EVALUATION OF FACTORS ASSOCIATED WITH UNDER MITIGATION OF FLOODS IN CHIKWAWA DISTRICT, MALAWI

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In Partial Fulfillment of the Requirement for the Degree of

Master of Science in Global Health

Joseph Msambathukuta Chasweka

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APPROVAL SHEET

This thesis entitled **EVALUATION OF FACTORS ASSOCIATED WITH UNDER MITIGATION OF FLOODS IN CHIKWAWA DISTRICT, MALAWI**, written and submitted by **Joseph Msambathukuta Chasweka** in partial fulfilment of the requirements for the degree of Master of Science in Global Health, is hereby accepted and approved.

_____	_____
Dr. Jackie Obey	**Dr. Hellen Ndiku**
Supervisor	Supervisor
_____	_____
Date	Date

Accepted in partial fulfilment of the requirements for the degree of Master of Science in Global Health.

_____

Dr. Joyce Owino
School Dean

_____
Date

_____

Prof. Elizabeth Role
Director of Graduate Studies and Research

_____
Date

ABSTRACT

The present study was conducted in Lower Shire in Malawi about evaluation of factors associated with under mitigation of floods in Chikwawa district, Malawi. The study adopted descriptive correlation study design. The study employed Slovin formula to compute the sample size of 171 participants who are majorly victims of flood in the Lower Shire region. Participants included government officials who were interviewed and also victims in which questionnaires were administered to them. The findings of the study revealed that mode of coordination of government disaster response agencies mean, 2.16 was low. The overall rating was 2.1; this shows that the respondents do not agree that the government involve them in the mitigation of the disaster. There is a statistically significant relationship between mode of coordination of government disaster response agencies and involvement of affected communities. This means that as the government involves the affected communities, also the mode of coordination and response to the disaster improves. The p value is $0.00<0.05$ and the Pearson Correlation r is 0.67.The study concluded that the government does not involve the affected communities in disaster response and mitigation. The government of Malawi exhibit poor coordination during disaster strike. There is a direct correlation between the government mode of coordination and involvement of the affected communities and recommended that the government should involve the affected communities for better mitigation of the disaster. The government of Malawi should improve the mode of communication by involving victims in mitigation and training.

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DEDICATION

This thesis is dedicated to my late parents pastor and Mrs. Chasweka for teaching me how to do the right things and be kind to people. I also dedicate this thesis to my wife Rachael Chasweka my daughter Sunganani and my Son Dumisani Chasweka for allowing me to do this course and their prayers. I also dedicate this thesis to all the people whose prayers and effort have made possible to complete this work

ACRONYMS

DRM	Disaster response management
CSOs	Civil Society Organizations
DM	Disaster management.
UNDP	United Nations Development Program

CHAPTER ONE

INTRODUCTION

Background of the Study

A natural disaster is the occurrence of an abnormal or infrequent hazard that affects vulnerable communities or geographic areas, causing substantial damage, disruption, and definitely casualties and leaving the affected communities unable to function normally. Mitigation is minimizing the effects of disaster which includes building codes and zoning; vulnerability analyses; public education (National Disaster Management Authority, 2006).

Disasters, principally those that seem primarily to be caused by natural hazards, are the greatest threat to humanity. Sporadically earthquakes have killed hundreds of thousands, and very occasionally floods, famines or epidemics have taken millions of lives at a time but survivors who are not killed in such events remain to face grave risks. Many more lives are lost in violent conflict and to the preventable outcome of disease and hunger, floods and drought to mention a few. Such is the daily and unexceptional tragedy of those whose deaths are through natural causes that is natural disasters, but who, under different economic and political circumstances, should have lived longer and enjoyed a better quality of life (Wisner and Cannon, 2003).

According to UNDP (2004) natural disasters exert a massive toll on development. In doing so, they masquerade a significant threat to prospects for achieving the Millennium Development Goals in particular, the overarching target of halving extreme poverty by 2015. Annual economic losses associated with such disasters averaged US$ 75.5 billion in the 1960s, US$ 138.4 billion in the1970s, US$ 213.9 billion in the 1980s

and US$ 659.9 billion in the 1990s. The majorities of these losses are concentrated in the developed world and fail to adequately capture the impact of the disaster on the poor who often bear the greatest cost in terms of lives and livelihoods, and rebuilding their shattered communities and infrastructure. It was estimated that 85 percent of the people exposed to earthquakes, tropical cyclones, floods and droughts live in countries having either medium or low human development.

Disaster prevention and mitigation are integral to development activities. In February 2000, the World Bank's Disaster Management Facility initiated a three-year study on the economic and financial consequences of natural disasters, with the support of the United Kingdom. Department for International Development provided through its Conflict and Humanitarian Aid Department (IDC, 2003).

Major disasters have significant budgetary impacts if not mitigated in well and in timely manner. Bangladesh is a case in point: a superficial review of overall budgetary aggregates in the 1980s and 1990s suggests that major disasters, including the most extreme floods in 1987, 1988, and 1998 and the devastating cyclone of 1991, had significant impact on central government finances. Total revenue and expenditure increased gradually over the two decades, while the overall budget deficit remained fairly stable until the 1998 flood, when it rose markedly. Indeed, an examination of Bangladesh's overall expenditure and revenue forecasts and performance suggests that the public financial impacts of even the 1998 flood were very significant (Republic of Bangladesh, 1999).

The impact of a disaster can only be mitigated if risk can be managed successfully. To be successful any government or disaster center needs to explore the

precise nature and forms of vulnerability. On the basis of this analysis, it should develop an appropriate, integrated risk strategy that covers various aspects of vulnerability and draws on a range of responses that covers regulatory, fiscal, investment, and strategic policy. A system of monitoring is also required to explore the vulnerability implications of particular policies and expenditure decisions and modify them as appropriate (Republic of Bangladesh, 1999).

The benefits of inclusive community centered disaster risk-reduction projects are acknowledged in the development and humanitarian field. Communities themselves understand their local context, their people, and are usually the first, and fast to respond when disaster strikes. Christian Aid and its partner organizations have supported many successful community-based initiatives. Community involvement benefits the communities concerned enormously, especially in the face of complacency by governments. However, during the past few years limitations and challenges of this approach when trying to meet the global development challenge presented by disasters, and in particular, climate change (Christian Aid, 2006).

In 2010, the Centre for Research on the Epidemiology of Disasters recorded 373 natural disaster events that killed over 296,800 people, affected the lives of 208 million, and cost nearly US$110bilion. Statistics like this are alarming, but may go downhill. Almost every year, risk drivers such as rapid, unplanned urbanization, population growth, environmental degradation and climate change are increasing the exposure to and impact of hazards such as earthquakes, cyclones, floods and droughts. When these hazards and risk drivers combine, they lead to death, destruction and massive human wretchedness. The midpoint is to reevaluate and accelerate action if to meet the challenge of halving

disaster losses by year 2015, significantly need to scale up work on mean of reducing disasters. Innovation is required to find solutions to new and complex problems. In collaboration to maximize resources, linking the national to the local and ensure the involvement of governments, technical experts and citizens ensures complete utilization. Learning and sharing the knowledge form new partnerships to solve problems (Christian Aid, 2006).

Disaster risk reduction is a broad approach, which includes all action aiming to reduce disaster risks. Action can be political, technical, social and economic. Disaster risk reduction takes forms as varied as policy guidance, legislation, preparedness plans, agricultural projects, an insurance scheme, or even a swimming lesson. The approach enables people to think and work across society, to make sure that everyone from governments to individuals – makes the right decisions to reduce the risk and impact of disasters. By doing so, a coming storm or flood will not be able to turn bad weather into a disaster waiting to happen (Christian Aid, 2006).

Malawi is one of the priority countries for the World Bank Disaster Risk Management (DRM) Team. The Malawi DRM Country Note serves as a framework for investments in DRM activities in Malawi, which was about $5 million over a three-five - year period (2010-2014). The Country Note identifies key gaps, challenges, and priorities in the existing DRM situation within the context of the five priority action areas of the Hyogo Framework of Action (HFA), and proposes an indicative action plan for possible Global Facility for Disaster Reduction and Recovery financing (World Bank, 2010).

Malawi is particularly exposed and vulnerable to drought and floods, and the associated hazards of epidemics and landslides .From 1979 to 2008, natural disasters affected practically 21.7 million people and killed in relation to 2,596 people (National Contingency Plan, 2010).

Malawi's vulnerability is linked to specific geo-climatic factors that include the influence of the El Niño and La Niña phenomena on the country's climate, and the positions of tropical cyclones developing in the Mozambique Channel, resulting in highly erratic rainfall patterns, the existence of a hydrological network composed of 78 Water Resource Units contributed by three lakes Malawi, Chilwa, Chiuta and three rivers ,Shire, Ruo, Songwe, shared with the neighboring countries of Mozambique and Tanzania; and the location of the country along a tectonically active boundary between two major African plates within the great East African Rift System, causing earthquakes and landslides(National Contingency plan, 2010)

Having viewed that people of Malawi are suffering from the havoc of the disasters that include, floods, famine, landslides and earthquakes, it is apparent that the cause of the suffering could be associated with poor mitigation plans. In a developing country, whole nation department must be involved for a success in mitigation. This study is set to evaluate government mitigation plan, involvement of the affected communities, Christian Aid mitigation strategies and the involvement of the military in disaster mitigation in people affected by flood, famine and landslides in Southern Malawi.

