

UNIVERSITY OF NAIROBI
DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK

**AN INVESTIGATION OF POLICE PREPAREDNESS AND EXPERIENCE IN
MANAGEMENT OF DISASTER INCIDENTS. A CASE STUDY OF POLICE IN
NAIROBI.**

BY

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**A project paper submitted to the Department of Sociology, University of Nairobi, in partial
fulfillment of the requirements for the degree of Master of Arts in Sociology (Disaster
Management)**

Year: 2010



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DECLARATION

I hereby certify that this is my original work and has not been submitted in any other university for the award of a degree:

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Signature 

Date 18/10/2010

This project paper has been submitted for examination with my approval as the university supervisor:

MR. B. MUTSOTSO

Signature 

Date 19/10/2010

DEDICATION

This project paper is dedicated to my parents, wife and children.

ACKNOWLEDGEMENT

It is my greatest happiness to extend my appreciation to my supervisor, Mr. B. Mutsotso for his steady guidance and encouragement throughout this period. His positive criticism has made this document a success.

I can also not forget my family for the continued moral support throughout this taxing period. Their inspiration made me sail through despite the tough times. I also thank my employer for allowing me to go on with my studies to completion. The Police Officers who participated in this study can also not go unappreciated as they were part of the process to this success.

Thank you all and may God bless you.

ACRONYMS

CBD	Central Business District
CPL	Corporal
F.S.O	Force Standing Orders
G4S	Security Group 4
I.P	Inspector of Police
P.Cs	Police Constables
NDOC	National Disaster Operational Centre
O.C.P.D	Officer Commanding Police Division
O.C.S	Officer Commanding Station
O.O.P	Office of the President
SOPs	Standard Operating Procedures
SGT	Police Sergeant
SPSS	Statistical Package for Social Science

ABSTRACT

Throughout generations and civilizations, humanity has been confronted by natural catastrophes, and man-made hazards that often lead to suffering and fatalities. Throughout history, disasters have inflicted a heavy cost in human, material and physical resources, and damage to the environment. They represent a potentially significant obstacle to economic growth and development. Lack of disaster preparedness has remained one of Kenya's enduring development challenges for decades. In most disasters, the police are always the first to be called in which implies that they must be having some level of preparedness. This study therefore investigated the preparedness level of the Kenya police force in disaster situations even though disaster preparedness is not in the police training curriculum. Therefore the study is designed around how they respond to disaster without technical training.

Force Standing Order(F.S.O.) provided by the Kenya police stipulates the function as maintaining law and order, preservation of peace, protection of life and property, detection of crime , apprehension of offenders and the enforcement of all laws and regulations with which it is charged. These tasks are demanding, enormous and challenging. People wonder whether the police force has suitable personnel in the system to sustain the societal demand and fulfill the public expectations.

The study attempted to assess the operational capacity of the Kenya Police preparedness during disaster incidents. Using Modernity theory and chaos theory the study explored the challenges or constraints encountered by the Kenya Police force during disaster response, nature of preparedness in the Police force and police and public perception on Police preparedness in disaster response.

Both qualitative and quantitative approaches were used to collect data. The study mainly used survey research and adopted semi structured questionnaire to interview 100 police officers. Key Informant Interviews with senior officers and Focus Group Discussions with the public were also used to add depth to the quantitative information. The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS). The analysis focused on descriptive statistics and cross tabulations.

The study established that inferior, old equipment, inadequate communication tools, inadequate technological appreciation, slow administrative process, lack of relevant training, under staffing and political interference are the major challenges that the police face while involved in disaster response activities.

Given these findings, there is need for the Police Force to procure basic but diverse safety equipment, have as minimal as possible administrative hindrance to rescue services, have substantial resource allocation for disaster management activities and institute disaster management department within the police force. The government also needs to recruit more police officers to meet the UN standards and improve public police relations to ensure free flow of quality information.

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1.0 CHAPTER ONE: BACKGROUND AND PROBLEM STATEMENT

1.1 Background

Throughout generations and civilizations, humanity has been confronted by natural catastrophes, and man-made hazards that often lead to suffering and fatalities. Throughout history, disasters have inflicted a heavy cost in human, material and physical resources, and damage to the environment. They represent a potentially significant obstacle to economic growth and development. Disasters occur when the hazards impact on a community to the extent that available resources cannot cope with the problem effectively (Tobin and Montz, 1997).

As commonly understood disaster implies a sudden misfortune causing extensive damage. It is not easy to coin a precise, scientific and all-inclusive definition of disaster. A disaster is a complex phenomenon with multiple variables. An event may be a disaster along certain dimensions, such as ecological, economic, material, psychological or social (Brown, 1993).

World Health Organization provides a convenient and comprehensive definition: A disaster is a severe disruption, psychological and psychosocial, which greatly exceeds the coping capacity of the affected community. The remarkable feature of this definition is that it incorporates the element stress and the coping capacity gradient (Smith and Ward, 1998).

The important elements to be considered in the conceptualization of disasters include: A disaster disrupts the social structure and cannot be handled by the usual social mechanisms. This disruption may create more difficulties than the physical consequences (Vasconcelos, et al, 2005).

Kenya police force engagement at the last phase requires structures and community support for sustainable entrenchment as well as improvement. It requires the force to be highly networked, with other government agencies, the partners and the community.

They ought to top be professional, skilled or competent in the field to be able to wield substantial influence. They finally require goodwill, especially be fully supported and identified with (Oxfam, 1998).

1.2 Statement of the problem

Although the role of police is clearly spelt out as maintaining law and order, preservation of peace, protection of life and property, detection of crime, apprehension of offenders and enforcement of all laws and regulations with which it is charged. The public has increasingly been dependent/ expect the policed to assist in disaster situations. For this reason they have come into limelight in terms of response in disaster which makes this study timely since their level of preparedness for this new task has come into sharp focus.

The study is designed to find the skills the officers have and those which they don't have but are necessary for disasters.

Lack of disaster preparedness has remained one of Kenya's enduring development challenges for decades. The *El Nino* rains which flooded most parts of the country between 1997 and 1998, and the prolonged drought during the year 2000 led to massive displacement of populations, loss of lives, and destruction of property, water and energy crises, and the collapse of vital infrastructure (Ombati, 2003). Most of the disaster response initiatives in Kenya have tended to be adhoc, uncoordinated and short-term measures, mainly in the form of emergency relief services to the worst affected areas. However, disaster and environmental management ought to integrate disaster preparedness measures and recovery operations into ongoing development programs for sustainability.

In the years, 2002, 2003 and 2004, 352, 425 and 375 fires were attended to respectively. The number of casualties was 31 in 2002, 33 in 2003 and 50 in 2004 (Nairobi Fire Services, 2003 and 2005). Although the figures indicate an increase in the number of casualties, there is a marked stagnation in the ability to control and fight fires. The increase in the number of casualties implies that the threat of fire is real hence the concern.

There is lack of legal and institutional framework to guide establishment of fire brigades and fire stations in the country. Currently there are 175 Local Authorities in Kenya. Out of these, 12 have established fire brigades but less than five have basic capacity to carry out rescue operations (Republic of Kenya, 2002). Not all fires are of similar magnitude hence the responses are certainly not uniform (Kagiri, 2009).

According to the study by Marrietta (2009) *in vulnerability to fire in public boarding schools* she established that there were no fire preparedness programmes in both schools communities and also fire alarms were missing. Nyamweya (2005) in a study of disaster protection, challenges in mitigation of fire hazards in Nairobi established that the existing organizational policies are inadequate in mitigating of hazards within the city

The aim of this study is to investigate the preparedness level of the Kenya police force in disaster situations. This is based on the fact that in most of the disasters, the police are always the first to be called in which implies that they must be having some level of preparedness. Yet in the police training curriculum, disaster preparedness is not one of them. Therefore the study is designed around how they respond to disaster without technical training.

Different countries have adopted various strategies and established bodies for disaster management at the National and local levels. The Federal Emergency Management Agency (FEMA) was established by the USA government in 1979. It is an independent body whose mission is to reduce loss of life/ property and protect the country's critical infrastructure from all types of hazards (FEMA, 2000). The Japanese International Disaster Relief Team was established in 1986 by Japanese cabinet along similar lines with FEMA. Its mandate includes rescue, first aid and rehabilitation. In Europe, countries within the European Union agreed to establish a central body, the European Commission Humanitarian Assistance Office (ECHO) to co-ordinate disaster management activities within the member states of the European Union. Other countries that have developed institutions for disaster management are Australia, South Africa and China.

There is no single, universally applicable recipe for responding to disasters. Disasters come in many forms. Some, like earthquakes, hurricanes, and tidal waves, are natural; others, like wars and terrorist attacks, are made by humans. Some, like a rape or a fire in a home, immediately affect only one person or one family; others, like a bomb blast or a tornado may affect hundreds of people or, like an earthquake or a war, may affect entire communities and nations. Some, like personal assaults and ethnic cleansing, are inflicted intentionally on their victims; others like airplane crashes or industrial accidents, though the result of human or technological error, are unintended. Disasters may be relatively short lived, although devastating, or, as is the case with famine and war, may last for years (Franco, 2002).

Consequently, the police response to the crisis in Kenya experiences challenges from the onset. The problems can be attributed to lack of past experience, particularly in the host country and inadequate coordination and targeting of essential supplies and services, selective uptake of the services by the community as well as lack of favorable organizational policies of engagement with the affected grassroots communities.

This crisis put the Kenya police force on the spot. The research question that this study attempts to answer is, *How prepared are the force during disasters in Kenya? Does the Kenya Police force have experience and skills to effectively respond to disasters?*

1.3 Research Questions

1. How prepared are the Kenya Police force to deal with disasters in Kenya?
2. What difficulties do the Kenya police face in the context of disasters?
3. Does the Kenya Police force have experience and skills to respond to disasters?
4. What new strategies are being considered by the police in the face of increasing disasters?

1.4 Objectives of the study

- i) To examine the challenges or constraints encountered by the Kenya Police force during the disaster response?
- ii) To establish the nature of preparedness in the police force.
- iii) To examine the public perception about police preparedness in disasters responses (mitigation).

1.5 Justification of the Study.

The core study was to understand the struggle the police encounter when responding to the disasters like fire, floods, collapse buildings as these incidents displace people, destroys livelihoods, properties, businesses and leave people power to depend on hand out to starts their living as there is a lot of human suffering both emotional and psychological.

The frequency of disasters is major concern information from Nairobi city fire department indicates that's in the year 2006 alone a number of 545 incidents occurred, while in 2007 a

number of incidents occurred were 561 while in 2008 number of incident reported were 661 and year 2009 a number of incident reported were 532. (Nairobi fire service) hence disasters and especially fire incidents are at alarming rate and the study aimed to understand what was being done to alleviate the suffering experienced and reduce the fire occurrence.

The study was also to understand how well are the police are equipped to respond to disaster s and whether they have knowledge and information to handle the disaster (mitigation).

