted that:

> We were a group of ten women and we had our cooperative called *Musha Mukadzi*. We formed this cooperative in 2003 with the aim of empowering ourselves as women. As a cooperative, we could contribute money and buy different things such as groceries or other wares as a group and sell the merchandises to members of our community. All the commodities were stored at my homestead because I was the treasurer of the cooperative. However, all the wares were drowned by the flood and that marked the death of our cooperative. When we were displaced by the flood, it became difficult for us to reunite. Besides, we do not have the money to resume the cooperative.[307]

The above extract shows that the flood disaster swept away people's hard-earned savings, thereby thwarting the growth of their community development initiatives.

Another woman whose gardening project had also been affected by the disaster said:

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[304] K. L. Oumou, 'Perspectives on food security and livelihoods' in S. Mainka, and M. Trivedi, (eds) *Links between biodiversity, conservation, livelihoods, and food security: The sustainable use wild species for meat*, (Gland and Cambridge, IUCN, 2002).
[305] R. Das, *Poverty and Hunger: Causes and Consequences*, (New Delhi, Sarup and Sons, 2006).
[306] Blaikie, P. *et al*, At Risk: Natural Hazards, People's Vulnerability and Disasters, (New York, Routledge, 2012).
[307] Interview with Mrs Chikuni (not her real name), Chingwizi Transit Camp, 24 May 2014.

> Before the flood disaster affected us, we had a flourishing gardening project in our village where we were harnessing the waters from the perennial Tokwe River to grow different types of vegetables such as onions, carrots and tomatoes for sale and for home consumption. We could also grow legumes like sugar beans. We started relying on this project in the late 1990s when we were using trees branches for fencing. We later on received assistance from Care International in the form of security fencing. The project was disrupted by the flood as well as our subsequent displacement. Here we don't have such projects and we have been deprived of income.[308]

The disruption of community projects has negative implications on the development of communities given the limited availability of employment opportunities in rural areas. As Tandi and Mawere argue, community gardens in Zimbabwe are crucial because these gardens have the potential to alleviate poverty and other hardships.[309] Community gardens are part of self-help projects for community development and they are an important means by which people are able to support their families and reduce their vulnerability to poverty.[310] Through community gardens, families can get income to send their children to school as well as meeting their basic health needs, which ultimately enhance the development of communities.[311] These projects are vital especially in countries like Zimbabwe where social safety nets are often non-existent. When these projects are affected by adverse events like disasters, they impoverish individuals, families and communities.

4.2.3 Shortage of land after evacuation

Farming is an integral dimension of rural livelihoods and it plays a pivotal role in rural community development. Another challenge faced by the victims of the Tokwe-Mukosi flood was inadequate land to practice agriculture. A focus group discussion comprised of both male and female food victims revealed that the displaced families stayed for seven months at the transit camp before proper settlement plans were made and implemented.[312] When they were finally resettled, they were allocated one-hectare plots per family which were inadequate to meet their dietary needs.[313] More than eighty percent of the flood victims who were interviewed indicated that the one-hectare plots were too small for them to perform any sustainable

[308] Interview with Tazviziva (real name withheld), Chingwizi Transit Camp, 24 May 2014.
[309] C. Tandi and M. Mawere, 'Community engagement for development and poverty alleviation' The Political Economy of Poverty alleviation in rural Zimbabwe: A case study of Chikunguwo community gardening in Bikita' in M. Mawere, (ed) *The Political Economy of Poverty, Vulnerability and Disaster Risk Management: Building Bridges of Resilience, Entrepreneurship and development in Africa's 21st century,* (Bamenda, Langaa RPCIG, 2017).
[310] Ibid.
[311] Ibid.
[312] Focus group discussion with male and female flood victims, Chingwizi resettlement area, 23 August 2017.
[313] Ibid

agricultural activities. Among those interviewed was a 55-year-old man who narrated his disgruntlement over the small plots saying:

> Before we were displaced by the flood, I used to own a large portion of land which enabled me to grow different types of crops for home consumption and for sale. Farming is my full-time occupation. That is where I used to get food for my family, school fees for my children and many other household needs. However, as you can see, I am settled on a one-hectare plot which is very small to sustain my family. It is difficult for me to cope with this situation because I have a big family. I have seven children whom I need to take care of.[314]

Shortage of agricultural land threatens the welfare of families and the community at large. Generally, poverty increases among the rural populations with the decrease in *per capita* land holding.[315] As Das notes, in most rural communities, households having lands between 0.5 hectare to 1 hectare are prone to poverty.[316] Since the Tokwe-Mukosi villagers were settled on one-hectare plots, this shows that they remained vulnerable to food insecurity and resultant poverty. In this context, community development is negatively affected in the sense that the displaced persons cannot engage in meaningful activities which are meant to improve their families and communities when they are suffering from hunger.

In addition to causing hunger, lack of adequate agricultural land also implies that most income generating activities that help communities to upgrade their socio-economic wellbeing are also greatly compromised. During interviews, seventy percent of the flood victims who belonged to cooperatives associated with agriculture before the disaster asserted that they were now being restricted by inadequate resources especially insufficient land to proceed with these activities. Among them was a 36-year-old woman who said:

> Before the advent of the flood, I belonged to a club where we were processing different agricultural products for sale such as peanut butter, home-made cooking oil as well as home-made beer through the harnessing of our agricultural outputs. The profits we earned were lent to members of the cooperative at ten percent interest rate or to members of the community at twenty percent interest rate. After a period of 6 months, the profits were shared among members of the cooperative. However, in this area, we cannot proceed with our club because we do not have adequate agricultural produce needed for the business.[317]

[314] Interview with Mr Mahiya (not his real name), Chingwizi resettlement area, 24 August 2017.
[315] R. Das, *Poverty and Hunger: Causes and Consequences*, (New Delhi, Sarup and Sons, 2006).
[316] Ibid.
[317] Interview with Masiziva (not her real name), Chingwizi resettlement area, 24 August 2017.

The above narrative shows that there is a close link between land ownership and other income generating activities in rural areas. Poultry projects were also part of the development initiatives that were affected by land deficit after the displacement of the villagers. One of the women who used to survive on this project explained the extent to which scarcity of land had affected the resumption of the scheme saying:

> We were a group of 12 women running a poultry project in our community. We were keeping broilers and free-range chicken for sale. This project was profitable because we used our grains such as maize, sorghum and sunflower to make chicken feed, thereby reducing the costs of buying these inputs. We had good returns especially from our traditional chicken because these days people are opting for traditional food. We had customers from Masvingo town, Chivi Growth point as well as local people. Here, it is difficult to restart that project because the small plots we have do not allow us to have grains for chicken feed because we don't even have enough grains to feed our families.[318]

The above accounts show how much cooperatives contribute to the lives of the unemployed populace in rural communities. Cooperatives are important vehicles for community development because they mobilize local resources into a critical mass and their structure allows them to be more community-oriented.[319] However, in the event of disasters and the subsequent displacement of communities, as was the case with the Tokwe-Mukosi flood, lack of natural resources hinder the displaced persons from executing their activities efficiently, thereby impeding community development. It can therefore be argued that the flood disaster reduced household income, thus plunging families into poverty. In addition to lack of adequate land for agriculture, both male and female flood victims who participated in a focus group discussion conducted by the researcher in the one-hectare plots asserted that the place where they were settled was more arid as compared to their original area.[320] This further worsened their food insecurity crisis to such an extent that even after their resettlement, they were still relying on donated food handouts. Picture 4.2 below shows resettled flood victims offloading donated 50kgs of maize from a truck.

[318] Interview with Machuma (not her real name), Chingwizi resettlement area, 24 August 2017.
[319] K. Zeuli, and J. Radel, 'Cooperatives as a Community Development Strategy: Linking Theory and Practice' in *The journal of regional analysis and policy*, (Vol 35, No. 1, 2005).
[320] Focus group discussion with male and female flood victims, Chingwizi resettlement area, 23 August 2017



Picture 4.2 Flood victims offloading maize bags from a truck (Source: Author)

While food handouts help to relieve people from hunger, they pose a threat on the development of communities in the sense that they create a 'dependency syndrome' among the beneficiaries, thereby eliminating local initiatives meant for the betterment of communities. Food aid hinders personal and collective motivations to challenge poverty and find ways to get out of the desperate situation.[321]

In addition to inadequate land for crop cultivation, the resettled farmers also lacked adequate grazing land for their livestock. Some of the victims asserted that sometimes they grazed their livestock in the nearby farms and this often resulted in conflicts between them and the owners of the farms. Apart from inadequate grazing lands, scarcity of water for livestock was also another challenge encountered by the flood victims in the new resettlement plots.[322] As Thadaniti *et al*., argue, not only do the displaced persons rely on the natural resources such as forests and forest products, grazing and water but also the local communities rely on the same resources.[323] This often leads to rapid depletion of resources and in worse cases, conflicts between the communities. Due to the unavailability of grazing lands, some of the resettled

[321] A. Van Hemelrijck, 'Powerful Beyond Measure? Measuring complex systemic change in collaborative settings' in J. Servaes, (ed) *Sustainability, participation and culture in communication: Theory and Praxis*, (Chicago, Intellect Books, 2013).
[322] Focus group discussion with male and female flood victims, Chingwizi resettlement area, 23 August 2017.
[323] S. Thadaniti, *et al* 'Introduction' in S. Thadaniti, and S. Chantavanic, (eds) *The Impact of Displaced People's Temporary Shelters on their Surrounding Environment*, (New York, Springer, 2013).

flood victims asserted that they had no option except to give over their livestock to their relatives and friends who had adequate pastures to look after their livestock while others stated that the hardships in the newly resettled areas forced them to sell their livestock,[324] thus making them destitute.

However, as indicated earlier in this chapter, livestock ownership plays a vital role in the well-being of rural communities. Lack of livestock deprived some of the flood victims of draught power as well as other important benefits such as milk and manure. One woman asserted that prior to the displacement by the disaster, she used to earn a lot of money from selling milk because she had a large herd of cattle but in the newly resettlement areas, it was impossible because of limited pastures.[325] Domestic animals are a source of income which can be used by rural populations to purchase basic household needs and agricultural needs. Thus, loss of livestock does not only affect households' accesses to basic needs but also agricultural productivity. In the rural areas of many developing countries, financial services such as credit, banking and insurance are virtually non-existent.[326] As such, in these areas, livestock play an important role as a means of saving and capital investment and they provide a substantially higher return than alternative forms of investment. This means that the loss of livestock by the disaster victims erodes their investments especially where such assets play a pivotal role in a family's fight against poverty as well as boosting the growth of communities.

4.2.4 Destruction of social networks

Flood disasters, just like any other natural disasters, cause destruction of social networks in the event of displacement of the victims. According to Dalal-Clayton and Sadler, adverse social impacts of involuntary relocation of people include consequent disruption of social structures and the loss of community cohesion and social support networks for individuals, families and social groupings, among others.[327] While many studies have managed to reveal the nexus between flood disasters, the relocation of the victims and disruption of social networks, there still remains a need to examine the extent to which the destruction of social networks affect community development. The disastrous flood triggered involuntary displacement which

[324] Focus group discussion with male and female flood victims, Chingwizi resettlement area, 23 August 2017.
[325] Interview with Ms Munatsi (not her real name), Chingwizi resettlement area, 24 August 2017.
[326] B. Anteneh, *Cattle Milk and Meat Production and Marketing Systems and Opportunities for Market-orientation in Fogera Woreda, Amhara Region, Ethiopia*, (Addis Ababa, International Livestock Research Institute, 2010).
[327] B. Dalal- Clayton and B. Sadler, *Sustainability Appraisal: A Sourcebook and Reference Guide to International Experience,* (New York, Routledge, 2014).

separated families, relatives, neighbours and other different social groups from each other. Narrating the impact of the displacement on her social ties, one woman in her 60s said:

> Prior to the flood disaster, I was a member of the Roman Catholic Church and I was a participant in a poultry cooperative. When we started our project, we were funded by the church. However, our business had grown so big that we were also helping poverty-stricken families in our church, particularly the orphans. However, when the disaster came, the seven of us were displaced while the other five were not. Nevertheless, for those who were displaced, we were resettled in distant areas from one another. Hence it is impossible to revive the project here.[328]

Other flood victims also uttered the same sentiments arguing that they were separated from the people who used to help them economically and socially such as their neighbours, friends and relatives. Social networks are vital in the development of communities. They create a sense of togetherness and social cohesion which is an integral component of development. When there is togetherness people help each other and they work towards the development of their communities. However, when people are separated by disasters such as in the case of Tokwe-Mukosi flood, these social ties are disrupted as people are forced to settle in different areas. Among the respondents, a 47-year-old woman explained how the displacement affected a burial society in which she was a member, saying:

> Before we were affected by the flood, we had formed our burial society where each member was contributing an equivalent of US$2 per month. This burial society helped us as a community because the money we were contributing was used to buy food, coffins and other necessities at funerals. We had managed to buy utensils that were used at funerals and those utensils belonged to the burial society. We could also lend money to members of the burial society at five percent interest rate to boost our funds. However due to the displacements caused by the flood, we are now scattered. Right now, I do not belong to any burial society.[329]

Community activities such as burial societies serve multiple purposes. They act as important social security safety nets; generate income as well as creating community cohesion. As Mahon-Santos asserts, social capital is the core of community development in the sense that individuals create relationships with others to satisfy their own needs and those relationships will end up not only affecting the individuals engaging in those friendships but a larger community.[330] Once an individual starts a relationship based on reciprocity, other members can

[328] Interview with Matarira (not her real name), Chingwizi resettlement area, 23 August 2017.
[329] Interview with Muchechera (not her real name), Chingwizi Resettlement area, 23 August 2017.
[330] A. Mahon-Santos, 'Transnational social networks and social development: Hometown associations in Mexico and the United Nations' in N. J. Negi, and R. Furman, (eds) *Transnational social work practice,* (New York, Columbia University Press, 2010).

also benefit from this new relationship.[331] In this sense, community development will be boosted because members of the community will be helping each other either as individuals or collectively. However, while social ties are an important element of community development, factors that affect these ties should be taken into cognisance, such as disasters and displacements. It may take time for the newly-settled people to build new social networks in the new areas and this may aggravate poverty as well as affecting the development of their communities.

4.2.5 Disturbance to education

Whenever a disaster strikes, education is one of the social sectors affected. The Tokwe-Mukosi flood disaster affected the education of both primary and secondary pupils in different ways. One of the immediate effects of the flood was the destruction of exercise books, textbooks and other educational materials for school pupils.[332] One male flood victim, asserted that:

> The flood submerged my three-bedroom house and I lost everything. What even pains me a lot is that my twin sons who were supposed to sit for their Ordinary Level examinations lost their exercise books and textbooks to the flood as well as important official documents such as Birth Certificates. The flood destroyed my sons' education.[333]

This shows that disasters can have long-term negative effects and some of these effects cannot be quantified.

Furthermore, the Tokwe-Mukosi flood affected three primary schools namely: Zifunzi, Zunge and Cheuke as well as two secondary schools Kushinga and Neruvanga.[334] The flood victims also stated that they spent close to one week at transit points before they were ferried over to Chingwizi Transit Camp.[335] This means that school children lost important time that they were supposed to spend in schools. In addition to these challenges at Chingwizi Camp, school children failed to attend lessons for more than two months before satellite schools were established at the camp.[336] Satellite schools in Zimbabwe are temporary school structures meant to make temporary learning environments for school children while awaiting the

[331] Ibid.
[332] Focus group discussion with male and female flood victims, Chingwizi resettlement area, 23 August 2017.
[333] Interview with Guma (real name withheld to maintain confidentiality) Chingwizi resettlement areas, 23 August 2017.
[334] UNICEF Zimbabwe, Zimbabwe floods update, 2014.
[335] Focus group discussion with male flood victims, Chingwizi Transit Camp, 25 May 2014.
[336] W. Antonio, 'Give voice to Chingwizi children' in Newsday 27 May 2014, https://www.newsday.co.zw/2014/05/give-voice-chingwizi-children/.

construction of permanent structures. These schools are usually found in newly resettlement areas and they often lack good learning facilities. At Chingwizi Camp, there were very limited learning resources available for school children. The satellite school was characterised by inadequate resources such as classrooms, teachers, books and furniture.[337] Fifteen percent of the displaced pupils failed to sit for their final Ordinary Level examinations because their parents failed to raise the necessary registration fees. One of the flood victims, a middle-aged man whose son was also affected by the flood said:

> My son was supposed to write his final ordinary level examinations in November 2014 but I failed to raise his registration fees. Had it not been the flood that drowned my grains and livestock, leaving me without a livelihood, I could have managed to raise the required fees. Up to now, I have nowhere to get the money. My son has since given up and he is now working in Chiredzi, on the sugar plantations.[338]

Some of the parents who were interviewed at the camp as well as in the newly resettled plots reported that their children dropped out of school because of their failure to raise school fees and other required necessities. The most common reason raised by these parents was that their livelihoods had been destroyed by the flood. Failure to raise school fees was coupled by the unconducive environment at the schools (both at the camp as well as in the resettlement areas).[339] In the newly resettled areas, six years after the flood, no classrooms had been constructed at the schools and children were still learning in tents or under the trees. Picture 4.3 below shows tents used as classrooms at Chingwizi Primary School which was located in the one-hectare plots.

[337] Interview with two men and one woman (names withheld for confidentiality purposes), Chingwizi Transit Camp, 24 March 2014

[338] Interview with Chikukwa (not his real name), Chingwizi resettlement area, 23 August 2017.

[339] Separate interviews with Makotore, Chingwizi Transit Camp, 24 March 2014; Mutimwii, Chingwizi Transit Camp, 24 May 2014; Magwede, Chingwizi resettlement area, 23 August 2017, (real names withheld to maintain confidentiality).



Picture 4.3 Tent classrooms at Chingwizi Primary School (Source: Author)

As shown on the picture, the school did not only lack proper buildings but it did not have furniture as well. A focus group discussion conducted by the researcher with teachers from Chingwizi primary school revealed that poor school infrastructure was demotivating learners, thereby causing absenteeism, drop outs and low academic performance.[340]

Some of the resettled victims reported that the satellite schools were very far from their homes and some children travelled up to 20km on foot.[341] Due to these conditions some of the displaced children dropped out of school and some boys went to the nearby Chiredzi town where they worked on sugar plantations.[342] Some girls who dropped out of school went to surrounding towns where they were employed as housemaids and in other low-paying jobs.[343] Some of these girls got married early. Among the flood victims who were interviewed on the one-hectare plots, some of them were teenage mothers who had dropped out of school. Thus, natural disasters affect children and youths negatively in terms of child labour and child marriages. Failure of school children to complete their education has negative implications on personal empowerment because education is entry point to better remunerated employment

[340] Focus group discussion with teachers, Chingwizi primary school, 14 July 2018.
[341] Separate interviews with M. Machokoto, Chingwizi Transit Camp, 24 March 2014; H. Muchechera, Chingwizi resettlement area, 23 August 2017, (real names withheld).
[342] Ibid.
[343] Ibid.

which also assists in the development of communities. This negative scenario triggers off an intergenerational cycle of poverty within households and communities because it deprives children a chance to grow to their full potential, thereby hindering community development. Hence, investing in children's education today has long-term economic benefits in the form of productive labour to boost the development of communities and nations at large.

While research has shown that natural disasters like floods can cause school dropouts, early marriages and child labour to increase, there is need for more research to examine how the aforementioned consequences affect community development. Community development is multi-disciplinary and inter-disciplinary and education has a key role to play in this regard.[344] Education is a vital aspect of social development and economic growth for every society, with an impact on the economic future and social well-being of all individuals.[345] Education provides enormous impetus to the development of poorer nations or societies by offering opportunities for individuals to achieve their potential and contribute meaningfully to their communities.[346] In an interview conducted by the researcher, one man whose two children had dropped out of school because of the flood asserted that:

> I was hoping that my children would have good careers in the future so that they could take care of me, their mother and their siblings. As you can see, I am now an old man and my wife is advanced in years as well. So we regard our children as our future fathers who would improve the wellbeing of our families and communities. However, everything has been shattered by the flood.[347]

In Zimbabwe and many African countries, while children are expected to depend on their parents when they are young, when they become adults, they are expected to take care of their parents, siblings and other family members.[348] Promoting the education of children is crucial because of the critical role young people will play in societies' social and economic futures.[349] In many developing countries, like Zimbabwe, the young adults (usually employed in urban areas) send remittances back to their villages and this helps to improve the wellbeing

[344] I. Eloff and L. Ebersohn, *Keys to Educational Pscychology*, (Cape Town, University of Cape Town Press, 2004).
[345] United Nations, *World Population Monitoring, 2003: Population, Education and Development*, (New York, United Nations Publications, 2005).
[346] Ibid.
[347] Interview with Mr. Hweshure (not his real name), Chingwizi resettlement area, 23 August 2017.
[348] United Nations, *Major trends affecting families: A Background Document*, (New York, United Nations publications, 2003).
[349] G.A.N. Chowa, 'Confronting global poverty: Building economic opportunity and social inclusion' in M. Weil, *et al* (eds) *The handbook of community practice*, (Los Angeles, SAGE Publications, 2013).

of their parents and relatives.[350] In other circumstances, remittances are used to assist relatives at home in setting up small-scale businesses that help to enhance the socio-economic development of communities.[351] As such, education is increasingly recognised as an investment in human capital that has an overriding influence on children's careers as they attain the age of employment. No society can consider itself truly developed without its citizens being educated. In this regard, it can be argued that disruption of children's education is a serious blow to community development as education lies at the heart of development, both at local and national levels.