Statement of the Problem

Natural disasters occur in Malawi. The magnitude of the impact is very severe to mild. Several departments of governments are involved in disaster mitigation. To quite some extend the communities affected are rarely involved by the disaster response team (WHO, 2013). In developing countries and economically challenged countries, existence of the policies and response strategy is well established but the mitigation during disaster may not be quite satisfactory. There could be reluctance in the response departments of the government resulting to poor mitigation. In Malawi many people have lost life due to under mitigation of the disaster (MDHS, 2012). Malawi is no stranger to significant flooding. In January 2012,earthquake affected more than 10,000 people and caused US$3 million worth of damage to households and infrastructure. *(*Nkoka 2012)

Several factors are perceived to be contributing to this. This study perceived that, coordination of the government command agencies, lack of resources and involvement of the communities are factors that have contributed to poor mitigation of the famine, floods and Earthquakes in the western part of Malawi.

Objectives of the Study

- To determine the extent of involvement of the affected communities in education during floods in Chikwawa District, Lower Shire, Malawi.
- To evaluate the mode of coordination by the government disaster response agencies in Chikwawa District, Lower Shire, Malawi.
- To establish if there is a significant relationship between the mode of coordination by the government disaster response agencies and the extent

of involvement of affected communities in education during floods in Chikwawa District in Lower Shire, Malawi.

Hypothesis

The following null hypothesis was tested in the study.

H_0: There is no significant relationship between the mode of coordination by the government disaster response agencies and the extent of involvement of affected communities in education during floods in Chikwawa District in Lower Shire, Malawi.

Justification of the Study

Malawi is one of the priority countries for the World Bank Disaster Risk Management (DRM) Team. The Malawi DRM Country Note serves as a framework for investments in DRM activities in Malawi, which was about $5 million over a three-five - year period (2010-2014). The benefits of inclusive community centered disaster risk-reduction projects are acknowledged in the development and humanitarian field. Communities themselves understand their local context, their people, and are usually the first to respond when disaster strikes. In a situation where the government lack coordination and the affected communities are highly involved, the magnitude of the disaster is drastically reduced. The Republic of Malawi is among the poorest countries in the world (UNHCR, 2012). The country is frequently hit by disasters, with many people affected by shocks such as dry spells, flooding, crop and livestock diseases, high input prices, and unstable markets (WHO, 2013). These often result in the loss of lives, assets and support systems. According to the Malawi National Disaster Risk Management Policy document, the intensity and frequency of disasters has been increasing, in large part owing to climate change, population growth, and urbanization and Environmental

degradation. The recurrence of rapid and slow-onset disasters in areas such as the Lower Shire makes recovery progressively more difficult for communities whose livelihoods are already weakened by poverty and other underlying socio-economic constraints (Malawi Disaster Risk Management, 2012). This information shows that the intensity of suffering to the affected communities is increasing day by day. This may be due to poor mitigation plan by the disaster response team. Hence this study is set to evaluate factors that are associated with poor mitigation and thus may alleviate suffering in the affected areas and communities. The study perceives that re-evaluation of the coordination of the government agencies, involvement of the affected communities and increasing the resources may be a solution to the under mitigation of the flood, famine and Earthquakes in Malawi.

Significance of the Study

This study will have a direct significant importance to the affected community, country as a whole and several government agencies. To begin with, the affected communities will benefit much as they will receive a well-coordinated response from the government disaster response team hence reducing suffering and loss of life. Moreover, the government will reduce unplanned spending and dependence on other agencies with attached terms that may hinder the countries progress. The ministry of finance will have fewer burdens to allocating a lot of money only in saving life but not very progressive investments, therefore, the amount can be used somewhere else for the development of the nation. Ministry of health spends a lot of money treating the affected communities due to disaster associated illnesses if the communities can be involved educating them on how to respond to a disaster well, then a lot of money will be saved in the long run. The

government of Malawi will have its disaster response agency evaluated and factors that contribute to poor mitigation and response brought to book. Therefore, the study will recommend the required steps so that the government will solve its long term poor coordination of the agencies during an emergency and disaster response and mitigation.

Theoretical Framework

The Theory of Public Education

Public education is one of the major strategies available to disaster managers, being particularly effective at the preparedness end of the prevention preparedness-response- recovery spectrum. Public education theory has remained elusive despite commonsense understanding of public education being readily found in numerous practical instruction manuals and educational guides. Being processes by which bodies of various sorts seek to inform and educate the public at large or specific sectors of the public, on key issues, including campaigns (Australian Counter Disaster College, 1983).

This study has employed the theory of public education. According to the present study, the agency of educating the public is very important in disaster mitigation. The scientific information is very important when the public get the interpretation from the government and other non-governmental organizations. This means that the public or the victims of the natural disasters in Malawi are perceived to be on constant suffering because the concerned institutions have never taken advantage of teaching and educating the victims on how to read the scientific signs of the incoming disaster, how to mitigate. During floods, there so are many diseases that can be avoided when the victims get the correct scientific information on spread, symptoms and the management of the sick. If public can read the science when floods are about to strike they can be able to evade the

disaster. The public need education on the science behind where they live and the possible disasters. For instance after the drought, there is always a season of plenty, public education on how to store food safely is very important so that during the time of famine, they can be able to have feed their families from the stored food. Therefore the science of storing food is very important as this becomes the main issue during natural disaster period. The science of public education as played a key role in disaster mitigation more especially when mass media is utilized. Though other communication means still bring important information to the public, developing countries like Malawi still suffer from the consequences of lack of public education by the government. When government invests on the knowledge of her citizens' environment, major disasters can easily be avoided. Effects of floods in Malawi can be significantly reduced if the citizens living in lower shire are educated on the consequences of living in low land areas , how to treat diseases originating from floods and even how to predict when floods are about to occur.

Scope

This study was carried out in the southern part of Malawi also known as the lower Shire about , coordination of the government command agencies, lack of resources and involvement of the communities as factors that have contributed to poor mitigation of the famine, floods and Earthquakes in the western part of Malawi. This region is frequently affected by famine and floods. According to the present statistics a number of victims are affected by these natural disasters in Malawi. The government is trying its best to contain the problem but the study perceived poor coordination and the allocation of the resources to cut the over increasing challenge. A population of about 300 is the target of this study.

Definition of Terms

Alleviation	To make (pain ,for example) less intense or more bearable
Christian Aid	Humanitarian intervention by religious communities
Coordination	Designed orderly commands on how to perform specific duties
Disaster	a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses
Mitigation	The act of mitigating, or lessening the force or intensity of something unpleasant, as wrath, pain, grief, or extreme circumstances
Response	The second phase of the disaster management cycle. It consists of a number of elements, for example; warning/evacuation, search and rescue, providing immediate assistance, assessing damage, continuing assistance and the immediate restoration of infrastructure.

CHAPTER TWO

REVIEW OF RELATED LITERATURE AND STUDIES

This section deals with related review of the related literature and studies; it is organized into three sections, government poor coordination plan involvement of the communities affected and lack of resources by the government and the affected communities. The three sections are perceived as factors associated with poor mitigation of natural disasters.

The Concept of Disaster Mitigation

A disaster is any hazard flood, earthquake or cyclone which is a triggering event along with greater vulnerability, inadequate access to resources, sick and old people, lack of awareness, would lead to disaster causing greater loss to life and property (National Disaster Management Authority, 2006).

Government Poor Coordination Plan

According to White House (2006), during Katrina event, the poor response was seen to have arisen from a failure to manage a number of risk factors. The risks of a major hurricane striking New Orleans had been long considered, and there was enough warning of the threat of Katrina that declarations of emergency were made days in advance of landfall. But according to this report responders failed to convert this information into a level of preparation appropriate with the scope of the impending disaster. The dispersed nature of authority in the US intergovernmental response system further weakened response, as federal responders failed to recognize the need to more

actively engage. In this case the government failed to respond well and in time accounted for by poor coordination by the government.

To reveal more on government coordination, Proven (2001) revealed that during Katrina, responders also had adequate warning. As Katrina developed, the National Weather Service issued grave warnings, convincing the government of Mississippi and Louisiana to declare states of emergencies on three days before landfall. Despite this warning, it was not until Sunday morning that the government ordered a mandatory evacuation. This shows how the government coordination influence the rescue and the mitigation of the disaster.

Furthermore, in Philippines, the Philippine institutional arrangements and disaster management systems tend to rely on a response or reactive approach, in contrast to a more effective proactive approach, in which disasters are avoided, by appropriate land-use planning, construction and other pre-event measures which avoid the creation of disaster-prone conditions (Heijmans, 2001).

There is a widespread emphasis on post-disaster relief and short-term preparedness rather than mitigation or post-disaster support for economic recovery in most developing countries when it comes to disaster mitigation, such as livelihood regeneration or tax breaks to affected businesses. A shorter term focus does not adequately emphasize natural hazards as a potential obstacle to long-term sustainable development. To evolve to this more proactive role, it is important that a national framework for comprehensive disaster risk management be prepared and implemented. The framework would provide for political leadership and policy support at the highest levels, while facilitating the active engagement and implementation of all relevant

stakeholders at the national, local, and household levels (World Bank, 2002). The actors should include public agencies, the private sector, and civil society. The framework should incorporate the essential steps of integrated risk management, which include risk identification, risk reduction, and risk sharing/financing (UN, 1990).

Coordination plans offer limited direction to guide short-term decisions to achieve long-term mitigation. In a study to evaluate the four internal plan quality principles, the overall mean score ranged from 0.97 for goals to 0.60 for policies out of a maximum score of 2 , this indicated that that none of the internal principles received more than half the maximum. Plans were likely to have limited influence on hazard mitigation outcomes. For the two external plan quality principles the overall mean score was only 0.87 for inter organizational coordination and 0.65 for participation out of a maximum score of 2, which indicated that none of the external principles received more than half the maximum. The findings from this study showed that, overall states do not have well-organized, technically sound, and thoroughly prepared plans that reflect a strong commitment to mitigation (Beatley, 2009).