The findings from the above will enable the government and other stakeholders involved to know how to deal with the people to ensure that disasters occurrence are minimized. This involves awareness through educating the people on how to manage disasters, steps to take when they happen, where to ask for help and assistance first. The momentous reality in Kenya is that the Kenya Police force dealing disaster lack prior preparations and arrangement to confront eventualities.

Today there are many disasters in Kenya which therefore call for high level of preparedness. The Nakumatt supermarket fire disaster and the Molo (Sachang'wan) fuel tanker explosion put the police on notice as they remained helpless and their effort adhoc. This study was developed based on the experiences of the police force following the two disasters; the two fires had disastrous consequences.

1.6 Scope.

The study focuses on police preparedness and experiences in all types of disasters because they are called to handle all types of disasters. Also police experience of disaster in society both natural and man made. An examination of the police force training curriculum, the extent of implication of disaster preparedness, operational status quo vis-à-vis expected. The nature of preparedness, public perception and strategies to address these perceptions, existing skills in disasters and skills lacking but necessary for disaster.

1.7 Definition of terms

A disaster is an extreme disruption of the functioning of a society that causes widespread human, material, or environmental losses that exceed the ability of the affected society to cope using only its own resources. (USAID & International Medical Corps, 2001) implores further that

disaster may be natural or caused by human action, may occur in any season and may cover a wide ranging geographical space. Events such as earthquakes, floods, and cyclones, by themselves, are not considered disasters. Rather, they become disasters when they adversely and seriously affect human life, livelihoods and property. Disasters has the following features;- Unpredictability; Unfamiliarity; Speed; Urgency; Uncertainty; Threat. Disaster preparedness, therefore, seeks to prepare for and reduce these adverse effects.

Disaster mitigation refers to measures that can be taken to minimize destructive and disruptive effects of hazards and thus lessen the scale of a possible disaster. Disaster mitigation can occur at any time. A disaster plan and structure (e.g., disaster committee at the institution) should be established. Each plan will be site or local specific and as such must be tailored for the institution concerned. Disaster mitigation can be achieved through proper engineering, spatial planning, municipal management and conflict resolution. (Franco, 2002).

Preparedness can be defined as pre-disaster activities aimed at strengthening the capacity for response in times of a disaster. Preparedness ensures the readiness of the concerned parties to forecast, take precautionary measures and respond to an impending disaster. Disaster preparedness involves pre-disaster activities that are undertaken within the context of disaster risk management and are based on a sound risk analysis. This include the development/enhancement of an overall preparedness strategy, policy, institutional, structure, warning and forecasting capabilities, and plans that define measures geared at-risk communities to safeguard their lives and assets by being alert to hazards and taking appropriate action in the face of imminent threat or an actual disaster. (Kirshenbaum, 2002).

Coping strategies: are various activities that individuals, households adversely and crises. I.e. dynamic process which involves a series of reciprocal (response between individual and environment) where response are not a momentary occurrence but rather a chain of interaction which take place over time (Folkman 1991)

A hazard refers to the potential occurrence, in a specific time period and geographic area, of a natural phenomenon that may adversely affect human life, property or activity to the extent of causing a disaster. A hazard occurrence (the earthquake, the flood, or the cyclone, for example) becomes a disaster when it results in injuries, loss of life and livelihoods, displacement and

homelessness and/or destruction and damage to infrastructure and property. (Kirschenbaum, 2002).

Structural or physical vulnerability is the extent to which a structure is likely to be damaged or disrupted by a hazard event. For example, a wood frame house with large-headed, roofing nails, rafter tie-downs, anchor bolts and a solid foundation is less vulnerable structurally to severe earthquake than a similar-looking house which does not have these structural details. (Perry, 2003).

Human vulnerability is the relative lack of capacity of a person or community to anticipate, cope with, resist and recover from the impact of a hazard. Factors that increase human vulnerability to disasters include rapid urbanization, population growth, and lack of knowledge about how to effectively resist the effects of disasters and poverty. Of all the factors, poverty is perhaps at the root of what makes most people vulnerable to the impact of most hazards or even disaster.. (Tobin and Montz,1997).

Response: set of activities implemented once disaster has struck aimed at satisfying the immediate needs of the affected population. (Kirschenbaum,2002).

Vulnerability: a set of prevailing or consequential conditions which adversely affect a group's ability to prevent, mitigate, prepare for or respond to drought or disasters. (USAID& International Medical Corps,2001).

Capacities: strengths and responses which are present in individual households and community and enable them to cope with, withstand, prevent, prepare for, mitigate or quickly recover from disaster. (Perry,2003).

Vulnerability reduction: transforming unsafe conditions to safe conditions, unsustainable livelihood to sustainable livelihood and vulnerable communities into capable and resilience ones. (Folkman1991). Also defined as the relative lack of capacity of a person or community to anticipate, cope with, resist and recover from the impact of a hazard. Factors that increase human vulnerability to disasters include rapid urbanization, population growth, and lack of knowledge about how to effectively resist the effects of disasters and poverty. Of all the factors, poverty is perhaps at the root of what makes most people vulnerable to the impact of most hazards or even disaster (Tobin and Montz, 1997).

Early warning systems: involve the collection of data from household and analyzing the livelihood. (Folkman,1991).

Risk: is defined in the risk society as systematic way of dealing with hazards and insecurities induced and introduced by *modernization itself*. (Franco,2002).

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Complex emergencies have been a major political, security and public health feature of the Post-Cold War world. These man-made disasters account for more morbidity and mortality than all natural and technological disasters combined. In order to deliver effective aid during complex emergencies they must have a solid understanding of the political and social climates in which they are operating. Increasing political, economic and social tensions frequently gave way to nationalism, lawlessness, civil conflict and State collapse. Identifying and targeting certain ethnic or tribal groups as scapegoats for the emerging problems became a common political ploy in many countries (Brennan and Nandy,2001).

2.2 Disaster preparedness

This refers to measures taken to prepare for and reduce the effects of disasters. That is the ability to predict and where possible, prevent disaster, mitigates their impact on vulnerable populations, and responds to and effectively cope with their consequences. Disaster preparedness is best viewed from a broad perspective and is more appropriately conceived as a goal, rather than as a specialized programme or stage that immediately precedes disaster response. It is a continuous and integrated process resulting from a wide range of activities and resources rather than from a distinct sectoral activity by itself. It requires the contributions of many different areas, such as; training and logistics, health care institutional development. Viewed from this broad perspective, disaster preparedness encompasses the following objectives: Increasing the efficiency, effectiveness and impact of disaster emergency response mechanisms at all level. This includes: the development and regular testing of warning systems (linked to forecasting systems) and plans for evacuation or other measures to be taken during a disaster alert period to minimize potential loss of life and physical damage. The education and training of officials and the population at risk, the training of first-aid and emergency response teams, the establishment of emergency response policies, standards, organizational arrangements and operational plans to be followed after a disaster. Strengthening community-based disaster preparedness through National Society Programmes for the community or through direct support of the community's own activity. This could include educating, preparing and supporting local populations and communities in their

everyday efforts to reduce risks and prepare their own local response mechanisms to address disaster emergency situations. It is true that factors such as knowledge and perception of the location, timing and magnitude of events, attitudes about effectiveness and meaning of warnings, and feeling of survivor guilt may generate assurances to undertake higher vigilance, increase responsiveness to warnings, and safer behavior among the citizen, Perry, et al 2003. It is logical to develop activities that are useful for both addressing everyday risks that communities face and for responding to disaster situations, for example: health, first aid or social welfare programmes that have components useful for disaster reduction and response.

Preparedness ensures the readiness of the concerned parties to forecast, take precautionary measures and respond to an impending disaster (Christoplos, Mitchell and Liljelund, 2001). According to UNOCHA (2007) disaster preparedness involve pre-disaster activities that are undertaken within the context of disaster risk management and are based on a sound risk analysis. This include the development/enhancement of an overall preparedness strategy, policy, institutional, structure, warning and forecasting capabilities, and plans that define measures geared at-risk communities to safeguard their lives and assets by being alert to hazards and taking appropriate action in the face of imminent threat or an actual disaster. Disaster preparedness can be viewed as minimizing the impact of disasters by strengthening the capacities to provide a timely and effective humanitarian response to the needs of affected populations (UNCHR 2006).

Today when people think of disasters that could disrupt their lives, they think of natural disasters such as tornadoes, hurricanes, floods, and earthquakes. However, a disaster is not limited to natural types. In fact, a business disaster is “any unplanned, extended loss of critical business applications due to lack of computer processing capabilities for more than a 48-hour period” (SunGard Recovery Services Inc, 1995). The four most likely disasters are power outage, flooding, fire, and computer hacking (Patterson, 1997). Disasters can be very costly. A quick evaluation of services can yield estimates of the potential damage a disaster may cause. Payroll, sales, billing, inventory, and production control are just a few of the potential services that may be lost during a disaster.

By world standards we are very poor and in terms of disasters preparedness we are both badly off. More important the intervention offered whether humanitarian or in reconstruction should

teach our disaster preparedness unit what to do before help from without comes. The main thing is we live in a blessed country that knows no earthquakes, nor hurricanes or other catastrophes of a similar magnitude. Yet we have problems rescuing people from collapse buildings, what if real disaster hit us? Even though Kenya has not witnessed catastrophic natural disasters as above it has suffered natural and man-made adversities ranging from drought, famine, floods, and landslides to collapse buildings. For instance the El-nino phenomenon, though a blessing has also been disastrous displacing people and damaging infrastructures. Despite being beyond human control, these disasters can be managed through proper forecasting i.e. early warnings, disaster preparedness and taking good care of the environment. Lack of adequate preparation has often resulted in loss of human lives and lives and livestock to heavy down pour which could have been harvested and stored for dry seasons.

Setting up of disaster or hazard map which will be easy to interpret like showing steep areas unsuitable for cultivation and prone to landslides, low and flat areas prone to floods , areas of fault lines not suitable for building, drainage pattern, existing medical facilities , escape routes and assembly points in time of disasters.

Disasters are frequently described in quantitative and statistical terms the number of dead and injured, the extent of damage to buildings and other physical resources the number of homeless the ultimate economic cost. Yet for both victims and helpers it is the suffering the disaster brings- the human terror, anguish and despair that is most vital and people suffer not only physical damage, but also considerable psychological damage in disasters.

2.3 Kenya Police Force

This section will discuss issues that are pertinent to the Kenya police force and will include the background of Kenya police, a brief history of the Kenya police

2.3.1 Background of Kenya police

Kenya police force was established under the provision of the Police Act chapter 84 laws of Kenya. Force Standing Order(F.S.O.) provided by the Kenya police stipulates the function as maintaining law and order, preservation of peace protection of life and property, detection of

crime , apprehension of offenders and the enforcement of all laws and regulations with which it is charged. These tasks are demanding, enormous and challenging. People wonder whether the police force has suitable personnel in the system to sustain the societal demand and fulfill the public expectations. Crime rate has increased both in rural and urban and is also believed that some police officers engage in committing crimes i.e. renegade. For sometimes the police force has been the subject of ridicule and criticism because of their failure to meet public expectations in their performance. Public view on performance is characterized by negligence.

