

**DISASTER MANAGEMENT STRATEGIES  
USED BY THE GOVERNMENT OF UGANDA IN  
KIRYANDONGO DISTRICT**

**BY**

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## DECLARATION

This Research Project is my original work and has not been presented for any academic award such as Diploma or Degree in any University.

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This Research Project has been submitted for examination with my approval as a University Supervisor.

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## **DEDICATION**

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## ABSTRACT

Strategic Management has never been more crucial in a time like this when disasters are the norm all over the world. We have many organizations and institutions competing against each other, operating complementarily and at times in opposition of each other trying to use the available limited resources to achieve their respective goals in addressing disasters. This has been further complicated by the turbulent and complex environment in which they operate and has created the need to constantly keep aligning themselves with their environment and adopting different strategies every time their environment changes in order to achieve their goals.

This study focuses on the use of appropriate disaster management strategies in the humanitarian sector not only to help the Organizations like Government and Relief Inter-agencies come up with Visions, Missions, Strategies and Objectives that they consider effective but also to identify how best they can serve other stakeholders, in particular the victims of disasters who are also beneficiaries of these efforts. To that effect, a survey will be undertaken that seeks to identify the strategies other African countries with a similar problem of landslides have put in place and how they go about addressing it in order to enrich the existing delivery of services to the affected.

Disaster management strategies are influenced by factors such as, but not limited to; level of finances available, time constraint, availability of equipment and trained labour force, level of sensitization, availability of medicines, Non Food Items and Food Items, level of resilience of the community, use of contingency plans and so on, but at the end of the day disasters affect human beings with devastating ramifications.

As seen in the literature review, many theories have been constructed to give advice on how Disasters can be dealt with, minimized, mitigated and in some cases avoided but the fact still remains disaster management is a complex activity because it involves a lot of dynamics and variables that cannot all be listed. Therefore with reference to the landslides that occurred in Bududa on 1 March 2010 resulting into internally displaced persons (IDPs) being relocated to Kiryandongo, and the response efforts that followed, the survey will include gathering of opinions of the victims and some Government officials on certain activities that were undertaken by Government and Relief Inter-agencies.

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## ABBREVIATIONS

CAP	-	Consolidated Appeals Process
CSOs	-	Civil Society Organizations
DDES	-	Department of Disaster and Emergency Services
DDPMCs	-	District Disaster Preparedness and Management Committees
DECOC	-	District Emergency Coordination and Operations Centre
DRR	-	Disaster Risk Reduction
HFA	-	Hyogo Framework for Action
IDPs	-	Internally Displaced Persons
IGAD	-	Intergovernmental Authority on Development
KAPS	-	Karamoja Action Plan for Food Security
KRCS	-	Kenya Red Cross Society
LDCs	-	Less Developed Countries
MDGs	-	Millennium Development Goals
NECOC	-	National Emergency Coordination and Operations Centre
NEMA	-	National Environment Management Authority
NFIs	-	Non Food Items
NGO's	-	Non Governmental Organizations
OPM	-	Office of the Prime Minister
RDMCOE	-	Regional Disaster Management Centre of Excellence
UN	-	United Nations
UNDP	-	United Nations Development Programme
UNHCR	-	United Nations High Commission for Refugees
UNISDR	-	United Nations International Strategy for Disaster Reduction
UNOCHA	-	United Nations Office of the Coordinator of Humanitarian Affairs
UPDF	-	The Uganda Peoples Defence Force
WHO	-	World Health Organization

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Disaster Risk Management is a deliberate and planned process where plans, steps and measures are put in place by management of an institution to deal with any foreseeable negative events occurring. This is usually done with the aim of limiting the damage caused to property and lives as well as help people reconstruct and recover their livelihood, in order to safeguard previous growth made through development.

Currently there is a different term being employed in the relief sector known as Disaster Risk Reduction that according to Twigg (2004) is defined as “The broad development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks throughout society, through prevention, mitigation and preparedness.” Despite the different terminologies employed in the field, they still propose a similar approach and stages of dealing with disasters and risk in our environments.

The study of the various causes of disasters helps enlighten individuals enabling them to come up with innovative ways and solutions of mitigating these disasters. It is through research and analysis of these factors that long lasting sustainable solutions as well as practices can be established or implemented to protect the existing structures and infrastructure essential for development. For example (Maskrey 1989) studies on Disaster mitigation: A community based approach can be viewed as an innovative approach.

According to the Draft National Policy for Disaster Preparedness and Management (2010) for the Republic of Uganda, “Disasters can be broadly categorized into natural disasters and man-made disasters. Among the natural disasters are draught, earthquakes, volcanic eruptions, floods, landslides, and disease outbreaks whereas manmade disasters include; genocide, Political instability and unrest, war, cyber warfare and terrorism.”

With the far reaching effects of disasters in mind, there is need for development of procedures and frameworks that are effective in mitigating the effects of disasters expeditiously as and when they occur, a case in point being the Hyogo Framework for Action (HFA) an outcome of the World Conference on Disaster Reduction that was developed in Kobe, Japan (18-22 January 2005).

The significance of disaster risk management is to protect lives and property as well as infrastructure needed as a platform for launching development programmes. Thus efforts taken to increase growth and development in sectors of the economy will be able to progress further, enabling the country to meet its Millennium Development Goals (MDGs).

According to the approved National Disaster Preparedness and Management Policy of the Government of Uganda (2010), “Disaster risk management involves the systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks in order to avoid or limit the adverse impacts of hazards on lives, economic and social developments in a country.”

The prevailing situational factors and conditions in Africa make the practice of disaster risk management difficult. According to a report commissioned by the Africa Working Group in 2003, Disaster Reduction in Africa Journal (2009) issue a publication of UNISDR Africa, “Some of the major challenges faced by African countries include; insufficient institutionalization of disaster risk reduction, inadequate involvement of citizens, inadequate information management and communication, weak integration of disaster risk reduction in development plans.” Furthermore the insufficient finances and the choice of different government priorities in addition to the perception of disaster risk management as a response to an event other than as a precautionary or preventive measure are to blame.

Research in this area is essential because it is a dynamic area that keeps on changing and Africa as a continent is prone and vulnerable to disasters of different natures and causes. For example Mitchell, Aalst and Villanueva (2010) in their discussion paper

focus on the issue of Disaster Risk Reduction and Climate Change Adaptation which is a new area of concern for practitioners.

Where disasters occur, there is always a lot of loss of property and infrastructure that results in more expenditure usually by institutions like Government to try and rebuild the damaged structures that sustain and support the livelihood of the people. It is much more sustainable and effective to spend funds establishing and implementing plans and procedures that focus on the prevention or mitigation of disaster occurrences that may result into such loss.

The emergence of new challenges faced by institutions that have created more concern related to disaster risk management issues and disasters have made it a requirement to undertake research and analysis of data in order to come up with new ways of protecting people and property. For example Comfort, Mosse and Znati (2009) in their paper entitled “Managing Risk in Real Time: Integrating Information Technology in to Disaster Risk Reduction and Response”.

There are phenomena that include; climate change, terrorism, cyber warfare and the huge leaps in technological advancements that have created the need to come up with better relevant models and solutions that can be adopted to solve some of these new challenges.

### **1.1.1 Disaster Risk Management**

The cross cutting nature of disasters and disaster risk management in the different sectors of the economy has contributed to the need for a more holistic approach, that incorporates different efforts employed in different sectors to come up with a well coordinated drive towards mitigation of the effects of disasters. Yodmani (2001) proposes the existence of a link between Disaster Risk Management, poverty and the development sector.

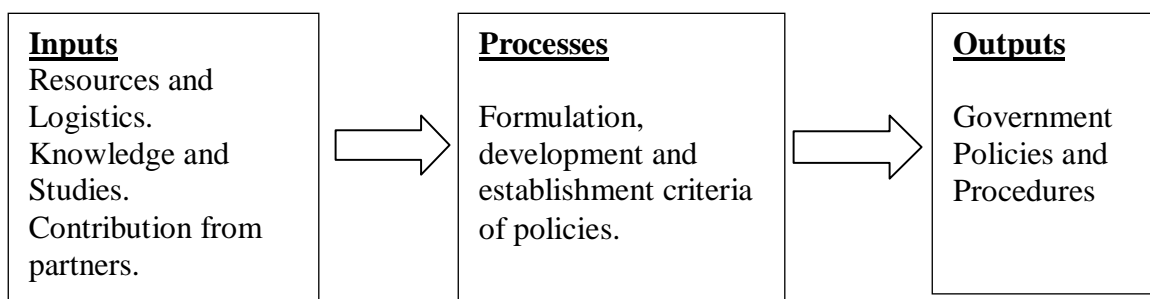
The prevailing occurrence of disasters come with some positive advantages, the dominant one being the development of frameworks through which structures and policies can be set up and implemented to ensure that losses are minimized. A case in

point is the Hyogo Framework for Action (2005) that has been set up by International Organizations like the United Nations Agencies (United Nations International Strategy for Disaster Reduction) and other stakeholders to try and limit the amount of risk that Less Developed Countries (LDCs) expose themselves to.

In conclusion, therefore, this study did not only provide a critique of the activities that occurred and the efforts made or steps taken after the landslides but also shed some light on the approaches that were used by the Government, Inter-Agencies and those other experts in the field to settle these issues and develop best practices in their different contexts.

Below is a framework that was developed to better understand the formulation of a disaster strategy and Government procedure. We have Inputs that include the use of resources, logistics (both human and material) as well as contributions from partners that are critically analyzed and assessed resulting in the process of formulation and development of information providing outputs like Government policies and procedures or standard operating procedures that provide guidelines for action and relief efforts.

Figure: 1.1 A Frame Work illustrating the development of Government Policy.



Source: Researcher (2011)

The communities and Non Governmental Organizations (NGOs) that address issues related to displacement of people, their well-being and welfare play a big part in providing input that is essential in the development of good practices and formulation of

governmental policies and procedures that provide the guidelines for dealing with disasters as reflected in an article by Cuny (1981).

### **1.1.2 Disaster Risk Management in Uganda.**

Currently there is a National Disaster Preparedness and Management Policy that was presented and passed by Parliament in October 2010 that has a new Disaster Risk Management structure (Appendix iii) and is being implemented by the Office of the Prime Minister. The approved Policy has recognized the shift in paradigm from relief and response to disaster risk reduction and mitigation in order to address and highlight being proactive in an area that is unpredictable.

Disaster risk management is implemented by all Government Ministries in collaboration with humanitarian and development partners, the private sector and local governments contribute in their respective areas of specialization as reflected in the National Policy for Internally Displaced Persons (2004). The Ministry responsible for Disaster Preparedness and Refugees in the Office of the Prime Minister is the lead agency in co-ordinating all stakeholders on disaster preparedness and management in the country.

A National Committee was set up that addresses issues of Disasters in Uganda however there are other Disaster sub-Committees at Districts and others at sub-County levels that perform a similar function and are composed of members from the National Committee that is to say; the Army, Ministries, Departments and Non Governmental Organizations. (The National Disaster Preparedness and Management Policy 2010)

With the above in mind, strategic management which has been defined by Pearce and Robinson (2007) as the set of decisions and actions that result in the formulation and implementation of plans designed to achieve an organization's objectives would enable the Government better align itself with the external environment. This is a process that involves the development of a mission, objectives, structure and strategy in order to appropriately use the available capabilities to achieve the set targets.



### **1.1.3 Kiryandongo District**

This research was carried out in Kiryandongo District, an area located in North Western Uganda along the Gulu – Masindi Highway where the victims of the Bududa landslides were relocated, due to the high levels of risks and threats of landslides in the Mount Elgon region. It is worth noting that these Internally Displaced People originally came from Bududa District and were moved to Kiryandongo District hence the relevance of reference to Bududa District in this section.

Bududa District is located near Mbale District an area located in Eastern Uganda near the Uganda - Kenya Border along the slopes of Mt. Elgon and is the area where the relief activities that followed the landslides of 1 March 2010 were carried out by the Government of Uganda, in particular the Ministry of Relief, Disaster Preparedness and Refugees under Office of the Prime Minister, the Uganda People's Defense Forces (UPDF) or the Army in collaboration with other relief inter-agencies.

Bududa is a recently created District that was formed in 2006, it was originally part of Manafwa District and it consists of seven sub-Counties and one Town Council. It is an area in Eastern Uganda that receives a lot of rainfall during the rainy season every year resulting in its vulnerability to landslides as reflected in Appendix v. These repeated occurrences of landslides indicate that there is a problem that has not been effectively addressed therefore anxiety builds whenever the rainy season approaches. These landslides have been destructive and disruptive to the livelihood of the local population as indicated in Appendix v.