Following the 2009 Karonga, North of Malawi earthquake disaster and the awareness it raised, integration of disaster risk management in Malawi's overall development strategies has remained a key element in the country's improving capacity to deal with sudden onset as well as long-term disasters, (World Bank Malawi 2009)

The livelihood of a typical rural Malawi household can be negatively impacted by the sudden onset of extreme weather and climatological events during which, the poorest and most vulnerable communities often suffer the most. As most households are heavily

dependent on the steady income amassed from rain-fed agriculture, just one disaster can cause an entire loss of a crop and subsequently, their income.

This is most evident from the continuous flooding in the Shire River Basin in the southern part of Malawi which impacts thousands of households each year and keeps poorer families in a constant state of disaster recovery. The government decided to take action in order to better protect residents in the Valley. (Dodoma 2011)

A Malawi Economic Vulnerability and Disaster Risk Assessment were conducted to better understand the socio-economic effects of disasters. The analytical study indicated that annual flood damage in the Shire River Basin resulted in an average loss of 0.7% of GDP ($9 million) per year. Elsewhere in the country, drought caused an average economic loss of 1% annually ($13 million). (World Bank 2009)

Once awareness was raised, the groundwork for comprehensive action was put in place along with the new measures and a notable shift occurred from a reactive emergency response structure to disaster management capacity building. This resulted in the implementation of key risk reduction activities such as data preparedness for known disasters using the open data for resilience initiative (DRI), which has led to the development of Malawi Spatial Data Platform (MASDAP) a platform for sharing all spatial data in the country. Other activities include community mapping to enhance baseline information and contingency planning, the improvement of weather, climate and hydrological services and general disaster risk management awareness (Dodoma 2011)

Malawi's disaster risk management efforts align with the country's development strategy of creating a safer environment for all of its citizens. These combined efforts also help reduce the strain on the country's gross domestic product (GDP) by reducing the

economic impact and loss of livelihoods which occur following a disaster. Furthermore, key sector initiatives within social protection and water resources have already been defined, allowing government officials to use the results of the combined disaster risk analysis and use of new disaster risk management measures to continue to make further improvements to forecasting and risk modeling. This will include improved safety nets for the most vulnerable populations, increased irrigation within the agricultural sector and improvements in early warning for floods and drought. (Mkoka 2012)

Involvement of the Communities Affected

Government agencies play a critical role during times of disaster, but the exact role of government was unclear to disaster victims. Even more difficult to decipher were the complex relationships between various government programs, from local to national levels. In almost all disasters, local communities play the first and often most important role in responding by rescuing those affected, providing first aid and emergency shelter, usually long before outside organizations arrive at the scene. Building a strong volunteer group is an important disaster response asset (Berke, 2010).

Some disasters can be prevented entirely by involving the community. Mudslides can be prevented from happening by controlling deforestation or undertaking engineering works. Loss of life and property can be prevented by enforcing housing codes in Disaster-prone areas. This requires resolute governments with strong public support to enforce such restrictions. Civic authorities seldom receive credit for disasters that never occurred through careful planning and enforcement (Maleti, 1999).

In addition, cultural practices by the community in such diverse areas as land use, housing construction and traditional decision-making processes affect the ability to

prepare and to respond to disasters and this is very important for the government to educate the community of such activities. In societies where there is a tradition of working together to achieve community goals, these practices can help mitigate the effects of many hazards (Smith, 2008).

Moreover, access to government decision-making avenues is an important method for reducing vulnerabilities. Non-representative government both locally and nationally usually lacks the capacity to respond to needs expressed by citizens. The governments also suppress the development of civil-society organizations, which are important in reducing vulnerabilities through volunteer groups and community organizations. When disasters occur and non-governmental and community groups often respond in an effective grass-roots manner, this can create resentment whenever government ineffectiveness is exposed (Tsang, Kristen, and Wang, 2008).

In terms of education, a number of studies show that education levels in a society create greater willingness to take personal actions or to participate in community activities aimed at reducing risks from disasters. Much of this may be tied to a rising capacity to take control of one's own life. The low levels of education, which often go with subsistence agricultural economies is a particular challenge to introducing those changes that could reduce disaster risks(Godschalk, Mittler, and Taylaor, 2009). Disaster planning should also provide a training and evaluation component. The first part of the training process involves explaining the provisions of the plan to the administrators and personnel of the departments that will be involved in the emergency response. Second, all those who have emergency response roles must be trained to perform their duties. Of course, this includes fire, police, and emergency medical services personnel, but there

also should be training for personnel in hospitals, schools, nursing homes, and other facilities that might need to take protective action. Finally, the population at risk must be involved in the planning process so they can become aware that planning for community threats is underway, as well as what is expected of them under the plans. As noted previously, they need to know what is likely to happen in a disaster and what emergency organizations can *and cannot* do for them (GoB, 2008).

It is also essential that training include tests of the proposed response operations. As noted above, emergency drills and exercises provide a setting in which operational procedures can be tested. They also facilitate inter organizational contact, thus allowing individual members to better understand each other's professional capabilities and personal characteristics. Furthermore, multifunctional exercises constitute a simultaneous and comprehensive test of emergency plans and procedures, staffing levels, personnel training, facilities, equipment, and materials. Finally, multifunctional exercises produce publicity for the broader emergency management process, which informs community officials and the public that disaster planning is underway and preparedness is being enhanced (GoB, 2008)..

During a disaster, affected individuals and communities are often treated as dependent and passive recipients of externally imposed programs. But problems of survival and health that result from a disaster may be handled more efficiently if a community is well organized. Evidence shows that community participation before, during, and after a disaster can greatly reduce the overall mortality as well as improve the use of resources in the following ways, if a community is in a state of preparedness before a disaster strikes, this may reduce the impact of the disaster with regard to the

number of injuries and deaths, damage to infrastructure, loss of property or livelihood; Whatever the type of disaster, the greatest number of lives can be saved during the first few hours following a disaster before help from the outside arrives which can take several hours or days. The local community must, therefore, be ready to assist since they may only have themselves to rely on; most health and survival problems can be handled by the community. This is possible if the community is active and sufficiently organized to sustain itself until outside help arrives (Berke, 2010).

Lack of Resources by the Government and the Affected Communities

Resources are very important in mitigating a disaster. The ability to fully mitigate a disaster depends entirely in the available resources either within the affected community the government response agencies.

Disaster management research and practice often refer to a formula of the following type: Risk = Hazard (Vulnerability – Resources) where Risk is the likelihood or expectation of loss; Hazard is a condition posing the threat of harm; Vulnerability is the extent to which persons or things are likely to be affected; and Resources are those assets in place that will diminish the effects of hazards (DwyerZoppou; Nielsen; Day; . Roberts,. 2004;UCLA Center for Public Health and Disasters 2006)

Kenya has continued to face a rising degree of vulnerability to disaster risk due to increased diversity, frequency of occurrence and intensity of impacts over time and space. This risk is the probability of a hazard turning into a disaster, with households or communities being affected in such a manner that their lives and livelihoods are seriously disrupted beyond their capacity to cope or withstand using their own resources (GoK, 2009).

The Kenyan Government(2009) further emphasis that it could play a lead role in the strategic planning and management of disasters in participatory collaboration with development partners, international agencies, (Government statistics organizations)CSOs and other bodies. Government shall also play a key role to ensure availability of the various resources for Disaster Management (DM) at all levels from Government sources and partners.

The World Bank in addition pointed out that the vulnerability of the poor also is increased in countries that are both disaster-prone and in or emerging from violent conflict, due to exposure to multiple shocks and weak or non-existent governance structures. In turn, conflict and insecurity have also arisen from the slow buildup of disasters that result from a lack of resources, and sometimes from increased vulnerability following a disaster (World Bank/IEG, 2008).

To benefit the Community , a more informed, shared understanding of community risks, needs, and capabilities; an increase in resources through the empowerment of community members; and, in the end, more resilient communities. A more sophisticated understanding of a community's needs and capabilities also leads to a more efficient use of existing resources regardless of the size of the incident or community constraints. In times of resource and economic constraints, the pooling of efforts and resources across the whole community is a way to compensate for budgetary pressures, not only for government agencies but also for many private and Nonprofit sector organizations (Intergovernmental pannel on climate change, 2011).

When a disaster occurs, scarce resources must be diverted from other projects to meet the needs of relief, rehabilitation and reconstruction. This recognition of the large-

scale impact of disasters on development has contributed to an increased momentum in promoting new mechanisms for disaster management .The Catastrophe Risk Insurance Facility(CCRIF) ,through rapid disbursement of funds in the immediate aftermath of disasters, also provides an injection of financial resources that assists member states to maintain essential public service functions as well as to support their recovery process. In 2009, CCRIF signed a Memorandum of Understanding with Caribbean Disaster Emergency Management Agency(CDEMA) to promote new initiatives which would assist regional governments in financing catastrophic risk exposure and would promote the sharing of information on natural hazards (Williams, 2013).

CHAPTER THREE

RESEARCH METHODOLOGY

Research Design

This study employed a descriptive cross sectional study design that involves the analysis of data collected from a population, or a representative subset, at one specific point in time. The descriptive studies will help to support a hypothesis and the examination of factors associated with under mitigation of natural disasters in Malawi and brought a comparative research that drew contrasts between two or more factors. A descriptive study is one in which information is collected without changing the environment (i.e., nothing is manipulated). Sometimes these are referred to as "correlation" or "observational" studies. Descriptive studies can involve a one-time interaction with groups of people (cross-sectional study) or a study might follow individuals over time (longitudinal study). Descriptive studies, in which the researcher interacts with the participant, may involve surveys or interviews to collect the necessary information. Descriptive studies in which the researcher does not interact with the participant include observational studies of people in an environment and studies involving data collection using existing records (e.g., medical record review). Both descriptive researches will have significant value when used to address the research questions in this research (Rangarjan, et al 2013).