Police force was formed in colonial period, formal education then being the preserve of the negligible minority, all that one need to be enlisted was a bunch of biceps and a towering physique. African police used to wear tyre sandals, a sheet of cloth to tie around their waist, belt, sweater and a headdress. Currently the officers walk in neat blue uniform and shiny boots, the former can be mistaken for a traditional witchdoctor out to perform a ritual of some sort (Mohammed, 2005).

The first policemen in Kenya were recruited in 1887 by the Imperial British East Africa Company to provide security for its stores in Mombasa. The coast based company under Sir William Mackinnon saw the need to have some kind of security for the company premises and stores. It was from those humble beginnings that the Kenya police force was born.

The establishment of a police force by the colonial government was purely for control of the public and to give room for the extraction of resources by colonial companies. The police was not for the people but for the rulers. The culture overflowed to independent Kenya as politicians use the police for personal gain. This further contributed to the alienation of the police from the public as many continued to believe that the force is inherently partial.

In the past the relationship between the police and the public cannot be said to be cordial. Newspapers contained many articles about the arbitrary exercise of police power and other irregular behavior. The changes in behavior which tended to widen the gap between the police were; the exaggeration by the police of evidence in court, the use of unnecessary violence, fatuousness in dealing with public demonstrations, ineptitude in handling the public on occasions of public demonstrations, incivility to members of the public and unnecessary delays in attending

to complaints. As a result of this the level for public confidence in the police ability to fight crime has been eroded.

The Kenya police is organized as a nationally unified vertical body whose centralized force is directed, coordinated, and controlled from the top but whose central coordinating offices are divided into provinces, divisions, stations, posts and patrols base levels. At the top of this hierarchical structure the Commissioner of police is the overall commander of the force. The Kenya police have a responsibility to; maintain law and order, preserve peace, protect life and property, prevent and detect crime, apprehend offenders and enforce all laws and regulations with which it is charged. To fulfill these duties, law enforcement of officers is granted extraordinary powers; citizens therefore have the right to expect the highest standards of conduct from them.

The current Kenyan constitution has no clear provisions governing policing matters and the recruitment of individuals to serve in the department, paying attention only to the appointment of the Commissioner of police while the recruiting of the rest is shared between the public service commission and the commissioner of police. The Police Act wherein the duties and responsibilities of the police are laid down can hardly continue to serve as the guiding philosophy of the force in the context of dynamic social changes that the country has gone through during the past several decades. The police have therefore reviewed their role against the background of these enormous social and global changes. The new situation demands that the police change their role from one of the coercive colonial model to that of a service model in keeping with the pressure of modern times. The police have therefore agreed, through a discussion at all levels, that their mission ought to be and declared publicly their commitment to the agreed vision and mission.

2.3.2 Disaster and Kenya police response

The police, who perform the central role in dealing with the problem, are therefore required to perform the role sympathetically, sensitively and with kindness. In addition, there is the potential for more casualties of disasters to occur amongst members of the police service dealing with the event. The welfare, morale and stress issues of the police force have to be attended to by the senior managers of the police force in order to achieve best possible results.

Given the relative infrequency of major disasters, it is unrealistic to expect police forces to have necessary resources, skills and logistics to manage a major disaster. Although police provides the initial response to an incident and, together with the other emergency services, conducts rescue and first aid activities, the sheer scale of a major disaster means that most of the core management functions involved in the post rescue phase is beyond the experience of most police forces. This inexperience places high level of strains on officers in management roles. An efficient management can do much to assist officers to cope with the onerous experiences associated with major disasters by way of planning in respect of predictable/foreseeable disasters and training in general, for all types of disaster.

The police have to maintain a state of readiness so that they can provide a rapid response and alert local authorities and other services as soon as possible. During the occurrence of a disaster, there is need to adopt an emergency operation centre as a hub. Its system and procedures should be designed in such a way that information can be promptly assessed and relayed to concerned parties (Carter, 1992). All organizations that need to respond quickly to disasters should have arrangements which can be activated at short notice. A well rehearsed emergency plan developed as part of the preparedness phase enables efficient coordination of rescue. The police perceive that depending on injuries sustained by the victim, outside temperature, and victim access to air and water, the vast majority of those affected by a disaster will die within 72 hours after impact, hence swift measures should be made to combat any adverse effect, (Kirschenbaum, 2002)

The police co-ordinate the activities of all those responding at and around the scene, which must unless a disaster has been caused by severe weather or other natural phenomena – be treated as the scene of a crime and preserved accordingly. The police have to play a key role in the disaster management no matter what type and nature, it has to be very quick in its initial response to a disaster call or situation. If a disaster is predictable or foreseeable like floods, riots the police must keep itself in readiness to respond to it professionally and competent manner. In others like natural calamities promptness of the police response can help in saving number of lives and return situation to normality.

The police response to disaster will vary, just as the nature and effects of the disaster will vary and such police response should be an integral part of a combined and coordinated operation involving differently emergency services Police should concentrates on the effects rather than the

cause of the disasters and wherever possible should plan it in advance integration in emergency management embraces a number of concepts, some of which may overlap.

According to Kenya police Strategic Plan (2008-2012) disaster management is not one of the priorities for budgetary allocation is an indication that its low profile programme which need to be revisited for police force to curb this uncertainty.

2.3.3 Roles and function of police during disasters.

The saving of lives in conjunction with other emergency services, coordination of the emergency services and other organizations, traffic and crowd control, conducting investigations of the incident in conjunction with other investigative bodies where applicable and taking control of collection and dissemination of casualty information. They also help in identification of victims and also participate towards restoration of normality at the earliest opportunity.

Since police officers are the first ones to arrive to the disasters scenes they should cordon the scene off and prevent people from thronging the scene. From the experience it has shown that a large number of people try to reach the scene of occurrence out of sheer curiosity or with the intention of extending their assistance to affected persons. The police have to establish the outer cordon around the site of disaster to control access to the whole of disaster site if practical. This will ensure that no unwarranted person's gains entry but a Rendezvous point away from scene but within easy reach of the incident should be selected and manned by police to receive and direct emergency service vehicles and personnel.

Traffic arrangement shall be made to divert the traffic away from the scene of disaster. This can be notified through radios, public address T.V and traffic policemen this is to clear the traffic to ensure that the vehicles of emergency services face no hindrance or delays e.g. fire brigade, ambulances to enhance rescue, relief operations and evacuations.

Crowd control should be ensured and those already at the site should be asked to move away also to clear all onlookers whose presence would only impede the job of rescue operations.

Sometimes the crowd gets agitated and displays their annoyance against the government of the day hence the police have to maintain law and order and deal with them tactfully and they have to be properly equipped to deal with the situation. The first police officers to arrive at the scene

they should search the area and remove all casualties from the site. Police if necessary should advise the public on whether they should evacuate a given area or stay put and shelter indoors.

It is normally the police who recommend whether or not to evacuate and define the area to be evacuated; however they have to take into account the advice from the fire service on risks of fire and also contamination and hazards from the ambulances and local authorities i.e. police only recommend evacuation but have no powers to require people to leave their homes.

2.4 National (Disaster) Operation Centre.

The national disaster operation centre is a government department which falls under the Ministry of Special Programme. It's headed by a Director who is Army Colonel. This is a disaster management centre which coordinates all the events of disaster in the whole republic Kenya the director reports directly to Permanent Secretary to the ministry of special programme. This department was established on 21 January 1998 after adverse El-Nino rains. It has officers drawn from various ministries and departments of the government as it lacks enough manpower.

Departments which have staff at NODC includes; Armed Force eight (8) personnel, Kenya police force four (4) officers, Administration police one (1) officer, Ministry of Health three (3) officers, Ministry of state for Defense three (3) personnel and O.O.P-PA&IS five (5) personnel.

This department has several units which includes, planning, operation, logistics and administration. The kind of disasters they usually experience includes drought, floods, terrorism, landslides, HIV/AIDS, diseases epidemics, transport accident, fire, collapsing of buildings etc.

Reasons for establishment of NDOC

NDOC was established to: coordinate at national level of all disasters management activities before, during and after disaster; ensure that all key personnel and volunteer agencies are informed of the activation of disaster contingency plans; translate the decision of National Disaster Coordination Committee into action, instruction and ensuring those instructions are transmitted and carried out by the ministry or department to whom they are directed; prepare all inventories for resources or assets countrywide; develop a prioritized list of needs for donors to meet shortfalls in relief supplies; prepare evacuation plans, shelter and refugee areas including

identification of executing agencies; arrange clearance for aircraft, ships as well as custom and visa clearance for overseas relief personnel and agencies; prepare for media programmes for public information and press briefing at the centre and carry out annual review, education and validation of national and sectoral disaster mitigation plans with a view of improving their effectiveness and efficiency.

2.4.1 The draft policy of NDOC

Even though there is no coordinated policy framework on disaster management the draft policy is ready awaiting discussion and approval by parliament. Some of the policies include the following;

It aims to establish and maintain an efficient, flexible and coordinated system for managing disaster in order to minimize losses and resulting disruptions on the population, economy and environment. The policy framework will endeavor to establish an institutional framework that will manage disasters to ensure that disaster management and institutions involved are well coordinated and focused on both risk and vulnerability reduction and to promote the linkage between disaster management and development planning. It also aims at fostering partnership between government and stakeholder at all levels including regional and international bodies, promoting programmes and strategies that reduce the vulnerabilities of Kenya to hazards, providing adequate resources to ensure the effective implementation of the policy and subsequent strategies and programs and also promoting disaster management culture, training, research and information dissemination, community awareness and preparedness.

Standard Operating Procedures (SOPs) of NDOC.

The mission statement of NDOC is to provide a location and mechanism(s) by which the NOC can coordinate response to disaster situation in support of government effort. This mission is accomplished by establishing system and procedures to ensure efficient coordination and communications received and disseminate disaster information and provide a single point of contact for resource request and task.

The purpose of NOC standard operating procedure is to provide a functional and operational guide for the activation and operation of NOC.

Response of NDOC to Emergencies

Local units of the government call for assistance during events in which their own resources and response capabilities are overwhelmed. Districts provide assistance to municipalities within their border and turn to Province for assistance when the local capabilities are overwhelmed. District and provinces are the determinants for mutual aid or national assistance is needed. The district must respond quickly and effectively to developing events, when events or potential events are detected the NOC initiates monitoring. If need be a liaison officer will be dispatched to the district if event is threatening by or experiencing large scale emergencies or disasters.

Emergency Phases

A) Pre-Impact Response phase;

This phase deal with monitoring and preparedness before a disaster strikes. It begins up to 48hours before an incident and continues until the disaster occurs. This phase includes hazard monitoring or tracking incident notification NOC, activation public information and warning, evacuation, shelter (in place and relocation), communication and coordinating activities

B) Post –Impact Response Phase.