4.2.6 Negative health implications

Just like education, health is also another important aspect that is often threatened by natural disasters. One of the health effects of the Tokwe-Mukosi flood was malnutrition which arose from food insecurity and hunger. Some of the flood victims who were interviewed stated that hunger was one of the major problems they had been experiencing since the day the disaster struck.[352] The same respondents further averred that since they lost their grains and crops to the flood, they were left with no food to feed themselves.[353] They indicated that during their stay in the camp, they often relied on donated food stuffs which were not enough to feed their families.[354] The flood victims were given food rations of 50kgs maize meal, 1kg packet of beans and 1 kg packet of *kapenta* (Tanganyika sardines) which were too little for most of the families.[355] Seventy-five percent of the respondents stated that they needed about 3 x 50kgs maize meal, 3kgs beans, and 2kgs kapenta because of their large families. Owing to food shortages, cases of malnutrition were reported at the camp. People with chronic diseases such as HIV and AIDS were severely affected as some of them stated that the poor diet at the camp which lacked fresh fruits and vegetables compromised their health.[356] Four out of six HIV and AIDS patients who were interviewed stated that before their displacement, that they owned gardens where they were growing both indigenous and exotic vegetables so as to boost their

[350] D. Okali *et al*, The Case of Aba and its Region, South Eastern Nigeria, Issue 4 of rural-urban interactions and livelihood strategies, (London, International Institute for Environment and Development, 2001).
[351] Ibid.
[352] Separate interviews in Chingwizi resettlement areas with C. Binduko, Chingwizi Resettlement area, 3 February 2017; R. Chizanhi, Chingwizi Resettlement area, 3 February 2017; G. Matsate, Chingwizi Resettlement area 23 August 2017, (real names withheld to maintain confidentiality).
[353] Ibid.
[354] Ibid.
[355] Ibid.
[356] Separate interviews in Chingwizi resettlement area with C. Binduko (not his real name), Chingwizi Resettlement area, 3 February 2017 and S. Chikukwa (not his real name), Chingwizi Resettlement area, 23 August 2017.

immune system. Some of them indicated that before their displacement, they had access to fruits such as mangoes, guavas, papayas, and oranges, among others and now these fruits were non-existent at the transit camp and in the new resettlement areas. Even after their relocation from the camp, the same problem of inadequate nutrition persisted. As discussed earlier in this chapter, the one-hectare plots where the flood victims were resettled were too small to grow crops that sustain their families. This compromised the level of food security and the ill-health from chronic diseases. One of the HIV patients said:

> I tested HIV positive 10 years ago and for all those years I have been feeling well because I had access to nutritional food. Since my homestead was close to Tokwe river, I had a big garden where I was growing different kinds of vegetables like tomatoes, carrots, spinach. Sometimes I could grow crops such as sweet potatoes and maize. Here I no longer have access to all these foods because there are no rivers for us to have gardens. We even lack clean water for drinking. Even when we were staying at the camp, there were water challenges.[357]

Thus, there is a close link between food security and health. In cases where food security is affected by natural disasters, the health of families is also endangered.

Besides inadequate food, poor living conditions at Chingwizi Transit Camp also increased the susceptibility of the flood victims to different diseases. Sixty percent of the flood victims who were interviewed stated that sleeping in tents and sometimes in the open without adequate blankets for warmth and protection caused different types of diseases and infections. For example, one couple lost their 4 month old baby because of an illness which they suspected to be pneumonia.[358] The couple who lived in a two-man tent stated that they had no adequate blankets and clothes because they lost most of their property to the flood.[359] Another couple stated that their small child started suffering from constant rash during their stay at the camp which they suspected to have been triggered by severe heat they were exposed to in the camp.[360] The couple was staying in a shack made of zinc which attracts a lot of heat.[361] Thus, lack of decent housing after a disaster is a threat to human life.

Furthermore, at Chingwizi Camp, some of the flood victims suffered from waterborne diseases related to poor sanitation and water shortages. The transit camp lacked adequate

[357] Interview with S. Chirombo (not her real name to maintain confidentiality), Chingwizi resettlement area, 23 August 2017.
[358] W. Marwizi, 'Special Report: The untold story of Tokwe Mukosi' in The Standard, 24 March 2014, https://www.thestandard.co.zw/2014/03/24/special-report-untold-story-tokwe-mukosi/.
[359] Ibid.
[360] Ibid.
[361] Ibid.

shelter, running water and toilets.[362] The toilets in the camp were too few and often very dirty. This saw many people resorting to bush toilets, prompting several cases of diarrhoea at the camp.[363] The poor and vulnerable experience, the most severe health impacts of disasters because in many cases, living conditions become unhygienic, sickness abounds due to poor nutritional status and treatment becomes unaffordable because livelihoods are hindered by the disaster.[364]

Another vital issue to note is that the impacts of disasters vary between men and women. A common and significant challenge faced by women and girls internally displaced by conflict and disasters is the ability to manage their menstruation safely, comfortably and with dignity. Women and girls displaced by conflicts and disasters often lack access to basic materials such as sanitary pads, clothes and underwear that are needed to manage monthly flow.[365] Most of the women who were interviewed indicated that in addition to lack of water to bath as well as to wash their undergarments, they also lacked sanitary wear. During a focus group discussion conducted by the researcher with women at the transit camp, a 20-year-old lady narrated the ordeal of inadequate sanitary wear saying:

> The major challenge that we are facing as women is lack of sanitary wear. We do not have money to buy sanitary wear. Most of us resort to tree leaves, newspapers and pieces of cloths which are all unhygienic. Although several Non-Governmental Organisations and well-wishers are donating sanitary wear, some of us are failing to access them due to high levels of corruption. The situation is worsened by scarcity of water to bath as well as to wash our garments. On top of that our tents are very close to each other. This kind of situation is just unacceptable.[366]

The unavailability of sanitary material is not just an inconvenience to women and girls but rather a major impediment to their full participation in the life of a camp community.[367] For example, in a much similar case, in Ethiopia and Zambia, girls in refugee camps stayed away from school and sometimes remained in their tents because they had nothing clean to wear during monthly menstruation.[368] Stigma related to girls' maturity and their monthly

[362] Focus group discussion with female flood victims, Chingwizi Transit Camp, 25 May 2014.
[363] Ibid.
[364] A. Prakash, *Interlacing Water and Human Health: Case Studies from South Asia*, (New Delhi, SAGE Publications, 2012).
[365] M. L. Schmitt *et al*, 'Understanding the menstrual hygiene management challenges facing displaced girls and women: findings from qualitative assessments in Myanmar and Lebanon' in *Conflict health*, (Vol 11, No.19, 2017).
[366] Interview with Makadho (not her real name), Chingwizi transit camp, 4 May 2014.
[367] S. F. Martin, 'Justice, women's rights, and forced migration' in D. Hollenbach (ed), *Refugee rights: Ethics, advocacy and Africa*, (Washington D. C, Georgetown University Press, 2008).
[368] Ibid.

periods results in school absenteeism, especially if they do not have access to appropriate sanitary wear.[369] As such, when women and girls are hampered by sanitary problems to participate in different social and economic activities, community development is also hindered considering the important roles women play, especially in rural areas. Therefore increasing the involvement of women and adolescent girls in the planning and management of camp life is necessary to meet the priorities and needs of women and girls.[370] The gendered impacts of disasters should be given due regard because disasters affect men and women as well as boys and girls differently. Failure to attend to these effects accordingly is a blow not only to community development but also to national development.

Sexually Transmitted Infections (STIs) were another health problem experienced by some of the flood victims at Chingwizi Camp. By June 2014, over 200 cases of STIs, including syphilis and gonorrhoea, had been recorded at the camp.[371] The outbreak of STIs at the camp was attributed to rampant prostitution at camp which emanated from lack of basic needs such as food among the flood victims.[372] Some women and girls resorted to prostitution in order to get food and other basic necessities.[373] In certain incidents, government officials tasked to distribute food aid to the victims were accused of demanding sexual favours from teenage girls and women in exchange for food.[374] The sexual exploitation of women and girls in transit camps is not a problem peculiar to the Tokwe-Mukosi flood victims. In countries such as Cote d'Ivore, Guinea, Liberia, Sierra Leone, and South Sudan, displacement and poverty caused by regional conflicts fuelled an increase in prostitution, GBV, sexual exploitation and sexual abuse of women and children in these countries.[375] In some of these countries, the sexual exploitation was perpetrated by UN peacekeepers.[376] Thus, just like the Tokwe-Mukosi disaster where government officials were alleged to have been sexually exploiting women, this issue becomes complicated in the sense that the same people who are supposed to protect the victims and help

[369] S. S. Sikeie, 'Alternative approaches to education for displaced children in Puntland and Somaliland' in C. S. Ellison and A. Smith (eds), *Education and internally displaced persons: Education as humanitarian response*, (London, Bloomsbury Academic, 2013).
[370] United Nations, *Women, peace and security*, (New York, United Nation Publications, 2002).
[371] G. Maponga, '200 STI cases reported at Chingwizi' in Herald, 26 June 2014, https://www.herald.co.zw/200-sti-cases-reported-at-chingwizi/.
[372] Ibid.
[373] Separate interviews with three women at Chingwizi Transit Camp (names withheld), 24 May 2014.
[374] W. Antonio, 'Sex for food at Chingwizi camp' in Newsday, 26 May 2014 https://www.newsday.co.zw/2014/05/sex-food-chingwizi-camp/.
[375] Human Rights Watch, "My heart is cut": sexual violence by rebels and pro-government forces in Cote d'Ivoire, Vol 19 (11a), 2007). See also R. Murphy, 'An assessment of UN efforts to address sexual misconduct by peace keeping personnel' in R. Murphy, and K. Mansson, (eds), *Peace operations and human rights*, (New York, Routledge, 2008).
[376] Ibid.

them recover from the effects of disasters are the ones who further exacerbate their plight. This may affect the health of women in general and their reproductive health in particular.

Just like many other effects of flood disasters, ill-health also has strong negative implications on community development. According to the World Bank, diseases and illness affect labour productivity and economic growth.[377] In rural areas, this entails that the effective participation of people in different community enhancement projects and programmes will be hampered by poor health, thereby putting community development at stake. Similarly, childhood ill-health and malnutrition can affect future labour participation and work effort since it is associated with increased risks of morbidity and mortality during adulthood.[378] Hence, there is a strong link between good health and healthcare and community development in particular and economic development in general. Igumbor and Sanders state that improvement in health and longevity can strengthen economic development and improve individual and community livelihood in many societies.[379] Thus, at every level of development, poor health has detrimental effects.

4.3 Conclusion

This chapter has discussed the social and economic consequences of the 2014 Tokwe-Mukosi flood disaster. Informed by the sustainable livelihood approach, the chapter has reported that 20 000 people were affected by this flood disaster. Forty-five percent of these people lost their household belongings to the disaster which included clothes, furniture, ploughs, wheelbarrows, school children's books and identity documents. Others lost their crops, livestock and grains to the flood, thereby negatively affecting their immediate and future long-term livelihoods. The situation was worsened by lack of adequate resettlement land in the aftermath of the disaster as the flood victims were allocated one-hectare plots which were not enough to sustain their food requirements.

In addition, most of the flood victims asserted that the displacement that followed the disaster ruptured their income generating activities that used to sustain their lives prior to the disaster. These projects include market gardening, poultry projects, money lending projects

[377] World Bank, Reaching the Rural Poor: A Renewed Strategy for Rural Development, (Washington D. C, World Bank Publications, 2003).
[378] Ibid.
[379] E. U. Igumbor, and D. Sanders, 'Tackling global public health challenges: How should the European research area respond' in H. Prange-Gstohl (ed) *International science and technology cooperation in a globalised world: The external dimension of the European Research area*, (Cheltenham, Edward Elgar Publishing Limited, 2010).

and peanut-butter processing. In addition to that, destruction of social networks was another problem among the flood victims especially after their resettlement. The education of school children was also affected in different ways in the aftermath of the disaster. Initially, the flood victims were not evacuated on time and this caused many days of absenteeism from school. Secondly, in the Chingwizi Transit Camp, there was no adequate school infrastructure as well as teachers. Thirdly, in the newly resettlement areas, schools were still very few and many pupils walked long distances to get to the nearest school. The schools lacked adequate infrastructure and children were learning in tents instead of proper classrooms. In terms of health, most of the flood victims suffered from malnutrition because of inadequate food supplies in the transit camp as well as in resettlement areas. STIs were also prevalent at Chingwizi Camp which were attributed to prostitution by women and girls in their quest to get food and other basic needs for their families. There were also cases of disease related to poor sanitation in the camp.

CHAPTER FIVE

PROBLEMATISING THE NEXUS BETWEEN POWER IMBALANCE AND NATURAL DISASTERS.

5.1 Introduction

The previous chapter examined the social and economic consequences of the Tokwe-Mukosi flood with particular attention on how the flood affected community development. This chapter builds on it and examines the factors that made it difficult for the flood victims to cope with and to fully recover from the disaster. In order to critically analyse these factors, the chapter brings in the concept of social vulnerability as a theoretical lens to understand and explain the nexus between having limited political power and vulnerability to natural disasters. Although social vulnerability is a multifaceted issue as already highlighted in chapter two, the central theme of this chapter rests on understanding the nexus between power relationships and vulnerability to natural disasters.

The chapter also examines the extent to which power imbalances jeopardised recovery and reconstruction after the natural disaster. In order to clearly expound the social vulnerability surrounding the Tokwe- Mukosi disaster, the chapter pays attention to the four phases of the disaster management cycle namely: mitigation, preparedness, response and recovery in trying to exhibit how political exclusion increased the susceptibility of the victims to the disaster as well as making it difficult for them to recover from it. An examination of social vulnerability in the context of the disaster management cycle is crucial because natural disasters are contextualised and are formed and shaped by history, culture, social structures and processes as well as political economies. Social vulnerability, provides the societal context within which such stressors operate and highlight the uneven capacity for preparedness, response, recovery, and adaptation to environmental threats in and across social systems.[380] As such, an examination of the political and economic circumstances that prevailed prior, during and after the disaster is necessary as it enables the unravelling of the unequal power relationships surrounding the disaster.

[380] C.T Emrich, Social vulnerability and hazard analysis for hurricane Harvey, background and Methods, Working Paper.

Though the chapter assesses the social vulnerability surrounding the Tokwe-Mukosi flood in all the four phases of the disaster management cycle, it pays much attention on the recovery (post-disaster) phase mainly because previous studies on other natural disasters have tended to concentrate more on the pre-disaster phases in explaining how factors such as poverty, age and physical location of people expose them to disasters. For example, a study by Dzialek *et al*., on social vulnerability and risk communication in southern Poland focused on the pre-disaster phase outlining how various socio-economic factors hinder individuals to have disaster preparedness.[381] The post-disaster phase is crucial for this study because it assists in unscrambling different social vulnerability factors that have hindered the recovery of the flood victims more than six years after the disaster struck. The following section gives an overview of the disaster management cycle. This is followed by a detailed discussion on how the four phases of the disaster management cycle were characterised by the power imbalance.

5.2 Social vulnerability and the disaster management cycle

The systems and tools that governments have available to address hazards in their communities are relatively universal throughout the world.[382] The disaster management cycle is one such tool. It 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.[383]

Mitigation and preparedness are both considered 'proactive phases' as they are actions that are taken prior to the emergence while response and recovery are 'reactive phases' that take place after the occurrence of disasters.[384] Appropriate actions at all points in the cycle lead to greater preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next iteration of the cycle.[385] For this reason, national governments have an important role to play in all the four phases of the disaster cycle in order to reduce vulnerability of communities to disasters. Citizens throughout the world look to their governments for safety and security especially in times of crisis and disasters.

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[381] J. Dzialek, *et al Understanding Flood Preparedness: Flood Memories, Social Vulnerability and Risk Communication in Southern Poland,* (New York, Springer, 2019).
[382] D. P. Coppola, *Introduction to International Disaster Management,* (Burlington, Elsevier, 2010).
[383] H. N. Bang, *30 Years after the Lake Nyos Disaster: What Prospects for Rehabilitation and Reintegration in the region?* (Ishpeming, Book Venture Publishing, 2016).
[384] Ibid.
[385] J. Adams, *Environmental Health in Emergencies and Disasters: A Practical Guide*, (Geneva, World Health Organization, 2002).

However, where there are existing social and political inequalities at local and national levels, the marginalised communities are at the risk of being exposed to disasters. Similarly, their capacities to cope with and recover from disasters are compromised. Thus, interacting contextual aspects explain, underlie, amplify, and attenuate the exposure, susceptibility, and coping capacity of vulnerable populations.[386] In order to clearly elucidate the connection between social vulnerability and disasters, with reference to Tokwe-Mukosi flood, it is imperative to look at the disaster management cycle phase by phase so as to reveal underlying power imbalances that surrounded the whole disaster.

5.2.1 Impact of power imbalance on the mitigation phase

As already alluded to, mitigation is the first phase of the disaster management cycle. The goal of mitigation efforts is to prevent hazards from developing into full-scale disasters and to reduce the impact of disasters when they occur.[387] Mitigation is important because it creates disaster resilient communities through protection of lives and properties, minimises financial impacts on the communities, speeds up the recovery process and minimizes uncertainties about disaster and their possible consequences.[388] In the context of the Tokwe-Mukosi disaster, there was lack of appropriate mitigation measures by the government and the CPU to minimise the disaster. According to the data gathered from interviews, the people who were affected by the flood were staying in the vicinity of the dam and were supposed to be relocated to safe areas before the construction of the dam commenced.[389] However, relocation did not take place in time until the villagers were actually affected by the flood.[390] The absence of mitigation measures can be seen as being strongly embedded in the concept of social vulnerability, particularly the power imbalance that existed between the ruling elites (at the top) and the flood victims (at the grassroots).While lack of adequate funds to compensate the villagers was cited by the government as the major reason behind the delayed relocation of the villagers, to the villagers, this had more to do with political willingness rather than inadequate funds. A 32-

[386] S. Rufat, *et al* 'Social vulnerability to floods: Review of case studies and implications for measurement' in *International Journal of Disaster Risk Reduction*, (Vol 14, No. 4, 2015).
[387] Ibid.
[388] V. Garayev and F. Elma 'Disaster management system in Azerbaijan: The case of 2010 Kura River flood' in N. Kapucu, and K. T. Liou, (eds) *Disaster and Development: Examining Global Issues and Cases*, (New Yok, Springer, 2014).
[389] Separate interviews with Chineni (real name withheld), Chingwizi Transit Camp, 24 May 2014; Masiya (real name withheld), Chingwizi Transit Camp, 24 May 2014; Magwede (real name withheld), Chingwizi resettlement area, 23 August 2017.
[390] Ibid.

year-old man who was one of the flood victims explained how their suffering was a result of lack of political will when he stated:

> It is just lack of will rather than the claims of limited funds. If the government didn't have money for compensation, why did it start the project before securing all the needed resources? I strongly feel that the government had the funds for compensation but it failed to release them because we lack strong political representation.[391]

The government had tried to remove the villagers without compensation before the disaster but they resisted the relocation and demanded compensation.[392] Although under normal circumstances, construction of the dam was only supposed to start after all the people affected or likely to be affected were relocated to safe areas, the government proceeded with its project. The commencement of the dam construction before the relocation of people to safe areas epitomised the fact that the state valued development projects at the expense of local people. This is a clear expression of a power imbalance as the concerns of the marginalised community were not given due regard by the government.