Population and Sampling Techniques-Simple Random Sampling

The current statistics states that there are approximately 300 disaster victims in Malawi. The study also involved government representatives (Chairman, treasurer, Secretary and coordinator. In the current study, the validity of the sample size is by use of the Slovin's formula:

$$n = \frac{N}{1+N\,(e)^2}$$

In this case N=Size is taken to mean the number of famine, flood and Earthquake victims in Malawi at the particular time of the study. **E** is the margin of error always 0.05 and **n** is the respondents. (Starnes *et al.*, 2008)

$$n = \frac{300}{1+300\,(0.05)^2} \quad = 171 + 4 = 175 \text{ (sample size)}$$

The researcher used simple random sampling to administer questionnaires. The three hundred houses were visited and victims given questionnaires in random and each had equal probability of participating in the study. The families were visited and if a head the family was present, and then filled the questionnaire and if not there then the next family randomly gets a chance to participate.

Research Instruments

Instrument is the generic term that researchers use for a measurement device (survey, test, questionnaire, etc.). To help distinguish between instrument and instrumentation, consider that the instrument is the device and instrumentation is the course of action (the process of developing, testing, and using the device). The research instrument used in collecting data was a self-constructed administered questionnaire

which was composed of structured and semi-structured questions. The questionnaire was formulated from proper conceptualization of review of literature. The study used questionnaire because of its ability to install confidence in respondent through its anonymity element, less skill is required to administer and can be administered to a large number of individuals simultaneously (Role, 2015).

The study used the closed ended questionnaires that were composed of questions meant to gather useful information that will evaluate the factors associated with under mitigation of natural disasters in Malawi. The study evaluated the performance of the government of Malawi in response to mitigation of the flood, famine and Earthquakes. Therefore, a Likert scale of range 1-4 modified by the researcher was used. This indicates correspondent's agreement or disagreement with the questions. The scale is a response scale primarily used in questionnaires to obtain participant’s preferences or degree of agreement with a statement or set of determinants. (Likert, 1932). The respondents were government representative from the ministry of planning and also the victims participated during the study.

Pilot Study

A pilot study is a standard scientific tool for 'soft' research, allowing scientists to conduct a preliminary analysis before committing to a full-blown study or experiment easily rectified. Pilot study was conducted in Ahero, Kisumu County in Kenya. Thirty respondents and 4 government officials participated in the study. A Cronbach alpha equals to 0.6 or above was considered significant for the instrument to be used in data collection.

Reliability

Extent of involvement of affected communities in education during floods

Reliability Statistics

Cronbach's Alpha	N of Items
.751	7

Mode of coordination by the government disaster response agencies

Cronbach's Alpha	N of Items
.828	7

Data Gathering Procedures

All 175 respondents were visited at their residences in Lower Shire. The houses were randomly visited since the study used simple random sampling and the researcher had no prior understanding of the area, hence researcher's visit was also random. The researcher presented the questionnaires personally to the participants who are the leader of their families, in case the head of the family (Either mother or father) the researcher proceeded to the next family; this also increased the randomization of data collection. They were expected to fill the questionnaires and those unable to read were assisted and submit the same day to the investigator.

Statistical Treatment of Data

The data that was acquired from the correspondents, that is the government agency responsible for disaster management and the affected communities, it was recorded in MS excel and then analyzed using Statistical Package for Social Science (SPSS) version 20 was used to analyze the data to show whether the data collected would be statistically significant to support the objectives of the study. The correlation Rank R

was considered to find out the statistical significance of the data to show any correlation between dependent and independent variables. Also descriptive statistics was used to find, means, frequency and standard deviations.

Ethical Considerations

The researcher ensured that ethical principles of informed consent, privacy and confidentiality, intellectual property, and legal consent were met. The researcher asked the respondent to freely participate, Prospective participants' names was not required .The researcher acknowledged the authors of articles, journals, magazine, websites, news, theses and published books to be used by the researcher in the study. The researcher requested permission to carry out the research in the private universities. With the recommendation from supervisors and UEAB research review committee and the Director of Research and Graduate Studies, the researcher was able to carry out the research.

CHAPTER FOUR

PRESENTATION OF FINDINGS, ANALYSIS AND INTERPRETATION

Research objective 1. To determine the extent of involvement of the affected communities in education during floods, and famine in Lower Shire, Malawi

The present study was conducted in Lower Shire, a flood prone area in Malawi. The analysis of data below goes hand in hand with the objectives of the study.

The table below was used to interpret the findings of the statistical analysis of data.

Mean range	Interpretation
1.00-1.49	Strongly Disagree
1.50-2.49	Disagree
2.50-3.49	Agree
3.50-4.00	Strongly Agree

Table 1 shows the output for the descriptive statistics on involvement of the affected communities. It can be concluded from the analysis that respondents disagreed that the government involves them as victims in seminar on disaster preparedness (mean rating of 2.49), that government of Malawi is at least send the alert to the victims on prone areas during an incoming famine, flood and Earthquake (mean rating was 1.83), the disaster response team as always taken time to teach victims on possible disease during famine, Earthquake or floods (mean rating was, 2.30), there are always seminars

Table 1

Involvement of Affected Communities

Descriptive Statistics	N	Mean	Std. Deviation
Our government involves us as victims in any seminar on disaster preparedness	154	2.49	1.122
The government of Malawi is always send the alert to us on prone areas during an incoming famine, flood and Earthquake	155	1.72	.834
There is disaster response team as always taken time to teach us on possible disease during famine, Earthquake or floods	155	2.30	.913
There are always seminars on how to handle diseases that arise due during famine, flood and Earthquake	154	2.20	.945
The government has trained some members of the community who can respond and mitigate the disasters	154	2.26	.969
The government has educated members of the public to abandon cultural activities that are known scientifically to escalate occurrence of flood and famine within our area	153	2.29	1.006
*Our government has never involved us victims during disaster response and mitigation	152	2.93	1.040
Involvement of affected communities(Overall)	**155**	**2.1869**	**.62201**

*Negative statement – recorded in the computation of the mean

on how to handle diseases that arise due during famine, flood and Earthquake (mean rating, 2.20), the government has trained some members of the community who can respond and mitigate the disasters (mean rating was 2.26) and that the agreed that their government has never involved us victims during disaster response and mitigation (mean, 2.93). The overall rating was 2.1; this shows that the respondents do not agree that the government involves them in the mitigation of the disaster. To conclude, the government of Malawi is responsible in escalating the effects of disaster by not involving the affected communities in mitigation of the floods.

Community members play a vital role in reducing the impact of a disaster. People at this level are often the most vulnerable to disaster and experience the greatest impacts for various reasons. Yet they are not passive victims. With knowledge of the local geology, the hazard context, and the livelihoods options available, local communities must be involved in disaster management programs from the start, and supported by projects to develop the capacities and linkages that help overcome (Hornby, 2000).

Response begins as soon as a disaster is detected or begins to threaten an area. Response involves mobilizing and positioning emergency equipment; getting people out of danger; providing needed food, water, shelter and medical services; and bringing damaged services and systems back on line. Local responders, government agencies and private organizations also take action.

When destruction goes beyond local and state capabilities, federal help is needed(Hornby, 2000)..

The findings are similar to situation with the Government of Bangladesh which has adopted draft National Plan for Disaster Management (2007-2015) in 2007 and

finalized it in 2010 as National Plan for Disaster Management 2010-2015 emphasizing on community participation in disaster management activities. It is a strategic document as well as an umbrella plan which provides the overall guideline for the relevant sectors and the disaster management committees at all levels to prepare and implement their area of roles specific plans. The Ministry of Food and Disaster Management being the focal ministry for disaster risk reduction and emergency management takes the leading role in disaster risk reduction and emergency management planning. In addition, there are a few hazards specific management plans, such as Flood Management Plan, Cyclone and Storm Surge and Tsunami Management Plan, Earthquake Management Plan, Drought Management Plan, River Erosion Management Plan, etc. Moreover, there is a detailed Disaster Management Plan for each district, upazila, union, and paurashavaand City Corporation of the country. (Heijmans, 2001).

In a study in Bangladesh, it showed that because of traditional thinking of community, bureaucratic attitude of government officials, scarcity of resources and prevalent socio-cultural norms and values, community participation in disaster management was not possible to achieve at desired level (Rahman, 2008). The barriers to community participation are listed below:

1. Old-aged thinking of distributing relief materials during disaster is existed among the people of Bangladesh. Many of them think that it is the responsibility of government and/or voluntary agencies to provide all the facilities to the disaster victims. Therefore, to introduce the risk reduction culture and practices takes time to replace the longstanding relief culture (Rahman, 2008).

2. The entrenched hierarchical administrative set-up is not eager to accept the opinion of illiterate but wise and experienced local people in policy cycle .The reluctance of most of the officials of local level administration to take into consideration of people's perception about disaster, leave little scope for inputs to decision-making for participatory approach to disaster management.
3. Availability of financial resources is a vital component of disaster management program. Although the Government of Bangladesh approved annual allocation of US$ 12 million (Rahman, 2008), it is far from adequate demand in the highly populated country with multiple hazards. Furthermore, the national and local voluntary agencies have lack of adequate financial resources to operate community-based program. Due to scarcity of resources the people could not repair disaster shelter, road or culverts by themselves.
4. . Relationship between men and women is institutionalized in rural society of Bangladesh. At the heart of this system of social arrangement is the institution of purdah or female seclusion. Practice of purdah inhibits the mobility of women (Fernando, 2001). Even during disaster women do not want to leave their residence and take shelter in the public buildings. Therefore, prevalent norms and values remain a challenge to community participation in disaster management.
5. Limitation of sanitation facilities for women in public buildings is another barrier (Blanco, 2006)to implementation of CBDM program. The disaster affected people very often take shelter at school, college or other academic institutions when they do not get refuge at disaster shelters where sanitation facilities are not available for women that discourages them (women) to take shelter in these places.

Therefore, lack of facilities remains a challenge to effective implementation of Central Board District Management (CBDM).