It begins once the disaster occurs and may continue for up to a month. It includes the following activation, communication, public information, search and rescue, emergency medical service delivery, temporary shelter, impact or need assessment, traffic control, debris clearance resource distribution and volunteer management.

C) Short-Term Recovery Phase

It begins immediately after disaster impact and continues for approximately six months. It includes the implementation of both individuals assistance programmes through Disaster Application Centre (DAC), Red Cross service centre and public assistance programmed through damage survey teams and forums completion. Other short –term activities includes long term sheltering (hotels/motel, mobile homes, tents and debris removal. It requires 12-16 hours a day but not 24 hours.

D) Long-Term Recovery Phase

It begins within a week of disaster impacts and may continue for a year. It includes on-going human service delivery, rebuilding the economy, infrastructure and home implementations of hazards mitigation project and funds recovery.

2.5 Approaches to Management of Disasters

Disasters can be interpreted as "the extreme situation which is implicit in the everyday condition of the population" (Baird et al., 1975; Jeffrey, 1980). Disasters "bring to the surface the poverty which characterizes the lives of so many inhabitants" (Hardoy & Satterthwaite, 1989: 203).

What measures can be taken to manage and possibly reduce the negative impacts of disasters? Disasters are not welcome events and usually when they occur, every effort is made to reduce the impact of such events. Disaster management should include administrative decisions and operational activities that involve prevention, preparedness, response, recovery and rehabilitation at all levels. Disaster management does not only involve official bodies; businesses, people, non governmental organizations and community based organizations also play a vital role.

Despite the existence of different approaches to disaster management, disasters are often managed haphazardly. The approach taken to manage disasters may thus be as costly (or even more costly) than the event itself. People are unprepared, and when the event occurs (even slow-onset disasters) it usually triggers haphazard reactions, which often result in crisis management. Awareness of disasters and of one's vulnerability to such events can, however, reduce the impacts of such events. Concerted efforts need to be made in well structured ways to address the target audiences – policy makers, planners, legislators, administrators, professionals and medical personnel so that the right message is transmitted to the common man (Mohammed, 2005).

Disaster preparedness, as an area of inquiry, is dynamic and in a state of constant flux. Each new event teaches researchers and practitioners more about community and individual responses to disasters. McEntire has addressed key issues pertaining to emergency management and disaster preparedness in his research. McEntire, Fuller, Johnston, and Weber (2002) wrote a review article that examines emergency management and methods relevant to its formation. While the primary focus in the 2002 piece was on vulnerability, McEntire has also completed work in

disaster preparedness. Through the International City/County Management Association (ICMA), he published a guide for emergency management and emergency planning, complete with checklists, resources, and examples (2003). McEntire, et.al.'s focus on theory and application provide excellent reference points for the development of comprehensive emergency management theories and plans.

Similarly, Dynes also offers his consideration of emergency planning. Based on research, as opposed to military models, Dynes' problem-solving model advocates coordination and cooperation (1994). Several other models have developed including similar principles, moving the recognized best practices of emergency planning away from military-oriented models and closer to more discipline specific, research-based models. As the best practices in emergency management gravitate toward more discipline specific goals, so too do the best practices of disaster preparedness.

Considerable work has gone into identifying and evaluating the principles and concepts of disaster preparedness. A few contributions have been made to the theoretical development of comprehensive disaster preparedness measures, some with the goal of creating a "practice-based theory and a theory-based practice" (Gillespie & Streeter, 1987). Most of the contributions do not have the specific aim of creating a comprehensive approach to disaster preparedness, but through the individualistic research, make small contributions when combined as a comprehensive review. For example, much can be learned from Kirschenbaum's (2002) article on disaster preparedness. While Kirschenbaum's research is specific to Israel, the location of his research, and the indicators and conclusions drawn from it, has general applicability. Perry and Lindell (2003) approach disaster preparedness from the planning perspective, identifying ten guiding principles to be adhered to during the planning process. Perry and Lindell focus on the planning process, while Kirschenbaum focuses on localized principles and applications. Each presents an aspect of disaster preparedness planning, but none completely encompasses the issue.

2.5.1 Top Management Commitment

Top management must support and be involved in the development of the disaster recovery planning process. Management should be responsible for coordinating the disaster recovery plan and ensuring its effectiveness within the organization. Adequate time and resources must be

committed to the development of an effective plan. Resources could include both financial considerations and the effort of all personnel involved.

Senior management has to be willing to lend clout and funds to the process of designing a business continuity plan. (Sarrel, 2002) Thorough business continuity planning can involve a significant culture change in the organization. Changes in culture rarely succeed without the full support of senior management. Select also a person or cross-functional team to take ownership of creating and implementing a business continuity plan. Be sure to include senior management outside of the information technology division in the process. (Bannan, 2002)

2.5.2 Establish a planning committee

A planning committee should be appointed to oversee the development and implementation of the plan. The planning committee should include representatives from all functional areas of the organization. Key committee members should include the operations manager and the data processing manager. The committee also should define the scope of the plan (Sarrel, 2002).

2.5.3 Perform a Risk Assessment

Assess the risks to your organization and review the potential impact of several different types of “disasters”. (Sarrel, 2002) Depending on the strategy, having a contingency plan ready to put into action is not without costs. The costs must be valued against the likelihood of disasters of varying degree.

One important consideration is the cost of the time the business is interrupted. Therefore, an organization can distribute their processing and data across two mainframes to reduce the probability of system downtime because the cost of maintaining two mainframes is less than the potential cost of an outage (Mastroberte, 2002). When you are analyzing potential risks, prioritize which resources must be available first (Bannan, 2002). Reduce costs by making the most critical systems, such as a point-of-sale computer system, available immediately while bringing less important functions, such as e-mail, on-line at a later time.

The planning committee should prepare a risk analysis and business impact analysis that includes a range of possible disasters, including natural, technical and human threats. Each functional area of the organization should be analyzed to determine the potential

consequence and impact associated with several disaster scenarios. The risk assessment process should also evaluate the safety of critical documents and vital records. Traditionally, fire has posed the greatest threat to an organization. Intentional human destruction, however, should also be considered. The plan should provide for the even worst case situation: destruction of the main building. It is important to assess the impacts and consequences resulting from loss of information and services. The planning committee should also analyze the costs related to minimizing the potential exposures.

2.5.4 Establish priorities for processing and operations

The critical needs of each department within the organization should be carefully evaluated in such areas as: functional operations, key personnel, information, processing systems, documentation and vital records. Processing and operations should be analyzed to determine the maximum amount of time that the department and organization can operate without each critical system (Sarrel, 2002). Critical needs are defined as the necessary procedures and equipment required to continue operations should a department, computer center, main facility or a combination of these be destroyed or become inaccessible.

2.6 Disaster management and preparedness model

The development of an emergency management planning model of wide applicability is another issue that should be addressed by the disaster preparedness community. The premier models of emergency planning began from military models of command and control designed to handle enemy attacks and other non-civilian emergencies (Dynes, 1994). More recently, empirical and pragmatic models of emergency planning for civilian emergencies have been developed, but none of them have been accepted wholesale by the disaster preparedness community. Emergency planning paradigms for disaster resistant communities, disaster resilient communities, sustainable development, and sustainable hazard mitigation have provided stepping stones for a comprehensive emergency management plan (McEntire, Fuller, Johnston, & Weber, 2002).

Rapid urbanization is the center of several pressing issues in the practice of disaster preparedness. Several sources have noted the decennial increases in city populations, not only in the United States, but globally. One needs to only observe the mega-city phenomenon of the last

century to understand current population trends. City growth is consistently on the rise in both developed and developing countries, and often in risk prone locations. The world is quickly becoming more urban (Boullé, Vrolijk, & Palm, 1997). Urban areas are attractive because they offer their inhabitants many benefits not available in non-urban areas: accessible medical facilities, markets, public transportation, various types of employment, and a variety of people and experiences. These benefits draw people to cities, creating greater urban densities, and inadvertently making them more hazardous places to live.

There is great need for awareness creation for instance; media professionals who are sensitized and encouraged could easily integrate disaster management components in different programmes for public awareness. An organized, informed and aware populace can be better prepared for possible emergencies, and is less likely to panic. Such an informed community faces disasters with fortitude and cooperates effectively with the government – police efforts for reducing the impact of any disaster. In Kenya, disaster preparedness involves preparation of a counter-disaster plan, forecasting and warning of the disaster, maintenance of resources needed during and after disaster, and training of the related personnel (Rahman, 2001). Disaster preparedness is embedded in the broader activities for disaster management. Disaster management is a continuous process that involves activities at several stages or levels, which are: preparedness, response, recovery, assessment, prevention and mitigation. With the completion of each cycle, new lessons are learnt, new measures are adopted and people are better prepared for the next disaster.

2.7 Theoretical Framework

Understanding differences in environmental risk perception and risk judgments might facilitate the development of effective environmental risk management strategies, including risk communication. Cultural theory holds that systematic individual differences exist in the perception of environmental risks based on four different myths of nature: nature benign, nature ephemeral, nature perverse/tolerant, and nature capricious. Hence Scholars came up with the theories that can assist us to give a critical analysis to situation that face people in a society today fire, floods disasters being among them.

2.7.1 Coping theory

Coping is dynamic process which involves a series of reciprocal response between individual and the environment. Coping response are not a momentary occurrence but rather a chain of interaction which take place overtime.

Folkman (1991) argues that the threatening situation events automatically lead to the development of a coping mechanism. When individuals are confronted with an event first step towards coping with it is to make a primary appraisal of events in terms of whether the events is judged to be threatening to the individuals and if its threatening a further appraisal is made which the individual assess what resources and potential strategies are at the moment and available to deal with the stressor i.e. the degree to which they can exercise control over the stressor and in choice of further coping strategies. If the individual judge the stressor in the positive they are likely to engage in a problem coping. If they judge that they have insufficient resources the next step maybe to increase the resources by finding more information or rallying sources of support .A feeling of powerlessness may lead to emotional focused coping (Folkman & Lazarus 1991 & Taylor 1986).

In regard to the five problems which is a stressor in the case of study amongst the dwellers informal settlement we relate coping to be the ability to device consumption against certain calamities which endanger the physical continuity of life. These survival or coping strategies is used to pull through the period of crisis.

The concept of coping strategies is used by many economies. It is focused on housed behavior under adverse condition but the underlying concept of crisis and what constitutes and how it come about has to be clarified in this particular case. For our purpose fires can cause period of depression in livelihood level brought about by loss of life, property and dwelling places. When conditions are of a recurrent nature one need to speak of the process rather than discuss the situation with the aid of static concept like misery hence people have device mechanism to deal with crisis at hand. When such conditions are of a long term nature to the extent that they affect livelihoods one needs to speak of the process of ensuring sustained livelihood and mechanism to deal with ways of enhancing amongst affected persons so as to prevent such occurrences. The

questions are-; to what extent has the affected population developed these mechanisms? How effective are they in the face of prevailing social economic conditions?