5.2.2 Power imbalances in the preparedness phase

The preparedness phase was also not spared from power imbalances and this further increased the susceptibility of the villagers to the flood disaster. The purpose of the preparedness phase is to develop plans of action for natural disasters which may occur in the future. This phase involves equipping people who may be impacted by a disaster or who may be able to help those impacted with the tools to increase their chance of survival and to minimise their economic and other losses.[393] The preparedness phase refers to the actual planning, training, placement of resources, mutual-aid agreements across jurisdictions, and other coordination efforts before an emergence strikes.[394] However, just like the mitigation phase, circumstances surrounding the Tokwe-Mukosi flood disaster revealed that there were little efforts made by the state and the CPU prior to the disaster. The flood victims, the general public and non-state controlled media criticized the manner in which the government and the CPU handled the Tokwe-Mukosi disaster, arguing that it exposed how unprepared Zimbabwe was to deal with natural disasters

[391] Interview with Mugano (not his real name), Chingwizi Transit Camp, 24 May 2014.
[392] Separate interviews with Machera (real name withheld), Chingwizi Transit Camp, 24 May 2014; Muforo (real name withheld), Chingwizi Transit Camp, 24 May 2014; Gora (real name withheld), Chingwizi resettlement area, 24 February 2017.
[393] V. Garayev and F. Elma 'Disaster management system in Azerbaijan: The case of 2010 Kura River flood' in N. Kapucu, and K. T. Liou, (eds *Disaster and Development: Examining Global Issues and Cases*, (New York, Springer, 2014).
[394] A. Farazmand, *Handbook of Crisis and Emergency Management*, (New York, CRC Press, 2001).

and emergencies.[395] The government and the CPU were criticised for lacking preparedness especially considering the fact that there had been early warnings of the possibility of flooding due to heavy rains that lashed most parts of the country between January and February 2014. Some of the flood victims confirmed that since the Meteorological Services Department of Zimbabwe had given early warnings of heavy rains throughout the country, the government was supposed to take proactive measures to prevent their susceptibility to the flood disaster.[396] Disaster preparedness, includes among other things, the readiness and ability of society to forecast and take precautionary measures in advance of an imminent threat and response to cope with a disaster by organizing and delivering timely and effective rescue, relief and other appropriate post-disaster assistance.[397] However, a close examination of the Tokwe-Mukosi disaster reveals that most of these measures and efforts were non-existent. The flood victims argued that the disaster could have been prevented if the government and the CPU had been proactive rather than reactive as what they tried to do after the disaster struck.[398]

Nonetheless, the CPU had a different perspective as it stated that their effort to curb the disaster were constrained by budgetary challenges resulting from underfunding.[399] In 2013 and 2014, the CPU was allocated US$450 000 when it needed US $5 million to deal with natural disasters.[400] The underfunding of this critical department can be attributed to misplaced priorities by the government which saw funds being diverted to less important areas, thereby exposing vulnerable communities to disasters. In 2013 for example, the Zimbabwean government spent close to US$20 million on luxurious cars including Mercedes Benz and SUVs for ministers at a time when more than two million people were reportedly facing starvation.[401] This illustrates the extent of the power imbalance imbedded in Zimbabwe through the misuse of resources by the government at the expense of the needs of the grassroots. This shows that discrepancy in power especially between the rulers and those at the grassroots leaves the latter exposed to the full force of natural disasters. As Spurway and Griffiths note, patterns of mortality, morbidity, loss, displacement, and recovery are inextricably linked to the social

[395] Media Watch on the Constitution Environment (2014), No.5: Tokwe-Mukosi disaster exposes government lack of preparedness.
[396] Separate interviews with Chineni (not his real name), Chingwizi Transit Camp, 24 May 2014; Masiya (not his real name), Chingwizi Transit Camp, 24 May 2014.
[397] A. Farazmand, *Handbook of Crisis and Emergency Management*, (New York, CRC Press, 2001).
[398] Separate interviews with Chineni (not his real name), Chingwizi Transit Camp, 24 May 2014; Masiya (not his real name), Chingwizi Transit Camp, 24 May 2014.
[399] Zimbabwe Independent (21 February 2014), 'Tokwe-Mukosi disaster: CPU exposed,' https://www.theindependent.co.zw/2014/02/21/tokwe-murkosi-distaster-cpu-exposed/.
[400] Ibid.
[401] Zimbabwe Independent, 20 September 2013, Govt splurges US$ on Ministers new cars, https://www.theindependent.co.zw/2013/09/20/govt-splurges-us20m-ministers-new-cars/.

and political contexts in which disasters occur.[402] Thus, political will is a very important factor connected to susceptibility of communities to disasters. The flood victims stated that their condition was a special case which needed urgent action because the flood was triggered by the construction of the dam and therefore could not be compared with other flood disasters that took place across the country in districts such as Muzarabani, Guruve and Tsholotsho.[403]

5.2.3 Power imbalances in the response phase

The response phase involves action taken to reduce or eliminate the impact of disasters which have occurred or are currently occurring in order to prevent further suffering, financial loss or combination of both.[404] It includes the mobilisation of necessary emergency services in the disaster affected area such as rescue teams, ambulances, fire fighters, among others.[405] Just like the previous phases, the response phase was also marred by power imbalance. As indicated in chapter three, most of the flood victims as well as dam engineers asserted that the flood could have been prevented through letting out water downstream of the dam through water regulation tunnels in the dam wall. Failure to open the tunnels saw the flood affecting villagers who were living upstream, hence the disaster was seen by the victims as something that could have prevented. Although there is a popular view of disasters as 'Acts of God' or fate in which nobody is really responsible, researchers now see most natural disasters as more understandable in terms of the conditions of inequality and subordination in the society rather than the accidental geophysical features of a place.[406] Thus, natural disasters are a combination of both geophysical features and social inequalities that increase the susceptibility of marginalised communities to different forms of catastrophes. In the case of Tokwe-Mukosi, the flooding of dam was a geophysical feature which interacted with the marginalised villagers, thereby triggering a disaster. This, in itself, reflected the power imbalances that characterised the disaster. In every disaster situation, effective response depends greatly on the authorities' capacity to plan and coordinate the efforts of the various groups involved in this process.[407]

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[402] K. Spurway, and T. Griffiths, 'Disability- Inclusive Disaster Risk Reduction: Vulnerability and resilience discourses, policies and practices' in S. Grech, and K. Soldatic, (eds), *Disability in the Global South: The Critical Handbook*, (New York, Springer, 2016).
[403] Separate interviews with Machera (real name withheld), Chingwizi Transit Camp, 24 March 2014; Muforo (real name withheld), Chingwizi Transit Camp, 25 May 2014; Gora (real name withheld), Chingwizi resettlement area, 24 February 2017.
[404] B. Oztaysi, *et al*, 'Fuzzy Inference systems for disaster response' in B. Vitoriano, *et al* (eds) *Decision Aid Models for Disaster Management and Emergencies*, (New York, Springer Science and Business Media, 2013).
[405] Ibid.
[406] A. Oliver-Smith, 'Anthropology and the 2 Political Economy of Disasters' in E.C. Jones and A.D. Murphy (eds), *The political economy of hazards and disasters*, (Lanham, Altamira press, 2009).
[407] R. Dasgupta, *Disaster Management and Rehabilitation*, (New Delhi, Mittal Publications, 2007).

Facilitating all these actions requires political commitment of the government for the benefit of the disaster-stricken areas.[408] Nevertheless, where the government lacks political commitment, coupled by the affected community's lack of political power to voice their concerns, efficient disaster response is jeopardised.

5.2.4 Power imbalances in the recovery phase

Recovery is the last phase of the disaster management cycle. Its aim is to restore the victims' lives to a normal or previous condition following the impact of a disaster.[409] Recovery usually starts after the urgent response has ended, and may continue for months or years after.[410] Just like the other phases, disaster recovery is built on a combination of certain societal, economic, political and diplomatic backgrounds that create a complex dynamism during which the agenda and strategies for recovery and reconstruction are devised.[411] National governments have an important role to play in the recovery of disaster victims. However, given the lead role that governments and local governments play in disaster recovery, their ability to act effectively directly affects how well communities recover after a major disaster.[412] In the case of the Tokwe-Mukosi disaster, the complete recovery of the victims was impinged by power imbalances that existed between them and the government. These power imbalances saw the flood victims failing to get adequate assistance from the government.

As discussed in the previous chapter, six years after the occurrence of the flood disaster, the displaced villagers had not yet received adequate compensation from the state. Despite the fact that Zimbabwe as a country is endowed with vast amounts of land, the government did not provide adequate resettlement land to the flood victims. The one-hectare plots which the flood victims were settled on were insufficient to sustain them together with their families, thereby impeding effective disaster recovery. According to Sugarman, efficiently helping victims after a disaster often requires government action beforehand, by putting victim compensation arrangements in place.[413] Yet, the channelling of funds, allocating resources of all kinds,

[408] Ibid.
[409] Ibid.
[410] Ibid.
[411] F. F. Arefian, *Organising Post-Disaster Reconstruction Processes: Housing Reconstruction after the Bam Earthquake*, (New York, Springer, 2018).
[412] S. J. Czerwinski, *Disaster Recovery: Past Experiences Offer Insights for Recovering from Hurricanes Ike and Gustav and Other Recent Natural Disasters*, (Collingdale, DIANE Publishing, 2009).
[413] S. D. Sugarman, *Roles of government in compensating disaster victims*, (Califonia, The Berkeley Electronic Press, 2006).

providing services and opportunities for recovery often happens in a political context.[414] In other words, the nature of rehabilitation and reconstruction planning is greatly shaped by the level of political commitment and its sustainability throughout the process.[415] As for the Tokwe-Mukosi disaster, failure by the government to provide adequate land despite its abundance in the country should be perceived as a sign of lack of political will which stalled effective recovery.

As indicated in the previous chapter, land is a critical resource particularly for the rural populace. The loss of even a small plot of farmland can have serious consequences for households, and unless sufficient and appropriate compensation is given, this initial loss of a valuable asset may be but the first step in a wider process of impoverishment and marginalization.[416] Therefore the problem of land shortage experienced by the displaced villagers symbolised the power imbalances that characterized Zimbabwe. As Reisch states, where there is an imbalance between power and powerlessness, it may seldom be possible to achieve an equal distribution of resources.[417] Such power inequality generate a lot of suffering among the marginalized communities, as was experienced by the Tokwe-Mukosi villagers. Among the flood victims who were interviewed by the researcher at Chingwizi resettlement area, one male flood victim explained the power imbalances that characterised the post-disaster land allocation process saying:

> We are being treated as if we are not citizens of this country. We were given very small portions of land which are not even conducive for agriculture yet most of the top elites have many farms of which some of these farms are not fully utilised. That is insensitive on the part of our government. We are suffering because we don't have power to persuade the government to address our plight. We are just a neglected humanity.[418]

Confirming this position of lacking political power, another flood victim who was a woman had a similar story to tell:

> If we are to recover from the disaster, the government should help us with a permanent resettlement area. Right now we are in transit as we were told that we will be further displaced to our permanent areas. However, it is now more than three years since the promise has been made but nothing has materialised. I do not think that we will ever

[414] R. Dasgupta, *Disaster Management and Rehabilitation*, (New Delhi, Mittal Publications, 2007).
[415] Ibid.
[416] H. M. Mathur, *Displacement and Resettlement in India: The Human Cost of Development*, (New York, Routledge, 2013).
[417] M. Reisch, 'Introduction to part 1V' in M. Reisch, (ed) *Routledge International Handbook of Social Justice*, (New York, Routledge, 2014).
[418] Interview with Richo (not his real name), Chingwizi resettlement area, 24 February 2017.

recover from this disaster. It seems as if the government has forgotten about our existence.[419]

Therefore, this reveals that social vulnerability was rooted in the disaster. Thus, power imbalances entrenched in social vulnerability hinder disaster survivors from recovering from calamities. One of the basic roles of government is to ensure the availability of sources of compensation in the event of a natural disaster.[420] Lack of land compensation, coupled with empty promises from the government led to food insecurity and hunger among the flood victims. The victims stated that they were now suffering from the effects of two disasters namely, flood and recurrent hunger. The speed and effectiveness of recovery therefore is as much a political issue as it is a matter of resources.[421] Fifteen percent of the victims stated that they were forced to sell some of their few belongings that survived the flood disaster such as livestock, hoes, ploughs and household property to buy food for their families. However, the selling of limited and essential household possessions to fight hunger was not a sustainable solution. Selling off of essential assets, particularly livestock and ploughs to cope with the effects of food shortages has the risk of making it difficult for the victims to recover from the disaster, thereby aggravating poverty. As Dalelo rightly states, loss of the means of production reinforces a cycle of food insecurity and famines as people will fail to produce enough food when the conditions for production reinstate.[422] This results in a devastating blow on community development as disaster victims are deprived of the resources for recovery that are crucial in farming and other income generation activities. Therefore, just like the mitigation, preparedness and response phases of the disaster management cycle, the recovery phase should also not be separated from the socio-economic and political conditions prevailing in a country. The quality and pace of recovery following a disaster is influenced by access to timely and sufficient assistance,[423] which are immersed in the socioeconomic dynamics of a nation. The ability to obtain assistance depends on power relations, social connections, and the social arrangement of disaster relief that are often beyond the reach of poor and marginalized populations.

[419] Interview with Mrs Mahoso (not her real name), Chingwizi resettlement area, 24 February 2017.
[420] S. D. Sugarman, *Roles of government in compensating disaster victims*, (Califonia, The Berkeley Electronic Press, 2006).
[421] R. Dasgupta, *Disaster Management and Rehabilitation*, (New Delhi, Mittal Publications, 2007).
[422] A. Dalelo and T. Stellmacher, *Faith-based Organisations in Ethiopia: The Contribution of the Kale Heywet Church to Rural Schooling, Ecological Balance and Food Security*, (Gottingen, Vandenhoeck & Ruprecht University Press, 2012).
[423] S. Rufat *et al* 'Social vulnerability to floods: Review of case studies and implications for measurement' in *International Journal of Disaster Risk Reduction*, (Vol 14, No. 4, 2015).

Lack of compensation did not only affect agricultural activities as it impacted on every sphere of the victims' lives. One of these effects was the problem of descent housing. Due to the fact that the displaced villagers were yet to be settled on permanent lands, most of them were still living in temporary shelters, waiting for their final destination. More than seventy percent of the flood victims who were interviewed stated that building solid structures was a waste of resources since they were going to be displaced again. As shown in picture 5.1, the majority of houses on the one-hectare plots were small huts built of wood poles and dagga. The flood victims indicated that they would only build better structures after they had been allocated bigger plots. Some of the victims who managed to take their building materials such as window frames, door frames as well as roofing sheets and poles did not use them to build these temporary houses as they reserved them for permanent structures. One man narrated how lack of clear resettlement plans hindered him from constructing decent houses saying:

> Before we were displaced by the disaster I had a four bedroomed house and three huts. All the houses were well-built and I used standard building materials. However, here I have only constructed two temporary huts. I cannot use the door frames, window frames and other materials that I managed to take from my original houses because I have reserved them for the houses that I will construct in our permanent resettlement area. I no longer afford to buy new building materials because all of my income generation activities were disrupted.[424]

[424] Interview with M. Majoni (not his real name), Chingwizi resettlement area, 24 February 2017.



Picture 5.1 Houses constructed with poles and dagga in one-hectare plots (Source: Author)

This entails that social vulnerability is a complex issue which has both short and long term effects in disaster situations. Compensation is therefore a critical issue in any resettlement programme. Resettlement efforts will come to nothing if the affected people are not compensated adequately.[425] However, it is important to note that vulnerable groups such as those who are politically disadvantaged or those who have low social status are in most cases more adversely affected by resettlement than others. Most of the flood victims reported that the manner in which they were treated by the government following the disaster reflects the social inequalities that exist in the country. Vulnerable people are often excluded from decision-making processes and from access to power, essential services and resources.[426] More than half of the flood victims who were interviewed stated that even if they had been given adequate land for resettlement, it was going to take them a long time to build decent housing because of lack of monetary compensation from government. According to the World Bank, during the recovery process, giving cash support to victims improves their sense of safety and

[425] H.M. Mathur 'Making resettlement work: Policy, planning and management' in H.M. Mathur (ed), *Resettling displaced people: policy and practice in India*, (New York, Routledge, 2011).
[426] W. N. Adger, 'Vulnerability' in *Global Environmental change*, (Vol 16, No. 1, 2006).

security.[427] Cash support stabilises the situation of the poor in the early recovery stage.[428] Thus, both land and monetary compensation are vital for quick and efficient recovery though this is often hindered by power imbalances between the state and the weaker communities. As for the flood victims, more than eighty percent indicated that they were worried about the failure by the government to fulfil its compensation promises. The disaster victims' major concern was that the flood was induced by a government development project (the dam) and therefore cannot be regarded as solely a natural disaster. Compensation of victims after a disaster has much to do with what caused the disaster, what the circumstances of the disaster actually were, and whether existing systems of government post-disaster relief are sufficient to address the needs of the victims.[429] The flood victims argued that the government had the responsibility of compensating them for all the damages caused by the disaster. As highlighted earlier, some of the flood victims indicated that their displacement had its roots in the construction of the dam and not in the flood, hence they were expecting urgent action from the government. Among the flood victims who were interviewed, one woman commented:

> Even if the flood had not occurred, our displacement was bound to happen because we were residing in the vicinity of the dam. Therefore, the failure by the government to compensate us is quite astounding because prior to the disaster we had been told that we were going to be displaced to pave way for the dam. We were also promised adequate land and monetary compensation before our evacuation. Now that the flood took place before our compensation, the government is now reluctant to fulfil its promises. This is a reflection that our plight is not being taken seriously by those in power.[430]

The challenges encountered by the flood victims which emanated from lack of both land and monetary compensation reflect that social vulnerability does not only manifest itself in terms of gender, age or ethnicity, areas which many other studies have focused on. Social vulnerability goes beyond these aspects and it also includes the political environment within which the disaster occurred. In every disaster situation, including natural disasters, power relations are a vital issue to be considered as this helps in the understanding of the manner in which resources are availed to the victims of natural disasters. Power relation is inseparable

[427] World Bank, *Hazards of Nature, Risks to Development: An IEG Evaluation of World Bank Assistance for Natural Disasters*, (Washington D. C, World Bank, 2006).
[428] Ibid.
[429] R. Sylves, *Disaster Policy and Politics: Emergency Management and Homeland Security*, (Samsung Hub, SAGE Publications, 2014).
[430] Interview with Ms Muchenje (not her real name), Chingwizi resettlement area, 24 February 2017.

from the ruling government's political willingness to address the concerns of the affected disaster communities. When it comes to disaster management, there is need for domestic political will which includes a government which respects, protects, and fulfils human rights relevant to the safety and protection of its people. Where this is lacking as was in the case of Tokwe-Mukosi disaster, the powerless and the voiceless individuals and communities are often left susceptible to natural disasters and are deprived of the crucial resources needed for recovery.

These inequalities are linked with the manner in which top government officials use government funds. For example, Mugabe's February 2014 lavish birthday party exemplifies the power imbalances and lack of political willingness that surrounded the Tokwe-Mukosi flood disaster. The 90th birthday celebrations took place hardly 3 weeks after the disaster had struck, when the affected families were lacking basic needs such as food and clean water at the transit camp. The birthday party also occurred at a time when at least 2 million Zimbabweans were reported to be food insecure.[431] About US$1 million was used for the bash,[432] a move which attracted a lot of criticism from the general public and the flood victims as a misplaced priority. Expressing disgruntlement on Mugabe's birthday bash, an elderly man who was part of the flood victims said:

> What kind of a president spends such an amount of money on a birthday party when we are suffering from hunger here? Where did he get that money? Those are state funds that are being misused when people like us are in dire need of assistance. This actually shows that the president does not take our plight seriously as long as he is enjoying life with his family.[433]

In a related narrative, another young man who was also a flood victim stated:

> It is not funny that the president spends US$1 million dollars on a birthday bash at a time when well-wishers are donating food handouts and other necessities to us. Barely 3 weeks ago, he declared the flood a national disaster and called for assistance. Do you think other countries will take our concern seriously when they see the president spending such an amount on a birthday? It actually shows that all the problems we are experiencing here are man-made. The government has the funds to help us but what is lacking is the will.[434]

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[431] P. Mbanje, '90 beasts slaughtered for Mugabe's birthday' in The standard, 23 February 2014, https://www.thestandard.co.zw/2014/02/23/90-beasts-slaughtered-mugabes-birthday/.
[432] Ibid.
[433] Interview with T. Mazhindu (real name withheld to maintain anonymity), Chingwizi Transit camp, 24 March 2014.
[434] Interview with B. Mukuwe (not his real name), Chingwizi Transit camp, 24 March 2014.

Therefore, the political atmosphere in which the disaster occurs is important in unveiling the unequal power relations that expose people to disasters as well as impeding their recovery. When these power imbalances are addressed, there will be effective disaster intervention mechanisms which enhance community development. Community development thus calls for the recognition and respect of marginalised people as members of a particular group with their own specific concerns, insights and objectives.[435] When these concerns are not addressed, there will be human rights violations. In chapter six, I discuss several human rights violations that were connected with the flood disaster and its aftereffects.

5.3. Conclusion

The chapter has explored the nexus between social vulnerability and the susceptibility of grassroots communities to disasters. It has paid attention on how lack of political power left the flood victims exposed to the flood disaster. The chapter has also used social vulnerability to explain the extent to which limited political power made it difficult for the flood victims to recover from the disaster.

