## **UNIVERSITY OF NAIROBI**

### DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK

# THE ROLE OF KENYA'S PRIVATE SECTOR IN DISASTER PREPAREDNESS AND MANAGEMENT: A CASE STUDY OF UFUNDI SACCO

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MANAGEMENT), UNIVERSITY OF NAIROBI

# **DECLARATION**

I declare that the research project is my own original work and has not for examination in any other institution, and citations from other publis fully acknowledged.	•
Signature Date	
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APPROVAL	
This Research project has been submitted for examination with my university supervisor.	approval as a
Signature Date  DR. GIDRAPH WAIRIRE	

# **DEDICATION**

I dedicate this work to my family for their moral support.

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#### **ABSTRACT**

Disaster preparedness and management is always a vital role in private sectors across the world. The purpose of the study was to investigate the role of Kenya's private sector in disaster preparedness and management with Ufundi Sacco being the case study. The objectives of the study were divided into four sections that dealt with disaster management facilities available at Ufundi Sacco, the level of disaster management training, the level of compliance with the disaster management policies and lastly the disaster response mechanism put in place at the Sacco. The study sample was the staff of Ufundi Sacco that comprised of 350 employees and 12 members of the board. We used stratified random sampling and a survey for both employees and board members. Data collection was done using questionnaires, which was analyzed and findings presented in tabular form. The validity of the instruments was measured through Content validity, which ensured that all respondents understand the items on the questionnaire similarly to avoid misunderstanding. Response options were provided for most of the questions to ensure that the answers given are in line with the research questions they are meant to measure. The study findings established that equipment of alarm systems (fire alarms, fire extinguishers and sprinkler systems) determined the level of disaster preparedness at the Sacco. There were also informative forums on disaster management at the Sacco as means of educating employees on disaster management processes and preparedness. Disaster preparedness is not limited to basic firefighting equipment and the knowledge of how to use them. Rather, a holistic knowledge of what constitutes a disaster can go a long way in creating an enabling environment for those involved have a broader spectrum of expectations. Importantly, roles and responsibilities should be clear to all. Similarly, the recovery from a disaster with little or no disruption to the business arising from a disaster cycle is the biggest testimony of disaster preparedness and management. However, there is need for disaster responders to be conscious and sensitive to changes required in modern day disaster management protocols. The study recommended that the Kenyan government should incorporate these measures in the constitution so that the relevant agencies will always be prepared in case of a disaster occurrence.

#### **CHAPTER ONE**

#### INTRODUCTION

## 1.1 Background to the Study

Since the adoption of the 2009 National Policy on Disaster Management, Kenya requires to put in place the right frameworks for the operation of the policy. The policy aimed at putting in place guidelines and an infrastructure for managing disasters in the country. The policy put forward the structural framework for institutions for the coherent and consistent coordination of disasters in the country (MSSP, 2009). The framework of this policy is to ensure that there is appropriate disaster preparedness to ensure that populations are less vulnerable and are able to resist and reduce the effects of hazards and composite emergencies as well as adapt to environmental changes (MSSP, 2009).

Additionally, effective and well-coordinated response to disasters and complex emergencies is a priority to the policy structure. All this guarantees recovery from catastrophes and composite extremities within a short period. This leaves populations and businesses at a vantage point to deal with extremities in the times ahead. Certainly, droughts, fire, floods, terrorism, technological accidents, diseases dominate Kenya's disaster profile and epidemics that disrupt people's livelihoods, destroy the infrastructure, divert use of planned resources, interrupt economic activities and retard development. Kenya has faced several disasters in the past 20 years with droughts dominating the list. The years 2000, 2005, 2006, 2009 and 2011 have seen the country experience major droughts. In other parts of the country, like Kano plains, Budalangi and Narok, floods have wrecked havoc. The country has also faced post

election violence as well as violence in pastoral communities during episodes of drought. The country has also faced terror attacks (Wafula, 2012).

However, this is not always the case as many disasters have devastated Kenya unveiling the poor level of disaster preparedness and management. Such is the case of the Ufundi Sacco, which was destroyed by the terrorist attack at cooperative house in 1998 (Wafula, 2012). Disaster preparedness and management is not only the agenda of the public sector, but a concern of the private sector as well. This is because disasters affect both private and public sectors calling for the attention of both. In recent years, the private sector has increasingly played a significant task in the administration of disasters in the country; however, the level of preparedness for disasters by the same sector is low, which is consequential, given the nature of the disaster such as the terror attack on Westgate Mall in 2013 (Drummond & Crawford, 2014). This leads the study to examine the role of the private sector in disaster management, the consequences of lack of preparedness and, thereafter, recommend mitigation measures.

#### 1.2 Statement of the Research Problem

The society is at the threat of severe consequences of disasters. The private sector included, has a role to play in reducing and managing disaster risk. Community resilience can be strengthened if lives are to be saved, livelihoods secured, and loss of investments prevented. Whenever disasters threaten a nation, both the private sector and the private sector have to mobilize resources to protect assets, labour force and the business chains to ensure normalcy (NDMA, 2006).

However, the private sector has not been widely involved in disaster management policies or in collaborating with the Kenyan government to mitigate the risks associated with disasters. It is the responsibility of governments to establish functioning public-private partnerships. Businesses, in partnership with governments, may invest more resources for disaster management in order to mitigate and prevent disasters as part of their corporate social responsibility.

With immense effect of businesses in the spheres of public safety, it is imperative to investigate the ways in which businesses can be constructively involved in disaster mitigation. Scholars agree that businesses can be constructively engaged in managing natural and manufactured disasters with their networks in politics, social linkages, effects on economics and immense capital.

Local businesses, in most cases, have been affected by disaster and as such are interested in putting an end to disasters and risks. The corporate world is particularly, therefore, a well-suited partner in these engagements within the private sector or in partnership with the public sector in this regard. Since Ufundi Sacco is adversely affected by risks associated with disasters, it is an interested party in managing them, be it preventive or through mitigation.