According to the 2002 National Census Report, the population in Bududa was approximately 123,100 and at the time of the creation of the District the population was approximately 146,000. According to a Report by the Directorate of Water Development, in Ministry of Water and Environment (2010) retrieved on 14 February 2011, the current District population is believed to be 167,000. The predominant economic activity in the area is subsistence farming with the main items being cash crops specifically coffee and food crops in particular beans, bananas, matooke as well as vegetables like cabbages, tomatoes to mention but a few.

The Bududa Landslides that occurred on 1 March 2010 and the response of the Government of Uganda to solve this disaster can be considered as significant since there

is demand for answers as to what should have been done to prevent the disaster, how to improve on the response and the manner in which it was carried out.

This unfortunate incident was triggered off by heavy rains that affected a number of villages on the slopes of Mt. Elgon; i.e. Namesti, Kubehwo and Namagansa in Bukalasi sub-County according to World Health Organization (WHO) Situation Report Number 1 retrieved on 11 March 2011.

The Government of Uganda issued a nationwide directive that all human settlements on or along the mountain slopes across the country must be evacuated immediately as documented in the Daily Monitor news paper of 30 August 2011. This exercise was carried out in light of the heavy rains and warnings of imminent landslides occurring in order to move as many people as possible out of reach of danger due to a crack that had appeared on Mt Elgon since the previous landslides of 2010.

Kiryandongo District was formed as a result of a Motion that was moved in Parliament for the creation of 14 new Districts, the people of Kibanda County requested for a District status to be called Kiryandongo with its Headquarters at Kiryandongo Trading Center. Masindi District Council resolution endorsed this request. It is worth noting that Kiryandongo District covers an area of 3,609 Sq. Kms, it has an area covered by Victoria Nile, wetlands that are predominant in the District and most of the land is arable. Murchison Falls conservation area which includes Murchison Falls National Park and the Karuma Wildlife Reserve occupy the Northern and North Eastern parts of the District.

According to the 2002 National Population and Housing Census, the District has a projected population of 270,500 people, with an annual growth rate of over 3.6 percent. Agriculture practiced is at a subsistence level and forms the major economic base of the people in addition to the tourism and fisheries potential.

Kiryandongo District has 87 Primary Schools of which 72 are Government- aided and 15 are private with a combined total enrolment of 57,169 pupils. It has 17 Secondary Schools out of which 4 are Government- aided. The District has 4 Tertiary Institutions, one health sub-District facility which hosts Kiryandongo Hospital in addition to health centers both Government and non Government aided.

The Commissioner for Disaster Preparedness announced that the Government would be resettling all people at risk in the mountainous areas as featured on 11 April 2011 by African Press International. In preparation, Government had bought a large piece of land in Kiryandongo where it resettled the IDPs from Bududa and where it plans to resettle people from other mountainous areas. Kiryandongo is a relatively flat area that does not face any significant threats, except the occasional drought thus the disaster management strategies in question are related to the relocated individuals.

## **1.2. The Research Problem**

The purpose of the study was to document the response efforts and strategies used by the Government in relocating the affected people as well as to investigate the continued occurrence of landslides in Bududa. The important questions of interest that were put forward in this study were; what has led to the continued occurrence of landslides in the Mt. Elgon region? (Bududa) What preventive measures had been adopted in the past and what measures are being taken currently? What was the assessment of the Government's response and efforts to mobilize resources and manpower to address these landslides and their victims?

Answers to these questions enabled me to come up with a clear analysis of the rescue and relief efforts that followed as well as identify any areas of inefficiency and ineffectiveness in performance during the whole disaster management exercise. The focus of research in this study was to provide a critique and analysis of the present strategy and system in place with a view to formulating an enhanced approach and strategy that can be applied in the sector.

Secondly the study will build on the existing level of knowledge as it serves to contrast different strategies used by the Government of Uganda and those used by other Governments in the world as indicated in previous studies that were done by different researchers.

In different research studies including Maskrey (1989), the conclusion was that the use of community-based approach to disaster management would better address disasters. Maskrey (1986) found that “In the year or so between the occurrence of a disaster and approved National reconstruction plans, many vulnerable communities revert to coping with risk, often in the same or worse conditions than before the disaster actually struck”.

Kitutu, Muwanga, Poesen and Deckers (2010) found that three factors were mentioned by farmers as being characteristic of areas with landslides, when ranked these included; steep slopes, flow of water from underground and concavities, farmers were also asked to provide information on what they perceived as characteristics of soils where landslides occur as depicted by farmers and characteristics of areas without landslides as well as months when landslides occur. They were trying to assess the farmers’ understanding and perception of the causes and impact of landslides in Bududa District.

Yodmani (2001) in his paper included; the identification of paradigm shifts in disaster management from relief and response to disaster risk management, linking poverty and vulnerability and suggesting integration approaches of Poverty Reduction Programs with Disaster Management or Reduction.

This study will play a part in modifying the current Government policy by addressing aspects of efficiency and effectiveness focusing on possible correlations between existent factors that play a part in the response effort and the shortcomings of the recent response exercise with a view to streamlining the response and recovery period by trying to maximize the strengths of Government and the abilities of the Relief Non Governmental Organizations (NGO’s) in conducting mitigation and recovery activities. This may be of benefit to other areas that are exposed to similar risks affecting Bududa thereby providing an action plan that can be effected, tested and improved upon by the respective emergency teams to familiarize themselves with the possible scenarios and systems that are in place.

The research study recognizes the role of Government to align and allocate NGO’s and other partners clear roles and responsibilities in engaging in relief efforts to contribute to the humanitarian effort as well as partner with Government. This can only be

successfully carried out when there are clear established infrastructures, strategies and capable labour force working seamlessly to manage these events. With the above in mind, the following constituted the research questions of the research study;

What were the strategic objectives of the Government of Uganda during the response efforts to the Bududa landslides?

How effective were the response efforts and activities of the Government and Inter-Agencies in relocating the Bududa landslides victims?

What policies does Government have in relation to resettlement of the victims in Kiryandongo?

Was there any sensitization made to the community to warn them of landslides and to help them adapt to their new environment in Kiryandongo?

### **1.3 Research Objectives**

The following were the objectives of the study:-

- i. Identify the Disaster Management Strategic objectives the Government had formulated to handle the landslides.
- ii. Assess the Effectiveness of the strategies used to respond to the disaster.
- iii. Assess the degree of sensitization that was carried out by Government and various Agencies to the affected community before and after relocation.

### **1.4. Value of the Study**

The importance of undertaking this study was outlined here below:-

To strengthen cohesiveness in the different policies and plans such as the National Development Plan for Uganda 2011/12 - 2014/15, thereby ensuring that the gains made in development are safeguarded in the process, protecting the social and cultural heritages of the indigenous people. This ensures that even if relocated, the victims do not lose their identity, values and way of life due to the establishment of effective appropriate policies that address speedy resolutions.

There have been a few studies carried out in this area (Bududa) and a number of recommendations made by different specialized experts, e.g. Kitutu, Muwanga, Poesen

and Deckers (2009 and 2010). However, the continued occurrence of landslides still plagues the area which highlights the fact that despite recommendations made earlier on, their implementation has not been possible and the problem remains significant. Therefore this study highlights some new recommendations that may appeal to Government for implementation.

Government has yet to come up with definite strategies, policy and institutional framework towards landslide incidences because every time they occur, that is when it shoots into action like fire fighters hence coordination problems, then soon after, the whole incident is overtaken/overshadowed by other Government priorities. When more studies are carried out, they may assist Government in coming up with a good policy that assigns certain roles and tasks to particular stakeholders.

This study is also aimed at highlighting some of the traditional approaches and trends that affect decision making by managers while encouraging the use of new knowledge, tools and relevant concepts such as; bottom up approach to problem solving, Just-In-Time inventory techniques and Real Strategic Time Response models that can provide enhanced service delivery and improve the efficiency of the decision maker while appreciating the unique features in the sector.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This chapter contains detailed information of the developments in the Humanitarian Sector as well as the relevant theories and prior studies undertaken that provide the basis of scientific knowledge essential to the study being undertaken. Also included in the above, are the variables that have been selected to explain the relationship and linkages existent in the study.

#### **2.2. Review of Pertinent Literature and Studies**

##### **Disaster Risk Management or Emergency Management**

In relation to the theoretical background, different scholars who have published their works like Cuny (1981) a pioneer who developed some of the most common practices currently used in this area, refer to Disaster Management as Emergency Management and recognize that, “The entire strategic process is divided into four fields to aid in identification of the processes. The four fields normally deal with risk reduction, preparing resources to respond to the hazard, responding to the actual damage caused by the hazard, limiting further damage and returning as close as possible to the state before the hazard incident.”

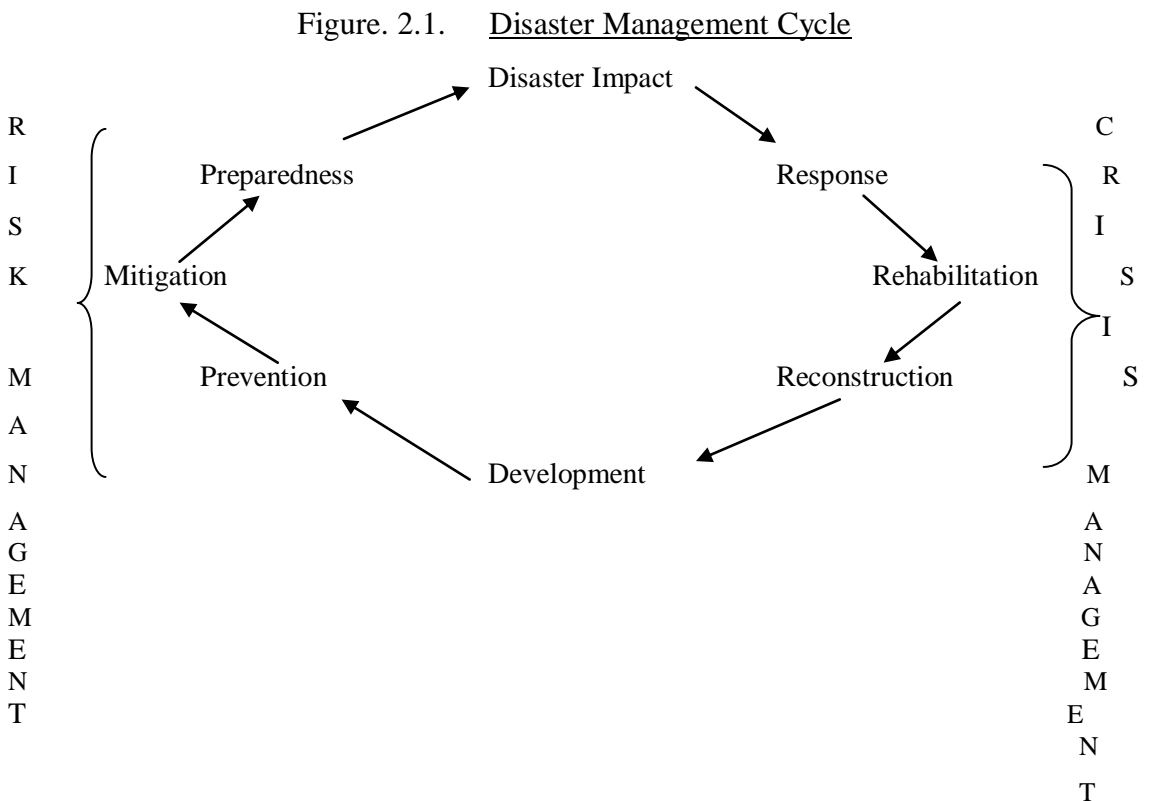
According to these scholars in this area, “Emergency or Disaster Management is a strategic process and not a tactical process thus it resides at the Executive level in an organization. It normally has no direct power, but serves as an advisory or coordinating function to ensure that all parts of an organization are focused on the common goal.”

These scholars proposed that “Effective Disaster Management relies on a thorough integration of emergency plans at all levels of the organization, and an understanding that the lowest levels of the organization are responsible for managing the emergency and getting additional resources and assistance from the upper levels.”

The earlier studies in this field have enabled a cycle of Disaster Management or Phases and activities of Disaster Management to be developed, these include; Mitigation phase, Preparedness phase, Response phase, Recovery phase as indicated in United Nations Secretariat of the International Strategy for Disaster Reduction document entitled “Environmental Protection and Disaster Risk Reduction; A Community Leader’s Guide”(June 2004).

However, there are other similar approaches that include; the Disaster phase, Response phase, Recovery/Rehabilitation phase, Risk Reduction/Mitigation phase and Preparedness phase.

Another Disaster Management Cycle that has been formulated as an improved version of the above mentioned, used by the United Nations Development Programme (UNDP) that includes two dimensions; these are Risk Management and Crisis Management as shown below:-



Source: United Nations Development Programme website retrieved on 24/02/2011.