To unravel the connection between power imbalances and the susceptibility of communities to disasters, the chapter examined the disaster management cycle and scrutinised how social vulnerability affected each of the four phases of the cycle namely: mitigation, preparedness, response and recovery. On the mitigation phase, social vulnerability is revealed by the reluctance by the government to relocate villagers who were residing in the vicinity of the dam before construction commenced, leading to drowning of household properties, grains, crops and livestock. On the preparedness phase, failure by the government to be proactive after being warned by the Meteorological Services Department of the impending heavy rains reveals the extent to which social vulnerability exposed the powerless communities to disasters. After receiving a warning about the possibility of heavy rains, there was supposed to be urgent action from the government to relocate all the people who were living close to the dam. The reluctance by the government to take action to prevent the disaster shows that the susceptibility to disasters is determined by one's position in the social strata. Those at the bottom of the social strata are often economically and politically powerless and have high possibility of exposure to disasters. Social vulnerability can also be noticed on the response and recovery phases of disasters. When

[435] S. Lynam, *Community Development and Public Policy: Guidance on the application of community development approaches to different aspects of anti-poverty and social inclusion work*, (Dublin, Combat Poverty Agency, 2006).

the flood occurred, the government did not give heed to the dam engineers' advice of opening the tunnels to let water out of the dam in order to minimise the severity of the disaster. This inaction saw families that lived near the dam incurring losses from the flood. The recovery phase is also greatly affected by social vulnerability. Failure by the flood victims to get adequate financial and land compensation can be perceived as something that goes beyond the issue of government incapacitation. Despite the existence of abundant land in the country, the displaced flood victims were settled on one-hectare plots which were too small for producing enough food for their families, leading to widespread food insecurity. The fact that several ZANU PF top officials have many farms whilst the flood victims are suffering from land shortages is a reflection of how social vulnerability negatively impacts disaster recovery. Political powerlessness makes it difficult for disaster victims to acquire the resources they need to rebuild their lives. It plunges the victims of the disaster into different forms of scarcities, thereby aggravating poverty. In short social vulnerability from natural disasters affects community development as it deprives the flood victims of all the resources they need to improve their lives as well as fostering development in their societies.

CHAPTER SIX

GOVERNMENT INDIFFERENCE TO NATURAL DISASTERS AND THE VIOLATION OF HUMAN RIGHTS

6.1 Introduction

The preceding chapter examined the link between social vulnerability and the susceptibility of marginalised communities to disasters, focusing on power imbalances between the state and the flood victims. This chapter examines the extent to which the phenomenon of social vulnerability discussed in the previous chapter contributed to the violation of the flood victims' fundamental rights by the government. The challenges encountered by the flood victims (including those discussed in previous chapters) are examined in the context of human rights violations.

The chapter draws in various international instruments that have provisions on human rights in general and the rights of disaster victims and Internally Displaced Persons (IDPs) in particular and examines how the government through the disaster and the subsequent displacement of the disaster victims infringed on the flood victims' rights. The chapter concludes with a discussion on the impact of human rights violations on community development focusing on how the violation of the rights of the flood victims subsequently thwarted their social and economic wellbeing.

6.2 Conceptualisation of human rights

Human rights are largely understood as rights of human beings arising from their very human nature and inherent dignity.[436] All people, regardless of nationality, place of residence, gender, national or ethnic origin, colour, religion, language, or any other status are endowed with dignity, which is protected through the human rights.[437] The Universal Declaration of Human Rights (UDHR) is responsible for outlining fundamental human rights that ought to be respected and fulfilled. Like many other countries across the world, Zimbabwe ratified many international instruments with provisions that protect human rights. Some of these instruments include the 1966 International Covenant on Economic, Social and Cultural Rights, (ICESCR), the 1979 Convention on the Elimination of all Forms of Discrimination against Women

[436] K. Da Costa, 'Can the observance of human rights of individuals enhance their resilience to cope with natural disasters?' in *Procedia Economics and Finance* (Vol 18, No. 1, 2014).
[437] Ibid.

(CEDAW), the 1989 United Nations Convention on Children's Rights (UNCRC) and the 1990 African Charter on the Rights and Welfare of the Child (ACRWC). The ratification of these international instruments on human rights entails that a government should endeavour to make sure that all of its citizens are protected by the rights enshrined in different conventions. Zimbabwe also ratified international instruments that seek to protect IDPs and these conventions include the United Nations Human Rights Council Framework on Durable Solutions for Internally Displaced Persons, the United Nations Guiding Principles on Internal Displacement and the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa, (Kampala Convention). Victims of disasters are governed by the same human rights instruments applicable to every individual regardless of the position he/she finds himself/herself. In other words, their human rights are inalienable.[438] As Feris posits, people do not lose their rights when disasters strike.[439] Thus, governments have an obligation to make sure that even in disaster times, the rights of the victims are fulfilled. As recognised in international human rights conventions, governments have a primary duty to protect the human rights of their citizens when they are party to such binding conventions.[440]

Nevertheless, it is important to note that the ratification of international human rights treaties by nation states does not always guarantee the protection and fulfilment of these rights (particularly the rights of disaster victims) as in many cases governments have failed to fulfil their obligation as duty bearers. As discussed below, the Tokwe-Mukosi flood disaster epitomises how the government of Zimbabwe as the primary duty bearer failed to fulfil the fundamental rights of the flood victims including the right to food and nutrition, right to water and sanitation, and right to shelter. As Adeyemo notes, even though there are a number of international instruments concerning the rights of victims in disasters and government's obligation in disaster prevention and management activities, the operational context of these rules should be explored in order to ensure an effective disaster risk management regime.[441] The United Nations Economic Commission for Africa also states that despite the fact that countries have overwhelmingly subscribed to uphold most of the international and regional human rights norms and standards and ratified numerous major human rights treaties and

[438] I. F. Akande, 'International law and disaster management' in O. A. Bamgbose (ed), *The Law and Practice on Disaster Issues,* (Ibadan, Safari Books Ltd, 2018).
[439] E. Feris, How can international human rights law protect us from disasters? Paper prepared for the American Society of International Law, Annual Meeting, 10 April 2014.
[440] R. Bronen, 'The human rights of climate-induced community relocation' in D. Manou *et al* (eds), *Climate Change, Migration and Human Rights: Law and Policy Perspectives,* (New York, Taylor & Francis, 2017).
[441] D. D. Adeyemo, 'Human Right Based Approach to disaster risk management' in Bamgbose, O. A. (ed) *The Law and Practice on Disaster Issues,* (Ibadan, Safari Books Ltd, 2018).

enshrined these norms and standards in their constitutions and national legislations, a significant gap remains in their realisation.[442] The specific human rights violations of the flood victims are discussed below.

6.3 Specific rights violated by the government

This section discusses different rights of the flood victims which were violated by the government during and after the disaster. These rights are presented as follows:

6.3.1 Right to food

The right to sufficient nutritious food is one of the fundamental human rights in the sense that its violation can lead to the violation of other human rights such as the right to health and the right to life. The right to food is enshrined in Article 25 of the UDHR, Article 14 of the ACRWC as well as Section 77(b) of the 2013 Constitution of Zimbabwe. The failure by the Zimbabwean government to provide adequate assistance to the flood victims subjected them to hunger and starvation, thereby violating their right to food. Ninety percent of disaster victims indicated that lack of basic needs was a pressing problem they faced from the time the disaster struck up to their resettlement at Chingwizi Transit Camp as well as in the resettlement area. Since most of the flood victims lost their grain crops to the flood, food shortage was a common challenge for almost all of them. Some of the victims indicated that before they were evacuated to Chingwizi camp, they spent many days without food while they awaited evacuation. Narrating the challenges which they faced soon after the disaster struck, one woman asserted:

> When the flood hit our area, we spent close to seven days sleeping in classrooms and others in the open before we were evacuated to Chingwizi Camp. We had no decent food to eat and it was even worse for children, pregnant mothers as well as nursing mothers.[443]

At Chingwizi Camp, the food handouts donated by donors and well-wishers were not enough to meet their dietary needs. Eighty percent of flood victims who were interviewed stated that they were given equal food rations per household regardless of the differences in the number of people living in each household. This deprived the victims' right to food. As already discussed in Chapter Four, even after resettlement, most of the victims indicated that they still relied on food handouts donated by well-wishers whilst some worked for food in

[442] United Nations Economic commission for Africa, African governance report 2005, United Nations Publications.
[443] Interview with C. Mugate (not her real name), Chingwizi Transit Camp, 24 May 2014.

nearby farms to supplement the little they were getting from their small plots and donated food handouts. Therefore, failure by the government to provide enough food to the flood victims should be perceived as a human rights violation.

Moreover, as already explained in the previous chapters, the government failed to provide land and meaningful monetary compensation to the flood victims and this again should be perceived as a violation of the flood victims' right to food. The realisation of the right to food implies the recognition of indigenous peoples' customary land rights.[444] Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) stresses the right to adequate food outlining that State parties have an obligation to provide both economic and physical access of food, including access to land.[445] Failure by the government to provide adequate land compensation to the displaced families was not only an infringement on the rights of the displaced families but also revealed the power imbalance that existed between the government and the citizens. As already discussed in Chapters Four and Five, while the government failed to avail adequate land to the displaced families, most of the top officials from the ruling ZANU PF party had multiple farms. As Duri explains, the top ruling party officials took advantage of the 2000 chaotic Fast Track Land Redistribution Programme (FTLRP) and grabbed many farms at the expense of the landless majority.[446] Contrary to the "one-man-one-farm" policy, the ZANU PF officials registered the farms in the names of their relatives to evade the government's one farm policy and thus most of that farm land lay idle and underutilised.[447] Thus, if the government was serious about solving the land challenge encountered by the displaced families, it was supposed to resettle them on some of those farms that were lying idle. Hence, the land problem faced by the displaced villagers was a reflection of social vulnerability which was rooted in power inequalities. Apart from that, most of the land surrounding Tokwe-Mukosi dam was grabbed by ZANU PF officials for commercial purposes while the displaced villagers were suffering from land shortages. In September 2011, ZANU PF chairman for Masvingo province Ezra Chadzamira told party supporters that 10 000 of the 29 000 hectares of irrigable land around Tokwe-Mukosi dam were reserved for party leaders

[444] J. Gilbert, *Indigenous Peoples' Land Rights under International Law: From Victims to Actors*, (Ardsley, International Publishers, 2006).
[445] International Covenant on Economic, Social and Cultural Rights, 1976.
[446] F.P.T Duri, 'On the Philosophy and historicity of the development agenda: Problematising African nationalism in the context of Zimbabwe's land question since the colonial period' in M. Mawere, *et al* (eds), *The African Conundrum: Rethinking the Trajectories of Historical, Cultural, Philosophical and Developmental Experiences of Africa*, (Bamenda, Langa Research and Publishing CIG, 2017).
[447] Ibid.

including councillors, chairpersons, district and provincial executives, among others.[448] This was regardless of the fact that most of these ZANU PF leaders owned several sugarcane plots in Chiredzi and Hippo Valley area as well as several farms across the country. Chadzamira's utterances were criticised by the general public who had hoped that the new dispensation under President Emmerson Mnangagwa would usher in a new era of fairness in the distribution of resources.[449] This reflected that the whole disaster and its aftermaths was marred by power imbalances since political elites benefited from the construction of this dam at the expense of the local villagers who were displaced by the flood. This was a violation of the displaced families' right to food because most of the rural people in Zimbabwe, such as the Tokwe-Mukosi flood victims, derive their food and livelihoods from cultivating the land. As Nhemachena and Hassan note, agricultural production remains the main source of livelihoods for most rural communities in developing countries and Sub-Saharan Africa in particular.[450] About Ninety-two of the flood victims indicated that they could no longer afford to have three meals a day because their plots were too small to produce enough food. One man lamented this lack of adequate land saying:

> We last had decent meals before the flood disaster. That is when we could afford to have three or more meals a day because food was abundant. I had close to ten hectares of land and I could grow a variety of crops, but mainly grains and legumes. In times of bumper harvest, I could sell the surplus to meet other needs. However, here land shortage has caused food shortages not only in my household but in the whole community.[451]

In another relatable experience, an elderly woman stated:

> My daughter, here we are only surviving by the grace of God. As you can see, I am old and I am staying here with my five grandchildren who are orphans. Four of them are capable of doing farm activities, though under supervision. However, the land that we were given is very small. We can only afford to have one or two meals a day. We supplement the little that we get from our small plots and donations by working for food in the nearby farms.[452]

The above narratives reveal that the failure by the government to provide adequate compensation to the flood victims left them susceptible to hunger and poverty. Losses during

[448] Masvingo Mirror, ZANU PF Leaders grab 10 000 hectares at Tokwe, 13 September 2018.
[449] Ibid.
[450] C. Nhemachena, and R. Hassan, *Micro-level Analysis of Farmers' Adaptation to Climate Change in Southern Africa*, (Washington D.C, International Food Policy Research Institute, 2007).
[451] Interview with T. Jera (not his real name), Chingwizi resettlement area, 14 July 2018.
[452] Interview with M. Muchada (not her real name), Chingwizi resettlement area, 14 July 2018.

disaster and reconstruction deepen existing socio-economic inequalities, thereby creating vicious cycles of loss and vulnerability.[453] Thus, in natural disasters, institutional discrimination is common and it is it is further exacerbated by neglect. This applies to all stages from early warning evacuations to the reconstruction process.[454] Hence, access to land rights has been recognised as necessary to ensure access to means of subsistence, and this notion of access to livelihood has also been interpreted in relation to the right to food.[455] Therefore, the violation of the right to land by the state also violated the right to food.

6.3.2 Right to adequate housing

The government's actions and inactions before, during and after the disaster also violated the right to adequate housing. The right to housing is recognised in a number of international human rights instruments which include Article 25 of the UDHR, Article 11 (1) of ICESCR and section 28 of the 2013 Constitution of Zimbabwe. The violation of the right to shelter and housing also violates other rights, for example the right to privacy which is protected under Article 12 of the UDHR, Article 16 of the UNCRC, Article of the ACRWC and Section 57 of the 2013 Zimbabwean Constitution. As already indicated in the previous chapters, the flood inundated the villagers' houses, rendering them homeless. Most of the victims stated that when the disaster occurred, they were exposed to the whims of the weather when they were made to sleep in the open without blankets while awaiting their evacuation Chingwizi Transit Camp. The problem of appropriate shelter also persisted even during their stay at Chingwizi Transit Camp. Sixty-five percent of the disaster victims stated that they lacked enough tents. Each household was given one tent regardless of the family size. Children slept in the same tent with their parents thereby violating the flood victims' to right to privacy as well. In an interview at Chingwizi Transit Camp, one woman, a flood victim and a mother of six children stated that:

> This situation is deplorable. Just imagine six children sharing the same tent with their parents. We don't have privacy here. It is difficult for us to have sexual intercourse when we are sharing the same tent with children. On the other hand, children also need their privacy as it is not only parents who need privacy. My eldest child is a daughter

[453] UN-Habitat, *Enhancing Urban Safety and Security: Global Report on Human Settlements 2007*, (London, Earthscan, 2007).
[454] U. O. Spring, 'Social vulnerability, discrimination, and resilience building in disaster risk reduction' in H. G. Brauch *et al* (eds) *Coping with Global Environmental Change, Disasters and Security: Threats, Challenges, Vulnerabilities and Risks*, (New York, Springer, 2011).
[455] Ibid.

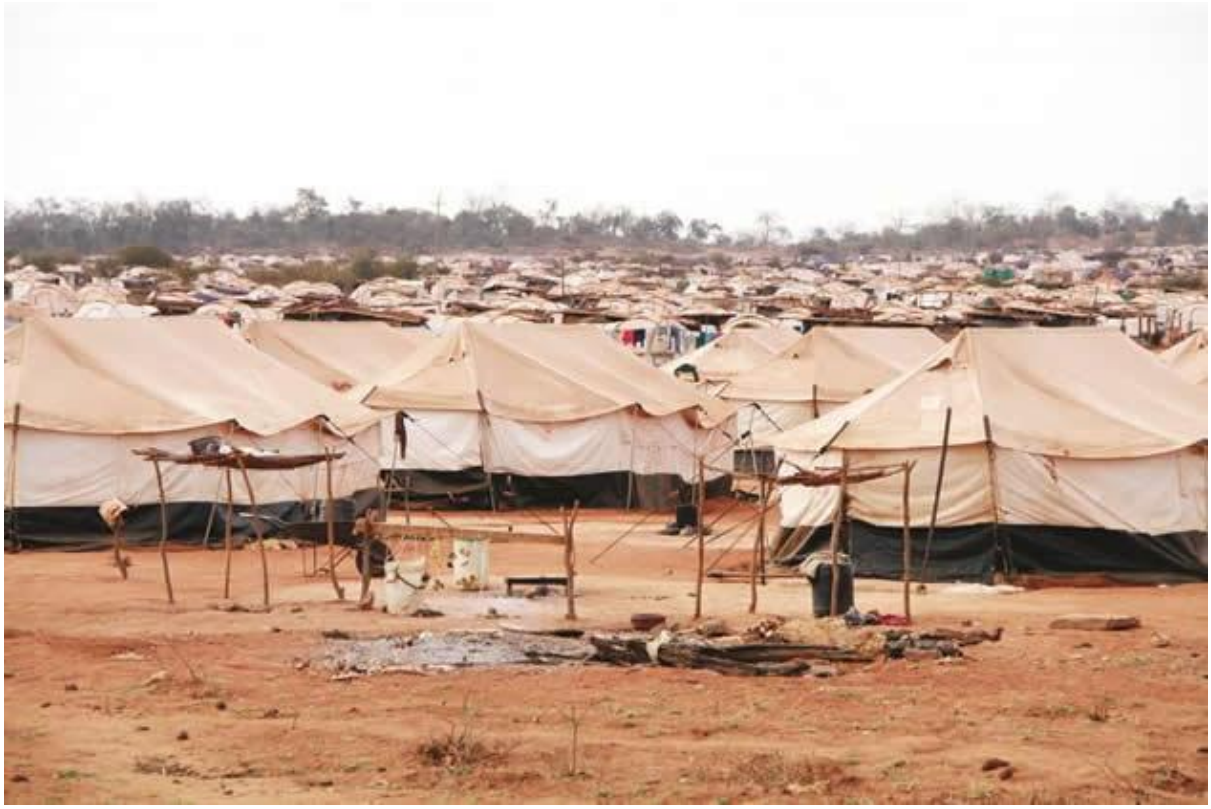
who is 17 years old. She also needs her privacy because she is an adolescent. The situation is even worse when she is on her mensuration cycle.[456]

The violation of the right to housing did not end at Chingwizi Transit Camp. Even in the small resettlement plots, the flood victims continued to experience the problem of proper shelter. As pointed out in Chapter Four, most of the resettled flood victims indicated that they were told by the government to avoid building permanent structures as these small plots were not permanent. As such, most of them built temporary structures while some continued to live in the tents that were donated during their stay in the transit camp. Therefore, the government violated the flood victims' right to housing and shelter during the disaster as well as in the post-disaster period. Human rights abuses start from power, and those that have power are those that may be abusing it such as governments as well as those who are politically and economically privileged. [457] What further consolidates the extent of government negligence to the plight of the displaced families was that while the flood victims were facing housing problems, most top ZANU PF officials were living in luxurious mansions. According to Mawere, Mugabe had mansions in Borrowdale (in Harare), Kutama (his rural area), Singapore, South Africa, Hong Kong and Malaysia, among others.[458] Such kind of luxury lifestyle in a country experiencing deep socio-economic woes demonstrates social inequalities that existed between the ruling elites and the mass of poor citizens. It is such inequity that led to the infringement of the housing rights of the flood victims.

6.3.3 *Right to water and sanitation*

Lack of sanitation was another problem encountered by the flood victims. During interviews, ninety-eight percent of the flood victims stated that the living conditions at Chingwizi Transit Camp were appalling. As shown in picture 6.1, the people were overcrowded, a situation which was perceived by health experts as well as the flood victims themselves as a threat to human health.

[456] Interview with Mandlovu (not her real name), Chingwizi Transit Camp, 24 May 2014.
[457] World disaster report 1994, (Collingdale, Diane Publishing, 1995).
[458] M. Mawere, 'God of development or Perpetuators of poverty and underdevelopment in the developing world? Rethinking the role of the World Bank and IMF on Africa's socio-economic development' in M. Mawere, (ed) *Jostling Between "Mere Talk" and Blame Game? Beyond Africa's Poverty and Underdevelopment Game Talk*, (Bamenda, Langaa RPCIG, 2018).



Picture 6.1 Densely packed tents at Chingwizi Camp *(*Source: Chronicle, 10 July 2014).

In addition to living in an overcrowded camp, there was also scarcity of toilets in the camp. The situation became worse when NGOs which specialised in toilet construction, provision of potable water and carrying of HIV/AIDS awareness campaigns withdrew their services in June 2014.[459] These NGOs withdrew their services due to exhaustion of funds and uncontrolled political interference on their operations.[460] In the same month, 3 000 families in the camp found themselves sharing 36 temporary toilets after 64 were decommissioned because they were no longer functional.[461] Since the camp was located in a rocky area, NGOs had constructed one meter deep toilets which were rapidly filling up, causing serious sanitation problems at the camp.[462] Picture 6.2 below shows an example of the toilets that were at the camp. The camp residents also indicated that the toilets had no floors and it was difficult for them to clean them, hence, they could not be safely

[459] Separate interviews with Chineni (not his real name), Chingwizi Transit Camp, 24 May 2014; Masiya (not his real name), Chingwizi Transit Camp, 24 May 2014.
[460] Ibid.
[461] Maponga, G. 'Health disaster looms at Chingwizi' in Herald 25 June 2014, https://www.herald.co.zw/health-disaster-looms-at-chingwizi/.
[462] Separate interviews with Machera (real name withheld), Chingwizi Transit Camp, 24 May 2014; Muforo (real name withheld), Chingwizi Transit Camp, 24 May 2014.

used.[463] As a result, the camp dwellers ended up using bush toilets.[464] Some of the victims stated that they were now afraid of diseases such as cholera because at night it was impossible to use the bush, hence some people ended up leaving their waste just outside their tents.