In a study done by Red Cross on disaster management and preparedness as a private sector focused on the prevention of, reduction of, and strengthening of resilience to disasters, the authors call for concerted efforts to that would ensure the prevention and reduction of exposure and vulnerability as well as properly prepare populations on how to deal with disasters (USAID,2010). Through this, there existed an emergence to research on disaster management and preparedness in other private sectors. Thus,

this study sought to investigate disaster preparedness and management at Ufundi Sacco.

## 1.3 Research Questions

The study was guided by the following research questions:

- i. Which disaster management facilities are available at Ufundi Sacco?
- ii. What is the level of disaster management training offered at Ufundi Sacco?
- iii. What is the level of compliance to disaster management policies at Ufundi Sacco?
- iv. Which disaster response mechanisms are in place at Ufundi Sacco?

## 1.4 Objectives of the Study

## 1.4.2 The Main Objective

The study sought to investigate the role of Kenya's private sector in disaster preparedness and management; with a specific reference to Ufundi Sacco cooperative society. More specifically the study aimed to:

## 1.4.2 The Specific Objectives

- i. Analyze the effectiveness of disaster preparedness facilities at Ufundi Sacco.
- ii. Examine the level of disaster management training offered at Ufundi Sacco.

- iii. Find out the level of compliance to disaster management policies at Ufundi Sacco.
- iv. Examine the nature of disaster response mechanisms available at Ufundi Sacco

## 1.5 Justification of the Study

The role of the private sector in disaster management is key due to the fact and effective response when disaster hits. Research has shown that the effects of disasters in developing states lasts long and more severe, often depleting scarce resources and diverting essential funds towards post-disaster relief and reconstruction. Businesses offer vitally important advantage for structural poverty reduction, employment and the mobilization of indigenous resources. Disasters have shown to immensely affect the private sector, thus, affecting the country's growth and progression. It is, therefore, important for studies to focus on the level of preparedness in the private sector and consequently examine the strengths and weaknesses of current and past policies and plans.

#### 1.6 Scope and limitation of the study

The study was limited to disaster management and preparedness at Ufundi Sacco, in Kenya. The study majorly focused on involvement and commitment of the Sacco's management as an essential part to the success of disaster preparedness and management. Any initiative as vast as disaster preparedness and management requires top management involvement and provision of appropriate resources and training (Halliday, 2001).

The main limitation of the study was funding. However, an appropriate budget done to address that limitation and thus a successful and effective study. Both the management as well as individual respondent raised confidentiality concerns. The researcher handled this by instilling confidentiality and assuring of privacy in the information shared.

### 1.7 Definition of Key Terms

**Emergency preparedness** – The state of an agency being ready to hand the effects of disasters in order to reduce risks and destruction.

**Hazard** – Refers to an activity that exposes businesses or populations to risks and makes them vulnerable (D&E Reference Center, 1998).

Mitigation – Measures taken to reduce the effects of hazards (UN ISDR, 2002).

**Preparedness** – The advance planning on how to effectively and efficiently respond to disasters (UN/ISDR, 2002).

**Resilience/resilient** – It is the ability to learn from past experiences (UN/ISDR, 2002).

**Risk** – An estimation of the effect of a disaster on businesses and a population (FEMA, 2001).

**Risk Analysis** – The quantification losses associated with a disaster (Deyle et al, 1998).

**Risk Assessment -** The establishment of risk acceptance levels within populations and businesses (Gratt 1987)

**Vulnerability** – The level to which a population or business is susceptible to the effects of a disaster (UN ISDR 2002)

#### **CHAPTER TWO**

#### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Introduction

This section explores concepts and strategies employed in disaster management and preparedness whereby it gives emphasis to the disaster cycle management concept and its components. It also displays disaster management practices with specify in disaster management training, disaster management policies, disaster response mechanisms and disaster management facilities. In addition, it talks of the theoretical framework, which consists of complex networks theory and substantive theory. It ends with a conceptual framework.

## 2.2 Disaster Management in Organizations

World Disaster Report (2010: 49) indicates escalation of disastrous events across world has attracted increased focus on the issue of disaster management. At present, many countries spend significant percentage of budget allocations to mitigate and prepare for disasters in order to minimize losses arising from such events. Over the years, Kenya like other countries of the world has experienced major disasters. The frequency of disasters increases daily. In many cases the disasters have resulted into more lives lost, more properties destroyed and other business opportunities lost.

The effects of disasters have impeded economic growth in the country (GOK, 2009). A drafted disaster management policy (2009: 12), indicated that the 1999 –2001 droughts were the most hazardous in past one hundred years with a majority of the country at risk. In late 2000, nearly five million were lost as a result of the effects of disasters. The 1998 bomb blast at the United States embassy in Nairobi destroyed

several properties, killed people, and various economic opportunities lost. In addressing disaster issues in this country, the government has always relied on pieces of legislations and other national documents.

## 2.3 Disaster Management Process

With advancements of science and technology, including early warning and forecasting, together with innovative approaches and strategies for enhancing national and international capacities, the impact of disasters is predicted, mitigated and detrimental effects reduced. Carr (1998: 209) noted that, "so long as the ship rides out of the storm, so long as the city resists the earth-shocks, so long as the levees hold, there is no disaster. It is the collapse of the cultural protections that constitutes the disaster proper". The study alludes that the disaster only occurs if society fails to prepare and put measures in place, thus exposing itself to vulnerability. The reason of the argument is that society has the capacity to recognize the risks and factors that could lead to or cause disasters and invoke appropriate interventions to control or manage the effects. The arguments may be true, although it remains uncertain as to what society could do to avert natural event with no history to facilitate predictability.