According to Kitutu et al (2010), Landslides are a result of the reduced vegetative cover of the land, poor structure of the soil due to over cultivation, high levels of deforestation, topography of the land, over dependency on the land for economic and agricultural activities. These make the area prone to landslides when prolonged rainfall is expected. Lack of preventive measures like contour farming or reforestation as seen in other mountainous areas in Uganda, could have contributed to the occurrence of landslides that caused loss of lives and people's livelihoods thereby evoking rescue and aid responses by the concerned authorities to try and relocate the affected, provide them with shelter, food and medical care until they are able to start afresh in a different location.

The issue of concern is that when preventive measures are not established or implemented, the residents may tend to think all is well and go back to rebuild their settlements in the affected area only making them vulnerable to the next landslide that may occur when the next rain season approaches.

The empirical studies and reports that have been carried out in the area of landslides in Bududa have been difficult to come by due to limited access and poor record keeping system thereby providing limited knowledge on the phenomenon and its far reaching impact hence the need for more studies in this area. It is worth noting that scientific studies have been carried out in this area for a while now though the area of focus of these studies has mostly been geologic and soil specific in nature, for example Breugelmanns (2003), Isabirye, Mbeera, Ssalli, Magunda and Lwasa (2004), Kitutu, Muwanga, Poesen, Deckers (2004) and lastly Knapen et al (2006).

In another report by Kitutu et al (2009) entitled "Influence of Soil Properties on Landslide Occurrences in Bududa District, Eastern Uganda" featured in the African journal of Agricultural Research, the aim of the study was to carry out a detailed survey of the soil to determine soil types and their influence on landslide occurrence in Bududa. In the study it was revealed that landslides are not as a result of a single factor, it takes an interaction of different factors. Knapen, Kitutu, Poesen, Breugelmanns, Deckers, Muwanga (2006) identify poor soil texture, heavy rainfall and

steep topography. Although other factors like poor land use and natural resource management, over population, poor development and planning of settlements, over reliance on land for source of income and survival, slope shape and high clay content may be contributing factors that could have promoted landslide occurrences in Bududa, stating that landslides were a result of the interaction of different factors. The study did not describe how the soil conditions could be improved upon to enable the reduced occurrence of landslides. (Land reclamation).

There was a Geologic Survey and Mapping of the Landslide and surrounding areas carried out by Gorokhovich and Doocy (2010) entitled the “Preliminary Results of the Bududa Landslide Geologic and Survey and Needs at Bulucheke Camp for the Displaced Population.” The main focus of this study was to create a 3Dimension visualization of the area using satellite technology to highlight imminent danger posed by a newly developed crack (a hazard) that could develop into another landslide; they also proposed steps that could be taken in preventing future landslides.

The assumption of this outcome is based on the similarity of the geologic structure of Nametsi and Masakhanu, hence the need for solutions pertaining to improvement of the soil structure and land use methods in his survey. The survey did not focus on the resettlement phase of the IDPs to Kiryandongo, in other words it was only addressing the security concerns of people still settled in the Mount Elgon region.

Kitutu et al (2010) in their Research Paper titled “Farmer’s perspectives on landslide occurrences in Bududa District, Eastern Uganda” tried to assess the farmer’s understanding and perception of the causes and impact of landslides in Bududa District. They identified the soil characteristics that were prone to landslides and their triggering factor (prolonged rainfall) and highlighted the significance of involvement or active participation of farmers in developing an integrated approach to agricultural research.

The limitation with this study is that the researchers did not identify the water threshold or limit beyond which landslides occur as a result of soil structure failing and propose how this structure can be improved. In addition to the above, they did not distinguish

between the income levels of the farmers or scale of operation because those with high levels of income or scale have resources and are able to easily recover in times of disasters compared to small scale farmers.

### **2.3. Government Policy on Significant Issues in Disaster Risk Management**

#### **International**

According to Yodmani (2001) there has been a paradigm shift in the way disasters have been perceived from their creation by extreme events of natural factors to their cause by symptoms of unresolved development problems hence this has changed the approach of disaster management efforts and has led to increased emphasis on integration of poverty reduction programmes with other sectoral issues.

In addition to the above Yodmani (2001) emphasizes that “An evolution of approaches that has occurred from relief and response to vulnerability analysis and risk management, has started influencing how disaster management programmes are now being planned and financed.” He also ascertains that among the shifts include the shift of disaster risk management practices from a top - down relief and response approach to a more inter-sectoral risk management approach.

Pelling and Wisner (2009) in their book *Disaster Risk Reduction Cases from Urban Africa* look at case studies of urban cities that came up with innovative ways of mitigating and resolving the different disasters they faced. Pelling and Wisner (2009) made the following proposal when dealing with DRR changes in an urban African setting, “When thinking about making changes in African cities three levels of engagement are equally important; institutions, policies and techniques.”

#### **Uganda**

It was decided in August 2010 by the Government of Uganda, the United Nations, Non Governmental Organizations and the Donor representatives to lift the requirement for a Consolidated Appeals Process (CAP) for relief operations in 2011 as indicated in the UN Ugandan Humanitarian Profile 2011.

Another advancement in disaster preparedness policy by the Government of Uganda is the Draft Policy Paper on Pastoralism in Karamoja prepared by the Karamoja Working Group which is currently awaiting comments and feedback from the Government in addition to the Government approved and launched Karamoja Action Plan for Food Security. (KAPS)

Presently there is a National Policy for Disaster Preparedness and Management that has been approved by Parliament but is awaiting implementation and it places emphasis on Disaster Risk Reduction in line with the recommendations of the Hyogo Framework for Action (2005). This highlights the need to tackle disasters in a holistic manner and put in place structures that will aid humanitarian efforts by integrating other stakeholders' efforts namely the International Organizations, Privates Sector Organizations and Civil Society Organizations with Government efforts in enhancing the preparedness and response capacity of the Government.

According to the UN Humanitarian Profile for Uganda 2011, "The Government's preparedness and response strategy at the National Level is soon to be based on the National Policy for Disaster Preparedness and Management led by the Directorate of Relief, Disaster Preparedness and Refugees within the Office of the Prime Minister, assisted by the relevant Line Ministries."

In addition to the above some of the policy issues include; the protection and assistance of Internally Displaced Persons, Human Rights protection of IDPs, District Disaster Preparedness and Management Committees (DDPMCs), Involvement of International Organizations, Local Government and other Government Ministries, Departments and Agencies in Disaster Risk Management, security, freedom of movement, protection against arbitrary displacement, voluntary return and resettlement, property rights, family unification, food security, shelter, clothing, education, health, water and sanitation, resettlement kits, rehabilitation of infrastructure, gender issues and the needs of the disabled and elderly IDPs in camps.

Some of these issues have been addressed in the National Policy for Internally Displaced Persons (2004) developed by the Department of Relief, Disaster

Preparedness and Management under the Office of the Prime Minister to streamline humanitarian programmes, committees, roles and responsibilities. However, there are still some gaps that exist for example not all of the District Disaster Preparedness and Management Committees (DDPMCs) are fully operational and Local Government heads at District level lack the skills and manpower to effectively apply Disaster Risk Reduction (DRR) in their assigned roles without help from Office of the Prime Minister.

Numerous workshops have been held in the past to improve on the recently approved National Disaster Management Policy, one of them being the “Workshop on the Implementation of Uganda’s National Policy for Internally Displaced Persons” that was held in Kampala, Uganda on 3 - 4 July 2006. It was hosted by the Government of Uganda and its main objective was to identify the challenges to the implementation of the policy and work towards practical solutions.

### **Existing Literature on Disaster Management Policy**

Maskrey (1989) in his Book “Disaster Mitigation: A Community Based Approach. (Development Guideline No. 3) advocated for a community-based approach to disaster claiming it to be useful to practitioners in NGOs, International Development Agencies and Government Departments because the approach strengthened community organization, provided technical assistance and training as well as developed mitigation proposals which communities negotiated with Government and NGOs. This study contributed to the area of Disaster Risk Management by categorizing two approaches i.e. Vulnerability Approach the dominant approach and Political Economy Approach as well as recognizing the different dimensions that exist in the community.

Maskrey (1989) advocates for an alternative approach to mitigation where it must become a developmental activity which seeks to address the real causes of poverty and under-development to be effective. He suggests the use of a “Bottom- Up” approach in a community based mitigation programme to involve the members of the community in participating in the development of solutions with the assumption that the people in the community are organized into one cohesive unit.

For comparison purposes, the Government of Kenya in its Final Draft of the National Disaster Management Policy (2009) when dealing with disasters focuses on the functions of Disaster Management which have the following as their strategies;

The use of disaster prevention measures to eliminate or minimize disasters. This is usually done by the use of different strategies that include; education, awareness and information sharing, risk and vulnerability analysis, the use of a people-centered early warning system, the adaptation to Climate Change, Mitigation through Development as well as the Environmental Protection (i.e. environmental safe guards and policies), the use of vulnerability reduction through development and social programmes, the use of community coping mechanisms, adequate preparation and planning (contingency plans and measures), organizing training, equipping and educating of personnel and the public, use of strategic stockpiles of essential supplies by the Kenyan Government, medical items, grain reserves and Non Food Items (NFIs) (This is done by Civil Society Organizations including Kenya Red Cross Society) , promotion of public safety in all sectors of the economy, exercises (simulations) or drills in response to disasters .

Ayanji (2004) who carried out a study entitled “A Critical Assessment of the Natural Disaster Management Framework in Cameroon” which experienced landslides in 2003 adopted the following strategies;

With the focus on pre-disaster scenarios they promoted disaster mitigation through collecting, analyzing, disseminating, storing and using information (formulation of networks of civil protection communicators), creating awareness or sensitization and education, completion of sectoral contingency plans, conducting National Workshops, Use of technology to create a website for the Department of Disaster and Emergency Services (DDES), implementation of Emergency Response Programmes during disasters, compensation, rehabilitation and reconstruction.

According to the International Civil Defence Directory of Cameroon (2006), the Civil Defence Executive of the Ministry of Territorial Administration and Decentralization is the Government Department which coordinates multi-agency collaboration in matters of disaster prevention and management on a National Level.

## **2.4. Research Variables**

The occurrence of a disaster that impacts the dependent variable which, in the case of this study is effective disaster management, in essence represents the successful implementation of established plans and strategies as a result of inputs that include; the financial resources, medical supplies, food supplies, Non Food Items (NFIs), time, machinery, manpower and structures used to limit the effects of the disaster.

The disaster management process involves; Hazard mapping, Risk assessment, Damage assessment, organizing of meetings for stakeholders, mobilizing efforts and carrying out the rescue activities. This process is affected by other factors known as intervening and moderating variables that include changing dynamics in the scenario and feedback respectively. The feedback in this case represents the information or data that will be useful in redeveloping and formulating the strategies and policies like the contingency plans and strategies that enrich management decisions.

The independent variables in this case are the factors that affect the successful implementation of the disaster management strategy these include; the availability of funds and finance, shelter, information sharing and awareness, training and education of personnel and the public, presence of processes and contingency plans to limit the impact of the disaster, protection and preservation of human rights of the victims and vulnerable groups. It is the combination of the above factors that will determine the successful implementation, effectiveness and efficiency of the disaster management strategies.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

This chapter contains information about the research design that was used to carry out the research, it mentions the type of study that was undertaken in addition to the scope of the study. Of paramount significance in this chapter is the identification of the population of the study from which a sample was selected upon which analysis was carried out.

The detailed description of the data collection instruments and tools used, as well as the techniques discussed in this chapter link the research objectives to the data collection tools or instruments and the findings that were reported later on after the research had been undertaken. The type of analysis that was done on the data collected from the field is discussed in this chapter with a view of trying to achieve the research objectives and discovering any existing underlying trends and patterns.

#### **3.2. Research Design**

This study was a survey that served the purpose of analyzing and emphasizing the contextual situations and variables that had been used in similar studies since these also impact on the outcome and selection of solutions.

As already mentioned the research study was carried out in a non contrived setting with minimal extent of researcher interference undertaken in Uganda and in Kiryandongo where the respondents were located and where the data was collected and analyzed. The field study and collection of data was carried out in one month focusing on the Bududa landslides of 1<sup>st</sup> March 2010 and the response efforts with a view to assessing the activities that followed. The unit of measure in this study was the individual particularly those who had been much affected by this event.



This study focused on the analysis of variables at a specific point in time involving field studies that were performed in a bid to collect both primary and secondary data to test the correlation of the variables.

### **3.3. Population**

The study was undertaken to highlight the plight of the people who were affected by the landslides in Bududa on 1<sup>st</sup> March 2010 and were relocated to Kiryandongo District hence covering the intended area of Kiryandongo.