It is generally held that the poor and crisis prone settlement has often been much better strategist than the developed planners, but existing options make survival a possibility and sometimes on going certainty. The assumption here is that often crisis the people require coping strategies to rebuild their lives but in large number of cases rebuilding this lives to the level the people were at before the incidence is usually impossible,. The best coping strategy is to ensue that fire does not occur at all.

2.7.2 Theory of Modernity as risk society.

Risk society is not intended to imply an increase of risk in society but rather a society that is original in response to risk. It is a society increasingly preoccupied with the future (and also in safety) which generates the notion of risk. (Giddens 1999).

Risk is defined in the risk society as a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself (Beck 1992). The argument is that the distribution of the risk originates from knowledge as opposed to wealth. While the wealth person may have access to resources that enables him or her to avert risk it would not even be an option were the person unaware that the risk even existed and therefore risk position is fundamentally dependent o knowledge and access to information which may or may not correlate to economic status but often does.

Human are subject to risk, modern society is exposed to a particular type of risk that is the result of the modernization process itself altering social organization. Risk like natural disaster that have negative effects on human population but are seen to be produced by non-human forces, modern risk are product of human activity. These two different types of risk can be referred to as external risk and manufactured risks (Giddens 1999). A risk society is predominantly concerned with manufactured risk. The difference between the two is that there is a significant level of human agency operating in the production and mitigation of manufactured risks i.e. manufactured risk are the product of human activity , there is the potential to assess the level of

risk that is being produced or that is about to be produced. As a result risk has transformed the modernization process itself. For instance human introduced disasters like Chernobyl and the love canal crisis, public faith in the modern project has declined, leaving a variable trust in industry, government and experts (Giddens 1990). The increased critique of modern industrial practice has resulted in a state of reflexive modernization. A concept that demonstrates reflexive modernization is sustainability and the precautionary principle that focus on preventive measure to decrease level of risk.

Fire in city is accidental while others are machinated as results of human action. This is in case of arson attack which are common in the slums especially when political temperature are high in the country as it was witnessed during the post election violence(December 2007-February 2008). Industrial faults or electrical failures or architectural and surveyors fault in case of building collapsing, are also a reason for putting a preparedness measure to avoid re-occurrence of disasters that can be otherwise be prevented. For instance the industrial fire at Libra house along Mombasa road Nairobi in year 2006 twelve (12) people perished in the inferno

Beck's(1992) *Risk Society* is just such a label; its intent is to underscore his position that society, in this era of advanced modernity, is dominated by the ubiquity of risks, not only as the dominant consciousness of the age but also as the challenge that threatens to overwhelm societies. The social order in the early days of modernization was centered on economics, especially the distribution of economic output, i.e., who got what. That distribution was directly tied to social class, with those at the top getting more and those at the bottom getting less. In Beck's view, this order of things has been turned on its head in the contemporary era. Beck argues that, in the Risk Society the concern is no longer with the distribution of *goods* but with the distribution of *bads*—namely, the realization of untoward risks. Because many risks (e.g., nuclear fallout) do not respect class boundaries, everyone is, therefore, equally at risk. This dissolving of social class means those social actors are “individualized,” thrown on their own without the collective identity of social class.

But Risk Society is also a theoretical frame, a master frame in the Continental Tradition (particularly the Critical Theory tradition) that seeks, in addition to naming the contemporary age, to provide a diagnosis of its dynamics, to underscore its uniqueness from its predecessors, and to focus analytical attention on it. The frame comprises three inter-related components: risk,

individualization, and reflexive modernization. Beck sees a dynamic that is driven by an increase in risks and in the ability of science to detect increasingly minute risks, leading to a fundamental re-ordering of social positions in society, and to a transformation in the cultural meanings of risk

Ulrich Beck has proposed a theory of “reflexive modernity” in which the role of technology is explicitly recognized and discussed in terms of transformations in the nature of rationality. Beck starts out from the same concept of differentiation as Habermas, but he considers it to be only a stage he calls simple modernity. Simple modernity creates a technology that is both extremely powerful and totally fragmented. The uncontrolled interactions between the reified fragments have catastrophic consequences. Beck argues that today a risk society is emerging, especially noticeable in the environmental domain. “Risk society...arises in the continuity of autonomized modernization processes which are blind and deaf to their own effects and threats. Cumulatively and latently, the latter produce threats which call into question and eventually destroy the foundations of industrial society” (Beck, 1994).

The risk society is inherently reflexive in the sense that its consequences contradict its premises. As it becomes conscious of the threat it poses for its own survival, reflexivity becomes self-reflection, leading to new kinds of political intervention aimed at transforming industrialism. Beck places his hope for an alternative modernity in a radical mixing of the differentiated spheres that overcomes their isolation and hence their tendency to blunder into unforeseen crises. “The rigid theory of simple modernity, which conceives of system codes as exclusive and assigns each code to one and only one subsystem, blocks out the horizon of future possibilities....This reservoir is discovered and opened up only when code combinations, code alloys and code syntheses are imagined, understood, invented and tried out” (Beck, 1994).

Beck’s vision of a new era calls for a macro-sociology of change in which science as modernism’s secular religion is dethroned. Potter’s investigation in *Representing Reality Discourse, Rhetoric and Social Construction* is at the micro level, examining how scientific facts are constructed. This brief comparison looks at tools Potter offers in his book (Introduction and Chapters 1 and 2) which could enhance Beck’s discussion of myths of modernity as described in the Preface of *Risk Society*.

Beck reinterprets this period, not as the mythical 'end of history' but as a continuity or even a beginning of modernity. This reflexive modernity or risk society evolves beyond its classical industrial society. In 'classical industrial society, the 'logic' of wealth production dominates the 'logic of risk production, in the risk society this is reversed (Beck 1993).'

In this myth of modernism faith in science and progress drives an industrial society perceived as a 'thoroughly modern society' (Beck, 1992). Beck questions science's claim to elitist truth and enlightenment. Scientists have made errors that have resulted in environmental disasters. He does not call for the end of science but for a change within science. He extends scientific skepticism to the foundations and consequences of science itself (Beck, 1992).

Beck argues that "threats create society, and global threats create global society" (Beck, 2000). According to Beck's concept of world risk society, chemical, radioactive, and biological risks are commonly distributed and organized by political means (Dryzek 1996). These risks know no political or geographical boundaries. Political mobilization by those affected by these "risks" is possible and likely (Leiss n.d.). The mobilization can also be global in nature. It has been argued that such mobilization can threaten political and economic stability in the world (ibid). Yet, participation in the process of risk assessment is essential and could actually increase democratization through active participation (Odden Reksnes 2003). Beck (2000) illustrates this in his book *What is Globalization?* He argues that there is now an involuntary politicization of risks which is emphasized by the justification of government decisions through public debates. Citizens no longer accept decisions at face-value, creating a more active and vibrant global community.

According to Giddens and Beck they see risk as unpredictable in the modern world as they are extra ordinary events and circumstances such as accidents associated with nuclear power plants and weapons. While Ritzer understand risk as predictable one without surprise as he conducted his study in America and the environment was calm while Giddens and Beck conducted their study in Europe where there was ravages of nuclear war in Soviet union(Ritzer 1996)

2.7.3 Chaos Theory

The word chaos has been generally used to mean a state of confusion, lacking any order. The theory takes importance stance of a systems approach, cautioning against the linear causality of determinism to instead consider the complexity of interworking inputs in systems of many kinds. Chaos theory is used in meteorology, physics, and a host of other (primarily) natural science fields. Its use in the social science and humanities disciplines is not absent entirely, but is considered rare. Chaos theory does not eliminate prediction but rather the theory does indeed look for order in the complexities and apparent disorder.

According to Bower (1988) chaos is the irregular, uncertain discontinuous aspect of change within the confines of a patterned whole. This means that there are those events we cannot predict in an organizational life and even in our desire to create order and control of the situation; events often seem one step ahead of us. Chaos theory describes the behavior of certain non linear dynamical systems that under specific conditions exhibit dynamics that are sensitive to initial conditions (popularly referred to as the butterfly effect.) as a result of this sensitivity, the behaviour of chaotic and unpredictable results can and will occur in systems that are sensitive to their initial conditions.

The two main components of chaos theory are the ideas that systems – no matter how complex they may be – rely upon an underlying order, and that very simple or small systems and events can cause very complex behaviors or events (<http://www.imho.com/grae/chaos/chaos.html>). Bower B, (1988) further notes that as a qualitative study, chaos theory investigates a system by asking about the general characteristics of its exact future term behavior rather than seeking to arrive at numerical predications about its exact future state.

In disaster research, Sellnow et al. (2002) used chaos theory when examining a flood and the manner of communication by emergency personnel and survivors. From their abstract: “Communications related to river crest predictions (fractals), the shock at the magnitude of the crisis (cosmology episode), novel forms of reorganizing (self-organization), and agencies that aided in establishing a renewed order (strange attractors).” The researchers found patterns and episodes of self- organization when various responding units attempted to reduce the chaos

through novel and grass-roots efforts to bring order to communication practices and efficiencies. Quarantelli (1995) briefly mentions chaos theory as a framework worth exploring further.

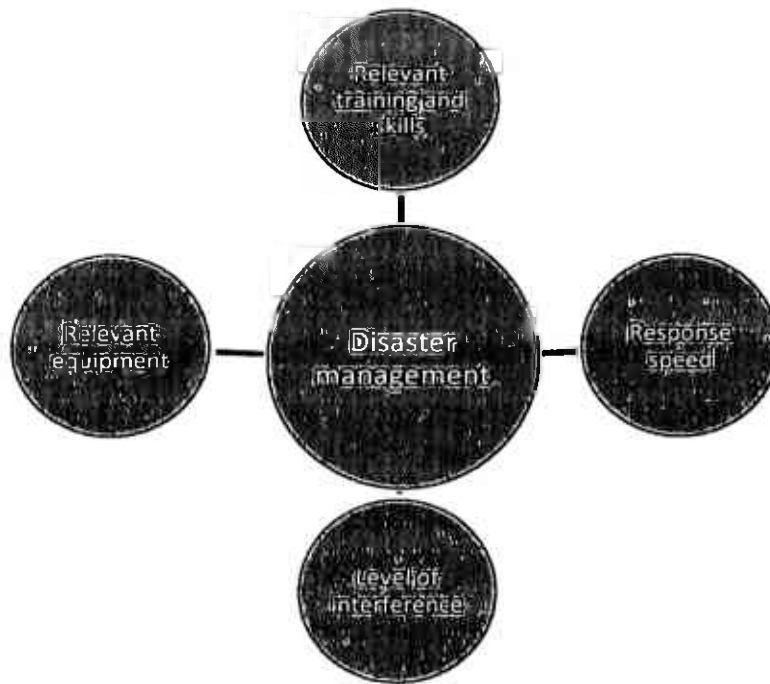
Disaster and emergencies epitomize on the unpredictability or non linearity of human events. There are many events that we can predict in the society but not disaster. Man cannot therefore predict when a disaster will occur, the number of fatalities or the amount of resources and personnel required to bring order to chaos. Factors to be considered in disaster safety cannot be accurately defined, quantified or even understood at anytime. This then leaves man with only the option of continuously improving the effectiveness of safety measures undertaken and having a successful disaster response plan within his organization to effectively stop or respond to any eventuality.