It additionally fails to recognize the inadequate resource endowments to some communities. Indeed, lack of resource empowerment pushes some communities to be exposed to disasters. Rural communities may have no other alternative but venture into caves to fetch water only to be buried alive by the collapsing walls of the affected place. Despite this argument, it is agreeable that the community cannot just sit and wait for the disaster to come, particularly if the event is predictable.

Wartfield (2005: 23) argues that, disaster management is a cyclical series of events involving activities which can be taken before, during and after a disaster. This includes the ways in which stakeholders plan to handle disasters; that is, risk reduction, disaster preparedness, as well as the processes of recovery after a disaster.

The main aim of managing disasters is to minimize disaster impacts through series of actions which include mitigation, preparedness, response and recovery. The disaster management cycle starts with mitigation ending with recovery, which involves putting the society or the affected in a condition equal to or better than it was before the disaster took place. Over time the cycle has been improved to include other activities critical to disaster management. Unlike the initial Warfield's disaster management cycle, the new cycle looks at disaster management as the process that is undertaken at three different stages: pre-disaster stage, during the disaster and post disaster stages. Each of the stages involves various disaster management activities, characterized by several activities all of which are aimed at reducing disaster impact.

Generally, to mitigate is to lessen the effects of a hazard (Quarantelli 1997: 44). Sutton and Tierney, (2006: 77) conceptualize mitigation on the basis of pre-disaster processes aimed at avoiding or reducing risk including hazard assessment, identification, and vulnerability analysis. According to the National Research Council (NRC 2006: 86) report, mitigation includes all the pre-impact actions taken in order to passively protect victims when disasters strike.

The stage of disaster management deals with very critical times of disaster management. It involves activities which must be made to occur first and fast but with a high degree of detail and precision (IFRCRCS, 2005: 93). These are the processes

aimed at minimizing suffering and meeting the provisions of those affected by disasters. The stage is mostly concerned with responding to disasters with the aim of assisting victims to return to normal life, provide healthcare and boost the morale of victims. The post disaster stage involves initiatives taken in response to a disaster with a purpose to achieve early recovery and rehabilitation of affected communities, immediately after a disaster strikes (UN, 1997: 77).

## 2.4 Disaster Preparedness Strategies and Approaches

Recent studies have established that a number of Commonwealth and Territory Government environmental and arts institutions are not necessarily prepared in relation to a major natural disaster (Commonwealth 2008: 97). The Canberra Bushfire Research (2007: 5) established that a number of government agencies considered help offered to them after the 2003 bushfires obstructive. Some agencies stuck to implementing policies and guidelines that were not creative enough to deal with terrific emergencies. Victims remain an integral part of the process of recovery. In other words, to achieve a successful recovery, the victims should be in a position of self-determination (EMA 2004:3).

### 2.5 Disaster Management Practices

#### 2.5.1 Disaster Management Training and Advocacy

Governments may change disaster from agents of destruction to opportunities for change. Governments can use legal powers during emergencies for land acquisition, and rationalization of land usage. During emergencies, governments may regenerate estates for low income earners. Educating the public and providing information to populations is not just fundamental but helps in disaster preparedness (Waugh, 2000:

39). This training helps in gaining employment, improving conditions of work, boosting economic earnings among others.

Kanwar (2008: 163) underscores the importance of trainings in preparedness and mitigation noting that the training manual should be tailored towards individual disaster situations for each situation needs a totally different way to handle. Trainers should also be properly trained to ensure they are well versed with disaster mitigation and preparedness.

Randolph (1998: 126) argues that the anticipation of the key resources needed for relief as well as the proper planning of how to secure these resources is a necessity while preparing to mitigate disaster risks.

Officers charged with early warnings should be properly trained and should be responsible to offer direct relief functions (Haddownand, 2006: 78). Trainings should not events but should continually be offered to impart learning and knowledge skills. Haddownand, (2006:44) specifically emphasizes, on the need for training for those responding to a disaster situation, arguing that such training should be able to differentiate between speed and timeliness. Haddownand, (2006:66) & Nicholson, (2005:69), note that "although many communities once had excellent knowledge about natural disasters," new conditions and situations can rapidly make that information obsolete.

Recognizing the great importance of training in disaster preparedness, the Kenya Disaster Management Draft Policy (2009: 22) articulates that "...there is clear evidence from all parts of the globe that advocacy is necessary to raise stakeholders' awareness on the need to participate in disaster management and promote and embed

a culture of disaster prevention." Training posits crucial information to stakeholders. Advocacy also sensitizes the population and increases the general understanding of disasters. The draft also opines that enhanced training on disaster management is crucial and should be undertaken continuously through the media, private sector and among other stakeholders (Kenya DM, 2009: 105).

Appropriate baselines and monitoring information is vital component of disaster management. The information must be well linked to decision making and response system to ensure timely action. Population may be affected by disasters whose impacts may have been avoided or minimized with early risk information dissemination.

The Kenya Red Cross Society and other organizations do have varying levels of disaster management training programmes in place that can be drawn upon (Kenya, 2009: 29). Referring to the 1997-1998 El-Nino rains, UNDP observes that the floods affected populations that had just began the long process of recovery from the severe drought of 1995-1996. This was the disaster whose severity was intensified by the existence of a fragile and vulnerable society. The same report observes that inhabitants especially in the ASAL areas lost 80 % of goats, sheep and camels, and that the area suffered significant damage to roads, bridges, human settlements and other infrastructure (UNDP, 2003:58).

### 2.5.2 Disaster Management Policies

Before the year 1990, stakeholders were not aware that preparedness and mitigation as well as addressing the broad socioeconomic dynamics needed to be integrated in disaster management. This integration only started after 1990. However, to this day,

the full acceptance of this integration is yet to happen (Twigg, 2004:13). The author further notes that most countries have since adopted processes to help prevent disasters by passing legislations and regulations aimed at institutionalizing disaster management. In Kenya, the disaster management authority was created.