Research objective 2. To evaluate the mode of coordination by the government disaster response agencies in Lower Shire, Malawi

Table 2

Mode of Coordination of Government Disaster Response Agencies

	N	Mean	Std. Deviation
Our government has a good response team that can mitigate the disaster within acceptable speed	152	2.03	.898
*The government mode of command is the root cause of the victims suffering	153	2.97	.881
*Our government has resources but the command is slow	151	2.32	.829
*The command of the response team is far away from the disaster occurrence area	151	2.32	1.099
*The government takes longer time to send the alert on danger during the incoming disaster	153	2.88	1.034
*The command of the disaster response team is under one person only in the whole country	153	3.31	.790
*The government takes Earthquake , famine and flood with less seriousness	153	3.03	1.019
Mode of coordination of government disaster response agencies	**153**	**2.1653**	**.66474**

*Negative statement – recorded in the computation of the mean

In reference to table two of the descriptive statistics analysis of data, it was evident that respondents disagreed that the government has a good response team that can mitigate the disaster within acceptable speed (mean, 2.03). Also, agreed that the government mode of command is the root cause of the victims suffering (mean, 2.97). As well disagreed that their government has resources but the command is slow (mean, 2.32). in addition, the respondents disagreed that the command of the response team is far away from the disaster occurrence area with a mean rating of 2.32. Furthermore, the respondents during the study agreed that the government takes longer time to send the alert on danger during the incoming disaster (mean rating was 2.88), that the command of the disaster response team is under one person only in the whole country (mean 3.31), also that the government takes Earthquake , famine and flood with less seriousness Mean rating was 3.03). In conclusion, the government of Malawi has rarely taken the steps of mitigation of floods seriously; this is the reason as to why a number of victims are still suffering even though the government seems to be involved in mitigation.

When identifying the hazards to which their community is exposed, planners and public officials frequently recognize the limits of their expertise. They recognize their lack of accurate knowledge about the behavior of geophysical, meteorological, or technological hazards and contact experts to obtain the information they need. Unfortunately, the same cannot usually be said about accurate knowledge about likely human behavior in a disaster. As a familiar saying goes, the problem is not so much that people don't know what is true, but that what they do “know” is false. Blanco (2006) described widespread myths regarding people’s disaster response that persist despite research refuting them. Belief in disaster myths hampers the effectiveness of emergency

planning by misdirecting resource allocation and information dissemination. For example, officials sometimes cite expectations of panic as a reason for giving the public incomplete information about an environmental threat or withholding information altogether. This response to the myth of panic is actually counterproductive because people are more willing to comply with recommended protective actions when they are provided with complete risk information. For these reasons, the planning process must be firmly grounded not only on the physical or biological science literature on the effects of hazard agents on human safety, health, and property, but also on the behavioral literature describing individual and organizational response in emergencies (Blanco, 2006).

Finally, household, business, and government agency emergency plans must be based on accurate assumptions about aid from external sources. In major disasters, hospitals might be overloaded; destruction of telecommunication and transportation systems (highways, railroads, airports, and seaports) could prevent outside assistance from arriving for days; and restoration of disrupted water, sewer, electric power, and natural gas pipeline systems could take much longer. Consequently, all social units must be prepared to be self reliant for as much as a week.

An effective preparedness process must balance planning and improvisation. The Emergency Operations Plan (EOP) establishes the emergency response organization's basic structure and broad strategies before a disaster strikes. In particular, it will document which organization is responsible for each emergency response function and, in general terms, how that function will be performed. Similarly, per-disaster training must explain how to perform any specific tactics and operational procedures that are likely to be needed during response operations. Even though emergency managers can

forecast what types of disaster demands are likely to arise, there will always be some degree of uncertainty about the magnitude and location of those demands. For example, the emergency manager of a hurricane prone community should develop procedures for mass evacuation, but will be never be completely certain about how the population in each neighborhood will respond. The fact that people's response to warnings is reasonably well understood makes it foolish to improvise an evacuation plan as a hurricane is approaching (Banco, 2006).

Nonetheless, uncertainty about what proportion of the households in each neighborhood will begin an evacuation at each point in time makes it foolish to devise a rigid evacuation plan that has no provision for modification as an incident unfolds. An emphasis on specific detail can be problematic in at least four ways: (1) the anticipation of all contingencies is simply impossible (Blanco, 2006). (2) very specific details tend to get out of date very quickly, demanding virtually constant updating of written products (Dynes, et al., 1972); (3) very specific plans often contain so many details that the wide range of emergency functions appear to be of equal importance, causing response priorities to be unclear or confused and (4) the more detail incorporated into written planning documents, the larger and more complex they become. This makes it more difficult to use the plan as a device for training personnel to understand how their roles fit into the overall emergency response and consequently makes it more difficult to implement the plan effectively when the need arises.

To summarize, planning and training should identify the actions that are most likely to be appropriate, but also should emphasize flexibility so those involved in response operations can improvise in response to unexpected conditions. That is,

planning and training should address principles of response in addition to providing detailed standard operating procedures (SOPs) and should encourage improvisation based on continuing assessment of disaster demands.

There will be an overlap between emergency response and disaster recovery because some portions of the community will be engaged in emergency response tasks while others will have moved on to disaster recovery tasks. Moreover, senior elected and appointed officials need to plan for the recovery while they are being inundated with policy decisions to implement the emergency response. Consequently, emergency managers should link pre impact emergency response planning to pre impact disaster recovery planning. Such integration will speed the process of disaster recovery and facilitate the integration of hazard mitigation into disaster recovery (GoB, 2008). The necessary coordination between pre impact emergency response planning and pre impact disaster recovery planning can be achieved by establishing organizational contacts, and perhaps overlapping membership, between the committees responsible for these two activities.

The effective emergency planning is a continuing process. Hazard vulnerability, organizational staffing and structure, and emergency facilities and equipment change over time, so the emergency planning process must detect and respond to these changes. Unfortunately, this point is frequently not recognized. Have found “there is a tendency on the part of officials to see disaster planning as a product, not a process”, a misconception that confuses tangible products with the activities that produce them. Of course, planning does require written documentation, but effective planning is also made up of elements that are difficult to document on paper and are not realized in hardware. These include

the development of emergency responders' knowledge about resources available from governmental and private organizations, the acquisition of knowledge about emergency demands and other agencies' capabilities, and the establishment of collaborative relationships across organizational boundaries. Tangible documents and hardware simply do not provide a sufficient representation of what the emergency planning process has produced. Furthermore, by treating written plans as final products, one risks creating the illusion of being prepared for an emergency when such is not the case. As time passes, the EOP sitting in a red three ring binder on the bookshelf looks just as thick and impressive as it did the day it was published despite the many changes that have taken place in the meantime. For example, new hazardous facilities might have been built and others decommissioned, new neighborhoods might exist where only open fields were found previously, and reorganization might have been taken place within different agencies responsible for emergency response. In short, the potential for changes in hazard exposure, population vulnerability, and the staffing, organization and resources of emergency response organizations requires emergency plans and procedures to be reviewed periodically, preferably annually(GoB, 2008)..

To ensure adequate emergency preparedness, emergency managers should analyze their emergency response organization's capability to perform its basic emergency response functions. Historically, these functions have been categorized as agent generated and response generated demands (Blanco, 2006).The agent generated demands arise from the specific mechanisms by which a hazard agent causes casualties and damage, whereas response generated demands arise from organizing and implementing the emergency response. Blanco, (2006)elaborated Quarantelli's typology by

drawing on federal emergency planning guidance (National Response Team, 1987; US Nuclear Regulatory Commission/Federal Emergency Management Agency, 1980) to define four basic emergency response functions. These are emergency assessment, hazard operations, and population protection (which are agent generated demands) and incident management (which encompasses the response generated demands). Emergency assessment consists of those diagnoses of past and present conditions and prognoses of future conditions that guide the emergency response. Hazard operations refer to expedient hazard mitigation actions that emergency personnel take to limit the magnitude or duration of disaster impact (e.g., sandbagging a flooding river or patching a leaking railroad tank car). Population protection refers to actions—such as sheltering in-place, evacuation, and mass immunization—that protect people from hazard agents. Incident management consists of the activities by which the human and physical resources used to respond to the emergency are mobilized and directed to accomplish the goals of the emergency response organization. The operational aspects of implementing these functions will be addressed in more detail in the next chapter, but rest of this section will address the actions that must be taken to prepare to implement them. These preparedness actions involve analyzing the disaster demands to identify the personnel, procedures, facilities, equipment, materials, and supplies the emergency response organization will need.

Preparedness for emergency assessment requires the emergency response organization to detect and classify an environmental threat. Some natural hazards such as many flash floods and earthquakes are detected and classified by local agencies. Other natural hazards such as hurricanes, tornadoes, major floods, and tsunamis are detected

and classified by federal agencies. Moreover, incidents at fixed site facilities are usually detected and classified by plant personnel, whereas transportation incidents are detected by carrier personnel, local emergency responders (e.g., police and fire), and sometimes by passers-by (Heijmans, 2001).

The local emergency manager should review the community HVA to identify all hazards to which the community is exposed in order to determine how detection is likely to be achieved and transmitted to the appropriate authorities. Locally detected hazards require the emergency manager to ensure the necessary detection systems (e.g., stream and rain gauges for flash floods) are established and maintained. For hazards detected by other sources, the emergency manager must ensure that a report of hazard detection can be called in to a community warning point that is staffed around the clock, usually the jurisdiction's dispatch center (Heijmans, 2001).

Another important aspect of emergency assessment is hazard monitoring, which requires continuous awareness of the current status of the hazard agent as well as projections of its future status. The technology for performing hazard monitoring varies by hazard agent. In many cases, continuing information about the hazard agent is provided by the same source as the one that provided the initial hazard detection. For example, the National Hurricane Center provides hurricane updates every six hours (or more frequently, if needed). Similarly, plant personnel should provide continuing information about a hazardous materials release (Heijmans, 2001).