### **3.4. Sampling Design**

This consisted of five hundred individuals (500) that included people from Kiryandongo who had been relocated from Bududa, Government officials on the ground and from the Office of the Prime Minister who are part of the Department of Relief and Disaster Preparedness. The requirements for respondents was the knowledge of what took place on the given date and the rescue efforts that followed as well as the ability to easily express themselves and answer any questions in the language they feel comfortable speaking since interpreters and research assistants were used to enable the successful administering of this activity.

Area sampling was used to administer the questionnaire to collect data because of the geographical features of the area in Kiryandongo where settlements had been setup based on the proximity to relief services and Government stores where the relocated people have markets, shops and recreation areas.

### **3.5. Data Collection Methods**

During the research, primary sources were used to collect data from the field (Kiryandongo) using a questionnaire with close ended questions and the respondents were residents of Kiryandongo, or resettled families. In cases of Government respondents' structured interviews and questionnaires were used to obtain information on the topic at hand in order to get an idea of the factors that were in play during the response efforts. Additional information was collected from secondary sources i.e.

earlier studies and Government reports on the situation of the landslides, journals and news papers and press releases. Data on relief contribution and distribution as well as timing was obtained from both primary and secondary sources.

The measurement of the variables in this study involved the use of nominal, ordinal and interval scales to assign values to the data in order to organize the data collected. The scaling technique that was applied in this study was the Likert scale with the reason being it provides a variety of different levels of measurement for the respondents.

### **3.6. Data Analysis**

In relation to the design, questionnaires with closed ended questions were used to measure the specific variables of interest and meet the research objectives of the study.

A number of respondents were selected from the Ministry of Relief, Disaster Preparedness and Management, other Government officials/ leaders both at the Ministry and on the ground and the IDPs that had been affected by the landslide and had been relocated to Kiryandongo settlement. The availability of records and lists of individuals from Kiryandongo enabled the researcher to come up with a systematic way of selecting respondents to participate in the data gathering.

In order to make certain of internal consistency of measures a deliberate effort was taken to make sure that the instruments and results were within range by ensuring uniformity through use of a standard or grading system for the different responses of the respondents. The issue of content validity was dealt with by reading widely and engaging with an expert in the field to come up with appropriate measures.

The collected data was used to perform the following measures and tests; measures of dispersion (standard deviation, variance or coefficient of variant and correlation tests).

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

#### 4.1. Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented on disaster risk management. The data was gathered exclusively from a questionnaire as the research instrument which was designed in line with the objectives of the study. To enhance quality of data obtained, Likert type questions were included whereby respondents indicated the extent to which the variables were practiced in a five point Likert scale.

##### 4.1.1. Response Rate

The study targeted a sample of 500 respondents in collecting data with regard to the disaster risk management. From the study, 61 out of every 80 sampled respondents filled and returned the questionnaire contributing to 76.3% of the figure targeted. This commendable response rate was made a reality after the researcher made telephone calls to remind the respondents to fill-in and return the questionnaires.

**Table 4.1: Response Rate**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Responded	431	86.2
Not responded	69	13.8
<b>Total</b>	<b>500</b>	<b>100.0</b>

**Source: Researcher**

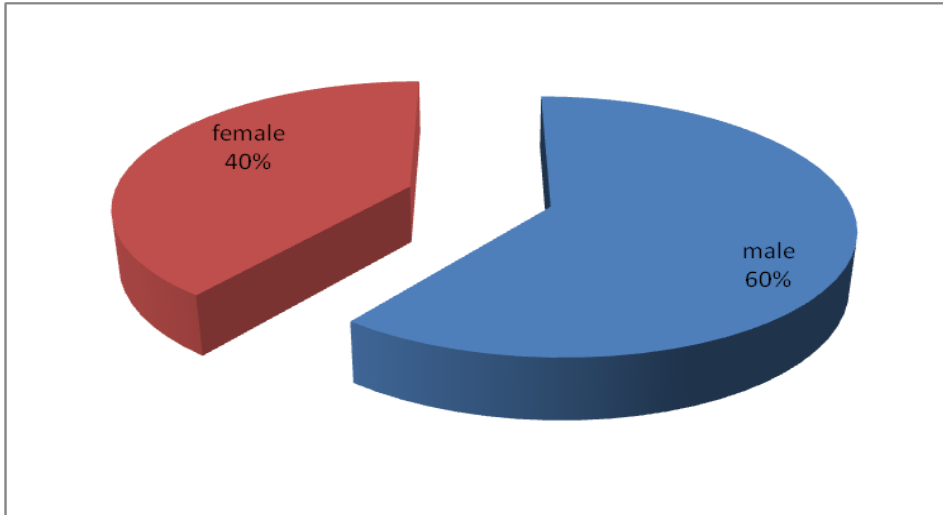
The above Table shows the response rate and the number of questionnaires that were answered, returned and not responded both as figures and percentages of the total number of questionnaires.

## 4.2. General Information

### 4.2.1. Gender of the Respondents

On the gender of the respondents, the study found that there were more males as shown by the figure below.

**Figure 4.1: Gender of the Respondents**



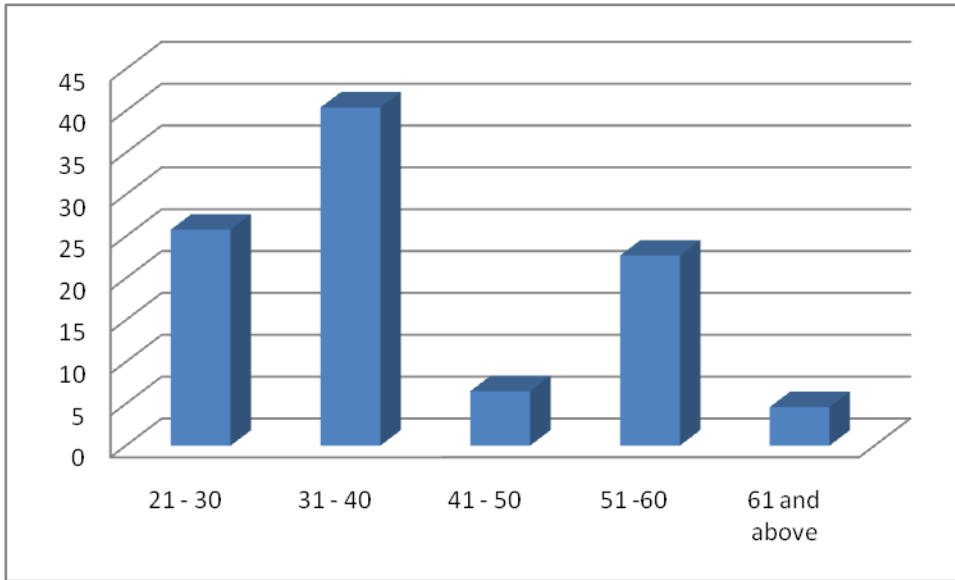
**Source: Researcher**

The above figure shows the percentage of women respondents as opposed to the men.

### 4.2.2. Age Bracket of the Respondents

The study also sought to establish the respondents' age bracket. From the findings, 25.8% were aged 21 – 30 years, the majority of the respondents were 31 - 40 years old as shown by 40.4%, 6.5% of the respondents were 41 - 50 years, 22.7% of the respondents were aged 51 - 60 years while 4.6% of the respondents were above 61 years of age.

**Figure 4.2: Age Distribution**



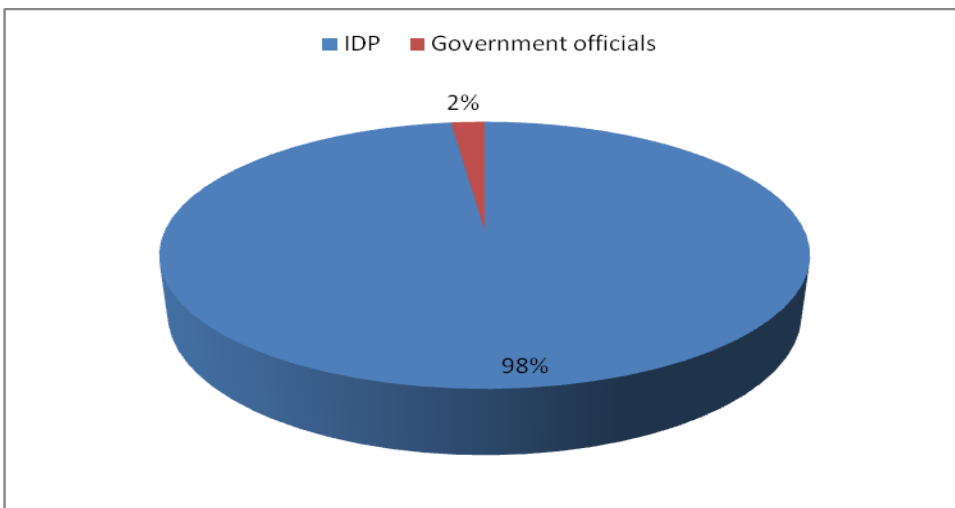
**Source: Researcher**

The Bar Graph above shows the different age distribution of the respondents.

### **4.2.3. Current Job Title**

The respondents were requested to indicate their current job title / occupation. The majority of the respondents (98.4%) were Internally Displaced Persons who were mostly peasants or farmers while the minority (1.6%) were Government officials.

**Figure 4.3: Current Job Title**



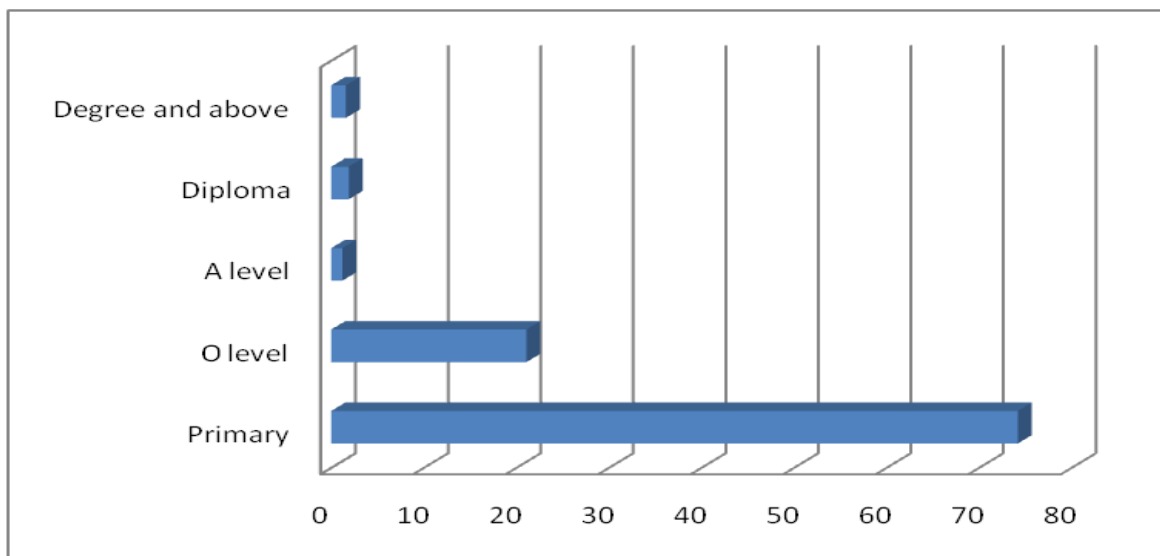
**Source: Researcher**

Above is a Pie Chart demonstrating the percentage of respondents according to their job titles/occupation status.

#### 4.2.4. Level of Education of the Respondents

The study found that the majority of respondents (74.2%) had attended Primary School, followed by 21.1% of the respondents who had attended Ordinary level (O' level), 1.2% who had attained Advanced level (A' level), 1.9% who had attended Diploma Courses while 1.6% of the respondents who were Degree holders and above, as their highest level of education.

**Figure 4.4: Level of Education**



**Source: Researcher**

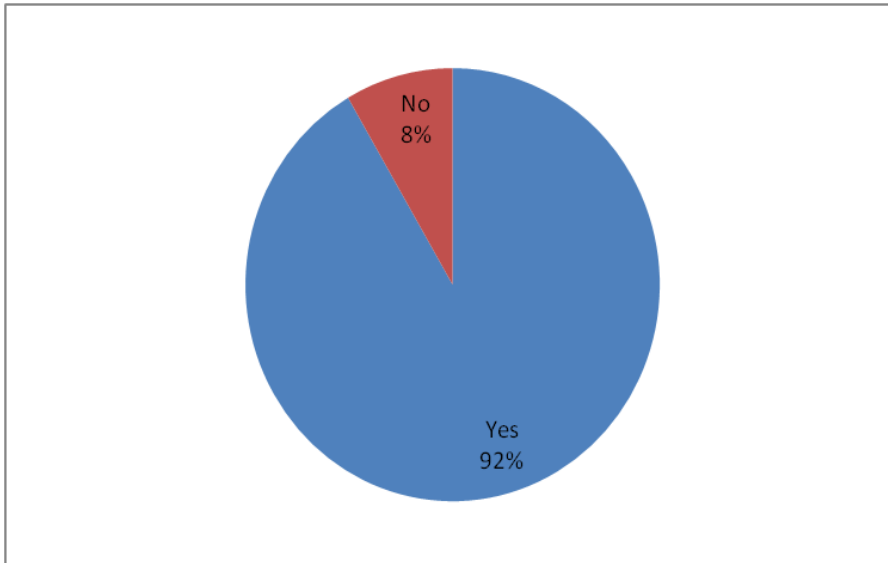
The Bar Graph above shows the distribution of the Level of Education of the respondents.