If indicators are to remain a vital part of the societal public policy discourse, then we need to avoid or at least mitigate risks associated with disasters. Policies that were previously developed to spur economic development and plan for disasters give various outcomes when employed in same disaster situations at different developmental stages to mitigate disasters.

In Kenya, The National Policy on Disaster Management emphasizes that state agencies, citizens and stakeholders should be prepared to reduce harm and destruction. It also strives to institutionalize agencies involved in the process, mainstream disaster management in the developmental agenda of the country, and create effective networks of collaborations. Without a proper disaster management policy in the country, government agencies could not respond to or effectively coordinate disasters (Republic of Kenya, 2004:33).

### 2.5.3 Disaster Response Mechanisms

Disaster response coordination involves not only the actions but also the approaches aimed at maximizing benefits and minimizing inefficiencies and involves all stakeholders in the process (Gordon, 2004:57). The process includes putting in place a plan, operationalising the plan, collecting data, managing information, and mobilizing resources. The post disaster phase presents to disaster manager complex situations to deal with due to the urgency of the response needed. The response include providing

relief, accessing the victims, reducing threats of subsequent hazards, controlling stakeholders interested in helping in managing the situation among others.

Emergency response facilities, communication systems and early warning networks are invaluable assets in preparing for and responding to disasters. The superintendence of extremities ought to involve management resolutions and operations in place to respond, prepare, prevent, recover and rehabilitate. Godshalk (1991:46) equates preparedness to actions taken in advance of the emergency, to develop operational capabilities and to facilitate an effective response in the event an emergency of that nature occurs. A well coordinated response ensures that the people affected by disasters are assisted in the right way.

Emergency preparedness and disaster recovery preparedness are two situations that need to be well in place. Response and recovery are two different processes in disaster management. Preparedness involves developing and adopting a plan, preparing a memorandum of understanding, and agreeing on how to mutually offer assistance and coordinate response.

From the foregoing, it is important to note that agencies need appropriate trainings in order to deal with disasters properly in order to mitigate the effects of disasters. Paradoxically, the existing international tools and structures for disaster response and management are oriented toward large-scale disasters.

#### 2.5.4 Disaster Management Facilities

Disaster preparedness practices involve robust planning as well as acquiring the necessary resources to actively protect victims from hazards during disasters (NRC,

2006: 45). Weldon (2005:205) argues that resources should be appropriately and sufficiently mobilized in order to effectively mitigate the effects of disasters. Specialized training should be offered to officers to properly equip them to deal with disasters like hurricanes, bombasts, and acts of terrorism (World Health Organization, 1990:23). Agencies need to acquire and disburse funds, and formulate guidelines on how to equip officers.

In Kenya, the National Disaster Management Policy draft encourages and empowers agencies to put in place proper mechanisms for effective and efficient disaster management processes and equipment as well as appropriately train the personnel needed for disaster management (Republic of Kenya, 2004:9). Institutional capacity building has to go hand in hand with investments in human capital. Institutional capacities may be strengthened by creating new structures, streamlining old ones and providing financial resources for essential facilities, equipment, supplies and personnel, among others.

#### 2.6 Theoretical Framework

This section focuses on the theories supporting this study. These include; complex networks theory, sequential thinking theory and eclectic implementation theory.

## 2.6.1 Complex Networks Theory

Complexity is now understood as one of the features of disaster management which make coordination difficult. Boin (2010) argues that coordination is the 'Holy Grail' of disaster response is the call for more and better coordination before, during and after most disasters, particularly post disaster. The complex networks of public and private agencies, NGOs, and for-profit companies provide capabilities ranging from

emergency planning and risk assessment to mitigation practices. This often requires administrative and political experience and skill as well as facilitation of good communication and cooperation among the networks.

This study therefore adopts this theory to help understand the complexities of disaster management. The theory helps to understand how a networked system behaves in order to have a clear picture of changes and evolutions that occur within the system. This will help in understanding how to create awareness in the post-disaster period and how to make critical decisions (Watts & Strogazts, 1998).

#### 2.6.2 Sequential Thinking Theory

Implementation of policies and guidelines is a cornerstone of management science. Hrebiniak and Joyce (2006), posit that implementers should sequentially and simultaneously think in order to properly guide the organization. This process aids implementers in logically choosing what to implement first and what to implement second. It aids the implementers in building a causal relationship among events that consecutively occur and the interconnection between them. The answers as to how A will affect B are provided in the process.

Implementers must analyze the broad conceptualization of this process. This is not a walk in the park and in most cases; managers may not be able to sequentially and simultaneously think as they make the important decisions. However, complex problems can be simplified by adopting this process. However, an organization must be able to institutionalize key capabilities embedded in individuals in order to sustain functions over time (Joyce, 2009).

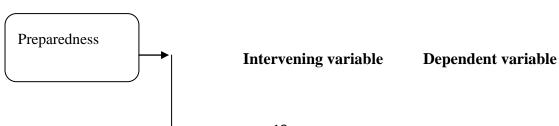
### 2.6.3 Eclectic Implementation Theory

This theory propagates integrating different managerial perspectives and theoretical viewpoints. Jofre (2011) opines that execution should not just be logically modeled but its expression on how it operates should be concretized with tangibility and verifiability. This allows practitioners the latitude for inducing necessary changes through identification of or solution to matters. Implementing policies should be economical and should deal with the complexities encountered. The balancing of theoretical issues and practical issues should be considered in order to accurately implement policies. This model reconciles theory and practice (Jofre, 2011).

### 2.7 Conceptual Framework

This conceptual framework shows the relationship between the dependent variables with the independent variables. The independent variables in this study were disaster management preparedness, disaster management training, compliance to disaster management policies and disaster response mechanisms, while the dependent variable is disaster management. Availability of disaster management equipments and facilities in institution greatly reflect disaster preparedness levels in terms of fire extinguishers, hydrants, alarm bells, floaters, fire assembly points, and emergency exits. How well the institution is equipped in terms of disaster management is very strong indicator of that institution's disaster preparedness.