Picture 6.2 Temporary toilet at Chingwizi camp (Source: Herald 26 June 2014).

Some of the disaster victims also stated that the problem of poor sanitation in the camp was worsened by some of their fellow camp dwellers who were having sexual intercourse in the surrounding bushes and outside the camps, particularly during the night, dumping used condoms in camp. Explaining the awful conditions at the camp, one woman stated:

> Used condoms are all over in this camp. This is compromising sanitation here. There are children in this camp and some of them are very young that they can play with these condoms, blowing them because they think that they are balloons.

[463] Separate interviews with Muforo (real name withheld), Chingwizi Transit Camp, 24 May 2014, Masiya (real name withheld), Chingwizi Transit Camp, 24 May 2014, Chineni (real name withheld), Chingwizi Transit Camp, May 2014.
[464] Ibid.

> We are afraid that our children will get infected by diseases. We do not know whether the president is still aware of our plight or not.[465]

In addition to poor sanitation, the plight of the flood victims was aggravated by incessant water shortages at the camp. Lack of potable water was a pervasive problem in the camp. The water shortage, coupled with overcrowding, sparked fears of a disease outbreak.[466] The flood victims stated that the two boreholes that had been constructed in the camp were not functional while the plastic water tanks which supplied water to the camp residents were very few, resulting in long queues,[467] as shown in picture 6.3.



Picture 6.3 Flood victims queuing for limited water supply at the camp (Source: Southerneye, 15 January 2016).

During a focus group discussion conducted at Chingwizi Camp, women reported that they would wake up as early as 03:00 am to queue for water even though they could sometimes fail to get it.[468] The same women further reported that the problem of water shortages in the camp was forcing them to walk several kilometres to fetch unclean water from canals that supply the nearby sugarcane plantations at Triangle Sugar Estates. Some of the women indicated that although they were aware that the water from these canals

[465] Interview with A. Jazi (not her real name), Chingwizi Transit Camp, 24 May 2014.
[466] Herald 22 February 2014, 600 displaced families hit by water shortage https://www.herald.co.zw/600-displaced-families-hit-by-water-shortage/**.**
[467] Interview with four women (names withheld to maintain confidentiality), Chingwizi Transit Camp, 24 May 2014.
[468] Focus group discussion with female flood victims, Chingwizi Transit Camp, 25 May 2014.

was unsafe for domestic use, they had no option because they had nowhere to get the water from. Twenty percent of the flood victims who were interviewed by the researcher indicated that sometimes they experienced cases of diarrheal diseases in their families which they attributed to water and sanitation problems in the camp. According to UNICEF, poor water, sanitation and hygiene directly and indirectly cause under-five, infant and maternal deaths worldwide and also affect the health of older children and adults.[469] Close to eighty percent of the respondents indicated that they continued to face the problem of water scarcity even in their one-hectare plots. Some of the displaced villagers stated that they were walking long distances in search of potable water.[470] The disaster victims stated that most of the boreholes in the one-hectare plots were dry, and that the few that were not dry produced saline water that was unsuitable for drinking.[471] Therefore, the problem of poor water, sanitation and hygiene that was encountered by the displaced families in the aftermath of the disaster was a violation of the right to water and sanitation which also violates the right to health.

6.3.4 Right to health

Due to the interdependent nature of the various human rights, the deprivation of the right to housing and shelter as well as the right to food, water and sanitation that was experienced by the disaster victims also jeopardised their health and violated their right to health. These deplorable living conditions in the camp led to outbreak of diseases. In March 2014, an outbreak of diarrhoea was reported at the Camp, affecting an average of 100 people.[472] Residents said they suspected that the diarrhoea could have been caused by contaminated water.[473] Furthermore, even after their resettlement in the one-hectare plots, some of the flood victims who were interviewed complained about the excessive heat due to high temperatures, thus making the place uninhabitable.[474] The displaced families also stated that they were exposed to malaria yet they had no access to adequate supplies of anti-malarial drugs.[475] As

[469] UNICEF, Water, Sanitation and Hygiene, 2014.
[470] Separate interviews with N. Makaripa (real name withheld), Chingwizi resettlement area, 24 February 2017; R. Makwari (real name withheld), Chingwizi resettlemet area, 14 July 2018. See also Human Rights Watch, Homeless, landless and destitute: The plight of Zimbabwe's Tokwe Mukosi flood victims, (February 2015).
[471] Separate interviews with three female flood victims (names withheld to maintain confidentiality), Chingwizi resettlement area, 14 July 2018.
[472] E. Mushava, 'Diarrhoea hits Tokwe- Mukosi' in NewsDay 24 March 2014, https://www.newsday.co.zw/2014/03/diarrhoea-hits-tokwe-mukosi-victims/
[473] Ibid.
[474] Separate interviews with Mrs Ncube (not her real name), Chingwizi resettlement area, 24 February 2017; and Mr Manhuwe (not his real name), Chingwizi resettlement area, 14 July 2018.
[475] Ibid.

Sambo purports, most IDPs face insecurity, stress, violence, lack of food, portable water, shelter and sanitation facilities which directly expose them and increases their vulnerability to outbreaks of epidemics.[476] When the right to health is violated, it can also lead to the infringement of the right to life, as explained below.

6.3.5 Right to life

The different health challenges experienced by the flood victims coupled with food deficit and poor sanitation did not only jeopardise their health but also threatened their right to life. Some of the flood victims even lost their lives due to the deplorable conditions they were exposed to (see Chapter Four). This implies that the abandonment of victims of natural disasters and similar emergency situations without humanitarian assistance constitutes a threat to human life and an offence to human dignity.[477] Thus, the violation of many human rights is a threat to the right to life.

6.3.6 Right to Education

The victims' right to education was also undermined. The right to education is protected under Article 26 of the UDHR, Articles 13 and 14 of the ICESCR, Article 10 of CEDAW, Articles 28 and 29 of the CRC, Article 11 of the ACRWC and Section 27 of the 2013 constitution of Zimbabwe. Education is important for the development of communities and nations. Education has been regarded in all societies and throughout human history as both an end in itself and as a means for the individual and society to grow.[478] The recognition of education as a human right is derived from the indispensability of education to the preservation and enhancement of the inherent dignity of the human being.[479] From a child rights perspective, the right to education is fundamental because of its contribution to future human capital and innovations which all help to boost the development of nations.

Most of the resettled villagers indicated that there were very few schools in the newly resettled plots (one-hectare plots). As articulated in Chapter Four, the few schools that were available in the plots were characterized by poor infrastructure as most of them were just makeshifts or tents that were turned into classrooms. The flood victims indicated that the

[476] L. Sambo, 'Epidemiology and health policy in Africa' in F. Omaswa and N. Crisp (eds) *African Health Leaders: Making Change and Claiming the Future* (Oxford, Oxford University Press, 2014).
[477] R. J. B. Jones, *Routledge Encyclopedia of International Political Economy*, Volume 3, (New York, Routledge, 2002).
[478] L. Mapuva, and J. Mapuva, *The Dilemma of Children's Right to Education in the Era of the Fast Track Land Reform Programme in Zimbabwe Re-Visited*, (Cambridge, Cambridge Scholars Publishing, 2016).
[479] Ibid.

schools were very far away from their homesteads (see Chapter Four). Eighty percent of the teachers who were interviewed indicated the long distances between the schools and children's homesteads were causing school absenteeism and dropouts. Explaining how long distances were affecting children's education, one school head of a satellite primary school located in the plots asserted:

> The school is very far away from children's homes. Most of them do not come to school on daily basis. Imagine a grade one child walking for a distance of 10 km-20 km, it is so pathetic. Many children are finding the situation unbearable and they are dropping out of school. This term alone, more than 50 pupils have dropped out of school.[480]

Apart from long distances many parents and guardians indicated that the schools were charging high tuition fees which they could not afford. For example, a school for the displaced, called Mulale, which was relocated from Chingwizi to Nyoni section, was charging US$55 per term.[481] The fee was beyond the reach of most parents or guardians affected by the flood as they were solely dependent on aid.[482] Almost ninety percent of the parents and guardians indicated that they lost their livelihoods to the flood and the subsequent displacement and they had no other means of raising the school fees. Other parents stated that the government was supposed to offer free education to their children or subsidise the tuition fees, given the fact that their livelihoods had been affected by the flood as well as their displacement. Among the parents who shared this sentiment was a man who said:

> We did not choose to be in this situation. Had it not been the construction of the dam that unleashed the flood that affected us, we could have been in Chivi, our original district, doing our day to day activities as normal. In Chivi, I never struggled to raise fees for my children because I had a large heard of cattle. However, some of the livestock were drowned by the flood while the rest died at Chingwizi Camp due to unavailability of pastures and water. The government therefore should support the education of our children. Personally, I have higher expectations for my children and I do not want their education to be interrupted.[483]

In the same context, as discussed in Chapter Four, other parents and guardians who had their children who were supposed to sit for their final examinations expressed concern about the degree to which the flood ruptured the education of their children. At Chingwizi Transit Camp

[480] Interview with a primary satellite school head, Chingwizi resettlemet area, 14 July 2018.
[481] Separate interviews with two male parents and one female parent, Chingwizi resettlement area, 24 February 2017. See also Human Rights Watch, Homeless, landless and destitute: The plight of Zimbabwe's Tokwe Mukosi flood victims, (February 2015).
[482] Ibid.
[483] Interview with Mr Zhou (not his real name), Chingwizi resettlement area, 24 February 2017.

for example, the temporary schools that had been established had facilities that were far from being satisfactory.[484] The schools combined children from different schools.[485] As already pointed out in Chapter Four, the situation was exacerbated by lack of learning and teaching materials such as text books, exercise books, teaching staff, chairs and desks, among others. All these conditions negatively impacted on the education of the children, thereby violating their right to education. A female teacher at the camp articulated the impact of camp conditions on children's education saying:

> The kind of life being experienced by school children here is pathetic and is detrimental to their education. Most of them do not have exercise books and pens, hence they are not writing their work. Generally, there is no mood for learning in this camp because of the various challenges they have been exposed to. Some of them are hungry and there is limited concentration. This has severe negative implications on their academic wellbeing.[486]

Therefore, the challenges that were faced by the Tokwe-Mukosi children did not only infringe on their right to education but were also a blow to the future wellbeing of their families and communities.

6.*3.7 The right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment*

The evacuation of the flood victims to one-hectare plots was not an easy process both for the government and the disaster victims as it generated conflict between the two parties, leading to the exacerbation of human rights abuses by the government. The flood victims were resisting being settled on one-hectare plots, demanding the government to give them bigger plots. As already discussed in the preceding two chapters, prior to the occurrence of the flood disaster, the villagers had been promised four-hectare plots of land per family as well as monetary compensation by the government in return for leaving their homes to pave way for the construction of the dam. However, in the aftermath of the flood disaster, the government reduced the land compensation from four-hectares to one-hectare, a move which was resisted by the flood victims.[487] The government also failed to avail the promised monetary

[484] Separate interviews with P. Mhuru (not her real name), Chingwizi Transit Camp, 24 May 2014; and M. Gumbo (not his real name), Chingwizi Transit Camp, 24 May 2014.
[485] Ibid.
[486] Interview with Ms Chigora (not his real name), Chingwizi transit camp, 24 March 2014.
[487] Separate interviews with three flood victims who requested anonymity, Chingwizi Resettlement area, 14 July 2018.

compensation to the flood victims.[488] As such, most families who had lost their livestock and property due to the flooding declined the offer and continued to live at the overcrowded camp, regardless of the unsustainable and unhygienic conditions they were experiencing.[489] In an effort to forcibly evict the camp residents to the plots, Masvingo provincial administration authorities engaged in several practices in order to achieve this end, including: denying them food; limiting access to water; barring and diverting donations intended for their assistance; blocking toilets; and closing the temporary school and clinic in the camp.[490] As a result, on 26 July 2014, the flood victims submitted a petition to the government stating the human rights abuses highlighted above.[491] The petition called on government to address the plight of the displaced families by, among other things, compensating families and allocating them at least five hectares for resettlement.[492] Nevertheless, the government did not address any of the concerns raised in the petition.

Following the closure of the camp's only clinic in late July 2014, tension at the camp escalated into protests which resulted in the burning of two police vehicles by the disgruntled camp residents. As a result of these protests, on 3 August 2014, the government sent over 200 anti-riot police who indiscriminately beat and arrested close to 300 people, mostly men.[493] Many people, almost half of the total camp residents fled the camp and went into hiding, without access to food or aid.[494] After the arrests and flight of the men, police forced all the women, including the sick and disabled, to sit in the sun without access to toilets for two consecutive days from 8 a.m. until 6 p.m. as punishment for being "rebellious" against government plans and for allowing some camp residents to burn the two police vehicles.[495] The women were then forced to pack their belongings and put them in government trucks and move to the allocated one-hectare plots in Bongo and Nyoni sections of Nuanetsi Ranch.[496] Close to seventy-five percent of the flood victims stated that the government subjected them to harassment and physical violence in a bid to force them out of Chingwizi Camp and onto one

[488] Ibid.
[489] Human Rights Watch, Homeless, landless and destitute: The plight of Zimbabwe's Tokwe Mukosi flood victims, (February 2015).
[490] Ibid.
[491] Ibid
[492] Ibid.
[493] Ibid.
[494] Interview with three male flood victims who requested anonymity, Chingwizi resettlement area, 24 February 2017. See also Human Rights Watch, Homeless, landless and destitute: The plight of Zimbabwe's Tokwe Mukosi flood victims, (February 2015).
[495] Human Rights Watch, Homeless, landless and destitute: The plight of Zimbabwe's Tokwe Mukosi flood victims, (February 2015).
[496] Ibid.

hectare plots. Commenting on this violence, a male flood victim who was also among those who were assaulted by the police lamented:

> The abuse was just unbearable. I was one of the people who were beaten by the anti-riot police at the camp and I spent two weeks experiencing pain from the assault. The government was forcing us to be relocated to these small plots though we had initially declined this offer because the land is too insignificant. I think by sending the police to beat us, it was a way of telling us that we must not resist government directives regardless of their impact on our lives.[497]

Recounting the same kind of physical violence, one female respondent stated:

> We acknowledge that what some of us did was very wrong especially when they burnt police vehicles. However, there was still a better way of dealing with the culprits rather than harassing and beating everyone at the camp like what they did. If they had asked for the names of those who burnt the cars they were going to get them but they preferred to punish everyone. Some of us were innocent but we ended up paying for a crime we did not commit.[498]

All these abuses faced by the flood victims at the hands of the government and its anti-riot police infringed on the victim's right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment enshrined in Article 5 of the UDHR, Article 37 of the UNCRC, Article 16 of the ACRWC and section 53 of the 2013 Zimbabwean constitution. The following section discusses how the state also violated national and international standards on IDPs.

6.3.8 Violation of national and international standards on IDPs

Besides the infringement of many of the flood victims' rights, the government also violated both national and international standards on IDPs. Zimbabwe's 2011 Framework for the Resettlement of Internally Displaced Persons stipulates minimum pre-conditions for undertaking resettlement in the country.[499] These preconditions were adopted from the internationally accepted durable solutions principles.[500] One of these preconditions is voluntariness of the decision of IDPs to resettle, which implies that verification should be undertaken to ascertain the willingness of the IDPs and host community members to accept

[497] Interview with R. Huriga (not his real name), Chingwizi Resettlement Area, 24 August 2018.
[498] Interview with S. Mapengo (real name withheld for anonymity), Chingwizi Resettlement Area, 24 August 2018.
[499] Framework for the Resettlement of Internally Displaced Persons (IDPs) in Zimbabwe January 2011.
[500] Ibid.

and participate in the solution that is being offered.[501] Another precondition enshrined in this framework is to ensure that IDPs have full knowledge of both the place to which they are being resettled and the resources and documentation that will be available to them.[502] However, the government violated this principle because as already explained the flood victims were made to settle on one-hectare plots despite the fact that they were unwilling to do so. The government used force, harassment and coercion to move the flood victims to the one-hectare plots.

The other precondition as stated in the same framework is that prior to resettlement, IDPs should be provided with the minimum land tenure and civil status documentation and resource requirements reflecting that the situation or proposed solution is indeed durable.[503] This principle refers both to the need to provide IDPs with a legal basis for when and where they are to be resettled, such that they will not remain at risk of further displacement and secondly that they are provided with sufficient material resources to constitute an adequate standards of living, in safety and with dignity.[504] This includes, and is particularly focused on, opportunities to engage in sustainable livelihood activities,[505] such as crop husbandry and animal husbandry. The government failed to meet this condition as no sufficient material resources were given to the displaced families to ensure an adequate standard of living. As mentioned earlier in this chapter, the flood disaster victims lacked basic needs such as food, shelter, water and health facilities. As pointed out earlier in this chapter, the displaced families were told not to build permanent houses because they were supposed to be moved to their permanent residence in due course. This entails that the families were at risk of further displacement, an act which would likely exacerbate their socio-economic woes. Continuous displacement of people has a negative bearing on livelihood and community development activities, thereby aggravating poverty among the displaced families.

The manner in which the displacement of the flood victims was conducted also violated international instruments on IDPs. For example, Zimbabwe ratified the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa, (Kampala Convention) which stresses the need by African States to provide sufficient protection and assistance to persons who have been internally displaced due to natural or

[501] Ibid.
[502] Ibid.
[503] Ibid.
[504] Ibid.
[505] Ibid.

human made disasters. Contrary to the stipulations of the Convention, Tokwe-Mukosi displaced communities did not enjoy full protection and assistance from the government. The Kampala Convention is the first legally binding framework that provides ground-breaking provisions on the protection of IDPs, on the basis of human rights, for both victims of natural disasters and armed conflict.[506] Article 9(2)(b) of this Convention specifically states that:

> State Parties shall provide internally displaced persons to the fullest extent practicable and with the least possible delay, with adequate humanitarian assistance, which shall include food, water, shelter, medical care and other health services, sanitation, education, and any other necessary social services.[507]

Similarly, Principle 18 of the United Nations Guiding Principles on Internal Displacement stipulates that, 'States should provide internally displaced persons with and ensure safe access to essential food and potable water, basic shelter and housing, appropriate clothing and essential medical services and sanitation.'[508]

However, as already articulated in this chapter, the whole displacement process was marred by lack of basic needs such as food, water, shelter, medical facilities, among others, thereby violating many human rights related to these requirements. In addition, Article 9(2)(k) of the Kampala Convention states that, 'States Parties shall consult internally displaced persons and allow them to participate in decisions relating to their protection and assistance.'[509]

Likewise, the United Nations Human Rights Council Framework on Durable Solutions for Internally Displaced Persons emphasises the need to implement a rights-based process to support a durable solution for the displaced. It stresses that IDPs are in a position to make an informed and voluntary decision on the durable solution they would like to pursue. It further states that IDPs should participate in the planning and management of the durable solution so that their needs and rights are considered in recovery and development strategies. Nonetheless, most of the displaced families indicated that everything relating to their displacement, assistance and protection was imposed on them by different government officials and they were

[506] African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention) 2009.
[507] Ibid.
[508] United Nations guiding Principles in Internal Displacement, 1998.
[509] African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention) 2009.

never consulted. One male flood victim revealed his bitterness on the top down approach that was being used by the government in handling their situation saying:

> We were never consulted from the beginning up to now. All the decisions were made and are still being made on our behalf by government authorities. Most of the time, they use a militaristic approach whereby they just give us orders to follow without consulting us. From the onset, up to now, our concerns have never been taken seriously and that is why we are in this miserable condition.[510]

More so, provision of adequate compensation is another aspect which is stressed by various international instruments ratified by Zimbabwe. Article 12 of the Kampala Convention, for example, states that:

> States Parties shall provide persons affected by displacement with effective remedies by establishing an effective legal framework to provide just and fair compensation and other forms of reparations, where appropriate, to internally displaced persons for damage incurred as a result of displacement, in accordance with international standards.[511]

The same article also states that, 'State Parties shall be liable to make reparation to internally displaced persons for damage when such a State Party refrains from protecting and assisting internally displaced persons in the event of natural disasters.'[512]

Conversely, the government of Zimbabwe failed to provide meaningful monetary and land compensation to the displaced families. As noted by Sheik, while international humanitarian and human rights instruments offer legally binding bases for international protection and assistance of people at risk within national borders, for the most part, such people are at the mercy of their national authorities.[513] In other words, the ratification of these instruments is just theoretical rather than practical, posing serious negative implications on the affected community. Therefore, there is need by governments to respect the human rights treatises and fulfil their obligation to safeguard the rights of people affected by natural disasters. The following section elucidates the link between human rights fulfilment during disasters and community development.

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[510] Interview with Mr Tamuka (not his real name), Chingwizi resettlement area, 15 July 2018.
[511] African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa (Kampala Convention) 2009.
[512] Ibid
[513] A. Sheik, 'Pakistan: Development and disaster' in P. Benerjee, (ed) *Internal Displacement in South Asia: The Relevance of the UN's Guiding Principles,* (New Delhi, SAGE Publications).