Environmental monitoring is also needed when the geographical areas at risk are determined by atmospheric processes. As noted in Chapter 5, toxic chemicals, radiological materials, and volcanic ash are carried downwind, so changes in wind

direction, wind speed, and atmospheric stability must be monitored to determine if the area at risk will change over time. Thus, procedures must be established and equipment acquired to obtain current weather information and forecasts of future weather conditions. Environmental monitoring is also needed for hazmat spills into waterways because, for example, the speed and direction of ocean currents determine which sections of shoreline will be affected (Heijmans, 2001).

Moreover, damage assessment is needed to identify the boundaries of the risk area and initiate the process of requesting a Presidential Disaster Declaration. Here also, personnel, procedures, and equipment must be designated to perform this function. Finally, population monitoring and assessment is needed to identify the size of the population at risk if the number of people in the risk area varies over time (e.g., tourists present in the summer but not in the winter). This requires emergency managers to maintain calendars of major events, such as festivals and athletic contests that bring large numbers of people into their jurisdictions. It also necessitates working with schools, hospitals, and nursing home administrators to monitor the progress of special facility evacuations and with traffic engineers to monitor evacuation routes for risk area residents (Heijmans, 2001).

Research objective 3. To establish if there is a significant relationship between the mode of coordination by the government disaster response agencies and the extent of involvement of affected communities in education during floods and famine in Lower Shire, Malawi.

Table 3

Correlation Analysis

Correlation - Spearman's rho

			Involvement of affected communities
	Mode of coordination of government disaster response agencies	Correlation Coefficient	.665**
		Sig. (2-tailed)	.000
		N	153

**. Correlation is significant at the 0.01 level (2-tailed).

The table above (table 3) shows that there is a statistically significant relationship between Mode of coordination of government disaster response agencies and Involvement of affected communities. This means that as the government involves the affected communities, also the mode of coordination and response to the disaster improves. The p value is $0.00<0.05$ and the Pearson Correlation r is 0.67. Therefore one of the solutions to reduce the suffering of flood victims in Malawi is to involve the affected communities in disaster response, coordination and management.

Government's Resources and Disaster Response

The present study also conducted interviews on government official who are the key informants on disaster response and mitigation in the republic of Malawi. The response was almost similar. They agreed that the government does not allocate required resources to them to perform their work efficiently. They all also mentioned that the government supply free medical supplies to victims only during disaster. Furthermore they mentioned that the governments send them to respond to the disaster within an appropriate time. Government officials also mentioned that the government does not have enough money to allocate to disaster victims during national budgeting and do not construct tanks meant for storing water during disasters.

Summary of the Responses

Table 4

Government Involvement of the Victims

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	38	24.5	24.7	24.7
	Agree	42	27.1	27.3	51.9
	Disagree	35	22.6	22.7	74.7
	Strongly disagree	39	25.2	25.3	100.0
	Total	154	99.4	100.0	
Missing	System	1	.6		
Total		155	100.0		

Table 4 is a frequency table showing the analysis output on the government involvement of the victims in seminars on disaster preparedness. The findings revealed

that out of 155 respondents 24.4% strongly agreed that the government involved them in seminars, 27.1% agreed, while 22.6 % disagreed and 25.2% strongly disagreed on the same statement.

Table 5

Government Sending of the Alert Signals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	75	48.4	48.4	48.4
	Agree	54	34.8	34.8	83.2
	Disagree	20	12.9	12.9	96.1
	Strongly disagree	6	3.9	3.9	100.0
	Total	155	100.0	100.0	

It was revealed during the study that 48.4% of the respondents strongly agreed that the government of Malawi sends signals during an incoming disaster, 34.8% agreed on the same statement, 12.9% disagreed and 3.9 % strongly disagreed.

Table 6

Disaster Response Conducts Seminar on Possible Diseases during Disaster

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	27	17.4	17.4	17.4
	Agree	76	49.0	49.0	66.5
	Disagree	31	20.0	20.0	86.5
	Strongly disagree	21	13.5	13.5	100.0
	Total	155	100.0	100.0	

Referring to table 6, the study found out that 17.4% of the respondents strongly agreed that disaster response conducts seminar on possible diseases during disaster, 49.0% agreed, 20.0 % disagreed on the same statement and 13.5 % strongly disagreed on the same statement.

Table 7

Seminars On How to Handle Diseases Due During Famine, Flood and Earthquake

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	36	23.2	23.4	23.4
	Agree	71	45.8	46.1	69.5
	Disagree	27	17.4	17.5	87.0
	Strongly disagree	20	12.9	13.0	100.0
	Total	154	99.4	100.0	
Missing	System	1	.6		
Total		155	100.0		

It was evident that 23.2% of the respondents strongly agreed that disaster response conduct seminars on how to handle diseases due during famine, flood and Earthquake, 45.8% agreed on the same statement, 17.4% disagreed while 12.9% of the respondents strongly disagreed on the statement.

Table 8

Government Training of the Community Members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	40	25.8	26.0	26.0
	Agree	51	32.9	33.1	59.1
	Disagree	46	29.7	29.9	89.0
	Strongly disagree	17	11.0	11.0	100.0
	Total	154	99.4	100.0	
Missing	System	1	.6		
Total		155	100.0		

From table 8, it can be deduced that 25.8% of the participants strongly agreed that the government had trained some members of the community who can respond and mitigate the disasters, 32.9 % agreed on the statement, 29.7 % disagreed and 11.0% strongly disagree.

Table 9

Government Education on Pubic to Abandoned Cultural Activities that Escalate Disasters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	37	23.9	24.2	24.2
	Agree	58	37.4	37.9	62.1
	Disagree	34	21.9	22.2	84.3
	Strongly disagree	24	15.5	15.7	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

When asked whether the government has educated members of the public to abandon cultural activities that are known scientifically to escalate occurrence of flood and famine within our area, 23.9 % of the respondents strongly agreed, 37.4% agree, 21.9% disagreed and 15.5% strongly disagreed.

Table 10

Government Involvement during Mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	21	13.5	13.8	13.8
	Agree	24	15.5	15.8	29.6
	Disagree	51	32.9	33.6	63.2
	Strongly disagree	56	36.1	36.8	100.0
	Total	152	98.1	100.0	
Missing	System	3	1.9		
Total		155	100.0		

From the table it can be concluded that 13.5% strongly agreed that their government has never involved them as victims during disaster response and mitigation, 15.5 % agreed on the same statement, on the other hand 32.9% disagreed on the same statement while 36.1% strongly disagreed on this statement.

Table 11

Government Response Team during Disaster

Speed					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	48	31.0	31.6	31.6
	Agree	63	40.6	41.4	73.0
Valid	Disagree	30	19.4	19.7	92.8
	Strongly disagree	11	7.1	7.2	100.0
	Total	152	98.1	100.0	
Missing	System	3	1.9		
Total		155	100.0		

When asked whether the government has a good response team that can mitigate the disaster within acceptable speed, 31.0% of the respondents agreed with the statement, 40.6% agreed, 19.4 % disagreed and 7.1% strongly disagreed

Table 12

The Government Mode of Command

		Frequency	Percent	Valid Percent	Cumulative Percent
	Strongly agree	9	5.8	5.9	5.9
	Agree	34	21.9	22.2	28.1
Valid	Disagree	62	40.0	40.5	68.6
	Strongly disagree	48	31.0	31.4	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

Among the respondents who participated in the study, 5.8% strongly agreed that the government mode of command is the root cause of the victims suffering. On the same statement, 21.9% agreed on the statement, 40.0% disagreed and 31.0 % strongly disagreed on this particular statement.

Table 13

Government Resources and Command

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	16	10.3	10.6	10.6
	Agree	89	57.4	58.9	69.5
	Disagree	27	17.4	17.9	87.4
	Strongly disagree	19	12.3	12.6	100.0
	Total	151	97.4	100.0	
Missing	System	4	2.6		
Total		155	100.0		

When asked whether the government has the resources but the command is slow, 10.3% of the respondents strongly agreed with the statement, 57.4 % agreed on the statement, 17.4% disagreed and 12.3% strongly disagreed on this specific item.

Table 14

Time Taken By the Government to Send an Alert during A Disaster

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	7.7	7.8	7.8
	Agree	56	36.1	36.6	44.4
	Disagree	24	15.5	15.7	60.1
	Strongly disagree	61	39.4	39.9	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

Among the respondents who participated in the study, it was evident that the 7.7% strongly agreed that the government takes longer time to send the alert on danger during the incoming disaster, 36.1% agreed on this particular item, 15.5% disagreed and 39.4% strongly disagreed.

Table 15

Command of the Disaster Response Team

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	1.9	2.0	2.0
	Agree	22	14.2	14.4	16.3
	Disagree	52	33.5	34.0	50.3
	Strongly disagree	76	49.0	49.7	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

Among the participants, 1.9% strongly agreed the government takes longer time to send the alert on danger during the incoming disaster, 14.2% agreed, 33.5% disagreed and 49.0% strongly on the same statement.

Table 16

Frequency Table

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	7.1	7.2	7.2
	Agree	44	28.4	28.8	35.9
	Disagree	28	18.1	18.3	54.2
	Strongly disagree	70	45.2	45.8	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

When asked whether the government takes Earthquake, famine and flood with less seriousness, 7.1% of the respondents strongly agree, 28.4% agreed, 18.1% disagreed and 45.2% strongly disagreed that the government takes flood with less seriousness.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

The present study was conducted in lower shire in Malawi about evaluation of factors associated with under mitigation of floods in Chikwawa district, Malawi. The study adopted descriptive correlational study design. The study employed Slovin formula to compute the sample size of 171 participants who are majorly victims of flood in the Lower Shire region. Participants included government officials who were interviewed and also victims. Questionnaires were administered to the respondents. The findings of the study revealed that Mode of coordination of government disaster response agencies mean, 2.16 was low. The overall rating was 2.1; this shows that the respondents do not agree that the government involve them in the mitigation of the disaster. There is a statistically significant relationship between Mode of coordination of government disaster response agencies and Involvement of affected communities. This means that as the government involves the affected communities, also the mode of coordination and response to the disaster improves. The p value is $0.00<0.05$ and the Pearson Correlation rho is 0.67.