It is imperative that the society prepares itself to tackle disasters since most disasters experienced are manmade. The Police have a major role in managing disasters because they are charged with maintaining Law and order and have the capacity to detect some danger before happening. The Police can take advantage of the trust that the public has in them in the issues of restoring law and order to partner with other emergency response teams for better results.

2.8 Conceptual frame work

To guide the design of this study is a conceptual framework of disaster management. Disaster management is best planned through interrelated sets of cyclic activities or phases forming the Disaster Cycle (Davis & Wall, 1998). In this case, the Police management of disasters has several challenges. These challenges slow the speed and quality of police services in case of a disaster. This concept is shown in the Figure 2.1.

Figure 2.1: Conceptual frame work



The relevant skill is a basic necessity both for the victims at disaster sites and those rendering help. Though disaster response is not directly the work of the police, a little in service course would help them and the victims a great deal considering that most civilians rely on the police for help. The relevant equipment also comes in handy. An example is the need for gloves to touch a person bleeding. Response speed cannot be ignored as it is an indicator of the number of lives that can be saved before it gets too late. It is usually common to find influential people interfering with response efforts. It therefore requires a special skill to keep these influential but ill informed individuals off disaster sites. This includes removal of onlookers with no input to the situation.

Studies conducted by Dreabek (1983) and Parker (1992) have argued that an effective disaster management strategy lies not only on the efficiency of the recovery capability but mainly on the strength of its protection plan since protection measures tend to be proactive while recovery measures are mainly reactive. The disaster frame demonstrates that the phases are interlinked and complimentary to each other in responding to disaster events.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter deals with research design, population and sample, data collection methods, research procedures, data analysis methods and finally the chapter summary.

3.2 Location of the Study

The study was conducted in Central Police Division which includes Central police, Kamukunji, KICC, Parliament and two posts namely Muoroto and International Life House. The Police in Nairobi CBD were prioritized for research because of the realization of frequent fatal disasters that have occurred in the recent history. In the year 2006, 545 incidents occurred, 561 in 2007, 661 in 2008 and 532 in 2009. The year 2008 had highest incidence due to the post election violence (Nairobi fire services 2009). In 2008 Nairobi was elevated to Metro Politan and as a result Ministry of Nairobi metropolitan was created by Presidential circular number 1 of April 2008. This ministry is in-charge of preparation and enforcement of integrated strategic programmes for provision of social, economic and structural services. This led to the changing of administrative boundaries. However for the purpose of this study, the researcher has used the old administrative boundaries of Nairobi CBD for the year 2006. This decision is guided by the need to examine the police stations that are in the proximity of the disaster in the CBD.

3.3 Research Design

This study adopted a descriptive survey as a research design. According to Kothari (2003) survey is a descriptive method of research and it is preferred by the researcher because; it enables the researcher to collect data from a wider area in a shorter time; it concerns itself with the present relationship of variables and the present processes taking place in the study area. Finally the survey is justifiable for the study as it also examined the effects that were going on at that particular time and the attitudes held by the respondents that were being cross-examined.

3.4 The Target Population

The target population was the police officers within Central police Division as it covers CBD. The stations include Central, Kamukunji, KICC, Parliament and two posts namely Muoroto and

International Life House. This included general duties officers from the rank of police constable to senior sergeant and other senior officers from the rank of inspectors to assistant commissioner of police

3.5 Sampling

Singleton, et.al (1988) defines sampling as “the seeking of knowledge or information about a population by observing part of this population (sample) in order to extend the findings to the entire population”. This study used both probability and non probability sampling techniques. The aim of these techniques was to get a sample that is capable of providing reach information capable of answering the research questions. A sample then is a small proportion of a population selected for observation and analysis.

This study employed the use of purposive sampling and stratified sampling. StatPac(2010) describes purposive sampling as a sample procedure that targets a particular group of people. In this study the procedure was used to select Central Police Division and Key Informants. The Key informants are personalities who are knowledgeable about the subject matter and as such provide quality to the study. StatPac (2010) explains stratified sampling as a method commonly used as a probability method that is superior to random sampling because it reduces sampling error. It goes ahead to explain that a stratum is a subset of the population that share at least one common characteristic. Examples of stratum in this study include males and females, Inspectors, Sergeants, Corporals and Constables. The researcher first identifies the relevant stratum and their actual representation in the population. Random sampling is then used to select a *sufficient* number of subjects from each stratum. "*Sufficient*" refers to a sample size large enough for us to be reasonably confident that the stratum represents the population. Stratified sampling is often used when one or more of the stratum in the population have a low incidence relative to the other stratum.

The researcher purposively selected the Central Police Division because it is prone to fires and other disasters mainly because it serves Central Business District and urban dwellings that has various factors that may lead to fire outbreaks and are susceptible to other disaster activities. Considering that there were 606 police officers within Central Police Division, 16.5% of them

were sampled using multi cluster sampling for interviewing. The officers were selected by use of lottery method.

When selecting the officers to be interviewed, pieces of paper were mixed in a container with 16.5% of the papers having being written “Yes” and 83.5% “No”. The officers were invited to pick the papers randomly and without returning the picked papers in containers. Those who picked “Yes” were followed and interviewed. A proportionate sample was drawn based on the sampling framework per police station. Those with a large sampling frame had more officers interviewed proportionally. The proportions were as in Table 3.1.

Table 3.1 Sample Size of Police Stations in Central Police Division

Police Station	Number Of Police Officers	Number Of Officers Selected
Central	308	45
Kamukunji	153	23
KICC	52	11
Parliament	41	9
Mworoto	27	6
International Life House	25	6
Totals	606	100

Source. Central Police Division Registry, April 2009.

3.6 Methods of data collection

Data was collected through several methods. These methods included qualitative, quantitative, documentary review and observation. Senior Police Officers were interviewed through face to face interviews whereas junior Officers were required to fill in a questionnaire with both open and close ended questions. The researcher ensured that the questionnaires had been completely filled and also to ensured that any ambiguities were clarified. Secondary data was collected from the police records at various police stations and Division headquarters and police headquarters training section.

3.7 Tools of data collection.

i) **Questionnaire.** The researcher used questionnaires that had several sections. They included demographic characteristics of the police officers, the response preparedness, the role and functions of police officers during disasters, challenges that they encounter during disasters, and examined their perception about disasters and responses. Police officers filled in a questionnaire that had both open ended and closed questions. The closed questions were provided to ensure that there is consistency in the answers hence ensuring ease in comparison. The open ended questions provided in-depth answers that cannot be captured by closed ended questions. According to Kothari (2003) the use of questionnaires is preferred because; it is free of bias from interviewer; it is cost effective; it gives respondents adequate time to give well thought out answers; the researcher can reach the respondent otherwise not easily approachable conveniently and finally results can be more dependable.

ii) **Key Informant guide.** These are people (or group of persons) considered to have unique skills or professional background related to the police force and their response to disasters. They shed light on ideas and attitudes of the police force towards disasters, validated some of the information obtained from the questionnaires given to the police officers; advised and provided recommendation on any issues that seemed to deviate from the conventional wisdom pertaining to disaster mitigation.

iii) **Focus Group Discussion.** This is a form of unstructured interview that is conducted among a group of people at the same time. It is usually done in a group as the name suggests. It uses an interview guide so that participants are not left to stray out of topic. Singleton et.al (1988) notes that with unstructured interviews “the interviewer is free to adapt the interview to capitalize on special knowledge, the experience, or insights of the respondents”. This strategy was used to gauge public perception on police preparedness to disasters response activities.

iv) **Check list of observation.** This is whereby the researcher checks whether the officers have the right gear or equipments to fight disasters e.g. fire fighting equipments like water boozer, ambulances, fire extinguishers, and stretchers.

3.8 Unit of Analysis

Singleton (1993) defines unit of analysis as “the entity about who or which a researcher gathers information”. It is what or who is to be described or analysed. Babbie (1995) adds that “a unit of analysis is that which a study attempts to understand”. According to Baker (1988) units of analysis are “the social entities whose social characteristics are the focus of the study”. The unit of analysis in this study is the Police department. The study sought to assess the operational capacity of the Kenya Police preparedness during disaster incidences.

3.9 Unit of Observation

The unit of observation is individual placed in strategic positions as a result of having important data to the research. In this study the unit of observation is police officers. The study focuses on the police officers’ preparedness to deal with disasters in Kenya, the difficulties they face in the context of disasters, if they have operational capacity to respond to disasters and the strategies being considered by the police in the face of increasing disasters.

3.10 Data Analysis

Data collected was analyzed using both qualitative and quantitative methods. Qualitative data was analyzed using thematic method by grouping the information provided by the respondents into similar themes. Quantitative data collected was keyed in and cleaned using a statistical program. The Statistical Package for Social Sciences (SPSS) was used to aid the analysis of quantitative data. The analyzed data was presented using descriptive statistics such as frequency tables, charts and measures of central tendency.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents data on demographic characteristics of the respondents, challenges encountered by police during disasters, level of preparedness, disaster frequency in the city and the perception of the police about their own ability to handle disasters.

4.2 Respondents characteristics

Demographic characteristics of respondents focus on gender, age, years of service and designation of respondents. These attributes help shed light into basic characteristics of the police force.

4.2.1 Gender

Figure 4.1 Gender distributions

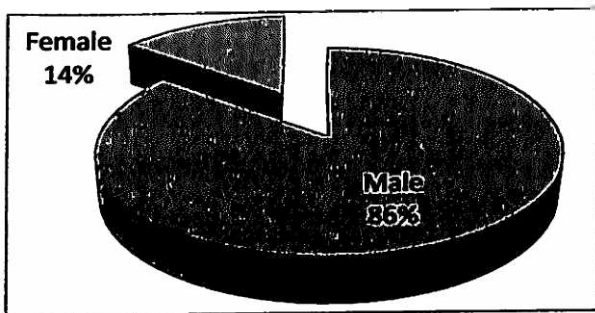
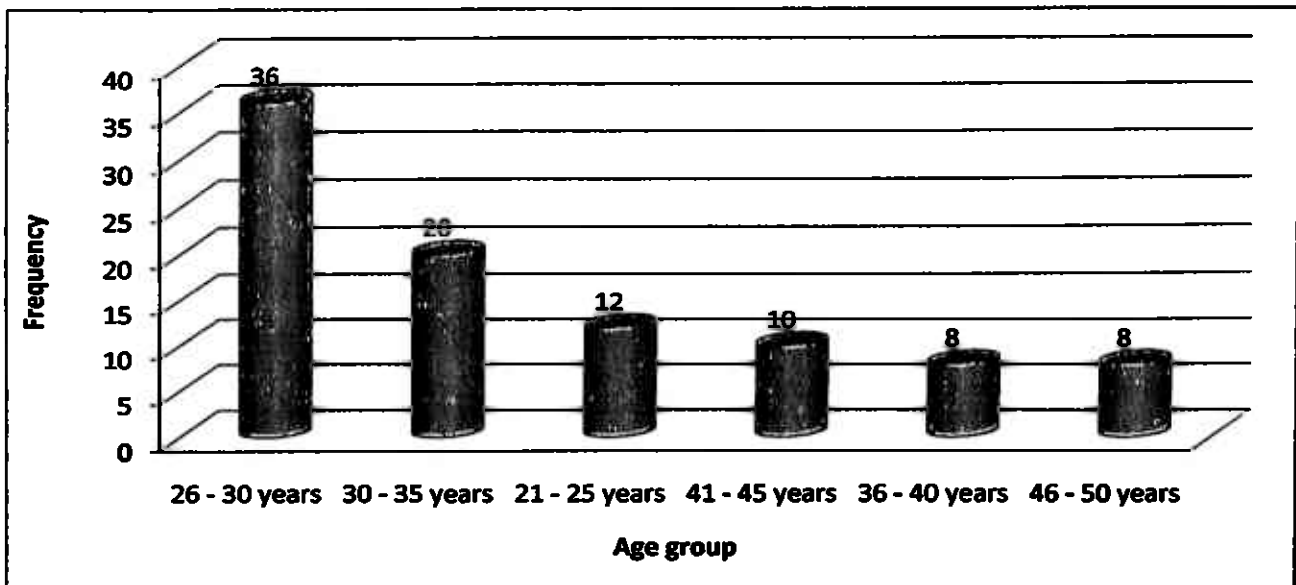