6.4 Why respect for human rights in disaster times is critical for community development?

As discussed earlier in this chapter, the failure by the government to take disaster preventive measures was a violation of human rights as this saw the vulnerable families being affected by the flood. Ideally, by enhancing the observance of human rights the vulnerability of individuals in a society will be reduced, and the communities will become more resilient to natural disasters.[514] Thus, there is a strong link between observance of human rights in disaster situations and community development. This is largely because human rights can present an important focus for community development. Furthermore, human rights adherence reduces the susceptibility of communities to disasters and this in turn helps in the prevention of economic losses that are triggered by natural disasters.

The violation of human rights in times of disaster places community development efforts in jeopardy. As discussed earlier in this chapter, the government has violated a number of fundamental human rights, including the right to food, right to adequate housing and shelter, right to water and sanitation, right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment, among others. The violation of these basic human rights had the effect of retarding flood victims' recovery from effectively partaking in socio-economic activities aimed at improving the wellbeing of their families and community. For example, the violation of the right to food aggravated poverty among the displaced families in several ways. Cahill and Skogly argue that violation of the right to food is a major cause of poverty as malnutrition and hunger reduce the capacity for physical activity.[515] This in turn lowers the productive potential of the labour of those who suffer from hunger.[516] Most of the flood victims asserted that persistent food shortages that followed the flood disaster hindered them from participating in the various income-generating activities as they used to do before the disaster. Over fifty percent of these families indicated that it was difficult to do any meaningful tasks when they were hungry. This evidence from the flood victims confirms that adequate food is a prerequisite for the improved socio-economic wellbeing of societies.

[514] K. Da Costa, 'Can the observance of human rights of individuals enhance their resilience to cope with natural disasters?' in *Procedia Economics and Finance* (Vol 18, No. 1, 2014).
[515] A. Cahill and S. Skogly, 'The human right to adequate food and to clean and sufficient water' in G.V. Bueren (ed) Freedom from poverty as a human right: law's duty to the poor, (Paris, UNESCO, 2010).
[516] Ibid.

Furthermore, as already articulated, there is a strong relationship between adequate food and good health. Food insecurity impairs a person's ability to develop physically and mentally and this consequently retards child growth, reduces cognitive ability, and seriously inhibits school attendance and performance,[517] while hunger and malnutrition cause serious long term damage to health, linked to higher rates of diseases and premature death.[518] The violation of the right to health due to poor health services, poor diet and other deplorable living conditions experienced by the flood victims negatively affected their day-to-day activities, thereby plunging them in deeper deprivation, which in turn retarded community development initiatives. Good health leads to higher labour productivity and it makes a critical contribution to long term economic development.[519] Also worth noting is that households whose members suffer from a significant amount of ill-health experience material deprivation through loss of current and future income, reduction in asserts and high levels of expenditure on health services. In short, good health is vital to the good functioning of communities and economies,[520] and its absence impedes the development of communities.

Violation of the right to education also retards the development of communities because of the intrinsic relationship between education and development. Education is fundamental to improved economic and social wellbeing of communities and nations.[521] As already alluded to, the education of children was severely disrupted from the time the disaster struck up to the resettlement of the families in the small plots. Most of the parents and guardians who were interviewed stated that their anticipations that their children were going to transform the lives of their families and communities were all shattered by the educational disturbances they encountered. Hence, lack of education negatively affects the social and economic wellbeing of communities, thereby hindering community development.

Recognition and respect of basic human rights also helps to build peace and democracy in communities. However, when the voices of the disaster victims are not listened to as was in the case of the Tokwe Mukosi flood disaster, participation in socioeconomic activities meant to develop communities will be thwarted, leading to the aggravation of poverty. The use of violence to forcibly resettle the disaster victims onto one-hectare plots was a clear

[517] Ibid.
[518] Ibid.
[519] Organisation for Economic Cooperation and Development, *Meeting of the OECD Council at Ministerial Level 2002: Key Information,* (Paris, OECD, 2002).
[520] Ibid.
[521] World Water Assessment Programme, *Water in a Changing World*, Volume 2, (London, UNESCO, 2009).

demonstration of how lack of respect for human rights threaten peace in societies. Without peace, there cannot be development and without respect for fundamental freedoms, there can be neither peace nor development.[522] Hence, there is a causal link between human rights and community development. The 1993 Vienna Declaration on Human Rights affirmed that respect for and implementation of human rights contribute to the establishment of conditions conducive to peace, security, and economic and social development.[523] It also declares that democracy, development and respect for human rights and fundamental freedoms are interdependent and mutually reinforcing.[524] Sen also shares the same view arguing that human rights are crucial and have a positive effect on economic growth and development.[525] Development, in Sen's view, should be conceived as the progressive expansion of individual freedoms.[526] This includes the elimination of economic deprivation, as well as allowing an individual's voice in the political decision-making process and in development itself to be heard. Hence, individual freedoms, or human rights, are an inherent aspect of development.

6.5 Conclusion

This chapter has paid attention on how the government's action and inaction before, during and after the disaster infringed on the rights of the flood victims, particularly their right to food, right to water and sanitation, right to housing, right to health, right to education, right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment, among others. Building on the previous chapter, the chapter has argued that the social inequalities that exist in societies lead to the violation of the rights of those who are powerless, thereby aggravating their poverty and vulnerability. The chapter has also asserted that human rights violations in disasters impede the effective execution of different socio-economic activities in societies and this will in turn retard the development of communities.

[522] J. Ife, *Community Development in an Uncertain World: Vision, Analysis and Practice,* (Cambridge, Cambridge University Press, 2016).
[523] Paragraph 6 of the Vienna Declaration and Programme of Action (1993).
[524]Paragraph 8 of the Vienna Declaration and Programme of Action (1993).
[525] A, Sen, *Development as Freedom,* (Oxford, Oxford University Press, 1999).
[526] Ibid.

CHAPTER SEVEN

AFTERMATH OF THE FLOOD: ANXIETY AND DESPERATION OF THE VICTIMS

7.1 Introduction

The previous chapter examined how the power imbalance embedded in social vulnerability led to the violation of the rights of the flood victims. In this chapter, I argue that besides generating human rights abuses in disaster situations, power imbalance also engenders uncertainties among the affected community. These uncertainties cause anxiety and desperation amongst the disaster victims which in turn hinder them from executing activities and projects that improve the wellbeing of their communities and societies. The chapter acknowledges the existence of scholarly literature on disasters uncertainties, in particular, Button's work deserves much attention for articulating how uncertainty is created in calamities and how it affects the victims of natural and man-made disasters.[527] Nevertheless, Button's study leaves room for a further scrutiny on the impact of disaster uncertainties on development. Therefore, this chapter analyses how the uncertainties faced by the Tokwe-Mukosi flood victims aggravated poverty as well as affecting community development. The major uncertainties that were encountered by the flood victims include: the length of time they were going to survive on food handouts; the time they were going to be allocated their permanent plots; the area they were going to be relocated to, the state of infrastructure, if any, in that area; the sources of income and resources to build new homes as well as starting income generating activities; and the future of their children and grandchildren.

7.2 The uncertainties suffered by the flood victims after the disaster

This section provides a detailed discussion of the uncertainties faced by the flood victims which are presented as follows:

[527] G. Button, *Disaster Culture: Knowledge and Uncertainty in the Wake of Human and Environmental Catastrophe,* (Walnut Creek, Left Coast Press, 2010).

7. 2. 1 How long were they going to continue surviving on disaster relief?

Disaster relief is vital for the survival and wellbeing of populations affected by calamities. It helps reduce immediate human suffering as well as alleviating stress.[528] As indicated in the previous chapters, while the displaced victims were still on the one-hectare plots, they were still getting disaster relief especially food handouts. This was mainly because the plots were too small to produce enough food for their families. However, some of the flood victims were worried about whether they were going to continue getting disaster relief or not. They were also concerned about how they would cope with the situation should the donors stop giving them food aid. To this end, one woman stated:

> We really appreciate the help that we are getting from donors. Organisations such as World Vision and Care International have been giving us food handouts from the time the disaster struck up to now. However, we do not know the time they will stop giving us this help, because this cannot be permanent. If they stop giving us this aid before we have the capacity to fend for ourselves, we will die of hunger. We pray that they continue giving us food handouts until we get adequate land to produce our own food.[529]

Some of the flood victims indicated that while they appreciated the help they were getting from donors, they were worried about its sustainability. Their major fear was that relying on food handouts made them dependent on food donors which was not a sustainable situation. Expressing his sentiments on disaster relief, a 44-year-old man stated:

> Yes, disaster relief is important but its duration is not predictable. Hence we cannot fully base our lives on it because we do not know the day or the month they will stop giving us that assistance. We should have the capacity to meet basic needs such as food on our own rather than relying on donations. I am a hardworking man and I believe in using my own hands to earn a living. Right now there is nothing meaningful that we are doing here except to wait for donations. We are incapacitated and we have been enduring this for five years. We do not know when this suffering will end.[530]

In relation to the above narrative, some of the villagers also asserted that in addition to being unsustainable, relying on donated food handouts was also limiting their right to eat food of their own choice. In an interview, one woman stated that:

> We are usually given bags of maize, sometimes with beans and sometimes without any relish. It is very difficult for us to have relish here because we do not have adequate

[528] P. N. Lal, *Economic Costs of the 2009 Floods in the Fiji Sugar Belt and Policy Implications,* (Gland, IUCN, 2009).
[529] Interview with Mrs Goronga (real name withheld), Chingwizi Resettlement area, 15 October 2018.
[530] Interview with Mr Chiba (not his real name), Chingwizi Resettlement area, 15 October 2018.

> land for vegetable gardens and neither do we have water for these gardening activities. As a result, we struggle to get relish for our families. We have been enduring this kind of life for a long time. When are we going to stop relying on food handouts? We want to be self-independent and grow our own crops so that we have a variety of food for our families.[531]

While food aid helps to alleviate hunger in disaster situations, it should not be taken as a permanent solution because it creates a dependency syndrome which destroys self-help initiatives which are crucial in boosting the development of communities. Research has shown that when food handouts and aid are continuously offered to disaster victims after a disaster, this may create other more insidious disasters. Mukherjee, for example, argues that the 1999 Cyclone that hit the State of Orissa in India saw coastal districts such as Jagatsinghpur, Kendrapara and Paradip receiving a considerable amount of food aid.[532] However, as Mukherjee further states, it was feared that this relief aid might lead to another human disaster in this area as it negated initiatives to make villagers self-reliant.[533] Food aid is unlikely to make a significant impact on the problem of food experiences of the beneficiaries due to their inability to overcome or alter the poverty that underpins this problem.[534] As Swanepoel and De Beer note, the negative spin-off of such efforts is that they make the people increasingly dependent on their benefactors because their need for relief does not and cannot stop.[535] Thus, from a development perspective, food handouts only alleviate the symptoms of poverty rather than addressing the underlying causes. According to Gore and McDaid, food aid is only a short term emergency response to the problem of food shortage, hence the root cause need to be tackled in order for the solution to be resolved.[536] In this case, the root cause was lack of clear action by the government to provide adequate land compensation to the flood victims in order to make them self-reliant. The continuous offering of food handouts kills the spirit of hardworking and local efforts to fight poverty, thereby affecting community development. The goal of community development is to make people self-reliant and to free them from deprivation. Community development aims to eradicate poverty rather than addressing poverty

[531] Interview with Ms Ranganai (not her real name), Chingwizi Resettlement area, 15 October 2018.
[532] A. Mukherjee, *Hunger--theory, Perspectives and Reality: Analysis through participatory methods*, Volume 3, (New Delhi, Concept Publishing Company, 2002).
[533] Ibid.
[534] T. Gore, and L. McDaid, *You Can't Eat Electricity': Why tackling inequality and hunger should be at the heart of low carbon development in South Africa*, (Oxford: Oxfam, 2013).
[535] H. Swanepoel, and F. De Beer, *Community Development: Breaking the Cycle of Poverty*, (Sandton, Juta and Company Ltd, 2006).
[536] T. Gore, and L. McDaid, *You Can't Eat Electricity': Why tackling inequality and hunger should be at the heart of low carbon development in South Africa*, (Oxford: Oxfam, 2013).

or dealing with its manifestations.[537] Therefore, as much as food aid is vital, it must not be a long-term solution as it may negatively affect community development.

7. 2. 2 When and where will they eventually be resettled?

The flood victims were also anxious about the time they were going to be relocated to their permanent resettlement area. As indicated in the previous chapter, flood victims were waiting to be further relocated to their final resettlement area where they anticipated to get adequate farm land. However, the delay by the government to relocate these people to bigger plots caused uncertainty among the affected community as they did not know the exact time they were going to be relocated. Being displaced by natural disasters and overstaying in temporary residences deepens the rate of distress and uncertainty about when normalcy will return.[538] Uttering her displeasure for overstaying in the small plots, one woman said:

> When we came to this area, we thought that it was going to be temporary according to the government's promise. However, we have overstayed here. It is now five years since we came to this land. We do not know when we will be relocated from these small and temporary plots to the bigger plots that we were promised. We are just waiting for that day where we will be told to leave this place. In short, we do not know what our future will be like.[539]

Sharing a similar sentiment, another respondent, an elderly man asserted:

> My daughter, I doubt that the government will ever relocate us to bigger plots. We have spent six years in this area. If the state was serious about our relocation, it could have resettled us four or five years ago. Time is moving, we are getting older every day yet we are not planning anything for our future.[540]

Thus, empty promises by the government after a disaster triggers uncertainty and it affects disaster recovery and reconstruction. In other words, failure by governments to fulfil their promises after a disaster breaks down the valuable social trust between the state and the affected citizens. As Yandong and Changhui argue, social trust as an integral part of social capital has an important significance for post disaster reconstruction.[541] Trust is one of the best social

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[537] Ibid.
[538] W. A. Afifi, *et al* 'The impact of uncertainty and communal coping on mental health following natural disasters' in W.A. Afifi, *et al* (eds) *Anxiety, Stress and Coping* (New York: Taylor and Francis, 2011).
[539] Interview with M. Venganayi (not her real name), Chingwizi Resettlement area, 13 April 2019.
[540] Interview with T. Gudhuza (not his real name), Chingwizi Resettlement area, 13 April 2019.
[541] Z. Yandong, and S. Changhui, 'The structure and change of social trust during post disaster reconstruction: An example of Wenchuan earthquake- affected population' in L. Pelin, and L. Roulleau-Berger, (eds) *Ecological Risks and Disasters - New Experiences in China and Europe*, (New York, Routledge, 2015).

mechanisms which sustain the normal functioning of social life.[542] It plays an important role in a country's micro and macroeconomic and social development.[543]

It was revealed during fieldwork that some of the disaster victims were also worried about the quality and quantity of land they were promised by the state. They indicated that they were not sure if the promised resettlement area was going to be conducive for farming activities. Revealing her anxiety over the aforementioned issue, one of the respondents stated:

> We do not even know whether the land will be adequate for our families. Again, we do not know if the land will be conducive for agriculture. What we were only told is that this is not our permanent resettlement area. We are just hoping that the "Promised Land" will be habitable.[544]

According to Oliver-Smith, poor choice of resettlement site is one of the factors behind post-disaster resettlement failure.[545] Sites for resettlement are often chosen using factors other than the welfare and development of the population.[546] Frequently, land is either inadequate in quality or size for the support of the resettled population.[547] Hence, these low yield sites trigger or exacerbate poverty among the affected communities.

Some were also worried that even in the new resettlement areas, they were likely going to be displaced again if a new project arises, thereby living a nomadic life. One of the respondents, for instance, had this to say:

> We are not sure that the promised bigger lands will be our final resettlement land. We have been living a nomadic life from the day we were affected by the flood up to now. There is no guarantee that we will permanently stay in this area. For example, if there is a new project to be developed in this area, we will have no other option except to be evacuated.[548]

Some of these displaced villagers who also shared the same view stated that the fear of continuous displacement was going to affect the execution of sustainable income generating activities in the area. Some of them indicated that even in the event of getting the bigger plots they were waiting for, they would wait for some years to ascertain whether there is no further evacuation. However, this has negative implications on their wellbeing as this entails the

[542] Ibid.
[543] Ibid.
[544] Interview with N. Mafuka (real name withheld), Chingwizi Resettlement area, 17 August 2017.
[545] A. Oliver-Smith, 'Climate Change, displacement and resettlement' in S. Leckie, (ed) *Land Solutions for Climate Displacement,* (New York, Routledge, 2014).
[546] Ibid.
[547] Ibid.
[548] Interview with M. Chengeta (not his real name), Chingwizi Resettlement area, 13 April 2019.

halting of engaging in activities that help to improve their livelihoods. Thus, this would not only affect the flood victims but also future generations.

7. 2.3 Are they ever going to get adequate information about their future welfare?

The displaced villagers also asserted that the reason why everything concerning their future was obscure stemmed from the fact that they were not being involved in the decision making processes affecting their lives. They indicated that from the onset of the disaster, decisions were being imposed on them without first having consultations and meetings with them. Being excluded from decision also reveals the extent of the power imbalance surrounding the disaster. If the flood victims had political power, they could have been included in the decision-making processes, especially on matters surrounding their welfare. Failure to be included in the decision making-processes after a natural disaster produces informational uncertainty. As Button notes, this informational uncertainty can create individual and community-wide stress and result in a lack of effective coordination between different stakeholders, such as the affected community as well as responding organisations.[549] It also raises questions about the severity of the event and the potential long-term harm they may generate.[550] Stating his resentment on their exclusion on decision making processes, one elderly man said:

> Everything is just unclear because we are being left out in the decisions that affect our lives. Though we do not have powers to take action on our own, the government should involve us in the mapping out of our future lives. They should come and meet us so that they give us a platform to air out our concerns. This will also enable us to ask questions regarding the way forward on our situation such as: where and when we will be relocated? However, this has never happened and we are being treated as people who can't think despite the fact that we are the major stakeholders in this whole issue.[551]

As Neff and Shaw note, despite the pivotal role they play, communities affected by natural disasters are often depicted as being passive with regard to disaster prevention, mitigation and responses, and awaiting only for government's action and assistance in the aftermath of such events.[552] Local people are widely believed to lack the capacity and skills to cope with and recover from disasters and innovative community activities that are crucial in addressing the effects of disasters are often overlooked and disregarded by the government and policy

[549] G. Button, *Disaster Culture: Knowledge and Uncertainty in the Wake of Human and Environmental Catastrophe*, (Walnut Creek, Left Coast Press, 2010).
[550] Ibid.
[551] Interview with Chitova (real name withheld), Chingwizi Resettlement area, 15 October 2018.
[552] A. Neff, and R. Shaw, 'Local responses to natural disasters: Issues and Challenges' in A. Neff, and R. Shaw, (eds) *Risk and Conflicts: Local Responses to Natural Disasters*, (Bingley, Emerald Group Publishing, 2013).

makers.[553] Saharan also argue that communities affected by natural disasters should not only participate and cooperate with government and local authorities in disaster preparedness activities, but they should also come up with their own disaster mitigation plans which are then ultimately reflected in administrative plans of their local authorities.[554] Thus, because communities know and understand their challenges and priorities better than outsiders, their involvement in decision-making processes after a disaster does not only help them to recover from a disaster but it goes a long way in improving the welfare of these communities. Allowing communities to air out their opinions helps in the identification of critical issues that need to be addressed. Community involvement in decision-making after a disaster allows them to identify socio-economic projects which need funding from the government and other development agencies so as to foster community development. However, where community involvement in decision-making is lacking after a disaster, the disaster victims will not know how best they can improve their situation. The result is uncertainty and desperation. Most of the victims of this natural disaster stated that the government was not updating them on the reconstruction plans. They indicated that the government's plans on their future welfare were obscure. The flood victims indicated that they did not know if there were any plans or projects that the government had set aside for them to make them recover from the disaster as well as to pursue life-sustaining activities.

7. 2.4 Are they ever going to have decent homes?

The flood victims were also worried about whether they were ever going to have the same standard of housing they had before the flood. Two thirds of the disaster victims were anxious about whether they were going to afford the resources needed to build new houses. As West *et al* posit, after a disaster, significant energy, money and time are required to rebuild homes, lives and routines as communities strive to re-establish normality.[555] The prolonged stay of flood victims on the one-hectare plots deprived them of a permanent housing solution. More than half of the respondents indicated that they were staying in temporary houses as they were waiting to be relocated to their permanent plots where they would build solid, permanent structures. Timely housing construction after a disaster is not only important for community

[553] Ibid.
[554] V. Sarahan, 'Administrative planning and political response to hazard: Issues and concerns' in H. Ha (ed) *Land and Disaster Management Strategies in Asia*, (New York, Springer, 2014).
[555] J. C. West, *et al*, 'Managing psychological consequences in disaster populations' in A. Tasman, (ed) *Psychiatry*, 2 Volume Set, (West Sussex, John Wiley & Sons, 2015).

recovery but is also critical for security and redevelopment.[556] However, most of these displaced villagers indicated that the delays in the allocation of permanent plots had made them lose hope of having a permanent homes again. This prolonged and often overlooked period of rebuilding exerts a heavy emotional toll on disaster-affected communities.[557] Some of these villagers constructed permanent homes because they had lost hope in the government's will to further relocate them. In an interview, one man (a flood disaster victim who had already built a permanent housing structure in defiance of the order from the government) said:

> When we were relocated to this area, I spent the first three years sleeping in a tent hoping to be further relocated to a permanent area where we would construct permanent structures. However, this did not happen soon, as had been promised. As such, I decided to build my three bed-roomed house and a kitchen because it seems as if the relocation will not happen in the near future.[558]

Therefore, lack of clear information about their welfare made the displaced villagers homeless and destitute. As asserted by Oliver-Smith, resettlement projects in many developing countries are frequently poorly planned, underfunded and badly implemented leaving affected populations destitute and disempowered, compounding the losses experienced in the displacement and violating human rights.[559] Most of these projects have poor outcomes, resulting in further impoverishment of the affected populations.[560]

7. 2. 5 Where will they get the resources to start livelihood activities?