Summary of Findings

1. The findings of the study revealed that Mode of coordination of government disaster response agencies mean, 2.16 was low.
2. The overall rating was 2.1; this shows that the respondents do not agree that the government involve them in the mitigation of the disaster.
3. There is a statistically significant relationship between Mode of coordination of government disaster response agencies and Involvement of affected communities. This

means that as the government involves the affected communities, also the mode of coordination and response to the disaster improves. The p value is 0.00<0.05 and the Pearson Correlation rho is 0.67.

4. The present study also conducted interviews on government official who are the key informants on disaster response and mitigation in the republic of Malawi. The response was almost similar. They agreed that the government do not allocate required resources to them to perform their work efficiently. They all also mentioned that the government supply free medical supplies to victims only during disaster. Furthermore they mentioned that the governments send them to respond to the disaster within an appropriate time.

Conclusions

The study concluded that the government does not involve the affected communities in disaster response and mitigation. The government of Malawi exhibit poor coordination during disaster strike. There is a direct correlation between the government mode of coordination and involvement of the affected communities. The government of Malawi does not provide enough resources for the disaster management hence there is most of the times loss of properties and life when disaster strikes

Recommendations

1. The government should involve the affected communities for better mitigation of the disaster
2. The government of Malawi should improve the mode of communication by involving victims in mitigation and training

3. A study should be conducted on relationship between community education and disaster preparedness and management among flood victims.
4. Enough resources to be allocated to the disaster management department
5. The government to find a long lasting solution to the floods like construction of dams
6. More sensitization and education to the community on the floods so as to have local preparation and evacuation before government agencies come in

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APPENDICES

A: QUESTIONNAIRES

A. Malawi government lack of resources is associated with the mitigation of floods, in lower shire.

Instructions: Indicate with a (tick) whether you are in agreement with the statement or not

1= strongly disagree, 2=disaagree, 3=agree, 4 strongly agree

1. The government of Malawi allocate required resources to the famine and flood affected areas	1	2	3	4
2. During famine floods, the government rely on NGOs to mitigate the disasters	1	2	3	4
3. The government supply free medical services to the affected areas during the floods	1	2	3	4
4. The				

government of Malawi sends a response team within a very short time during floods in our area	1	2	3	4
5. The government of Malawi has all machineries required for the for evacuation of the victims during floods	1	2	3	4
6. There are boreholes and storage tanks constructed by the government to store water during famine in our area	1	2	3	4
7. During budget, the government allocate enough finances on areas affected by flood, famine and Earthquake	1	2	3	4
8. The government	1	2	3	4

	takes long time to evacuate victims during disaster due to lack of facilities to do so				

B. Involvement of the affected communities in education during floods, and famine is associated with poor mitigation of the natural disasters in lower shire Malawi.

	1. Our government involves us as victims in any seminar on disaster preparedness	1	2	3	4
	2. The government of Malawi is always send the alert to us on prone areas during an incoming famine and flood	1	2	3	4
	3. There disaster response team as always taken time to teach us on possible disease during famine, or floods	1	2	3	4

4.	There are always seminars on how to handle diseases that arise due during famine, and flood	1	2	3	4
5.	The government has trained some members of the community who can respond and mitigate the disasters	1	2	3	4
6.	The government has educated members of the public to abandon cultural activities that are known scientifically to escalate occurrence of flood and famine within our area	1	2	3	4
7.	Our government has never involved us victims during disaster response and	1	2	3	4

mitigation				

C. mode of coordination by the government disaster response agencies

1. Our government has a good response team that can mitigate the disaster within acceptable speed	1	2	3	4
2. The government mode of command is the root cause of the victims suffering	1	2	3	4
3. Our government has resources but the command is slow	1	2	3	4
4. The command of the response team is far away from the disaster occurrence area	1	2	3	4
5. The government takes longer time to send the alert on	1	2	3	4

	danger during the incoming disaster				
6.	The command of the disaster response team is under one person only in the whole country	1	2	3	4
7.	The government takes , famine and flood with less seriousness	1	2	3	4

B: Map of Malawi

C: Data analysis output

Frequency Table

Our government involves us as victims in any seminar on disaster preparedness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	38	24.5	24.7	24.7
	Agree	42	27.1	27.3	51.9
	Disagree	35	22.6	22.7	74.7
	Strongly disagree	39	25.2	25.3	100.0
	Total	154	99.4	100.0	
Missing	System	1	.6		
Total		155	100.0		

The government of Malawi always sends the alert to us on prone areas during an incoming famine, flood and Earthquake

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	75	48.4	48.4	48.4
	Agree	54	34.8	34.8	83.2
	Disagree	20	12.9	12.9	96.1
	Strongly disagree	6	3.9	3.9	100.0
	Total	155	100.0	100.0	

There is disaster response team as always taken time to teach us on possible disease during famine, Earthquake or floods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	27	17.4	17.4	17.4
	Agree	76	49.0	49.0	66.5
	Disagree	31	20.0	20.0	86.5
	Strongly disagree	21	13.5	13.5	100.0
	Total	155	100.0	100.0	

There are always seminars on how to handle diseases that arise due during famine, flood and Earthquake

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	36	23.2	23.4	23.4
	Agree	71	45.8	46.1	69.5
	Disagree	27	17.4	17.5	87.0
	Strongly disagree	20	12.9	13.0	100.0
	Total	154	99.4	100.0	
Missing	System	1	.6		
Total		155	100.0		

The government has trained some members of the community who can respond and mitigate the disasters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	40	25.8	26.0	26.0
	Agree	51	32.9	33.1	59.1
	Disagree	46	29.7	29.9	89.0
	Strongly disagree	17	11.0	11.0	100.0
	Total	154	99.4	100.0	
Missing	System	1	.6		
Total		155	100.0		

The government has educated members of the public to abandon cultural activities that are known scientifically to escalate occurrence of flood and famine within our area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	37	23.9	24.2	24.2
	Agree	58	37.4	37.9	62.1
	Disagree	34	21.9	22.2	84.3
	Strongly disagree	24	15.5	15.7	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

Our government has never involved us victims during disaster response and mitigation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	21	13.5	13.8	13.8
	Agree	24	15.5	15.8	29.6
	Disagree	51	32.9	33.6	63.2
	Strongly disagree	56	36.1	36.8	100.0
	Total	152	98.1	100.0	
Missing	System	3	1.9		
Total		155	100.0		

Our government has a good response team that can mitigate the disaster within acceptable speed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	48	31.0	31.6	31.6
	Agree	63	40.6	41.4	73.0
	Disagree	30	19.4	19.7	92.8
	Strongly disagree	11	7.1	7.2	100.0
	Total	152	98.1	100.0	
Missing	System	3	1.9		
Total		155	100.0		

The government mode of command is the root cause of the victims suffering

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	5.8	5.9	5.9
	Agree	34	21.9	22.2	28.1
	Disagree	62	40.0	40.5	68.6
	Strongly disagree	48	31.0	31.4	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

Our government has resources but the command is slow

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	16	10.3	10.6	10.6
	Agree	89	57.4	58.9	69.5
	Disagree	27	17.4	17.9	87.4
	Strongly disagree	19	12.3	12.6	100.0
	Total	151	97.4	100.0	
Missing	System	4	2.6		
Total		155	100.0		

The command of the response team is far away from the disaster occurrence area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	40	25.8	26.5	26.5
	Agree	56	36.1	37.1	63.6
	Disagree	21	13.5	13.9	77.5
	Strongly disagree	34	21.9	22.5	100.0
	Total	151	97.4	100.0	
Missing	System	4	2.6		
Total		155	100.0		

The government takes longer time to send the alert on danger during the incoming disaster

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	7.7	7.8	7.8
	Agree	56	36.1	36.6	44.4
	Disagree	24	15.5	15.7	60.1
	Strongly disagree	61	39.4	39.9	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

The command of the disaster response team is under one person only in the whole country

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	1.9	2.0	2.0
	Agree	22	14.2	14.4	16.3
	Disagree	52	33.5	34.0	50.3
	Strongly disagree	76	49.0	49.7	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

The government takes Earthquake , famine and flood with less seriousness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	7.1	7.2	7.2
	Agree	44	28.4	28.8	35.9
	Disagree	28	18.1	18.3	54.2
	Strongly disagree	70	45.2	45.8	100.0
	Total	153	98.7	100.0	
Missing	System	2	1.3		
Total		155	100.0		

D: Reliability Analysis

Reliability

Case Processing Summary

		N	%
Cases	Valid	150	96.8
	Excluded[a]	5	3.2
	Total	155	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.751	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Our government involves us as victims in any seminar on disaster preparedness	12.91	12.877	.583	.693
The government of Malawi is always send the alert to us on prone areas during an incoming famine, flood and Earthquake	13.65	14.496	.564	.704
There disaster response team as always taken time to teach us on possible disease during famine, Earthquake or floods	13.07	15.996	.274	.760
There are always seminars on how to handle diseases that arise due during famine, flood and Earthquake	13.17	13.272	.686	.673
The government has trained some members of the community who can respond and mitigate the disasters	13.11	13.962	.543	.705
The government has educated members of the public to abandon cultural activities that are known scientifically to escalate occurrence of flood and famine within our area	13.07	13.907	.523	.708
*Our government has never involved us victims during disaster response and mitigation	13.30	16.332	.168	.787