### 4.3. Recovery Activities

#### 4.3.1. Recovery activities carried out

The study sought to find out whether the efforts made by Government and Inter-Agencies were effective in recovery of survivors. According to the study, the majority of the respondents, 92% indicated “yes” while the minority 8% indicated “no” as their response as shown by the figure on the following page.

**Figure 4.5: Recovery activities carried out**



**Source: Researcher**

The above Pie Chart shows the percentage in response to how the respondents felt the recovery activities were carried out by Government and the Inter-agencies.

### **Scale Used**

A scale of 1-5 was used. The scores “At all times” and “At most times” were represented by mean score equivalent to 1 to 2.5 on the continuous Likert Scale ( $1 \leq \text{at most times} \leq 2.5$ ). The scores of ‘Sometimes’ were equivalent to 2.6 to 3.5 on the Likert Scale ( $2.6 \leq \text{sometimes} \leq 3.5$ ). The score of “Rarely” and “Never” were equivalent to 3.6 to 5.0 on the Likert Scale ( $3.6 \leq \text{Rarely} \leq 5.0$ ).

### **4.3.2. Level of Agreement with Recovery Activities carried out**

The study sought to investigate the extent to which efforts made by Government and Inter - Agencies were effective in recovery of survivors. From the study, the relief provided by Government and Inter-agencies assisted in the protection of vulnerable groups shown by a mean score of 4.3109, Government and Relief Inter-agencies efforts assisted in the provision of water to the population in the area shown by a mean score of 4.1573, relief provided by Government and Relief Inter-agencies reinforced mechanisms for sound management of Environment and Natural resources as shown by a mean score of 4.1023, relief provided by Government and Relief Inter-agencies

reactivated the productive sectors of Agriculture in landslide affected areas of Eastern Uganda as shown by a mean score of 4.0998, infrastructure development and rehabilitation were well provided by Government and Relief Inter-agencies project works as shown by a mean score of 3.6713, Government and Relief Inter-agencies assisted in the provision of Health Services to the affected population in the area as shown by a mean score of 3.6387, whether Government and Relief Inter-agencies provided items in the right time as shown by a mean score of 3.6140, were Government and Inter-agencies items well managed by the officers concerned as shown by a mean score of 3.6023, Government and Relief Inter-agencies assisted in the provision of farm implements in the area as shown by a mean score of 3.5661, did items always come in sufficient quantities as shown by a mean score of 3.5256, recovery has been initiated by the Government and Relief Inter-agencies projects as shown by a mean score of 3.5058, Government and Relief Inter-agencies have assisted in the complete return/resettlement of IDPs in the area as shown by a mean score of 3.4767, received items were well distributed to the affected areas as shown by a mean score of 3.4196, relief provided by Government and Relief Inter-agencies improved social services and livelihood support in general as shown by a mean score of 3.2854, response efforts provided by Government and Relief Inter-agencies enabled community rehabilitation as shown by a mean score of 3.1647, response efforts made by Government and Relief Inter-agencies improved the quality of life of the displaced people in Kiryandongo as shown by a mean score of 2.7140, relief provided by Government and Relief Inter-agencies included food to the affected population as shown by a mean score of 2.5568, response efforts made by Government and Relief Inter-agencies improved the conditions of those people relocated and living in camps in general as shown by a mean score of 2.5476 and response efforts by Government and Relief Inter – Agencies were effective in disposing of the dead hygienically to ensure there was no outbreak of diseases as shown by a mean score of 1.7680 as indicated in the Table below.

**Table 4.2: Level of Agreement with Recovery activities carried out**

No	Statement	Mean	Std. Deviation
1	Relief provided by Government and Inter-agencies has assisted in the protection of vulnerable groups	4.3109	1.13336
2	Government and Inter-agencies efforts have assisted in the provision of water to the population in the area	4.1573	1.02952



3	Relief provided by Government and Inter-agencies have reinforced mechanisms for sound management of Environment and Natural Resources	4.1023	1.08550
4	Relief provided by Government and Inter-agencies have reactivated the productive sectors of Agriculture in landslide affected areas of Eastern Uganda	4.0998	1.10254
5	Infrastructure development and rehabilitation has been well provided by Government and Inter-agencies project works	3.6713	1.26108
6	Government and Inter-agencies have assisted in the provision of Health Services to the affected population in the area	3.6387	.99414
7	Do Government and Inter-agencies provide items in the right time	3.6140	1.05105
8	Are Government and Inter-agencies items well managed by the officers concerned	3.6023	1.22236
9	Government and Inter-agencies have assisted in the provision of farm implements in the area	3.5661	1.25926
10	Do the items always come in sufficient quantities	3.5256	1.04582
11	Recovery has been initiated by the Government and Inter-agencies projects	3.5058	1.72071
12	Government and Inter-agencies have assisted in the complete return/resettlement of IDPs in the area	3.4767	1.58612
13	Were the received items (farm implements) well distributed to the affected areas	3.4196	1.13820
14	Relief provided by Government and Inter-agencies have improved social services and livelihood support in general	3.2854	1.15728
15	Response efforts provided by Government and relief Inter-agencies are enabling community rehabilitation	3.1647	1.37359
16	Response efforts made by Government and Relief Inter-agencies have improved the quality of life of the displaced people in Kiryandongo	2.7140	1.03529
17	Relief provided by Government and Inter-agencies have included food to the affected population, i.e. in Camps and those relocated	2.5568	1.00505
18	Response efforts made by Government and Inter-agencies have improved the conditions of those relocated and living in camps	2.5476	1.05739
19	Response efforts by Government and Inter-agencies were effective in disposing of the dead hygienically to ensure there was no outbreak of diseases	1.7680	1.09204
	<b>Total</b>	<b>64.73</b>	<b>22.350</b>
	<b>Average</b>	<b>3.41</b>	<b>1.176</b>

**Source: Researcher**

The Average in this Table indicates that Government and Relief Inter-Agencies efforts were effective at most times.

## 4. 4. Quality of life

### 4.4.1. Quality of life

The study sought the respondents' level of agreement with various statements that related to the extent to which the Government and Relief Inter-agencies efforts had helped improve the quality of life. The study found out that Government and Inter-agencies efforts helped in the construction of schools in the area with a mean score of 4.7658, that Government and Inter-agencies efforts helped expectant mothers with the necessary medical care, (e.g. setting up clinics and medication) with a mean score of 4.4070, Government and Inter-agencies efforts helped in the construction of pit latrines in the affected areas had a mean score of 4.2552, Government and Inter-agencies efforts helped in the delivery of health facilities in general had a mean score of 3.5958, Government and Inter-agencies efforts helped in the control of malaria within the IDP camps, or those who had been relocated had a mean score of 3.3466 and whether the response efforts helped the children with vaccines against common diseases like measles as shown by a mean score of 3.2204.

**Table 4.3: Quality of life**

No	Statement	Mean	Std. Deviation
1	Have Government and Inter-agencies efforts helped in the construction of schools in the area	4.7658	.75461
2	Have Government and Inter-agencies efforts helped expectant mothers with the necessary medical care, e.g. setting up clinics, medication	4.4070	.98447
3	Have Government and Inter-agencies efforts helped in the construction of pit latrines in the affected areas	4.2552	1.05866
4	Have Government and Inter-agencies efforts helped in the delivery of health facilities in general	3.5958	1.15444
5	Have Government and Inter-agencies efforts helped in the control of malaria within the IDP camps, or those who have been relocated	3.3466	.94534
6	Have the response efforts helped the children with vaccines against common diseases like measles	3.2204	1.02306
	<b>Total</b>	<b>23.59</b>	<b>5.921</b>
	<b>Average</b>	<b>3.93</b>	<b>0.987</b>

**Source: Researcher**

From the Table above, it is indicated that Government and Relief Inter-agencies' relief efforts sometimes improved the Quality of Life.

## 4. 5. Factors that Impact on the Life of the Displaced Population

### 4.5.1. Resettlement of the Displaced Population

The study sought to establish whether the Government and Relief Inter-agencies assisted in the resettlement of displaced population in Eastern Uganda captured a mean score of 2.6288 as shown below.

**Table 4. 4: Resettlement of the Displaced Population**

No	Statement	Mean	Std. Deviation
1	Has the Government and Inter-agencies assisted in the resettlement of displaced population in Eastern Uganda	2.6288	1.34216
	<b>Total</b>	2.63	1.342
	<b>Average</b>	2.63	1.342

**Source: Researcher**

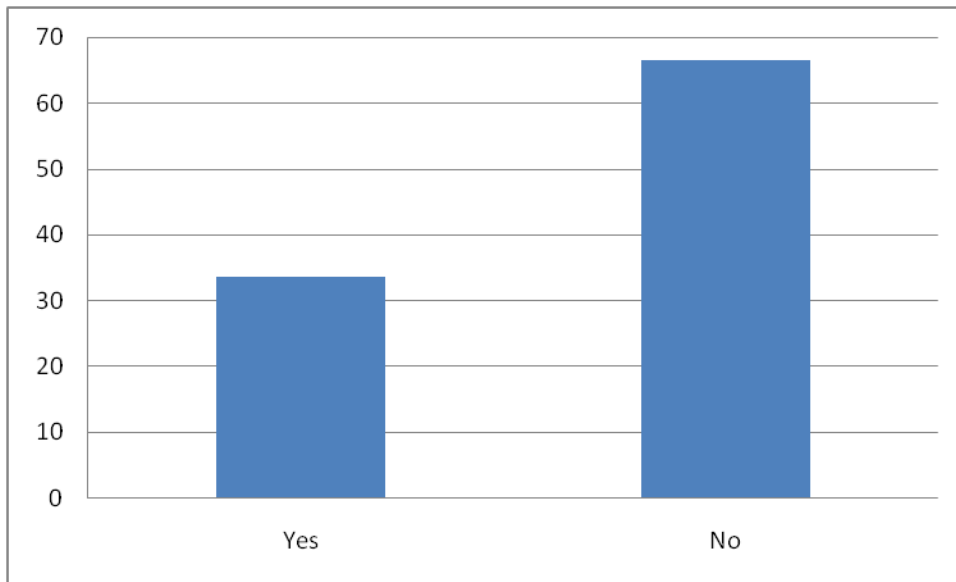
The Displaced Population was first temporarily settled in Bulucheke then eventually resettled in Kiryandongo District. The Average in the above Table indicates that At Most Times, efforts were made to resettle the Displaced Population.

### 4.5.2. Return of the Displaced Population

The respondents were requested to indicate whether the response efforts undertaken by Government and Relief Inter-agencies enabled a complete return of the displaced population and majority of the respondents (66.4%) indicated “No” as their response while the minority (33.6%) indicated “Yes” as their response.

This is essentially in line with the Government’s stance on resettlement in high risk areas where people are still exposed to high levels of risk because of the presence of a hazard that could lead to a recurrence of the disaster in future.

**Figure 4.6: Return of the Displaced Population**



**Source: Field Data**

The above Bar Graph is a presentation of the respondents' views on whether they think Government and Relief Inter-agencies enabled the complete return of the Displaced Population to Bududa.

#### **4.5.3. Welfare linked to the Displaced Population**

The study sought to rate statements related to the return of the displaced population. From the study, the Government and Inter-agencies efforts helped in enhancing the IDPs and the relocated population with reasonable income in general had a mean score of 4.3660, the Government and Inter-agencies efforts helped the displaced population to enhance food security had a mean score of 4.3039, whether the Government and Inter-agencies helped in the shift from subsistence production towards medium scale production in the area had a mean score of 4.0419, the Government and the Inter-agencies efforts enhanced land productivity in the affected areas of Eastern Uganda and where people were relocated had a mean score of 3.4093, Government and Inter-agencies efforts helped in the provision of seeds and planting materials to subsistence producers had a mean score of 2.9327 and whether Government and Inter-agencies efforts helped subsistence farmers with farm tools (hand hoes and pangas) had a mean score of 2.4122.