Figure 4.1 shows that 86 (86%) of the respondents were male while 14 (14%) were female. This figure compares well with gender status in the police force that is at the ratio of 87 to 13(Kenya Police Strategic plan 2008-2012).

4.2.2 Age

Figure 4.2 Age distribution of the respondents



The age range of all police officers interviewed was between 23 years and 49 years. Majority of the workforce are between ages 26 and 35 years. The mean age was 33.3 years with a standard deviation of 7.1. This implies that majority of the workforce are young. This is understandable given the duties that they are expected to perform and therefore in the best age to handle disasters.

4.2.3 Length of service

Table 4.1 Years of service with the police force by gender

Sex	Years of service with the police force					Total
	0-4 years	5-10 years	11-15 years	16-20 years	21 years and above	
Female	2	8	0	2	2	14
Male	18	16	28	2	22	86
Total	20	24	28	4	24	100

From Table 4.1 above, it shows that the officers have a considerable period of service in the police force. They therefore have experiences of disasters in the city. Most officers have served for between 16 years to 28 years.

4.2.4 Ranks of Police Officers

Table 4.2 Ranks of Police Officers

Police Rank	Frequency	Percentage
Police constable	68	68
Corporal	20	20
Sergeant	6	6
Inspector	6	6
Total	100	100

Table 4.2 gives a breakdown of ranks of police officers. It shows that the highest numbers of officers in the entire force are constables hence they were 68% of the total number of respondents. The second highest rank interviewed were corporals that was at 20% of the total number interviewed. These two classes form the general duties officers and are heavily deployed at the stations. In all emergency cases they are the ones to be first deployed given their numerical superiority in all stations and in the entire police force generally.

4.2.5 Police unit

Table 4.3 Police Unit

Unit	Frequency	Percentage
General duties	79	79
Crime Investigation	13	13
Accident Investigation	4	4
Station records	4	4
Total	100	100

Table 4.3 shows that most (79%) of the officers performed general duties. Another 13% were in crime investigation unit. This is the unit that involves crime detection and prevention. Accident investigations and station records had only a few officers.

Most police constables perform general duties that involve patrol and guard duties. During disasters, these officers are usually readily available as they patrol the streets in the effort to preventing crime. During disasters, these officers control people from the scene to facilitate rescue work. Police Corporals were distributed in all departments except for station records. Sergeants handled crime investigations and general duties. The Inspectors handle supervisory duties. Generally, the first police officers to reach the scene communicate and mobilize other police officers. The traffic policemen also help in controlling traffic. Their large numbers at police stations and the nature of their duties in the streets makes them be efficient in reaching disaster scenes.

4.2.6 Skills requirements

Despite the fact that Police Officers are charged with enforcing and maintaining law and order, the challenging and ever increasing demands has made it necessary for the Police Officers to appear at disaster sites not just to maintain law and order but also for rescue services. This has necessitated the need to acquire additional skills in areas of disaster response that is not the core business of the police. Table 4.4 lists the skills that police officers poses and desirable skills in order to add value to their core services.

Table 4.4 Existing and desirable skills from Police Officers

Existing skills	Desirable skills
Weapon handling	Fire handling
Riot drill	Fire drills
First AID	Evacuation procedures
Crime investigation	Swimming
Public relations	Counseling

Most Police Officers have only gone through the training being offered at Kiganjo (Police Training Centre). Any issues dealing with disaster has not been in their syllabus. The demanding and dynamic environment forces the police to improvise rescue procedures that most of the time leads to more injuries during rescue services. Police training centre trains on weapon handling, riot drill, first aid, crime investigation and public relations that is still very elusive among police officers. Other skills that need to be included in their syllabus include fire handling, fire drills, evacuation procedures, swimming and counseling. Inclusion of these will ensure diverse, vibrant and more value oriented police force.

4.3 Challenges/ constraints encountered by the Kenya Police force during disaster response.

This variable attempted to understand the challenges that Police officers face in line with disaster response activities. It incorporates various challenges that police officers mentioned to be facing during response activities. Table 4.5 provides details of the challenges faced during disaster rescue operations. The respondents were expected to give responses ranging from Agree that was assigned a number 1 to Disagree that was assigned the value of 3.

Table 4.5 Challenges that the police face during disaster operations

Challenges	N	Agree		Neutral		Disagree	
		Freq	%	Freq	%	Freq	%
Disaster management issues are very complex and extremely challenging	80	70	87.5	6	7.5	4	5.0
The political climate makes it difficult for the police to effectively address disasters	94	62	65.9	18	19.1	14	14.9
The infrastructural amenities usually impeded our operations	94	80	85.1	6	6.4	8	8.5
Technological remoteness of some areas makes the work of police difficult	94	82	85.2	10	10.6	2	2.1
Police work with too old/outdated equipments	96	80	83.4	6	6.3	10	10.4
There is a risk of being injured during disasters	94	90	95.7	2	2.1	2	2.1
There is lack of coordination during disasters	96	56	58.4	16	16.7	24	25.0
Police lack resource to respond to disasters	94	72	76.6	14	14.9	8	8.6

4.3.1 Equipment

The challenges that nearly all police officers interviewed agreed on were mostly coiled around inferior, old equipment and inadequate technological appreciation in most areas of the country. All these factors could be seen in the responses given in the Table 4.5 and in particular, statements that; Police work with too old/outdated equipments such as fireproof protective gear, ladders, grill cutters, portable fire extinguishers received overwhelming acknowledgement that was at 80, (83.4%). The other statement that was acknowledged overwhelmingly was that Police lack resources to respond to disasters. A total of 72, (76.6%) of the respondents acknowledged the statement. The inadequate resources include; vehicles, for instance the whole of central police division has five vehicles which are serviceable. Of these the Officer Commanding Station (OCS) central has one, OCS Kamukunji has one and Officer Commanding Police Division (OCPD) has one with only two patrol cars. The vehicles were not well maintained. From observation they had tattered canvas, worn out tires, dents and discolored while two of them had to be pushed to start the engine. At the police yard three vehicles were grounded due to mechanical problems. Other equipment that are inadequate include; fire engines, first aid kits and ambulances to respond to disasters, technological remoteness of some areas also make the work of police difficult, the infrastructural amenities usually impede police operations and there is risk of being injured during disasters. All these statements were so much acknowledged by the officers, which is an indication that these statements strongly apply to the real situation being experienced during rescue operations. They thus need to be keenly looked at by the state so that the high risk officers face during operations is reduced. Improved technology will also ensure more lives are saved during disaster rescue operations. Given the poor state of transport police officers are usually handicapped to reach disaster areas on time. They often rely on well wishers. This impedes their level of efficiency.

Infrastructural amenities and unpreparedness was noted for instance a case study of the Nakumatt Downtown Fire disaster in 2009: It was observed that the first officers at the scene arrived fully armed in riot gear which scared members of the public who were ready to assist. Water hydrants within the Central Business District are non functional while the others cannot be located due to mushrooming of buildings hence the fire brigade had to refill their tankers at Nyayo stadium, about five kilometers away. Pavements along the streets are congested with so

many constructions under ways and beautifications with pot flowers blocking the way reducing the chances to maneuver the rescue team to the scene. The haphazard nature of buildings and other structures also undermine police efficiency. Table 4.6 gives a summary of status of equipment that can be used for disaster response activities.

Table 4.6 *Summary of status of equipment for disaster response activities*

Item	Number in use	Number not in use	Total
Vehicle	5	3	8
Fire engines	-	-	-
Ambulance	-	-	-
Fire extinguisher	-	6	6
Horse pipe reels	-	4	4
Pocket Radio	12	8	20
First Aid Kit	17	8	25
Ladders	-	-	-
Gas Mask	-	-	-
Disposable gloves	-	-	-
Power saw	-	-	-
Grill Cutter machine	-	-	-
Fire resistance overalls	-	-	-
Helmets	-	-	-

Senior Police Officers who mainly do supervisory work indicated that the police experienced lack of proper equipment such as firefighting equipment, ambulances. Though the police may not have all the equipment required, the use of available resources is questionable as there have been indications of inefficient utilization of the available resources. They mentioned that there exists inadequate resources such as finances, transport, communication tools, associated apparatus such ladders, gas mask, disposable gloves and other sophisticated equipments that would be used to mitigate against the hazards. Some of the fire-fighting equipment observed at central police station was in pathetic state. The six fire extinguishers at the station were very

rusty and unserviceable for even the date of the last inspection was not visible due to rust. There was no evidence they had been used or even touched in the distant past. The horse pipe reels within the station were vandalized while the water hydrant within the station is not functional. The other stations within Central Police Division did not have any fire extinguisher or water hydrant. Following observation was made in the store, the gas masks were worn-out; some of the communication gadgets lay idle at store due to mechanical problems beyond repair. The level of dust accumulation showed they have been there for years. Lack of water boozers (tankers), ambulances, overalls/dustcoats, power saw, grill cutter machines, first aid kits, gloves, fire resistance overalls and helmets were lacking from the store. Only riot equipment were visible. The fact that the mentioned items are key to any effective disaster response and which the police force lack puts into question their level of preparedness. The police department has officers on stand-by to curb cases of civil disobedience and riots especially within CBD but there is no stand-by officers to deal with emergencies and disasters incidents as they usually mobilize offices when they happens hence they are not proactive in nature.