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.38	18.828	4.339	7

Reliability

Case Processing Summary

		N	%
Cases	Valid	148	95.5
	Excluded[a]	7	4.5
	Total	155	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.828	7

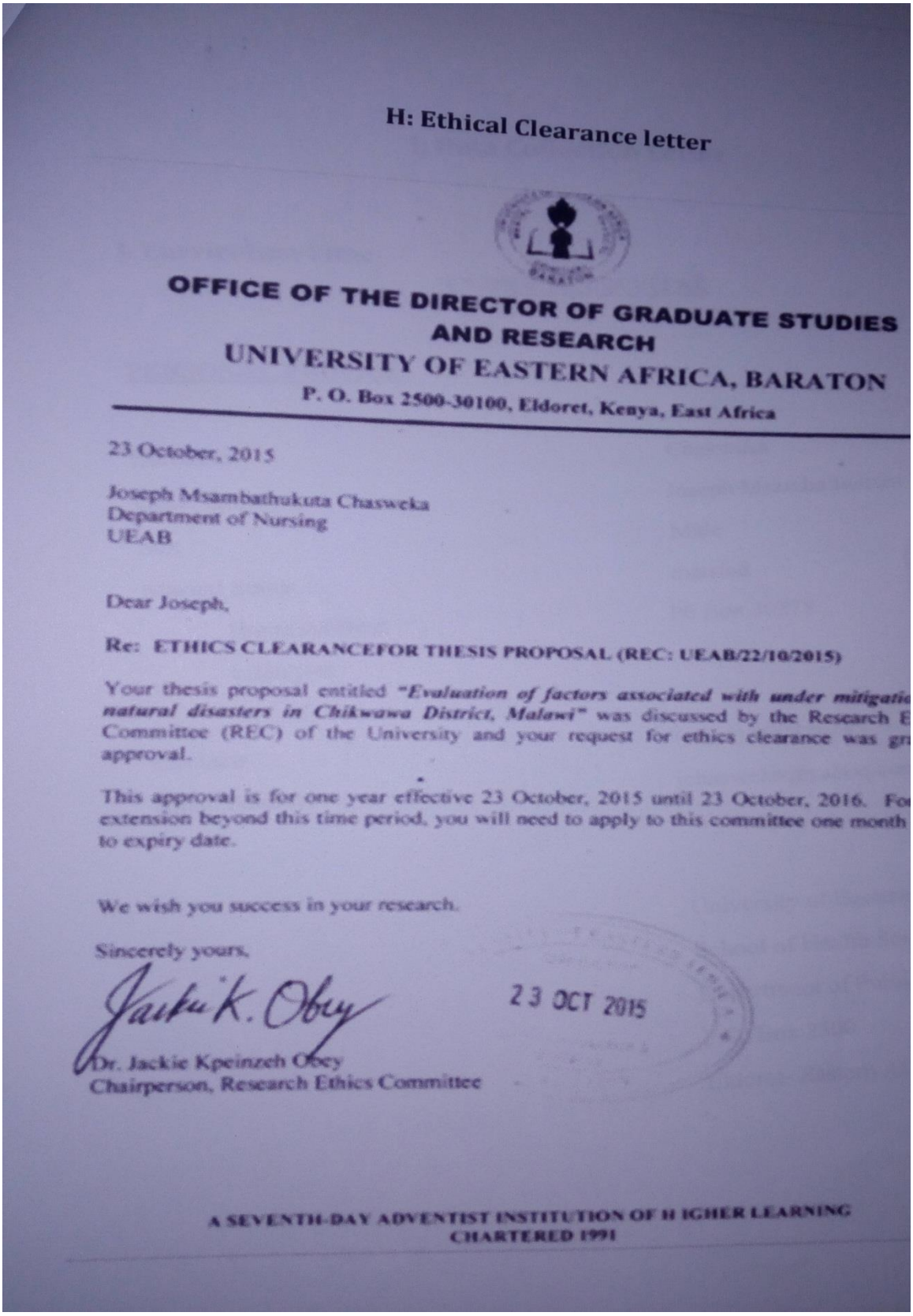
Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Our government has a good response team that can mitigate the disaster within acceptable speed	13.24	16.199	.603	.801
*The government mode of command is the root cause of the victims suffering	13.25	16.733	.536	.811
*Our government has resources but the command is slow	12.60	17.575	.451	.823
*The command of the response team is far away from the disaster occurrence area	12.59	15.712	.515	.818
*The government takes longer time to send the alert on danger during the incoming disaster	13.17	15.189	.632	.795
*The command of the disaster response team is under one person only in the whole country	13.59	16.666	.626	.799
*The government takes Earthquake , famine and flood with less seriousness	13.30	14.945	.682	.786

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.29	21.364	4.622	7

E. Ethical Clearance letter



H: Ethical Clearance letter

OFFICE OF THE DIRECTOR OF GRADUATE STUDIES AND RESEARCH

UNIVERSITY OF EASTERN AFRICA, BARATON

P. O. Box 2500-30100, Eldoret, Kenya, East Africa

23 October, 2015

Joseph Msambathukuta Chasweka
Department of Nursing
UEAB

Dear Joseph,

Re: ETHICS CLEARANCEFOR THESIS PROPOSAL (REC: UEAB/22/10/2015)

Your thesis proposal entitled ***"Evaluation of factors associated with under mitigatio natural disasters in Chikwawa District, Malawi"*** was discussed by the Research E Committee (REC) of the University and your request for ethics clearance was gr approval.

This approval is for one year effective 23 October, 2015 until 23 October, 2016. Fo extension beyond this time period, you will need to apply to this committee one month to expiry date.

We wish you success in your research.

Sincerely yours,

Jackie K. Obey

23 OCT 2015

Dr. Jackie Kpeinzeh Obey
Chairperson, Research Ethics Committee

A SEVENTH-DAY ADVENTIST INSTITUTION OF H IGHER LEARNING
CHARTERED 1991

F: Data Collection Letter

OFFICE OF THE DIRECTOR OF GRADUATE STUDIES AND RESEARCH

UNIVERSITY OF EASTERN AFRICA, BARATON
P. O. Box 2500, Eldoret, Kenya

27 April, 2016

TO WHOM IT MAY CONCERN:

Re: GATHERING OF RESEARCH DATA

JOSEPH MSAMBATHUKUTA CHASWEKA is a graduate student pursuing the degree Master of Science in Global Health at the University of Eastern Africa, Baraton main campus. He is currently writing his thesis entitled ***Evaluation of factors associated with under mitigation of floods in Chikwawa District, Malawi.***

Mr.Chasweka has chosen Chikwawa District, Malawi as his study site. He will administer his questionnaires to selected institutions and conduct interviews with selected respondents. Kindly facilitate the gathering of his research data.

Any assistance you will grant him will be greatly appreciated. May God richly bless you in all your undertakings.

Yours Sincerely,

Prof. Elizabeth M. Role, PhD
Director

Cc: Chair, Department of Nursing
Office File

UNIVERSITY OF EASTERN AFRICA BARATON
DEPARTMENT OF MEDICAL LABARATORY SCIENCES
P. O. Box 2500 ELDORET

UNIVERSITY OF EASTERN AFRICA
Director
29 APR 2016
Centre for Research & Statistics

G: Curriculum Vitae

CURRICULUM VITAE

PERSONAL PROFILE

Surname	:	Chasweka
Other name	:	Joseph Msambathukuta
Sex	:	Male
Marital Status	:	married
Home Address	:	P0 Box 30275
Lilongwe		
Contacts	:	(+265) 999856165
Email Address	:	jchasweka@yahoo.com

University of Eastern Africa Baraton
School of Health Sciences
Department of Public Health
P.O. Box 2500
Eldoret
Eastern Africa
Kenya

Career Objective

My humble beginning after high school was a certificate in clinical medicine. I worked for 8 years while raising funds.2002 I joined a diploma in clinical medicine then worked for 6 years as senior clinical officer.2010 I joined degree course in public health. My goal now is to finish Masters in Public health and Masters in Global health within 2 years and continue with PHD.

My career objectives includes reducing human suffering from diseases which can be controlled or eradicated, to be a decision maker both local and international level and lastly to make the environment green and clean. A clinical officer I have done a lot in hospitals like diagnosing, treating patients and performed more than a thousand different

surgical procedures at Kamuzu central Hospital in Malawi which is the 2nd largest. During last 15 years I have been operating my own private clinic and have more than 20 employees under my payroll.

On extracurricular activities am a church elder at Falls SDA church in Lilongwe.I also enjoy playing guitar and farming with my family.

PROFESSIONAL QUALIFICATION

2014-present	MSc, Global health and MPH, UEAB, Kenya
2011-2014	BSc in public health(environmental health option)
2002-2003	Diploma in clinical Medicine, Malamulo College of Health Sciences, Malawi
1991-1994	Certificate in clinical Medicine, Malamulo College of Health Sciences, Malawi
Other Training	1. Advanced Life Support of Obstetrics 2. Malawi Child Lung Health Project Training Course 3. Malawi Orthopedic Clinical Officers Training Program 4. Bone Pinning Training Program 5. Skin Grafting Training Program Sexual Transmitted Infections (STI) Training Program
(1987-1991	Malawi School Certificate of Education (MSCE) (Malamulo Secondary School

WORK EXPERIENCE

- Worked as a clinical officer at Aventist Health Services (1994-1997)
- Worked as clinical officer and director of Chilinde health Services up to now
- Worked as a clinical officer at Kamuzu Central Hospital in Lilongwe (2002-2010)

HOBBIES

Farming
Playing guitar
Reading

REFEREES

UEAB, English Church pastor
Church Pastor UEAB
Po Box 2500
Kenya

The Dean
University of Eastern Africa Baraton
School of Health Sciences
P.O. Box 2500
Eldoret
East Africa, Kenya

The principal
Malamulo College of health sciences
Po Box 2
Makwasa,
Malawi.