#### **Independent variables**



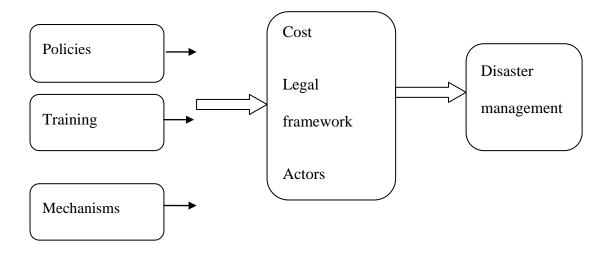


Figure 2.1: Conceptual Framework

The level and nature of skills and knowledge in disaster management in any institution serves to complement the existence of disaster management equipments and facilities. Institutions with high level of skills and knowledge in disaster management are more likely to cope better in case of disaster as compared to one with low levels of skills and knowledge. Governments occasionally issue disaster management policies. The level of compliance with such policies can closely be studied to determine the levels of disaster preparedness. This conceptual framework is of the view that the more an institution complies with disaster management policies, the higher the level of its disaster preparedness. This therefore follows that institutions with lower levels of compliance to disaster management policies are more likely to exhibit lower levels of disaster preparedness.

Disaster response mechanism is about co-ordination and orderly approach to the disaster situation that serves to avoid instinctive and panicky reactions to event. Process also seeks to cushion disaster situation from chaotic and tumultuous response which leads to more casualties than initially registered. This conceptual framework therefore articulates the view that institutions with clear disaster response mechanisms

are better prepared to deal with disasters than those with little or no known disaster response mechanisms. In this case when you vary the preparedness to disaster, training on how to cope with the disaster, varying the policies of disaster management and how you respond to disaster, disaster prevention, mitigation, resilience, and disaster recovery determines how well disaster is managed. Disaster management is a cyclical series of events involving activities which can be taken before, during and after a disaster.

## 2.7 Summary

Disaster preparedness practices involve planning how to mitigate and acquire resources in order to protect populations from harm and properties from destruction. Disaster management is often used in general sense, covering the implementation of disaster preparedness, mitigation, emergency response and relief and recovery measures. The stage of disaster management deals with very critical times of disaster management. It involves activities which must be made to occur first and fast but with a high degree of detail and precision.

## 2.8 Research gap

This study on The Role of Kenya's Private Sector in Disaster Preparedness and Management: A Case Study of Ufundi Sacco will assist in delivering a clear picture of information on disaster preparedness and management in private sectors.

## **CHAPTER THREE**

### RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter sets out various stages and phases that were followed in carrying out the study; research design, target population, sample design, data collection instruments, data collection procedures and finally data analysis techniques.

#### 3.2 Research Site

The Research was conducted at Ufundi Sacco whose staff are in different departments these include accounts, finance, human resource, legal and audit.

## 3.3 Research Design

The exploratory research design was employed. Cooper and Schindler (2003) opine that "exploratory study is concerned with developing research for further research;

here researcher hopes to develop concepts, establish priorities, develop operational definitions and improve on final research." Data was collected using both quantitative and qualitative.

## 3.4 Target Population

The target population was the staff of Ufundi Sacco which comprised of 350 staffs and 12 members of the board.

## 3.5 Sample and Sampling Techniques

Sample of responding staff was drawn from all the Sacco staffs using stratified random sampling. Stratified random sampling is a sampling method and a survey for the board members. The population is first divided into strata. Then a simple random sample is taken from each stratum. The combined results constitute the sample (Cooper & Schindler, 2003). Out of 350 Sacco staff 187 was sampled for the purpose of the study while all the 12 board members were sampled. The population of the Sacco staffs was made up of strata of different staff categories.

Table 3.1: Sample Size

Respondents	Target Population	Percentage	Sample Size
Top management	20	50%	10
Middle management	80	50%	40
Subordinate staff	200	50%	100
Board members	12	100%	12
Total	350	50%	187

#### 3.6 Data Collection Methods

#### **3.6.1 Research Instruments**

A questionnaire was designed to capture information on; Demographics of the respondents; Effectiveness of disaster preparedness facilities; Level of disaster management training; Level of compliance to disaster management policies; Nature of disaster response mechanisms available; Consequences of lack of or a low level of preparedness, and; Challenges to effective disaster preparedness and management.

### 3.7 Reliability and Validity

The researcher used Cronbach's Alpha coefficient to determine the reliability of the questionnaire. The reliability test coefficient lies between 0 and 1. A score above 0.7 is acceptable. Reliability of an instrument greatly contributes to the validity of the instrument. Reliability tests help researchers to find out random errors whereas validity tests help researchers to find out systematic errors in the instrument. Cronbach's test was used to test the reliability of the instrument. The coefficient was 0.8 which is greater than the recommended 0.7. The instrument was therefore reliable. The study applied content validity. This test follows a logical process which connects the test items and their related tasks. The instrument was shared by professors to establish whether the constructs in the instrument were sensible. The relevant comments from the professors were incorporated in the instrument.

### 3.7.1 Pilot Study

A pilot study was carried out at Stima Sacco. The pilot study aided the correction of inconsistencies arising from the instruments, which ensures that they measure what was intended.

#### 3.7.2 Ethical Considerations

Permission to conduct interviews at the organisation was sought from the management and selected respondents. The identities of the respondents remained anonymous and the information they gave remained confidential. Only those who consented were interviewed upon briefing on why the study was undertaken. The researcher avoided any questions that could cause harm to the respondents.

#### 3.8 Data Collection Procedures

As part of the research procedure, the researcher obtained an introductory letter from the University of Nairobi and a research permit from the National Commission for Science, Technology and Innovation (Science and Technology Act, Chapter 250 of the Laws of Kenya, Section 4).