**Table 4.5: Statements Related to the Welfare of the Displaced Population**

<b>No</b>	<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
1	Have Government and Inter-agencies efforts helped in enhancing the IDPs and relocated population with reasonable income in general	4.3660	1.15761
2	Have the Government and Inter-agencies efforts helped the displaced populations to enhance food security	4.3039	1.04234
3	Have the Government and Inter-agencies helped in the shift from subsistence production towards medium scale production in the area	4.0419	1.19170
4	Have the Government and the Inter-agencies efforts enhanced land productivity in the affected areas of Eastern Uganda and where people were relocated	3.4093	1.39092
5	Have Government and Inter-agencies efforts helped in the provision of seeds and planting materials to subsistence producers	2.9327	1.16044
6	Have Government and Inter-agencies efforts helped subsistence farmers with farm tools (hand hoes and pangas)	2.4122	1.05423
	<b>Total</b>	<b>21.47</b>	<b>6.997</b>
	<b>Average</b>	<b>3.58</b>	<b>1.166</b>

**Source: Researcher**

The average in this Table shows that Government and Inter-agencies have sometimes provided and improved the welfare of the displaced population.

## **4. 6. Protection of Vulnerable Groups**

### **4.6.1. Protection of Vulnerable Groups**

In relation to the extent to which various activities had been undertaken to ensure the protection of vulnerable groups by the Government and Inter-agencies, the study has shown that Government and Inter-agencies projects assisted in the provision of personnel to diagnose animal disease with a mean score of 4.9142, Government and Inter-agencies procurements assisted communities with appropriate fishing gear with a mean score of 4.9118 (A poor score because there are no fishing spots in the area), Government and Inter-agencies assisted vulnerable groups in Eastern Uganda in the control of ticks with a mean score of 4.9072, Government and Inter-agencies items facilitated support for vulnerable groups such as women and children to have income for daily use with a mean score of 4.9049, Government and Inter-agencies items for Eastern Uganda strengthened community participation in economic development with a

mean score of 4.7842, Government and Inter-agencies procurements helped vulnerable groups in disease diagnosis with a mean score of 4.6914, the Government and Inter-agencies projects helped in the reconstruction of houses destroyed by the land slides in Bududa had a mean score of 4.3295 however the Government strongly advised the people to relocate to safer areas because of the continued presence of risk as well as discouraged settling in high risk areas, Government and Inter-agencies projects helped the community with disaster preparedness and management with a mean score of 3.7633.

**Table 4.6: Protection of Vulnerable Groups**

No	Statement	Mean	Std. Deviation
1	Have Government and Inter-agencies projects assisted in construction of valley dams to provide water for people in the area (There are no valley dams in the region)	4.9395	.41652
2	Have Government and Inter-agencies assisted vulnerable groups with appropriate skills in fish farming (There are no fishing spots in the area)	4.9327	.48954
3	Have Government and Inter-agencies assisted vulnerable groups in Eastern Uganda with spray pumps and animal drugs	4.9258	.42488
4	In your opinion have Government and Inter-agencies projects assisted with personnel to diagnose animal disease	4.9142	.46211
5	Have Government and Inter-agencies procurements assisted communities with appropriate fishing gear	4.9118	.56784
6	Have Government and Inter-agencies assisted vulnerable groups in Eastern Uganda in the control of ticks	4.9072	.48773
7	Have Government and Inter-agencies items facilitated support for vulnerable groups such as women and children to have income for daily use	4.9049	.45520
8	Have Government and Inter-agencies items for Eastern Uganda strengthened community participation in Economic development	4.7842	.61556
9	Have Government and Inter-agencies procurements helped vulnerable groups in disease diagnosis	4.6914	.77153
10	In your view, have the Government and Inter-agencies projects helped in the reconstruction of houses destroyed by the land slides in Bududa / Eastern Uganda	4.3295	1.07964
11	Have Government and Inter-agencies projects helped the community with disaster preparedness and management	3.7633	1.36216
	<b>Total</b>	<b>52.01</b>	<b>7.133</b>
	<b>Average</b>	<b>4.73</b>	<b>0.648</b>

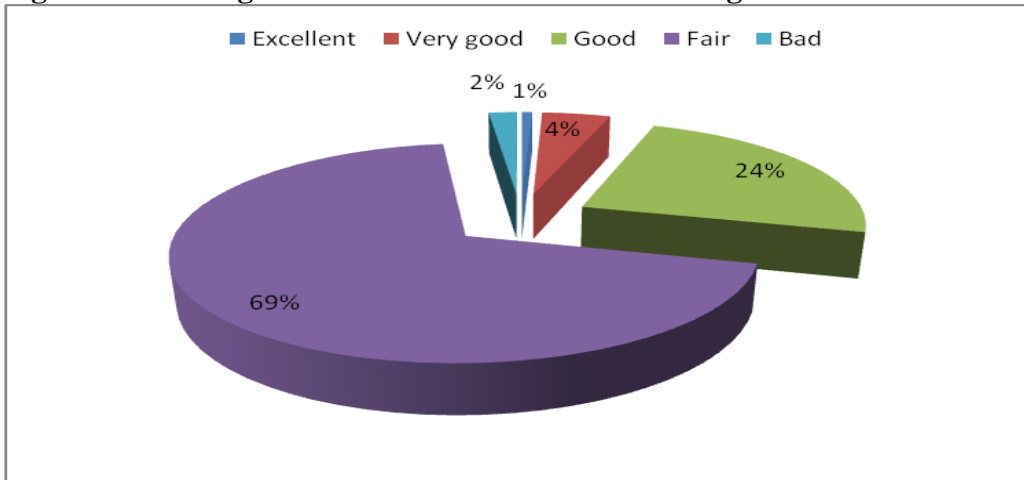
Source: Researcher

The average in the Table shows that Government and Inter-agencies efforts have Rarely or Never assisted in the protection of Vulnerable Groups.

#### 4.6.2. Rating on Performance

What is your overall rating on the performance of Government and Relief Inter-agencies projects in Eastern Uganda, the minority (0.7%) as excellent, very good (4.6%), good (23.7%), with a majority (69.1%) indicating fair and bad (1.9%).

**Figure 4.7: Rating on Government and Relief Inter-agencies Performance**



**Source: Researcher**

Above is a pie chart showing the respondents rating of Government and Relief Inter-agencies performance in dealing with the landslides in Bududa that resulted in their relocation to Kiryandongo District.

#### 4.7. Level of Sensitization

The study sought the respondents' level of agreement with various statements that related to the extent of level of sensitization; whether the respondents were told or trained on what to do incase the disaster occurred had a mean score of 4.4060, contacted or informed of any dangerous risks present in the area with a mean score of 4.3443, received any procedures or steps to be followed when landslides or other disasters occurred with a mean score of 4.2343 and on whether the Government or Relief Inter-agencies provided them with seeds to plant when trees had been cut had a mean score of 4.1972 as shown by the table on the following page.

**Table 4.7: Level of Sensitization**

No	Statement	Mean	Std. Deviation
1	Have you been told or trained on what to do in case the disaster occurs	4.4060	.94000
2	Have you been contacted or informed of any dangerous risks present in the area	4.3443	1.08813
3	Have you received any procedures or steps to be followed when landslides or other disasters occur	4.2343	1.15066
4	Have the Government or Relief Inter-agencies provided you with seeds to plant when trees have been cut	4.1972	1.19128
	<b>Total</b>	<b>17.18</b>	<b>4.370</b>
	<b>Average</b>	<b>4.30</b>	<b>1.093</b>

**Source: Researcher**

The average in this Table shows that Government and Inter-agencies efforts have Sometimes improved on the level of sensitization.

## **4.8 Inferential Statistics**

### **4.8.1. Regression Analysis**

A multivariate regression model was applied to determine the relative importance of each of the variables with respect to Disaster Management.

The regression model was as follows:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

**Where:**

Y = Disaster Management

$\beta_0$  = Constant Term

$\beta_1$  = Beta coefficients

X<sub>1</sub> = Recovery Activities Carried Out

X<sub>2</sub> = Quality Of Life

X<sub>3</sub> = Return Of Displaced Population

X<sub>4</sub> = Protection of Vulnerable Groups

X<sub>5</sub> = Level of Sensitization



**Table 4.8: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.562(a)	0.316	0.308	.51423

a Predictors: (Constant), Recovery Activities Carried Out, Quality Of Life, Return Of Displaced Population, Protection of Vulnerable Groups, Level of Sensitization

The table above shows a correlation co-efficient of 0.562 which implies that there is a high relationship between the dependent and independent variables. Adjusted R<sup>2</sup> is called the coefficient of determination and tells us how disaster management varied according to recovery activities carried out, quality of life, return of displaced population, protection of vulnerable groups and level of sensitization. The table above shows that the value of adjusted R<sup>2</sup> is 0.308. This implies that, there was a variation of 30.8% of disaster management with recovery activities carried out, quality of life, return of displaced population, protection of vulnerable groups and level of sensitization.

**Table 4.9: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	51.418	5	10.284	38.890	0.000(a)
Residual	111.326	421	0.264		
Total	162.745	426			

a Predictors: (Constant), Recovery Activities Carried Out, Quality of Life, Return Of Displaced Population, Protection of Vulnerable Groups, Level of Sensitization

b Dependent Variable: Disaster Management

The study used ANOVA to establish the significance of the regression model from which an f-significance value of  $p < 0.001$  was established. This shows that the regression model has a less than 0.001 likelihood (probability) of giving a wrong prediction.

**Table 5.0: Coefficients Results**

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.185	0.209		10.476	0.000
Recovery Activities Carried Out	0.076	0.096	0.033	0.797	0.426
Quality Of Life	0.015	0.026	0.025	0.598	0.550
Return Of Displaced Population	0.087	0.019	0.189	4.514	0.000
Protection of Vulnerable Groups	0.386	0.034	0.483	11.450	0.000
Level of Sensitization	0.137	0.023	0.241	5.921	0.000

a Dependent Variable: Disaster Management

From the table above, the following regression model can be derived.

$$\text{Disaster Management} = 2.185 + 0.076x_1 + 0.015x_2 + 0.087x_3 + 0.386x_4 + 0.137x_5$$

It can thus be deduced that, when the independent variables values are at zero, disaster management would be achieved at 2.185. Holding other factors constant, a unit increase in recovery activities carried out would lead to a 0.076 increase in Disaster Management, a unit increase in people's quality of life would lead to a 0.015 increase in Disaster Management and a unit increase in return of displaced population would lead to a 0.087 increase in Disaster Management. A unit increase in protection of vulnerable groups would lead to a 0.386 increase in Disaster Management. Lastly, a unit increase in level of sensitization would lead to a 0.137 increase in Disaster Management. This depicts that when recovery activities carried out, quality of life, return of displaced population, protection of vulnerable groups and level of sensitization are jointly applied, they would increase disaster management.

The study also shows that there is a significant relation between disaster management and independent variables; return of displaced population, protection of vulnerable groups and level of sensitization as shown by the p values ( $p < 0.001$ ).

## 4.8.2. Correlation Analysis

The study sought to test the hypothesis using correlation analysis presented in the Table below. This was tested using Pearson Product Moment Correlation Coefficients.

**Table 5.1: Pearson Correlation**

		<b>Disaster Management</b>	<b>Recovery Activities Carried Out</b>	<b>Quality of Life</b>	<b>Return Of Displaced Population</b>	<b>Protection of Vulnerable Groups</b>
Recovery Activities Carried Out	Pearson Correlation	0.231**	1			
	Sig. (2-tailed)	0.000				
Quality of Life	Pearson Correlation	0.016	0.186	1		
	Sig. (2-tailed)	0.792	0.002	.		
Return Of Displaced Population	Pearson Correlation	0.082	- 0.132	0.635	1	
	Sig. (2-tailed)	0.170	0.027	0.000	.	
Protection of Vulnerable Groups	Pearson Correlation	0.065	-0.047	0.539	0.670	1
	Sig. (2-tailed)	0.026	0.432	0.000	0.000	
Level of Sensitization		0.554	0.531	0.812	0.769	0.506
	Sig. (2-tailed)	0.006	0.009	0.000	0.000	0.014

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

\* . Correlation is significant at the 0.05 level (2-tailed).

On the correlation analysis, the study established a positive correlation between disaster management and recovery activities carried out (0.231), quality of life (0.016), return of displaced population (0.082), protection of vulnerable groups (0.065) and level of sensitization (0.554). There is also a significant relationship between disaster management and recovery activities carried out, protection of vulnerable groups and level of sensitization as shown by the p values; 0.000, 0.026 and 0.006 respectively.

## **4.9. Secondary Data from Government Reports.**

### **4.9.1. The Strategic Objectives the Government of Uganda had used to respond to the Disaster**

The Disaster Management Strategic objectives the Government formulated to address the Bududa landslides of 1st March 2010 included the following;

#### **Strategic Objective 1**

**The Consolidation of State Authority:** This was done with the aim of making investments that create an enabling environment for stable Political, Economic and Social conditions in the region.