In the post-disaster period, survivors often focus on rebuilding their livelihoods. In the case of the Tokwe-Mukosi flood disaster, the victims were worried about where to get resources to start livelihood activities. One of the important needs to be addressed at the material level for the uprooted disaster victims is employment. The lack of livelihood possibilities or employment in the resettlement site is usually responsible for the aggravation of poverty among the displaced communities.[561] This omission on the part of planners is often due to framing

[556] Y. Peng *et al* 'Conflicted analysis of concentrated rural settlement development during post disaster reconstruction in China: A multi-agent simulation' in K. W. Chau, (eds) *Proceedings of the 21st International Symposium on Advancement of Construction Management and Real Estate*, (New York, Springer, 2017).
[557] J. C. West, *et al*, 'Managing psychological consequences in disaster populations' in A.Tasman, (eds) *Psychiatry*, 2 Volume Set, (West Sussex, John Wiley & Sons, 2015).
[558] Interview with Chibs (real name withheld to maintain anonymity), Chingwizi Resettlement area, 13 April 2019.
[559] A. Oliver-Smith, 'Climate Change, displacement and resettlement' in Leckie, S. (ed) *Land Solutions for Climate Displacement*, (New York, Routledge, 2014).
[560] Ibid.
[561] A. Oliver-Smith, 'Climate Change, displacement and resettlement' in S. Leckie, (ed) *Land Solutions for Climate Displacement*, (New York, Routledge, 2014).

resettlement more as a 'transfer and housing' process than a 'community development' process.[562] Thus, displacement of people by natural disasters causes many people to lose the means of production such as land, tools or access to other resources. Consequently, they are unable to resume normal activities until such resources are regained.[563] The flood victims stated that they were not engaged in any meaningful livelihood activity because they lacked the resources required and they had not been supported by the government with funds or income generating activities. Employment provides much-needed income to replace or improve upon those personal and household needs not provided by aid.[564] Thus engaging in livelihood activities allows displaced communities to be active participants in their own welfare which is an integral component of community development.

Some of the displaced villagers stated that the new government under Emmerson Mnangagwa was silent about their situation. This silence was interpreted as a sign that their plight was likely not going to be solved in the near future. A young man who requested anonymity stated:

> When President Mnangagwa assumed power, we thought he was going to give heed to our plight which had been ignored by the former President, Robert Mugabe. We had high hopes that we would soon receive adequate land as well as monetary compensation so that we could live decent lives. However, just like its predecessor, the current regime has not yet fulfilled the promises that were made to us. We are desperate here because we do not have any capital or any other means to start income generation activities. I do not think that our plight would be solved in the near future.[565]

In a related narrative, another respondent, a widow and mother of three children stated:

> Ever since we came to this place, our living standards have deteriorated. I cannot afford to fend for my children. I cannot grow adequate food because I have a very small piece land. At the same time, the income-generating activities that we used to do before we were displaced by the flood are no longer viable here. Before we were displaced, I had joined a group of women in our community who were engaging in cross border trading. We were going to countries like South Africa, Botswana, Mozambique and Zambia to purchase goods for sale in our Community. While in those countries we would also sell our local products such as *nyemba* (cow peas), *mufushwa* (dried vegetables), *nzungu* (groundnuts), traditional beads and other stuff. The goods that we would bring home for sale include clothes, blankets, solar panels, wheel barrows and other items that have high demand in our community. However, the flood and our subsequent displacement

[562] Ibid.
[563] Ibid.
[564] Ibid.
[565] Interview with Sibanda (not his real name), Chingwizi Resettlement area, 15 October 2018.

> left us with no capital to continue with this activity and we are suffering from poverty.[566]

Other villagers also confirmed that they were benefitting from the cross-border activities of these women as they would get affordable items like blankets and clothes. Some indicated that they sometimes used their grains such as maize and millet to buy the goods sold by these women, indicating that their cross-border activities were not only improving the living standards of the concerned members but were also a blessing to the community. Women entrepreneurship activities such as cross-border trading do not only help to reduce poverty among women, but boosts the development of their communities.[567] However, natural disasters, displacements and lack of government support can affect the viability of these activities, thereby plunging women into poverty. Some of these villagers stated that lack of capital coupled with abject barrenness of the small plots made them lose hope on the possibility of re-engaging in the cross-border trading activities as well as other income generating activities.

In a similar narrative, another woman stated how she had lost hope in re-engaging in her sewing club when she said:

> I really miss my sewing club where I belonged to before we were displaced by the flood. We were a group of 10 women in this club and were sewing different kind of garments for sale, especially in our communities. We could sometimes receive orders from local schools, particularly school uniforms. However, we lost some of our sewing machines to the flood and we also lack capital to proceed with this business. We were hoping to continue with this project after receiving monetary and adequate land compensation from the government. However, the more we stay in this area, the more we lose hope of re-engaging in this project. This does not only affect us as members of the club, but it also affects community members who were benefiting from our projects. The clothes we were sewing were affordable and we could sometimes sell them on credit or instalments to local people whom we trust.[568]

Income-generating projects are not only an important protection mechanism, but vital in the development of self-reliance, which is critical for the rebuilding of families and communities upon resettlement.[569] However, in as much as income generation activities are vital for

[566] Interview with Nyaradzo (real name withheld), Chingwizi Resettlement area, 17 August 2017.

[567] N. Mazuru, 'Zimbabwean Women in Business' in T. P. Mapuranga, (ed) *Powered by Faith: Pentecostal Businesswomen in Harare,* (Eugene, Wipf and Stock Publishers, 2018).
[568] Interview with Madube (not her real name), Chingwizi Resettlement area, 13 April 2019.
[569] S. K. Chynoweth, and E. M. Patrick, 'Sexual violence during firewood collection: income generation as protection in displaced settings' in G. Terry and J. Hoare, (eds) *Gender-based Violence*, (Oxford, Oxfam, 2007).

community development, these can be affected by government's unclear actions, especially in the aftermath of a disaster. As Storr notes, governments sometimes engage in practices that worsen the post-disaster collective action by increasing the costs associated with rebuilding and decreasing the benefits of return.[570] These actions can constrain entrepreneurial activity and slow community rebound by adding to the uncertainty that is endemic to the post-disaster environment and dampening an entrepreneur's ability to identify opportunities to pursue their plans.[571] For example, the post-Katrina environment was rife with regime uncertainty, which complicated the ability of disaster victims to hold reasonable expectations about what the government was likely to do.[572] When government actions and responses are in flux, disaster victims find it difficult to form reasonable expectations about the future and may wait until the circumstances are more certain before forming plans and investing in future endeavours.[573] Therefore, access to reliable information is a vital component in disaster recovery. For the Tokwe-Mukosi flood victims, everything was hazy, causing severe disturbance in many different livelihood activities. This also reveals the power imbalance surrounding the disasters.

7. 2. 6 Are they going to have social networks in the new resettlement areas?

Destruction of social networks was another major worry of the displaced flood victims from the Tokwe-Mukosi area. Most of them stated that they were worried that their further relocation to their final resettlement area would affect the social ties they had established with their neighbours, friends and church mates in the one-hectare plots. As Lundy and Janes note, victims of disasters often experience a sense of isolation and loneliness, abandonment and an overwhelming sense of loss, (loss of the world as they know it).[574] Most of the disaster victims reported that when they were settled in the one-hectare plots, they could not maintain the same social ties they had before their displacement, such as neighbours, friends and church mates. They indicated that they failed to maintain these social ties because their plots were distant from one another. As a result, they were forced to start developing new social networks in this semi-permanent settlement. Nevertheless, most of these villagers feared that the new social ties

[570] V. H. Storr, *Community Revival in the Wake of Disaster: Lessons in Local Entrepreneurship* (New York, Springer, 2016).
[571] Ibid.
[572] Ibid
[573] Ibid
[574] K. S. Lundy and S. Janes, *Essentials of Community-based Nursing*, (Boston, Jones and Bartlett Learning, 2003).

they had made were going to be further disrupted by their displacement to the 'Promised Land'. One woman expressed her anger on the continuous displacement saying:

> This continuous displacement will destroy our ties. Firstly, we were displaced to Chingwizi transit camp where we stayed for almost one year, then we were moved to this area where we have stayed for almost four years. In all these settlements, we managed to build new social networks but these social ties are continuously being broken by this never ending displacement. We do not even know if we are going to have the same neighbours, friends and church mates in our final resettlement areas. I am also worried about whether I am going to find my church in this new area or not. I am a Roman Catholic and I do not know if I will find this church in the new plots or I will be forced to join other churches. Changing a church at this old age is not something that is easy because one is required to get used to the new church doctrines and rules as well as getting used to new church members.[575] `

Therefore, disasters make people lose hope about the future. According to Button, when disaster effects that are anticipated to be temporary become permanent, this creates desperation and anxiety among disaster victims.[576] Thus, the disruption of social networks is a major blow to community development in the sense that it also destroys community members' efforts to collectively work towards a common goal so as to improve their lives. As Ife argues, community development response to a natural disaster is to understand the community itself as traumatised, and to seek ways for people to work through their trauma collectively.[577] Sharing a similar perception, Magsino points out that a community's ability to respond and recover from natural or human made disasters is, in part, dependent on the strengths and effectiveness of its social networks.[578] Thus, family and community networks tend to be the primary source of disaster recovery whereby personal trust, shared suffering, physical proximity and long-lasting social ties offer a ready-made foundation for cooperation.[579] Effective interventions to change or improve conditions in the aftermath of a disaster can be facilitated by community leaders taking advantage of existing social networks to send and receive information.[580] Since natural disasters affect social systems and networks at all levels, rebuilding and strengthening

[575] Interview with E. Gwitima (not her real name), Chingwizi Resettlement area, 13 April 2019.
[576] G. Button, *Disaster Culture: Knowledge and Uncertainty in the Wake of Human and Environmental Catastrophe*, (Walnut Creek, Left Coast Press, 2010).
[577] J. Ife, *Community Development in an Uncertain World: Vision, Analysis and Practice*, (Cambridge, Cambridge University Press, 2016).
[578] Magsino, S. L. *Applications of Social Network Analysis for Building Community Disaster Resilience: Workshop Summary*, (Washington, D. C. National Academies Press, 2009).
[579] A. Neff and R. Shaw, 'Local responses to natural disasters: Issues and Challenges' in A. Neff and R. Shaw, (eds) *Risk and Conflicts: Local Responses to Natural Disasters*, (Bingley, Emerald Group Publishing, 2013).
[580] S. L. Magsino, *Applications of Social Network Analysis for Building Community Disaster Resilience: Workshop Summary*, (Washington, D. C. National Academies Press, 2009).

social networks and social capital are needed for community recovery.[581] If these networks can be reconstructed and reconstituted, the prognosis for individuals, neighbourhoods and communities can improve.[582] The development of communities will be boosted at large.

7. 2. 7 Are the new resettlement areas going to have adequate infrastructure?

The displaced villagers were also anxious about the state of infrastructure that they will have in the final resettlement areas. Many of them thought that they were going to be dumped in an area that lack vital social infrastructure such as roads, clinics, and schools, which will in turn deprive them of living decent lives. One of these respondents, a middle-aged man said:

> I do not think we are going to have adequate infrastructure in this promised resettlement area. If the government has been neglecting our needs from the time we were displaced by the flood up to now, what guarantee do we have that these areas will have all the services that we need? As you can see here, we don't have roads and neither do we have a clinic. Do you think that these facilities will be available in the final resettlement areas? Our health will be severely affected the same way it is being affected here.[583]

Others indicated that they doubted that the new resettlement areas were going to have proper educational infrastructure. As a result, the flood victims were afraid that their children were not likely to achieve their educational goals due to continuous displacements coupled by inadequate educational facilities. One woman lamented:

> I have lost hope in the future of my children. It seems as if everything is doomed because their education has been severely disrupted. Since the time of our displacement up to now, our children never had proper education. I even doubt that the government will build good schools for our children in the promised final resettlement area. So what kind of people are they going to be without education?[584]

Some women also expressed concern about whether the new resettlement area was going have water for domestic purposes. The general sentiment conveyed by most of the women who were interviewed was that they were afraid of being dumped in an area that lacked drinking water, just like in the one-hectare plots. Explaining her worry on the availability of water in the promised plots, one of these women stated:

> We are afraid that we will be resettled in an area that has no water like in these plots where we go to distant areas to fetch water. There are no boreholes in this area and we

[581] J. Parker, and M. Zakour, 'Triumph over tragedy: Transformation through the aftermath of a disaster' in M. Bussey, and J. Wise, (eds) *Trauma Transformed: An Empowerment Response*, (New York, Columbia University Press, 2007).
[582] Ibid.
[583] Interview with Itayi (real name withheld), Chingwizi Resettlement area, 17 August 2017.
[584] Interview with H. Kwakukayi (not her real name), Chingwizi Resettlement area, 17 August 2017.

> struggle to get water. Since the time of our displacement, water has been a precious resource that we cannot easily afford to have. We are afraid that the same trend will continue to prevail even in the promised resettlement area.[585]

Thus, recovery of communities after a natural disaster requires good infrastructural development. Carey *et al* posit that, as communities recover from disasters, recovery includes return to a safe living environment, restoration of essential services, and gradual return to normal work pursuits for parents and school or play for children.[586]

7. 2. 8 Are their children going to have a bright future?

Most of the parents who were interviewed stated that they had lost hope of a productive future of their children. These parents indicated that their continuous displacement coupled with lack of decent schools or learning environments had destroyed the potential of their children to have better grades so as to have decent employment in the future. Some parents further confirmed that some of their children had already dropped out of school before completion of their primary level education because of the miserable conditions they had been facing. Among these parents was a man who stated:

> The future of our children has already been destroyed. Just imagine spending five years without a conducive learning environment. For all these years, our children have been learning in tents without adequate textbooks, teachers, as well as furniture such as chairs and desks. Sometimes they are exposed to the vagaries of harsh weather conditions such as rain and excessive heat. Sometimes they do not go school because of these harsh conditions. So, what generation are they going to be, without education?[587]

Some parents also indicated that the flood together with the displacement and the miserable circumstances they were continuously experiencing affected their capacity to make investments for their children. Most of them confided that they doubted that their children were going to live normal or better lives because their investments in a better future had been washed away by the natural disaster and the mismanagement of their resettlement. They further indicated that lack of government support had made it difficult for them to regain their lost investments, a factor which they thought was going to plunge their children as well as their grandchildren into abject poverty and deprivation. A distressed 55-year-old man expressed his bitterness saying:

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[585] Interview with M. Magama (real name withheld), Chingwizi Resettlement area, 17 August 2017.
[586] W.B. Carey *et al, Developmental-Behavioral Pediatrics E-Book,* (Philadelphia, Elsevier Health Sciences, 2009).
[587] Interview with T. Rwisayi (not his real name), Chingwizi Resettlement area, 13 April 2019.

> All the challenges we are facing here emanating from the flood and our displacement have put the future of our children and grandchildren in jeopardy. As parents, when we depart from this world, we wish to leave something that our children will inherit. But as you can see, I do not have anything to leave behind because I lost everything to the flood and our subsequent displacement. I lost a very good home, now I am living like a nomad. I lost plenty of livestock such as goats, cattle and sheep, now I do not have even a single livestock. I lost good fields and here I have a very small piece of land. There is no meaningful investment or project I can do because I do not have money, I am incapacitated because the government has not yet given us financial compensation. Hence, my children have nothing to inherit from me and their future is doomed.[588]

All the uncertainties goes in line with Button's assertion that in the aftermath of a disaster, people feel uncertain about real and perceived risks.[589] As Button puts it:

> Even in less severe disasters, citizens face stress from multiple uncertainty: How can individuals continue to live and thrive after the loss of the loved ones? Where will they live now that their home has been destroyed? How will they be able to survive without income? How have their lives been irretrievably altered by the loss of their social support networks? If they are forcibly displaced, how will they live as strangers in a strange land? How will they and their loved ones cope with psychological trauma; every time they have a cold or the flu, how will they know if they are representing the onset of illness resulting from toxic exposure? How can they overcome uncertainty over their environment? In short, how can their lives return to normal?[590]

All these uncertainties are a major blow to community development as the disaster victims cannot plan effectively for their future in an under-resourced and under-serviced temporary settlement. Due to the power imbalances that characterised the whole disaster, the flood victims had no voice in all matters concerning their rights and lives, neither did they know what the future holds. Therefore, addressing uncertainties in natural disaster situations depends on a prior eradication of power inequality.

7.3 Conclusion

This chapter has examined the different kinds of uncertainties, anxieties, and desperations encountered by the flood victims in the aftermath of the disaster. The central argument of this chapter is that power imbalance in management of natural disaster situations generates a lot of ambiguities among the affected families, posing serious negative consequences on the

[588] Interview with M. Chisiri (real name withheld), Chingwizi Resettlement area, 17 August 2017.
[589] G, Button, *Disaster Culture: Knowledge and Uncertainty in the Wake of Human and Environmental Catastrophe*, (Walnut Creek, Left Coast Press, 2010).
[590] Ibid.

wellbeing of their community. The major uncertainties faced by the disaster victims that have been articulated include the uncertain duration of relief aid, when they were going to be resettled, the quality and quantity of the area in which they were to be resettled, sources of money to restart livelihoods activities, sources of resources to build new homes in the resettlement areas, the nature of social ties in the final resettlement areas, the state of infrastructure in the final resettlement areas and the state of their children's future.

These uncertainties emanated from unavailability of adequate information about the future of the disaster victims. Lack of adequate information does not only cause a state of uncertainty but it also triggers anxiety and desperation. As a result, the flood victims were unable to make plans about their future. The victims were also unable to engage in income-generating activities or projects, thereby aggravating their state of poverty. The chapter has also noted that the displacements that follow disasters destroy social ties which are an integral component of development in general and community development in particular.

CHAPTER EIGHT

CONCLUSION

8.1 Introduction

It is the central argument of this thesis that there is a strong nexus between social vulnerability and disasters. Social vulnerability expose marginalised communities to disasters as well as impeding effective recovery from calamities, thereby negatively affecting community development. While social vulnerability is usually viewed in the context of gender, poverty, age, race, and class, this thesis asserts that power imbalances between the state and the general populace is another important component of social vulnerability which expose the later to the vagaries of disasters. This was demonstrated through an analysis of the pre and post disaster events surrounding the Tokwe-Mukosi flood disaster.

8.2 Summary of the key findings

The study was guided by four objectives which are: to examine the extent to which power imbalances aggravated the susceptibility of the Tokwe-Mukosi community to the February 2014 flood disaster, to assess the implications of the Tokwe-Mukosi flood on the socioeconomic wellbeing of the affected villagers, to analyse the impact of power imbalances on the recovery of the flood victims and to examine the overall impact of the Tokwe-Mukosi dam flood on community development.

In order to achieve the aforementioned objectives, the thesis made use of the sustainable livelihood approach and the social vulnerability framework, which were the two theoretical frameworks underpinning the study. A detailed discussion on these theories was provided in Chapter Two. As pointed out in Chapter Two, in the context of disasters, the sustainable livelihood approach helps to determine where the affected communities were located, the number of households that were affected and the degree of the damages and losses suffered by the households. The core argument of the social vulnerability framework is that natural disasters are not completely natural but are triggered or worsened by existing inequalities in societies. The social vulnerability framework states that there is the need to look at pre-disaster physical, social and political environment so as to understand underlying reasons why people are vulnerable to disasters. The study adopted the social vulnerability framework because of its emphasis to challenge the natural quality of some disasters which are regarded as ‘natural’.