## 3.9 Data Analysis and Presentation

Descriptive statistics was used to analyze quantitative data. Before processing the responses, the completed questionnaires were edited for completeness and consistency. The data was then coded to enable the responses to be grouped into various categories. Data collected was mainly quantitative and it was analyzed by descriptive analysis techniques. Quantitative approach was used mainly where the researcher counts some aspects of disaster management. The quantitative approach

included tables, pie charts graphs among others. Qualitative approach was also used to collect and analyze data. Qualitative involves the use of theories; description and data collection where data collected was analyzed and presented through a description.

#### **CHAPTER FOUR**

## DATA ANALYSIS, PRESENTATION AND INTERPRETATION

## 4.1 Introduction

This chapter presents data analysis data analysis presentation and conclusion. It consists of response rate, demographic characteristics of respondents, presentation and analysis of the questions.

## **4.2 Response Rate**

The questionnaire return rate results are shown in Table 4.1. From the findings, 186 questionnaires were issued but only 142 questionnaires were returned corresponding to a response rate of 76.34%.

Table 4.1: Response Rate

Response	Response Rate
Expected Response	187
Actual Response	142
Response rate percentage	76.34

## 4.3 Socio- Demographic Characteristics of Respondents

This section presents background information on the demographic data of the respondents highlighting basic characteristics of the target population in the study. It provides a summary concerning gender of the respondents, their age, period the respondents had worked at Ufundi Sacco.

From the study findings, 50.7% of the respondents were female while 49.3% were male. This implies that Ufundi Sacco were gender sensitive while employing their staffs.

Table 4.2: Gender of the Respondents

Gender	Frequency	Percent
Male	70	49.3
Female	72	50.7
Total	142	100

The study established that a majority (37.3% of those interviewed were within the age bracket of 31-40 years, 27.5% were within the age bracket of 41-50 years, 19.7% were within the age bracket of 50 years and above while 15.5% were within the bracket of less than 30 years.

Table 4.3: Age of the Respondents

Age Group	Frequency	Percent
Below 30 years	22	15.5
31-40 years	53	37.3
41-50 years	39	27.5
Above 50 years	28	19.7
Total	142	100

From the study findings, 47.9% of the respondents had worked at Ufundi Sacco for 11-15 years, 21.1% had worked at Ufundi Sacco for 16-20 years, 16.9% had worked at Ufundi Sacco for 6-10 years, 9.9% had worked at Ufundi Sacco for above 20 years and 4.2% had worked at Ufundi Sacco for below 5 ()years).

Table 4.4: Number of Years the Respondents had worked at Ufundi Sacco

Years of Work	Frequency	Percent
Below 5 years	6	4.2
6-10 years	24	16.9
11-15 years	68	47.9
16-20 years	30	21.1
Above 20 years	14	9.9
Total	142	100

## 4.4 Effectiveness of Disaster Preparedness Facilities

It was important to find out if Ufundi Sacco had put in place facilities for effectiveness of disaster preparedness. It was established that a majority (95.8%) of the interviewees noted that Ufundi Sacco had put in place facilities for effectiveness of disaster preparedness while 4.2% indicated they had not.

Ufundi Sacco has not put in place organization and coordination to understand and reduce disaster risk, based on participation of employees and all departments. They ensure that all departments understand their role in disaster risk reduction and preparedness. They have assigned a budget for disaster risk reduction. They have also invested in and maintained critical infrastructure that reduces risk, such as fire extinguisher, stairs to use in case of fire or emergency, emergency doors.

Table 4.5: Facilities Put In Place at Ufundi Sacco for Disaster Preparedness

Response	Frequency	Percent
Yes	136	95.8
No	6	4.2
Total	142	100

The extent to which the facilities helped Ufundi Sacco during disasters was researched. From the study findings, 63.4% of the respondents indicated that the facilities helped Ufundi Sacco during disasters to a great extent, 29.6% indicated that the facilities helped Ufundi Sacco during disasters to a moderate extent and 7% indicated that the facilities helped Ufundi Sacco during disasters to a low extent. Occurrence of various disasters at Ufundi Sacco and the country in general affect the level of disaster management facilities at the Sacco.

The disaster management facilities put in place at Ufundi Sacco included equipment of alarm systems (fire alarms, fire extinguishers,), lifesaving facilities (first aid kits), evacuation routes (exit stairs, emergency doors) and assembly points (fire assembly points).

Table 4.6: Extent that the Facilities Helped Ufundi Sacco during Disasters

Response	Frequency	Percent
Great extent	90	63.4
Moderate extent	42	29.6
Low extent	10	7.0
Total	142	100

### 4.5 Level of Disaster Management Training

The study sought to find out if the Sacco offered disaster management training to its employees. From the findings, 93% of the respondents indicated that the Sacco offered disaster management training to its employees while 7% indicated that the Sacco did not offer disaster management training to its employees.

Ufundi Sacco had ensured that education programmes and training on disaster risk reduction are in place. They have also established a legislative framework for resilience and disaster risk reduction.

Table 4.7: Training Offered to Employees

Response	Frequency	Percent
Yes	132	93.0
No	10	7.0
Total	142	100

It was important to find out the extent that the training on disaster management helped in dealing with disasters. From the study finding, 84.5% noted that the training on disaster management helped in dealing with disasters to a great extent, 14.1% indicated that the training on disaster management helped in dealing with disasters to a moderate extent, 1.4% indicated that the training on disaster management helped in dealing with disasters to a low extent.

Table 4.8: Extent to which Training Helped in Disaster Management

Response	Frequency	Percent
Great extent	120	84.5
Moderate extent	20	14.1
Low extent	2	1.4
Total	142	100

The study sought to find out if the trainings on disaster management were offered frequently. The study established that a majority (64.8%) of the interviewees noted that trainings on disaster management were not offered frequently while 35.2% indicated that trainings on disaster management were offered frequently.