#### **Strategic Objective 2**

**To safeguard the surviving communities by providing all the necessities of life:** This was established with the aim of limiting loss of life and recognizing the impact the disaster had on the community.

#### **Strategic Objective 3**

**The resettlement and revitalization of the economy:** The status of the victims after the disaster hit Bududa disrupted the agricultural sector of the area which provides a significant amount of food to the neighboring areas and urban centers. This focuses on promoting subsistence and commercialized economic activity in the area an important aspect of the recovery process.

#### **Strategic Objective 4**

**Rebuilding the victims lost status in life:** This enabled the affected people to be empowered and served as motivation for the rebuilding of their communities in Kiryandongo.

These are the same strategic objectives the Government of Uganda used in relation to the Peace, Recovery and Development Plan for Northern Uganda (PRDP) 2007 – 2010.

Despite the fact that this plan was developed for Northern and North Eastern Uganda it was relevant in the response efforts that were carried out in Bududa hence its use as a source of reference in this study.

#### **4.9.2. The Strategies that were used by the Government of Uganda.**

The strategies that were used by the Government of Uganda in response to the Bududa landslides of 1 March 2010 included the following:-

**The use of Risk Assessment to gather accurate information and forecasts:**

The effective use of media and communication mechanisms to distribute and share information related to Disaster Risk Management with the various stakeholders including telecommunication companies.

**The integration of Disaster Preparedness and Management in School Curricula:**

To increase awareness, appreciation and commitment to save human lives and livelihoods.

**The use of International Partnerships and Co-operation:** These enhance the efforts of Government with various stakeholders as part of the existing and ongoing initiatives, e.g. the African Union, the Inter-Governmental Authority for Development (IGAD) and the East African Community are recognized under this policy as stakeholders. Another example of international/regional partnership is the Regional Disaster Management Centre of Excellence (RDMCOE) with a membership of 11 African countries, Uganda being one of them, which should be adequately funded and equipped to advise Governments and assist in training manpower in the Disaster Management Sector.

**Co-ordination with the United Nations (UN), the Red Cross and other bodies;**

Government will partner with these NGOs and other UN Agencies e.g. the United Nations International Strategy for Disaster Reduction (UNISDR), the United Nations Office of the Coordinator of Humanitarian Affairs (UNOCHA), the United Nations High Commission for Refugees (UNHCR), etc, because they have tremendous human and material resources, as well as expertise.

**Use of Research and Documentation;** To integrate studies into subsequent disaster related responses by partnering with civil society, research and academic institutions to undertake research and documentation. Learning from past experience and indigenous knowledge will enable the country to attain a high level of Disaster Preparedness and Management.

## **CHAPTER FIVE**

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

#### **5.1. Introduction**

This chapter provides the summary of the findings from chapter four, and also gives the conclusions and recommendations based on the objectives of the study. The objectives of this study were to identify the Disaster Management Strategic objectives the Government of Uganda had formulated to handle the landslides, assess the Effectiveness of the strategies used to respond to the disaster and assess the degree of sensitization that was carried out by various Agencies.

#### **5.2. Summary of the Findings**

Before the relocation to Kiryandongo, IDPs were in a temporary camp that was opened by Government in Bulucheke. Government later set a deadline of May 2010 to close the camp and cease all operations. When the set deadline was reached, there were no alternative venues that had been selected so Government had to keep the camp open. However the International Relief Organizations had planned their relief operations until the agreed deadline which meant that all their operations had to cease thereby leaving the IDPs stranded and at the mercy of the Government.

During this period the relief exercise was poorly equipped and financed, there were delays in movement of aid, the conditions in the camp were appalling, the camp was overpopulated (Government had planned for 4,000 people but received 8,170 people), identifying a suitable location for resettlement was taking long, the hygiene and sanitation conditions in the camp were poor. Local Government did not have resources to support the camp's population, the camp schools were overcrowded (e.g. A primary school had 2,100 students with only 15 teachers hence a student to teacher ratio of 140:1), there were challenges in trying to find resettlement areas for the IDPs that they preferred, in addition to inadequate access to water, limited food and facilities.

There were difficulties experienced in the rescue operations that were as a result of the remoteness of the area, continued rainfall pattern, there was no Government fund for

relief efforts and the treatment facilities were located at a far distance (the nearest facility was Bukalasi Health Center 3 Km followed by Bududa Hospital 15 km).

When suitable land had been identified and purchased by Government in Kiryandongo the relocation of IDPs started and on arrival the IDPs were given a piece of land, a house and food items for a period of 6 months in order to rebuild their lives.

The study found that the majority of the respondents were males, the majority of the respondents were 31-40 years, majority of the respondents were IDPs who are peasants and that the greater part of respondents had attended primary school as their level of education.

The study also found that there were efforts made by Government and Inter-Agencies effective in recovery of survivors. The study found out that the respondents could not agree on the extent to which efforts made by Government and Relief Inter-agencies were effective in recovery of survivors to a certain extent. The study found out that respondents' level of agreement was "Sometimes" related to the extent to which the Government and Relief Inter-agencies efforts helped improve the quality of life in the camp in Kiryandongo District.

The study found out that "At most times" the Government and Relief Inter-agencies assisted in the resettlement of displaced population in Eastern Uganda as captured from majority of the respondents.

On the extent to which various activities had been undertaken to ensure the protection of vulnerable groups by the Government and Relief Inter-agencies, the study found out that it was "Rarely". On overall, it was a fair rating of the performance of Government and Relief Inter-agencies projects in Eastern Uganda. It was rated "Rarely" on the various statements that related to the level of sensitization of the respondents who were relocated to Kiryandongo District.

### **5.3. Conclusions**

From the study the researcher concludes that there were efforts made by Government and Relief Inter-agencies to ensure effective recovery of survivors and this was carried out well in Bududa District in Uganda.



The study also concludes that relief provided by Government and Relief Inter-agencies have assisted in the protection of vulnerable groups to a small extent, Government and Relief Inter-agencies efforts have assisted in the provision of water to the population in the area, the Government and Inter-agencies efforts have assisted in the provision of water to the population in the area to a recommendable level.

From the study the researcher also concluded that, Relief Inter-agencies efforts helped in the construction of schools in the area where the existing facilities were not adequate and it was also noted that the Government and Relief Inter-agencies efforts helped expectant mothers with the necessary medical care, e.g. setting up clinics, provision medication which was really appreciated by the respondents in Kiryandongo.

The study finally concludes that to a small extent Agencies told or trained people on what to do in case the disaster reoccurred, contacted or informed people of any dangerous risks present in their area however on a positive note the response efforts by Government and Relief Inter-agencies were very effective in disposing of the dead hygienically to ensure there were no outbreaks of diseases a clear indication of a job well done.

#### **5.4. Recommendations**

The study recommends that the Government and Relief Inter-agencies double their efforts and aid in the control of malaria for the affected people in addition to providing vaccines against common diseases like measles to achieve desired objectives regarding disaster management.

The study also recommends that although the performance of Government and Inter-agencies projects in Eastern Uganda was fair, much more facilitation in form of finances should be made available through establishment of a fund that can address the financial needs at all levels for enhanced response, Government and Relief Inter-agencies should help the communities with disaster preparedness and management training or awareness to know what to do in its prevention and in times of disaster.

The Government should empower the Environmental based Agencies like National Environmental Management Agency (NEMA) and NFA to carry out restoration of the

vegetation such as tree planting to make use of the available labour after taking over or gazetting that land which can be sold off later or used as a reserve.

The practice of contour farming or agro-forestry based agriculture can be practiced where plants like eucalyptus can be planted to drain the land of the excess water while planting bamboo or other vegetation that have deep roots to hold the soil and maintain its structure.

Government can also establish Disaster Emergency Reception Centers in every Region with large amounts of land in hazard free environment to be managed by the Office of the Prime Minister. These can act as safe havens where people exposed to different disaster risks can relocate to and be helped. It is believed these Centers would greatly improve on time in terms of rapid response and management of relief as it is channeled to a particular place.

These centers can be developed around or near schools, hospitals, roads and other essential services or these structures and facilities can be built around them for future use to ensure that each District/Region has a centre where help can be provided and the Office of the Prime Minister can co-ordinate and run these Centers as they coordinate and empower DDPMCs activities in the Region.

The study finally recommends that more emphasis should be given to training and empowering of the DDPMCs on how to respond to disasters when they occur especially before the arrival of Government and Inter-Agencies, sensitizing the communities on the of any dangerous risks present in their area, the community should be well acquainted with any procedures or steps to be followed when landslides or other disasters occur, the Government or Relief Inter-agencies should provide communities with seeds to plant when trees have been cut to prevent land slide and avoid any man-made disaster.

## **5.5. Suggestions for Further Research**

The study has explored disaster management strategies used by the Government of Uganda in Kiryandongo district and established that recovery activities, quality of life,

return of displaced population, protection of vulnerable groups and level of sensitization are the main factors influencing the disaster management strategies used by the Government of Uganda in Kiryandongo District. The study focused on disaster management strategies used by the Government of Uganda in Kiryandongo District, however it comprised of various disaster management strategies located in other areas in Uganda which differ in their way of management and have different settings all together. This warrants the need for another study which would ensure generalization of the study findings for all disaster management strategies in Uganda and hence pave way for enhanced policies. The study therefore recommends another study be done with an aim to explore disaster management strategies in Uganda. Further a study should also be carried out to investigate the factors influencing disaster management strategies in Uganda.

## **5.6. Limitations of the Study.**

During this study, the following were the limitations which were experienced;

The period of intensified rainfall i.e. mid-August led to the Government of Uganda issuing a nation - wide evacuation of mountainous areas due to high risks of landslides hence the change of District from Bududa to Kiryandongo(The Daily Monitor dated 30, August 2011).

Secondly, there was a language barrier as some of the respondents only spoke their native languages, hence making the explanation of the questionnaires difficult.

Thirdly, the reoccurrence of landslides along Mt. Elgon and the floods that washed away roads during the month of August 2011 in the Eastern Uganda made that part of the country inaccessible at the time of the study. This situation pre-occupied the attention of officials of the Office of the Prime Minister who deal with Relief and Disaster Management, hence the need to change the research design from a case study to a survey because most officials were in the field therefore not available to be interviewed.

Lastly, the respondents who answered the questionnaires needed some incentive to encourage them to take part in the data collection process therefore this was very costly to the researcher. The respondents would spend most of their day in their gardens

therefore there was need to refine the method of circulation and collection of questionnaires in order to encourage their participation.

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**APPENDIX I  
QUESTIONNAIRE**

(All answers given are the personal opinion of the Respondent)

**PERSONAL DATA OF RESPONDENT:**

Name of the affected area/camp location: .....

Name of the District: .....

Telephone number: .....

Your gender

Male

Female

Please indicate your age bracket

21 - 30

31 - 40

41 - 50

51 - 60

61

and above

What is your current job title /occupation? .....

Other categories of respondent:

Remained  
In affected area

In Camp

Relocated

Returned

What is your highest level of formal education?

Primary

'O' level

'A' level

Diploma

Degree and above

**Instructions:**

Please indicate your level of agreement by ticking the right answer given the following abbreviations:

- ALL = At all times
- AMT = At Most times
- ST = Sometimes
- R = Rarely
- N = Never

**SECTION A: RECOVERY ACTIVITIES CARRIED OUT**

Were efforts made by Government and Inter-Agencies effective in recovery of survivors?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

Response efforts by Government and Inter – Agencies were they effective in disposing of the dead hygienically to ensure there is no outbreak of diseases:

ALL	ATM	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response efforts made by Government and Inter-agencies have improved the conditions of those relocated, living in camps and in Bududa in general.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response efforts made by Government and relief Inter-agencies have improved the quality of life of the displaced people in Kiryandongo and Bududa.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Response efforts provided by Government and relief Inter-agencies are enabling community rehabilitation.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Relief provided by Government and Inter-agencies have improved social services and livelihood support in general.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Relief provided by Government and Inter-agencies have reactivated the productive sectors of Agriculture in landslide affected areas of Eastern Uganda.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Relief provided by Government and Inter-agencies have reinforced mechanisms for sound management of environment and Natural resources.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Relief provided by Government and Inter-agencies have assisted in the protection of vulnerable groups.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Recovery has been initiated by the Government and Inter-agencies projects.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Infrastructure development and rehabilitation has been well provided by Government and Inter-agencies project works.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Relief provided by Government and Inter-agencies have included food to the affected population, i.e. in Bududa, in Camps and those relocated.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Government and Inter-agencies efforts have assisted in the provision of water to the population in your area.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Government and Inter-agencies have assisted in the provision of health services to the affected population in your area.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Government and Inter-agencies have assisted in the complete return/resettlement of IDPs in your area.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Government and Inter-agencies have assisted in the provision of farm implements in your area.