In line with the first objective of the study, which was to examine the extent to which power imbalances aggravated the susceptibility of the Tokwe-Mukosi community to the flood disaster, the research revealed that social vulnerability, underpinned by poverty and lack of political power, first exposed already marginalised communities to heightened risk from natural hazard and consequently made it difficult for them to recover from the disaster. While the flooding of the dam was a natural hazard, the government's actions and inactions turned this hazard into a disaster. It was noted that the dictatorial rule that characterised the government of Zimbabwe, resulted in villagers being rendered voiceless before, during and after the flood. The study discovered that if adequate disaster mitigation measures were employed by the government, the calamity could have been prevented. Failure by the government to evict the families who were residing in the vicinity of the dam before the construction of the dam commenced demonstrated lack of adequate mitigation measures on the part of the government as this exposed the villagers to the vagaries of the flooding disaster. It was argued that prior to the flooding of the dam, the government had tried to displace the surrounding villagers without compensation but they resisted this move, as they wanted to be given compensation before being evacuated. The study found out that in a bid to evict the local villagers without compensation, the government capitalised on the 2013/2014 heavy rains that were received in the Tokwe-Mukosi area and closed the sluice gates of the dam, leading to the inundation of the area upstream of the dam. Although the government was advised by the dam engineers that there was no need to keep water in the dam since it was still under construction, the government rejected this idea, a move which was perceived by the flood victims as a ploy to cause a flood disaster so as to evict the villagers without compensation. What also made the flood victims and the general public to think that the flood was engineered by the government to evade compensation was failure by the government and the CPU to be proactive after being warned by the Meteorological Services Department of the impending heavy rains. The study argued that after receiving warnings of the possibility of heavy rains, the government was supposed to take urgent action and relocate all the people who were living in the dam basin, a move which the government failed to do. From a social vulnerability perspective, the susceptibility of the Tokwe-Mukosi villagers to the flood disaster was exacerbated by the government's failure to take enough mitigation measures. This reflects the idea that vulnerability to disasters cannot be divorced from the power imbalances that exist between states and marginalised communities. The study thus argued that vulnerability to disasters is largely determined by one's position in the social strata as those at the bottom of the social strata are often economically and politically weak and have higher exposure to disasters. In the

context of the Tokwe-Mukosi disaster, the flood victims were politically powerless and that was the major factor that exacerbated their vulnerability to the disaster.

With regards to the second objective of the research, which was to assess the implications of the Tokwe-Mukosi flood on the socioeconomic wellbeing of the affected villagers, it was noted in Chapter Four that the flood disrupted the flood victims' livelihoods, health, education and social networks. The flood drowned livestock crops and grains as well as household property and goods which exacerbated hunger and poverty among the flood victims. The affected families were not given adequate land following their displacement and this in turn affected agricultural productivity which is the backbone of many rural economies not only in Zimbabwe but in many developing nations. This caused many negative implications on community development because prior to their displacement, the flood victims relied on agriculture for food security, meeting other needs such as paying tuition fees for their children as well as investing in other income-generating activities, which all help to improve the wellbeing of communities.

Healthwise, the study revealed that the flood caused considerable suffering to the flood victims owing to the unsatisfactory hygienic and sanitary conditions they were exposed to. STIs were reported at the camp and they were attributed to high rates of prostitution, as women and girls were trying to get food and other necessities for themselves and their families. Lack of nutritious food also affected the health of the displaced families, particularly children and those living with chronic diseases such as HIV/AIDS. The study showed that there is an interconnection between health and community development because ill-health impedes the effective participation of people in different community development initiatives and activities that aim to improve the welfare of community members.

Regarding education, it was noted that the flood generated school absenteeism and drop outs as well as poor teaching and learning environment. At the camp, there was shortage of school furniture, textbooks, exercise books as well as teachers. In the temporary plots, there were few makeshift schools and some of the children were staying far away from these schools, leading to school absenteeism and dropouts. From a community development perspective, this scenario has negative implications on the future wellbeing of the affected families. The education of children is usually regarded a great investment as children are expected to look after their families as well as developing their communities when they become adults.

However, without education, this may be difficult as chances of getting decent employment are very slim. Therefore, loss of education negatively affects development.

The study also showed that besides disrupting the education of the displaced children, the flood also disrupted social ties among the displaced victims. Some of the flood victims stated that the displacement separated them from the people who used to help them economically and socially such as their neighbours, friends and relatives. The study asserted that social ties are important in community development because they create a sense of togetherness and social cohesion which is an integral component of development.

The research also revealed that power imbalances in disaster situations violate the rights of disaster victims which in turn affect community development. The hardships experienced by the flood victims during and after the disaster at the hands of the government led to the violation of the rights of the flood victims enshrined in various international and national instruments on human rights in general and the rights of disaster victims and IDPs in particular. The study argued that failure by the government to provide the flood victims with enough food hand outs and adequate land after the disaster violated the displaced villagers' right to food which is protected in Article 25 of the UDHR, Article 14 of the ACRWC as well as Section 77(b) of the 2013 Constitution of Zimbabwe. The study asserts that States have the primary duty and responsibility to provide assistance to persons affected by natural disasters and to protect their human rights. It has been argued that the violation of the right to food is also a violation of community development as people cannot partake in different economic activities when they are hungry.

In addition to the right to food, Chapter Six also found out that the government's actions and inactions before, during and after the disaster violated the right to housing and shelter. Since the time the disaster struck, most of the flood victims had been lacking decent housing. The study revealed that the flood victims lacked adequate shelter at the Transit Camp and in the one-hectare plots. The study also discovered that while the flood victims lacked enough shelter, most of the ruling elites in the country had many mansions across the country, thereby reflecting the power imbalances that characterised the nation of Zimbabwe. It was also revealed that the violation of the right to housing also violated the right to privacy and the right to health which are all fundamental rights.

The right to water and sanitation was also violated. At the transit camp, access to potable water was a serious problem because the two boreholes that had been constructed

in the camp were not functional while the plastic water tanks which supplied water to the camp residents were very few, resulting in long queues. The camp was also overcrowded with limited toilets thereby exposing the displaced families to diseases. The problem of clean water was also pervasive in the one-hectare plots as most of these families walked long distances in search of potable water. The study also argued that due to the interdependence nature of human rights, the deprivation of the right to housing and shelter as well as the right to food, water and sanitation that was experienced by the disaster victims also violated the right to health. This was evidenced by the outbreak of diseases such as diarrhoea, pneumonia and malaria at the transit camp. Thus, the right to health was also infringed on. Closely related to right to health, the right to life was also violated as some of the flood victims even lost their lives due to the deplorable conditions they were exposed to. The study argues that all these challenges were exacerbated by the incompetence and/or insensitivity of various arms of the government towards a socially vulnerable population.

It was also argued that the right not to be subjected to torture or to cruel, inhuman or degrading treatment or punishment was also infringed by the state. As discussed in Chapter Six, the violation of this right took place when the state sent over 200 anti-riot police to suppress the demonstration that had occurred at the camp. It was argued that the government subjected the displaced villagers to harassment, threats, physical violence, and used cruel methods to force them out of Chingwizi Camp and onto one-hectare plots. The study argued that the torture and physical abuse experienced by the flood victims at the hands of the anti-riot police revealed the power inequalities between the state and the displaced villagers.

The study also showed that the government also violated national and international standards on IDPs. Nationally, the state violated the Framework for the Resettlement of Internally Displaced Persons which emphasise the issue of voluntariness of the decision of IDPs to resettle and not be forcibly relocated. The state also violated the Kampala Convention which stresses the need by African States to provide sufficient protection and assistance to persons who have been internally displaced by natural or human made disasters. The study established that the violation of these rights retarded the flood victims from effectively partaking in socio-economic activities aimed at improving the wellbeing of their families and community. The findings of Chapter Six are vital in addressing some crucial gaps in scholarly literature on disasters. The chapter argues that although there is abundant literature on disasters and their impacts, it is silent on how government neglect in natural disasters such as the Tokwe-Mukosi flood violates the rights of the disaster victims.

The study also revealed that in addition to the infringement of people's rights, social vulnerability in disasters also produce desperation, anxiety, uncertainty and desperation which have negative repercussions on development. This argument was articulated in Chapter Seven. The chapter argued that due to political powerlessness, the flood victims were excluded from decision making processes which saw them suffering from informational uncertainty. It was revealed in the study that informational uncertainty made the future of the flood victims to become obscure, thereby negatively affecting community development initiatives. Although the government had promised the flood victims that they were going to be further relocated, the families were no longer sure if the relocation was ever going to happen as they had spent six years in the one-hectare plots. This informational uncertainty was not only a reflection of the power imbalances between the state and the flood victims but it also impeded the recovery of these displaced families as it was difficult for them to plan for their future. Informational uncertainty also produced several questions among the flood victims such as whether they were going to have decent homes, whether their children were going to have a bright future, how long where they going to rely on food aid, whether they were ever going to get money to start new livelihoods, among others. The study argued that all these uncertainties are a reflection of political powerlessness rooted in social vulnerability. If there was power balance, the displaced families could have been able to voice out their concerns and get all the information and assistance they needed from the government.

8.3 Areas for future research

While much has been written about flood disasters and their impacts on development, much still needs to be written if the reduction of these catastrophes is to be achieved. This research focused on the impact of flood disaster on community development using the case study of Tokwe-Mukosi dam. Hence the results cannot be generalised. Further research may be needed on other case studies to determine if the results of this study can be applied to other cases. Moreover, the study focused on one type of disaster, that is, floods. As such, there is need to look at other disasters so at to find out their impacts on community development. Future research can even include man-made disasters like transport accidents, fires, oil spills, wars and terrorist attacks, among others and analyse how these calamities also affect community development. Besides these man-made disasters, further researcher can also look at pandemics, such as the current COVID-19 virus that has hit the whole world and analyse the impact on

community development. I believe that in addition to my area of study, the topics I have suggested might help to enrich literature on disasters and development.

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Appendices

Appendix 1: Guide for in-depth interviews

a) Flood victims

Background information

1. What was your original village before you were displaced by the flood?
2. Who was your chief before you were evacuated by the flood?
3. How long have you been staying in that area?
4. What were your livelihood activities in your original village?

Information pertaining to the construction of the dam and evacuation of villagers

1. Were there any displacement plans by the government before the flood disaster occurred?
2. If yes, what was your feeling upon hearing that you were going to be displaced?
3. If yes again, when were you supposed to be relocated?
4. What were the compensation procedures?
5. Where you engaged in the displacement and compensation plans and procedures?
6. Did the government fulfil its compensation promise after the flood disaster?
7. If no, what were the reasons offered by the government and how do you perceive these reasons?

The flood disaster and the evacuation of villagers

1. When did the flood disaster occur?
2. Had you ever experienced a disaster of this nature prior to the 2014 flood?
3. If yes, when did the disaster(s) occur and what were the consequences?
4. In your view what caused the 2014 flood?
5. What factors do you think increased your susceptibility to the flood disaster?

6. Did you receive any assistance from the government, CPU or any other organizations or individuals during the disaster?

7. Were you satisfied by the response/reaction taken by the government and CPU during the disaster?

8. If no, please explain.

b) Flood victims' life experiences after the disaster

1. In what ways did the flood disaster affect your livelihoods?

2. Are there any community development activities which you think were either enhanced or negatively affected by the flood?

3. If yes, please explain.

4. Is there any assistance that you got from the government in the post disaster period?

5. If yes, how did the government assist you and were you satisfied by the assistance?

6. If no, what are the reasons that have been given by the government?

7. Are there any challenges that you experienced in the post disaster period?

8. If yes, what were these challenges and what did you do to curb them?

9. Did the government involve/consult you in the decision making processes affecting your lives after the disaster?

10. If yes, explain how.

b) Teachers

Impact of the disaster on children's education

1. In what ways did the flood disaster affect the education of children?

2. Are there any challenges that you are facing as a teacher which emanate from the disaster?

3. If yes, what are these challenges and how best can they be rectified?

c) Chiefs

1. To what extent did the flood affect your area?

2. Were all the villages under your area affected?

3. If no, which ones were affected?

d) Health workers

1. What are the major health challenges that affect displaced people living in camps?

2. What are the possible measures that minimise this risk of getting infected by these diseases?

e) Provincial and District administrators

1. Which districts and villages were affected by the flood?

2. What are the resettlement plans and procedures for the affected families?

f) NGOs

1. Is there any form of assistance that you gave to the Tokwe-Mukosi flood victims?

2. If yes, specify the assistance.

3. Are there any challenges that you faced in delivering your assistance?

4. If yes, what were the challenges and how did you solve them?

Appendix 2: Guide for focus group discussions

a) Women at Chingwizi Transit Camp

1. What is your general description of life in this camp?

2. In what ways have the flood together with the displacement affected you as women?

3. Are there any challenges or benefits that you think are peculiar to females or males in this Camp?

4. If yes, what are those challenges or benefits?

5. If there are challenges, what can be done to curb them?

6. Are there any efforts that have been put in place by the government to engage you in the decision making process that seek to improve your conditions as women?

7. If yes, what are those efforts?

b) Men at Chingwizi Transit Camp

1. What is your general description of life in this camp?

2. How have the flood and the subsequent displacement affected you as men?

3. Are there challenges or benefits that you think are peculiar to males or females in this camp?

4. If yes, explain those challenges or benefits.

5. If there are challenges, how best can those challenges be addressed?

6. Has the government consulted you on what can be done to solve the challenges that you face, if there are any?

7. If yes, what has been done by the government?

c) Men and women in Chingwizi resettlement area

1. What is your general perception of this resettlement area?

2. Are there any benefits or challenges you are facing in this area?

3. If yes, explain those benefits or challenges.

4. If there are challenges, what do you think should be done to address those challenges?

d) Teachers in Chingwizi resettlement area

1. What is the general state of schools in this resettlement area?

2. Are there any challenges which stem from the state of schools in this area?

3. If yes, what are those challenges and how best can they be addressed?

4. What is the general performance of school pupils at the school?

5. If the performance is below standard, what should be done by pupils, parents and the government to improve it?

Appendix 3: In-depth Interviews Participant information sheet

20324 Mhembwe close
Rujeko C, Masvingo
Zimbabwe

In-depth Interviews Participant Information sheet

Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

Dear prospective participant

My name is Nancy Mazuru, a PhD student at University of the Witwatersrand, Johannesburg, South Africa. As part of the requirements of my programme, I am conducting a research which is entitled: Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

The study aims to examine the socioeconomic and political aspects surrounding the February 2014 Tokwe-Mukosi dam flood as well as the factors surrounding the susceptibility of the Tokwe-Mukosi villagers to the disaster. It also seeks to assess the extent to which the disaster altered the lives of the victims as well as community development.

I am kindly inviting you to be part of the study and participate in in-depth interviews. The in-depth interviews will take 40 to 50 minutes. I selected you to be part of this study because I considered you to be knowledgeable about the issues under investigation. Your involvement in this study will be during your spare time or the time that is convenient for you. Participation in this research will be voluntary and there will be no payment for participants. In addition, refusal to participate or to answer the questions will not warrant any consequences. In the event that you feel you want to withdraw from participating in the study, you are free to discontinue and there will be no penalties. You are assured that if you take part in this study you will remain anonymous. I do not require your actual names or addresses in conducting this research and I will replace your real names with pseudonyms names to ensure privacy and confidentiality. The data gathered from this study will be stored anonymously and securely in password protected computer files.

The study will involve the audio-recording of your interview with the researcher. Nevertheless, if you feel uncomfortable at any time you can ask that the recording equipment be switched off. Neither your name nor any other identifying information will be associated with the audio or audio recording or the transcript. Only the researcher will be able to listen to the recording.

I will use the data for writing up my thesis and if you want to access it, it will be available on the Wits world-wide web. The findings of this study may help the government and other organisations to implement measures that may help you to recover from the effects of the disaster. Should you have any questions related to this study, feel free to contact me on my mobile number 0784492099 or on my email nancyziki@gmail.com. In addition, if you may need a summary of the research, I will make it available for you.

I would be thankful if you would consider participating in this study.

Yours sincerely

Nancy Mazuru

Appendix 4: Focus Group Discussions Participant Information sheet

20324 Mhembwe close
Rujeko C, Masvingo
Zimbabwe

Focus Group Discussions Participant Information sheet

Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

Dear prospective participant

My name is Nancy Mazuru, a PhD student at University of the Witwatersrand, Johannesburg, South Africa. As part of the requirements of my programme, I am conducting a research which is entitled: Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

The study aims to examine the socioeconomic and political aspects surrounding the February 2014 Tokwe-Mukosi dam flood as well as the factors surrounding the susceptibility of the Tokwe-Mukosi villagers to the disaster. It also seeks to assess the extent to which the disaster altered the lives of the victims as well as community development.

You are being invited to take part in a focus group discussion of 6 to 8 people with some of your community members. I selected you to be part of this study because as a victim of flood under investigation. The focus group discussion will take 45 minutes to 1 hour.

Participation in this research will be voluntary and there will be no payment for participants. In addition, refusal to participate or to answer the questions will not warrant any consequences. In the event that you feel you want to withdraw from participating in the study, you are free to discontinue and there will be no penalties.

The study may involve the audio-recording of your group interview with the researcher. However, neither your names nor any other identifying information will be associated with the audio or audio recording or the transcript. Only the researcher will be able to listen to the recording. The tapes will be transcribed by the researcher and erased once the transcriptions are checked for accuracy. I will also be writing down notes during the interviews.

Since a focus group involves a group interview, it may be difficult to provide complete confidentiality or anonymity, but I will remind participants to respect the privacy of fellow participants to ensure that the focus group space is a safe space for open discussion. You will use pseudonyms instead of your actual names in the focus groups to protect your confidentiality. The group interviews will be conducted in a secure environment to ensure privacy and confidentiality. Your confidentiality and the confidentiality of the data will be protected by ensuring that all data from the interviews is stored in password protected computer files. You can be assured that if you take part in this study you will remain anonymous.

I will use the data collected through your participation for writing up my thesis and if you want to access it, it will be available on the Wits world-wide web. The findings of this study may help the government and other organisations to implement measures that may help you to

recover from the effects of the disaster. When I finish, I will preserve the information securely to prevent unauthorised access. Should you have any questions related to this study, feel free to contact me on my mobile number 0784492099 or on my email nancyziki@gmail.com .In addition, if you may need a summary of the research, I will make it available for you.

I would be thankful if you would consider participating in this study.

Yours sincerely

Nancy Mazuru

Appendix 5: Observation Participant Information sheet

20324 Mhembwe close
Rujeko C, Masvingo
Zimbabwe

Observation Participant Information sheet

Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

Dear prospective participant

My name is Nancy Mazuru, a PhD student at University of the Witwatersrand, Johannesburg, South Africa. As part of the requirements of my programme, I am conducting a research which is entitled: Social vulnerability during disasters and its impact on community development: the case of the 2014 Tokwe-Mukosi dam flood in Masvingo, Zimbabwe.

The study aims to examine the socioeconomic and political aspects surrounding the February 2014 Tokwe-Mukosi dam flood as well as the factors surrounding the susceptibility of the Tokwe-Mukosi villagers to the disaster. It seeks to assess the extent to which the disaster altered the lives of the victims as well as community development.

I am seeking approval to observe you whilst you do your day to day activities at your homestead and within your communities. I am seeking permission to take some photographs whilst you carry out your everyday duties.

The findings of this study may help the government and other organisations to implement measures that may help you to recover from the effects of the disaster. When I finish, I will preserve the information securely in my personal collection and make sure that it will not be accessed by any other individuals. Should you have any questions related to this study, feel free to contact me on my mobile number 0784492099 or on my email nancyziki@gmail.com

I would be thankful if you would consider participating in this study.

Yours sincerely

Nancy Mazuru

Appendix 6: Approval letter from the Ministry of Local Government, Public works and national housing

Correspondence should not be addressed to individuals

Telephone : 263351/2/3
Fax : 265968
Email address:

ZIMBABWE

Reference:
MINISTRY OF LOCAL GOVERNMENT,
PUBLIC WORKS AND NATIONAL HOUSING
Provincial Administration
Benjamin Burombo House
P.O. Box 595
Masvingo

17 February 2015

Ms Nancy Mazuru
Masvingo

PERMISSION TO CARRY OUT A RESEARCH: NANCY MAZURU: STUDENT, UNIVERSITY OF WITWATERSRAND SOUTH AFRICA.

Please be advised that the head of Ministry has granted you permission to carry out your research.

The ministry will be grateful to receive a copy of the end product.

Thank you.

M. Chigaba
For: Provincial Administrator, Masvingo

PROVINCIAL ADMINISTRATOR
MIN. OF LOCAL GOVT. PUBLIC
WORKS & NATIONAL HOUSING
17 FEB 2015
RECORDS & INFORMATION
P.O. BOX 595, MASVINGO

Appendix 7: Approval Letter from Zimbabwe National Water Authority



Runde Catchment
717 Mineral Rd
P.O. Box 250
Masvingo
Tel: 039 263690/262950-1
Fax: 039 263972

Nancy Mazuru,

(University of Witwatersrand Student No 939629)

20324 Mapfunde Street,

Rujeko C,

MASVINGO.

29th January 2015

REFERENCE: AUTHORITY TO ACCESS THE ZIMBABWE NATIONAL WATER AUTHORITY RUNDE CATCHMENT LIBRARY: RESEARCH STUDY ON TOKWE MUKORSI

Dear Madam,

The subject above refers.

Please be advised that your request to access the ZINWA Runde Catchment reference library to research information on the Tokwe Mukorsi Dam construction has been granted.

The authority however advises you make arrangements prior to your visit.

For any further clarification please feel free to contact the undersigned on 0773 904 294 or on land line 039 262 950-2 or 263 690.

Thank you.

J. Juma.

THE OPERATIONS MANAGER.

ZIMBABWE NATIONAL WATER AUTHORITY
OPERATIONS MANAGER
2 8 JAN 2015
P.O. BOX 250. MASVINGO
TEL : 262950 / 1 / 2
FAX : 263972