Disaster management educational training approaches used at the Sacco were courses in first aid, evacuation drills and informative forums on disaster management, establishment of first aid brigades and red-cross and involvement of all stakeholders in disaster management.

Table 4.9: Frequency of Trainings on Disaster Management

Response	Frequency	Percent
Yes	50	35.2
No	92	64.8
Total	142	100

## 4.6 Level of Compliance to Disaster Management Policies

It was important to find out if there was compliance to disaster management policies at Ufundi Sacco. According to the findings, 66.9% of the respondents indicated that there was compliance to disaster management policies while 33.1% indicated that there was no compliance to disaster management policies.

Table 4.10: Compliance to Disaster Management Policies at the Sacco

Response	Frequency	Percent
Yes	95	66.9
No	47	33.1
Total	142	100

The extent to which the compliance to disaster management policies was exhibited at the Sacco was researched. A majority (49.3%) of those interviewed noted that compliance to disaster management policies was exhibited at the Sacco to a great extent, 35.2% indicated that compliance to disaster management policies was

exhibited at the Sacco to a moderate extent and 15.5% indicated that compliance to disaster management policies was exhibited at the Sacco to low extent.

Disaster policies used at the Sacco influenced disaster preparedness by strengthening disaster management institutions, mainstreaming disaster risk reduction, helping vulnerable communities by developing coping mechanisms and created awareness of disaster preparedness and long term mitigation.

Table 4.11: Extent of Exhibition of Compliance to Disaster Management

Response	Frequency	Percent
Great extent	70	49.3
Moderate extent	50	35.2
Low extent	22	15.5
Total	142	100

#### 4.7 Nature of Disaster Response Mechanisms Available

Disaster management response mechanisms available at Ufundi Sacco were development of rules and regulations to reduce disaster occurrences, institutional frameworks and planning, disaster risk reduction initiatives, workplace rules are elements such as policies, processes, behaviors, employee attitudes, and policies for personnel notification.

Aspects of disaster response mechanisms and disaster management were provision of basic necessities, rescue and relief provision, mainstreaming of disaster risk reduction, contingency planning and community preparedness.

The study sought to find out if Kenya's private sector played a role in disaster management. From the study findings, 97.2% of those surveyed noted that Kenya's private sector played a role in disaster management while 2.8% indicated that Kenya's private sector did not play a role in disaster management.

Kenya's private sector emergency response is motivated partly by business and partly by corporate social responsibility on their commitment to reaching the poorest and most marginal areas of the country and, in particular, the drought-prone arid and semi-lands.

Table 4.12: Role of Kenya's Private Sector in Disaster Management

Response	Frequency	Percent
Yes	138	97.2
No	4	2.8
Total	142	100

#### 4.8 Consequences of lack of or a low level of preparedness

It was important to find out if there were consequences faced by Ufundi Sacco for low level of preparedness in disaster management. A majority (88%) of those interviewed noted that there were consequences faced by Ufundi Sacco for low level of preparedness in disaster management while 12% indicated that there were no consequences faced by Ufundi Sacco for low level of preparedness in disaster management.

Table 4.13: Consequences for Low Level Preparedness

Response	Frequency	Percent
Yes	125	88.0
No	17	12.0
Total	142	100

## 4.9 Challenges to effective disaster preparedness and management

The study sought to find out if Ufundi Sacco had encountered challenges of effective disaster preparedness and management. According to the findings, 71.8% of the respondents indicated that Ufundi Sacco had encountered challenges on effective disaster preparedness and management while 28.2% indicated that Ufundi Sacco had not encountered challenges of effective disaster preparedness and management.

Table 4.14: Challenges of Effective Disaster Preparedness and Management

Response	Frequency	Percent		
Yes	102	71.8		
No	40	28.2		
Total	142	100		

#### 4.10 Conclusion

The analyses in this study indicated that in response to gender, the research was gender sensitive where the numbers of male was 72 and 70 female. In age there was a great response from every level across all genders. The disaster management facilities were found adequate in the Ufundi Sacco. The level of disaster management training offered and compliance to disaster management policies was remarkable at Ufundi Sacco. The disaster response mechanisms put in place in Ufundi Sacco are adequate in mitigating/preparedness to curb any risk or hazard occurrence.

#### **CHAPTER FIVE**

#### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter contains the summary of the entire study. It consists of summary of the study, conclusion, recommendations and suggestions for further studies.

## **5.2 Summary**

The study sought to investigate the role of Kenya's private sector in disaster preparedness and management with a specific reference to the Ufundi Sacco cooperative society. The objectives were:

- 1. Analyze the effectiveness of disaster preparedness facilities at Ufundi Sacco.
- 2. Examine the level of disaster management training offered at Ufundi Sacco.
- Find out the level of compliance to disaster management policies at Ufundi Sacco.
- 4. Examine the nature of disaster response mechanisms available at Ufundi Sacco

The study's findings are summarized as follows:

#### **5.2.1 Disaster Preparedness Facilities**

Objective one of the study was to analyze the effectiveness of disaster preparedness facilities at Ufundi Sacco. Findings revealed that 95.8% of the respondents indicated that Ufundi Sacco had put in place facilities for effectiveness of disaster preparedness.

In addition, 63.4% of the respondents indicated that the facilities helped Ufundi Sacco during disasters to a great extent. The disaster management facilities put in place at Ufundi Sacco included equipment of alarm systems (fire alarms, fire extinguishers,), lifesaving facilities (first aid kits), evacuation routes (exit stairs, emergency doors) and assembly points (fire assembly points).

#### **5.2.2 Disaster Management Training**

Objective two of the study was to examine the level of disaster management training offered at Ufundi Sacco. Findings established that 93% of the respondents indicated that the Sacco offered disaster management training to its employees. In addition, 84.5% of the respondents indicated that the training on disaster management helped in dealing with disasters to a great extent. Moreover, 64.8% of the respondents indicated that trainings on disaster management were not offered frequently. Disaster management educational training approaches used at the Sacco were courses in first aid, evacuation drills, and informative forums on disaster management, establishment of first aid brigades and red-cross and involvement of all stakeholders in disaster management.