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Were the received items (in 23 above) well distributed to the affected areas?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Do the items always come in sufficient quantities?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Do Government and Inter-agencies provide items in the right time?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Are Government and Inter-agencies items well managed by the officers concerned?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**SECTION B:            QUALITY OF LIFE**

Have the response efforts helped the children with vaccines against common diseases like measles

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Have Government and Inter-agencies efforts helped in the deliveries of health facilities in general?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Have Government and Inter-agencies efforts helped in the construction of schools in your area?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Have Government and Inter-agencies efforts helped expecting mothers with the necessary medical care, e.g. setting up clinics, medication?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

According to you have Government and Inter-agencies efforts helped in the control of malaria for the affected people, i.e. IDP in camps, or those who have been relocated?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

According to you have Government and Inter-agencies efforts helped in the construction of pit latrines in the affected areas?

ALL	AMT	ST	R	N
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**SECTION C:            RETURN OF DISPLACED POPULATION**

Has the Government and Inter-agencies assisted in the resettlement of displaced population in Eastern Uganda?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are Response efforts made by Government and Inter-agencies enabling a complete return of the displaced population?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

Have the Government and the Inter-agencies efforts enhanced land productivity in the affected areas of Eastern Uganda and where people were relocated?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have the Government and Inter-agencies helped in the shift from subsistence production towards medium scale production in your area.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have the Government and Inter-agencies efforts helped displaced populations to enhance food security.

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies efforts helped in enhancing IDP and relocated population with reasonable income in general?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies efforts helped subsistence farmers with farm tools (hand hoes and pangas)?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies efforts helped in the provision of seeds and planting materials to subsistence producers?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION D: PROTECTION OF VULNERABLE GROUPS**

Have Government and Inter-agencies procurements helped vulnerable groups in disease diagnosis?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies procurements assisted communities with appropriate fishing gear?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies assisted vulnerable groups with appropriate skills in fish farming?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies assisted vulnerable groups in Eastern Uganda in the control of ticks?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies assisted vulnerable groups in Eastern Uganda with spray pumps and animal drugs?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies projects assisted in construction of valley dams to provide water for people in the area?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

According to you have Government and Inter-agencies projects assisted with personnel to diagnose animal disease?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies items for Eastern Uganda strengthened community participation in Economic development?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies items facilitated support for vulnerable groups such as women and children to have income for daily use?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have Government and Inter-agencies projects helped community with disaster preparedness and management?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In your view, have the Government and Inter-agencies projects helped in the reconstruction of houses destroyed by the land slides in Bududa / Eastern Uganda?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is your overall rating on the performance of Government and Inter-agencies projects in Eastern Uganda

Excellent	Very good	Good	Fair	Bad
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION E: LEVEL OF SENSITIZATION**

Have you been contacted or informed of any dangerous risks present in your area?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have you received any procedures or steps to be followed when landslides or other disasters occur?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have you been told or trained on what to do incase the disaster occurs?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have the Government or Relief Inter-agencies provided you with seeds to plant when trees have been cut?

ALL	AMT	ST	R	N
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your time and participation.

Name ..... Signature: .....

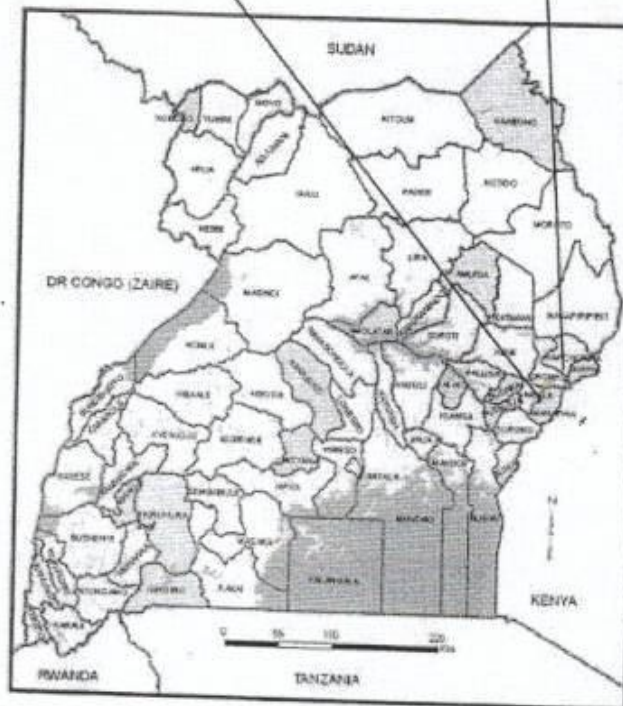
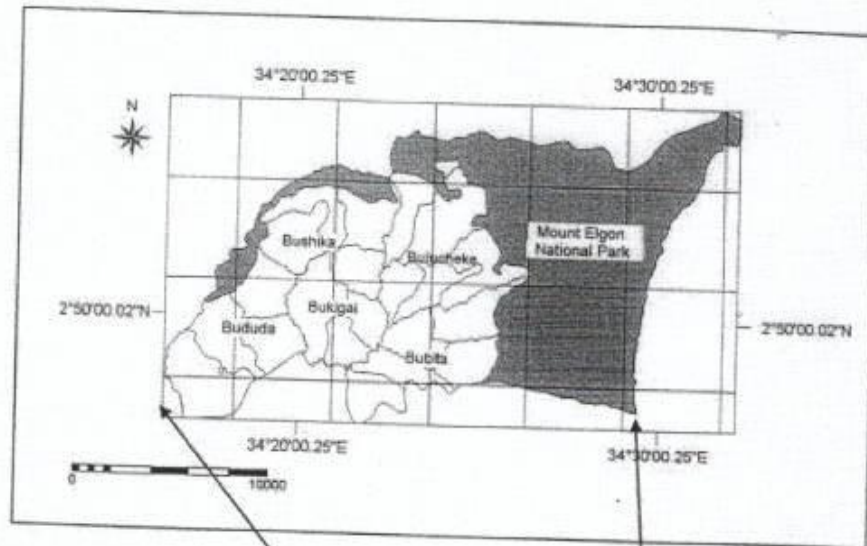
Date: .....

Design of the Questionnaire has been adopted from previous research carried out by Were M. K. (2010): Northern Uganda Social Action Fund (NUSAF).



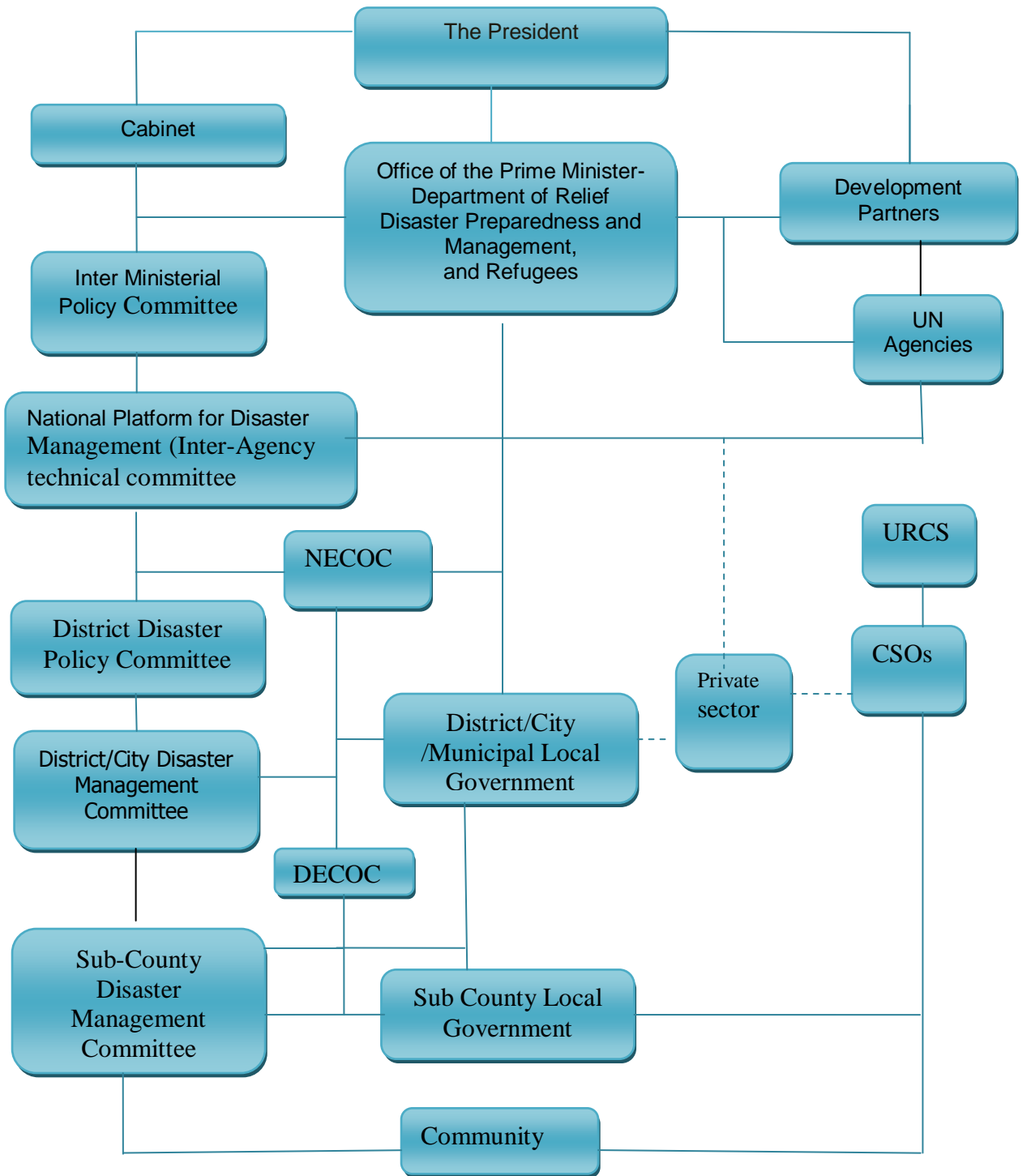
## APPENDIX II

### Location of Bududa District in Eastern Uganda.



Source: Uganda Bureau of Statistics (UBOS)

**APPENDIX III  
NATIONAL DISASTER PREPAREDNESS AND MANAGEMENT  
INSTITUTIONAL STRUCTURE**



Source: Office of the Prime Minister (Government of Uganda) ,2011

#### APPENDIX IV:

**Below is a picture clip of a landslide that has occurred in a mountainous area.**



Source: “The Farmer’s Perception on Landslide Occurrences in Bududa District, Eastern Uganda.” M.G Kitutu et al (26 November 2010).

## APPENDIX V

### Prevalence of Landslides in Bududa

<b>Year</b>	<b>Areas affected</b> (Bududa District).	<b>Causes of landslide</b>	<b>Losses</b>
1818	Bududa, Bulucheke	Rockslide triggered by rainfall in weathered granite in Bulucheke.	Not known
1900	Bududa, (Bududa District).	A landslide that incised the Konokoyi valley. Triggered by heavy rainfall.	Not known
1918	Bududa (Busayi).	A rotational slump	No death.
1922	Bulucheke (Bumwalukana)	Landslides caused by river undercutting by Sakusaku river.	Killed about 20 farmers who were celebrating the end of the harvest season.
1927	Bulucheke, Busiliwa)	Landslide caused by heavy Rains	One man killed and his home and farms swept down slope.
1933	Bulucheke, Bubita	Rock slides at Buwali	Not known
1942	Bulucheke	Landslides triggered by Rainfall	Killed very many wild animals such as monkeys, snakes and baboons. A lot of debris was poured blocking roads.
1944	Bulucheke	Landslides triggered by Rainfall	None
1960	Bulucheke	Triggered by heavy rains	Destroyed coffee farms

1967	Bududa, Bulucheke	Landslide dammed river Sakusaku for three days forming a lake of 2 Km in length.	When the dam broke Destroyed rice fields and killed people in Bunyole, Tororo District about 20 Km downstream.
1970	Bulucheke (Nusu)	Landslide triggered by rainfall.	Over 60 circumcision dancers buried alive. Houses were also destroyed.
1997	Bududa, Bulucheke, Bubita, Bushika,	Triggered by heavy rains	About 48 people killed; houses and bridges destroyed
			At Buwali valley water was dammed for one day and destroyed many houses downstream. A family of 6 was killed and bodies have never been recovered.
			Roads were blocked with debris for about one week.
1999	Bududa, Bulucheke Bubita, Bushika,	Triggered by rainfall	About 5 people killed and houses destroyed.
2007	Bududa District	Triggered by rainfall	5 people killed, Houses and property destroyed.
2010	Bududa District (Nametsi Parish)	Triggered by heavy rainfall	97 people killed, over 200 missing.

Source: Office of the Prime Minister (Government of Uganda). "Draft National Policy for Disaster Preparedness and Management." (May 2010).