#### **5.2.3** Level of Compliance to Disaster Management Policies

Objective three of the study was to find out the level of compliance to disaster management policies at Ufundi Sacco. Findings revealed that 66.9% of the respondents indicated that there was compliance to disaster management policies. In addition, 49.3% of the respondents indicated that compliance to disaster management policies was exhibited at the Sacco to a great extent. Disaster policies used at the Sacco influenced disaster preparedness by strengthening disaster management institutions, mainstreaming of disaster risk reduction, improving the resilience of

vulnerable groups to cope with potential disasters, helped vulnerable communities by developing coping mechanisms and created awareness of disaster preparedness and long term mitigation.

### **5.2.4 Disaster Response Mechanisms**

Objective four of the study was to examine the nature of disaster response mechanisms available at Ufundi Sacco. Findings established that aspects of disaster response mechanisms and disaster management were provision of necessities, rescue and relief provision, mainstreaming of disaster risk reduction, contingency planning and community preparedness. In addition, 97.2% of the respondents indicated that Kenya's private sector played a role in disaster management.

#### **5.3 Conclusion**

Based on the findings and discussions presented in the preceding sections, this study makes the following conclusions:

1. The study established that the level of disaster management at Ufundi Sacco in view of three variables of disaster preparedness, training, policies and response mechanisms. Numerous factors were identified as being crucial in disaster management such as facilities. From the study the equipment available in general affected the level of disaster management equipment at the Sacco. From the study it was established that equipment of alarm systems (fire alarms, fire extinguishers,) determined the level of disaster preparedness at the Sacco.

- 2. Disaster management training was available Ufundi Sacco for effective disaster management though at a moderate rate. There were informative forums on disaster management at the Sacco as means of educating disaster management.
- 3. There is need for disaster responders to the conscious and sensitive to changes.
- 4. Ufundi Sacco complies with the disaster policies to a very great extent. In addition, the Sacco considers development of rules and regulations to reduce disaster occurrences and policies strengthen disaster management institutions.
- The nature of disaster response mechanisms at the Sacco was moderate. Also, stakeholders of disaster response mechanisms were the employees of Ufundi Sacco.

#### **5.4 Recommendations**

### 5.4.1 Measures to Curb Disaster

Ufundi Sacco should install strong and compatible measures to curb disaster occurrence. The Kenyan government should incorporate these measures in the constitution so that the relevant agencies will always be prepared in case of a disaster occurrence. This will be possible since it will serve as requirement for concerned agencies.

#### **5.4.2** Adequate Facilities

Ufundi Sacco should acquire and adapt the high level efficiency equipment which will be able to handle the disaster appropriately. This is important since the lethal effects that results from disasters will be minimized.

The government should provide the necessary support in terms of reducing tax on such equipments to acquire the necessary equipments.

#### **5.4.3** Employment of High Qualified Staff

The Ufundi Sacco board should pass rules which recommend the recruitment of qualified staff in the sector of disaster management. This will facilitate appropriate handling of disaster as the right personnel will be recommended for the right job

#### **5.4.4 Disaster Management Policies**

The Ufundi Sacco board should pass policies and regulation concerning disaster management so that the various parties will have a platform on how to handle various categories of disasters. This will also equip them with the necessary ideas on how to handle disasters.

#### **5.4.5 Response Mechanisms**

The Ufundi Sacco should device the various response mechanisms to handle disasters in case they occur or when they occur. The mechanisms adopted should be appropriate with regard to various categories of disasters.

## **5.5 Suggestions for Further Research**

## 5.5.1 Strategies for Management Distribution in Sacco's

For clearer visions on how future projects can be handled, strategies of managing disaster in Sacco's should be studied, where projects are able to proceed without unprecedented challenges that affect the positive outcome of the projects.

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## **APPENDICES**

# **Appendix I: Questionnaire**

Demographic Information
1. Gender: Male ( ) Female ( )
2. Age of the respondents
3. How many years have you worked at Ufundi Sacco
Effectiveness of Disaster Preparedness Facilities
4. Are there facilities put in place at Ufundi Sacco for effectiveness of disaster preparedness?
Yes ( ) No ( )
5. Explain
6. To what extent have the facilities helped Ufundi Sacco during disasters?
Great extent ( ) Moderate extent ( ) Low extent ( )
Level of disaster management training
7. Do your Sacco offer training to your employees
Yes ( ) No ( )
8 Evnlain

9. To what extent does the training on disaster management help in dealing with
disasters?
Great extent ( ) Moderate extent ( ) Low extent ( )
10. Are the trainings on disaster management offered frequently?
Yes ( ) No ( )
11. Explain
Level of Compliance to Disaster Management Policies
12. Is there compliance to disaster management policies at your Sacco?
Yes ( ) No ( )
13. Explain
14. To what extent is compliance to disaster management policies exhibited at the
Sacco
Great extent ( ) Moderate extent ( ) Low extent ( )
Nature of Disaster Response Mechanisms Available
15. Which nature of disaster response mechanisms is available at the Sacco?
16. Explain

17. Does K	enya's private	sector play a role	in disaster ma	nagemen	t?	
Yes	( )		No	( )		
18. Explain						
Consequen	nces of Lack o	of or a Low Level	of Preparedn	iess		
	ere consequent	ces which you ha	ve faced as U	fundi Sad	cco for low lev	el of
Yes	( )		No	( )		
20. Explain						
Challenges	to Effective	Disaster Prepare	dness and Ma	nagemei	nt	
21. Have managemen		tered challenges	of effective	disaster	preparedness	and
Yes	( )		No	( )		
22. Explain						