4.3.2 Administration

Issues of administration and training also play a major role in the responsiveness to disaster response. One particular concern is the lack of coordination of responses during disasters. The absence of a single or centralized disaster management controlling authority and bureauracy in Chain of Command whereby the junior officer at the scene of the disaster has to obtain orders/instructions from the superiors who are not at the scene of the disaster which he cannot question nor ignore before he takes any action at the scene; disaster management issues are very complex and extremely challenging yet timely response is impeded by administrative action. Situations of protocol that allows a senior officer to use a pocket phone before a junior officer no matter the urgency of the matter and lack of airtime allocation for junior officers impede communication flow.

4.3.3 Training

All the officers interviewed stated that during their initial training at Kenya police training college Kiganjo the curriculum and the syllabus taught included the following; weapon handling, communication skills, first aid, police procedure, liberal studies, field craft, map-reading and

traffic. The officers also stated that disaster management and counseling is not part of the curriculum. The officers interviewed also stated that the training they undergo while in the field is not adequate to prepare them to handle disasters as they arise since officers are only trained on first aid techniques to enable them compete for police annual first aid competition and not all of them but chosen few. Any other form of training they undergo revolves around criminal investigations. As a police officer who has been in the system, during our training at Kiganjo, there was nothing in the syllabus in relation to disaster management. A repeat look at the syllabus during this study also indicated that disaster management has never been included to date.

The Officers expressed concern of neither adequate relevant training nor sensitization on disaster issues. Most of those interviewed stated that they lack knowhow to operate neither a fire extinguisher nor disaster drills. Lack of adequate manpower has led to lack of coordination skills which could not be the case if there was a rapid response unit that deals with disasters. Due to the lack of such a unit, the police have been forced to add disaster management on their normal duties and this has led to them being overworked. They further stated that they did not have experience in disaster management and therefore approach the scenes of disaster completely ignorant of what is required of them. Most of the respondent indicated that they had never practiced any disaster drills or fire alarms. The majority of the respondents thought of issues of administration and training play significant role in disaster response activities. It is proper that the Police considers working with organizations of volunteer emergency workers who have received specific training in basic disaster response skills, and who agree to supplement existing emergency responders in the event of major disasters Carter, (1992). Disaster management ought to be made an essential component of police function and a specialised unit created for it. It is therefore a tall order for society to expect police to handle disasters which they themselves have no technical knowledge about. Hence they are forced to use trial and error which may escalate damage.

4.3.4 The influence of non experts on disaster management

The respondents mentioned that though politics play some role in disaster management, other issues of culture, ethnicity and religion do not play significant role in disaster response activities. The political interference by influential politicians to micro-manage disaster management at the

scene pose pressure to the police as they are not able to execute their activities well. This situation was earlier envisaged by Brennan and Nandy (2001) who stated that “increasing political, economic and social tensions frequently gave way to nationalism, lawlessness, civil conflict and State collapse. Identifying and targeting certain ethnic or tribal groups as scapegoats for the emerging problems became a common political ploy in many countries”.

The political climate makes it difficult for the police to effectively address disasters for example the interference in established chain of command by influential parties such as politicians and private business owners. Ethnicity is affecting the operation of the police officers in disaster management, the cultural diversity present insurmountable challenge and the religious diversity presents a difficult situation for the police to handle disasters also political involvement had a serious effect. Another challenge is the attitude of the members of the public as they are not sensitized on how to handle disasters thus tend to crowd at the scenes of disaster greatly hindering disaster management work oblivious of the dangers of a secondary disaster. A good example is Sachag’wan Oil Tanker Disaster in January 2009. It requires the force to be highly networked, with other government agencies, private sector and the public. They ought to be professional, skilled/ competent in the field to be able to wield substantial influence. They finally require goodwill, especially be fully supported and identified with (Oxfam, 1998). The influence of non expert people on the police in disaster situations and their inability to resist such influence is largely attributed to their lack of technical knowledge to stand their ground.

4.4 Level of Preparedness of the Police Force in Handling Disasters

In this sub heading, we focused on the way in which the Police Force plans for disaster response, and allocation of required resources such as specialized disasters management equipment. According to UNOCHA (2007) disaster preparedness involve pre-disaster activities that are undertaken within the context of disaster risk management and are based on a sound risk analysis. The preparedness of the police force was examined using the dimension of planning, availability of equipment, availability of skilled personnel and frequent disasters drills such as fire drills, collapsed building drills amongst others. Table 4.5 highlights on level of disaster preparedness by the Police Force.

4.4.1 Planning for Disaster Response

The respondents were asked to note their approval or disapproval of the level of disaster preparedness in the police force. The values ranged from 1 Agree to 3 Disagree. Hence as the mean tends towards 1, the statement is highly accepted and as the mean tends towards 3, the statement is highly disapproved. The Standard Deviation shows how much of a deviation exists in the responses to a particular question. A Standard Deviation nearing zero is an indicator of almost similar responses to the questions and vice versa.

Responses in Table 4.7 show that there was a strong sense of disapproval by the respondents towards statements like: the police force is fully prepared for disaster management; the police force has enough financial resources to cater for disaster management; the police force has enough personnel for disaster management and police force has been strategically positioned for disaster management. This self assessment clearly showed that the police perception of their level of preparedness was low. As indicated in Table 4.7.

Table 4.7 *Level of Disaster preparedness of the Police Force*

Level of preparedness		Agree		Neutral		Disagree	
Statement	N	Freq	%	Freq	%	Freq	%
All disasters take the organization by surprise	90	72	80.0	2	2.2	16	17.0
Police force has been strategically positioned for disaster management	92	28	30.4	24	26.1	40	43.0
The police force lacks a contingency plan for a disaster of great magnitude	94	66	70.2	6	6.4	22	24.0
It takes my organization long before it can respond to any disaster	94	34	36.1	14	14.9	46	49.0
There are too unique crisis that the police cannot prepare for	90	50	55.6	8	8.9	32	35.0
There are unpredictable disasters that the police cannot plan for	90	70	77.8	6	6.7	14	15.0
The training you received at Kiganjo police college prepared you adequately to handle disasters	94	30	31.9	14	14.9	50	53.0
Policemen and policewomen are overworked	96	86	89.6	4	4.2	6	6.3
Police constables are usually taken for refresher courses	96	64	66.6	8	8.3	24	26.0
There is low public confidence towards the police in Nairobi area	92	56	60.9	14	15.2	22	24.0

The respondents mentioned that the training received at Police College at Kiganjo does not include disaster management but instead concentrates on crime and investigation work. A total of 94 Police Officers responded to this statement. Of these 30, (31.9%) agreed with the statement, 14, (14.9%) were undecided, 50, (53.2%) disagreed with the statement. This is a pointer that Police Officers do not feel the training received at Kiganjo equips them enough respond to disasters. Though the Police constables attend refresher courses, they do not feel strategically placed for disaster management.

Police Force has not taken any deliberate steps in planning for disasters. This is evident with 66, (70.2%) of Police Officers feeling that Police force lack a contingency plan for disasters of great magnitude and 50, (55.6%) feeling that there are too unique crisis that the police cannot prepare for. This makes them deal with disasters on an ad-hoc basis. Carter, (1992) states that the police working relationship with organizations carrying out volunteer emergency worker with specific training in basic disaster response skills, and who agree to supplement existing emergency respondents in the event of a major disaster to stress their role and to enhance the trainings support a lot of disaster response activities.

The key respondents (senior officers) concurred with the views expressed by respondents by mentioning that the Officers are ill prepared. Besides that, inadequate personnel at stations makes it even more difficult to mobilize enough officers on time. This is even compounded by the reality that most officers do not live in the stations hence makes their preparedness precarious and timely response very difficult. Most officers lack skills to actively participate in rescue activities. Issues of inferior and inadequate equipment were also raised by officers from NDOC. The senior officers also stated that each station need to have at least four serviceable vehicles to be used by station commanders which need to be properly equipped with all necessary things like first aid kits fire extinguishers a team of paramedics trained nurses and a stand-by ambulances just like city fire service.

Considering that 67% of the respondents stated that it does not take long for police officers to respond to disasters; 52% stated that there is equal sharing of work and responsibility during disasters and 50% stated that there is recognition during disasters, the general organization can be rated at slightly above average. This was supported by senior officers who said that;

“there have been improvements in preparedness because some training have been done though not adequate”.

Issue of resource allocation was at (36%) which is basically below average, in their strategic plan do not allocate any finances to disaster response activities; they instead channeled resources to crime management(Kshs3122.5m), application of modern technologies(Kshs 1,233m), human resource management(Kshs2,031m),institutional framework(Kshs4m), physical facilities and equipment(Kshs35,000m), public-private partnerships and monitoring and evaluation(Kshs109m) (Department of Kenya Police,2008). This implies that while the police force is willing to face any disaster, they’re ill equipped and inadequately facilitated to handle disasters.

4.4.2 Human Resources

Human resource is a serious concern in disaster response considerations. The two police stations under this study reflect serious understaffing as is indicated in Table 4.6. Even the office of Chief Inspector is understaffed. In nearly all the ranks, there is need for more than double of the existing number of staff currently. The United Nations Standards that one Police Officer should be in-charge of 450 civilians is still far from being met (1:450). The situation is worse in Kenya as one Police Officer takes care of 1150 civilians (1:1150). This hinders response activities that have to rely on Police Officers who currently do not meet the UN standards of coverage.

Table 4.8 Human Resources Capacities in the Division

		Chief Inspector	Inspector	Senior Sergeant	Sergeant	Corporal	Constable	TOTAL
DESIRED	CENTRAL	3	16	2	6	16	250	293
	KAMUKUNJI	1	8	4	6	12	200	231
ACTUAL	CENTRAL	1	4	1	3	8	140	157
	KAMUKUNJI	1	3	2	4	6	130	146
DEFICIT	CENTRAL	2	12	1	3	8	110	136
	KAMUKUNJI	0	5	2	2	6	70	85

The additional concern was that most police officers are not adequately trained to deal with disasters effectively and confidently. The Police Officers already trained did say there is need to have regular refresher courses and that training is not enough by itself and needs to be supplemented with the provision of equipment.

Officers who were not trained mentioned that there were some drills that Police cannot do such as fire fighting, there was need for regular basic drills such as evacuation which are suitable to hazards that are found in Nairobi. These they proposed to do jointly with firms such as Fire Brigade, G4S Services and others in related field.

A key informant said;

“there is a response team charged with dealing with disasters. There are adequate vehicles to help get work done”.

It is public knowledge that Police Officers are highly trained to deal with criminals and are not well trained to deal with cases of disasters. Issues surrounding Police Officers’ training and preparedness to handle disasters is thus questionable. All they do at disaster scenes is to control the curious public from moving so close hence affecting rescue activities.

4.4.3 Disasters frequently faced in Nairobi.

The past few years has seen the upsurge of disasters. This has necessitated the need for preparedness in handling these disasters. It is usually important to understand the surrounding to be able to act proactively and in time. It is with this idea that the respondents were asked to state the disasters often experienced in Nairobi. Each respondent was at liberty to mention more than one disaster. A total of 262 responses were received. These responses were collated and presented in Figure 4.3.

Figure 4.3 Disasters often faced in Nairobi

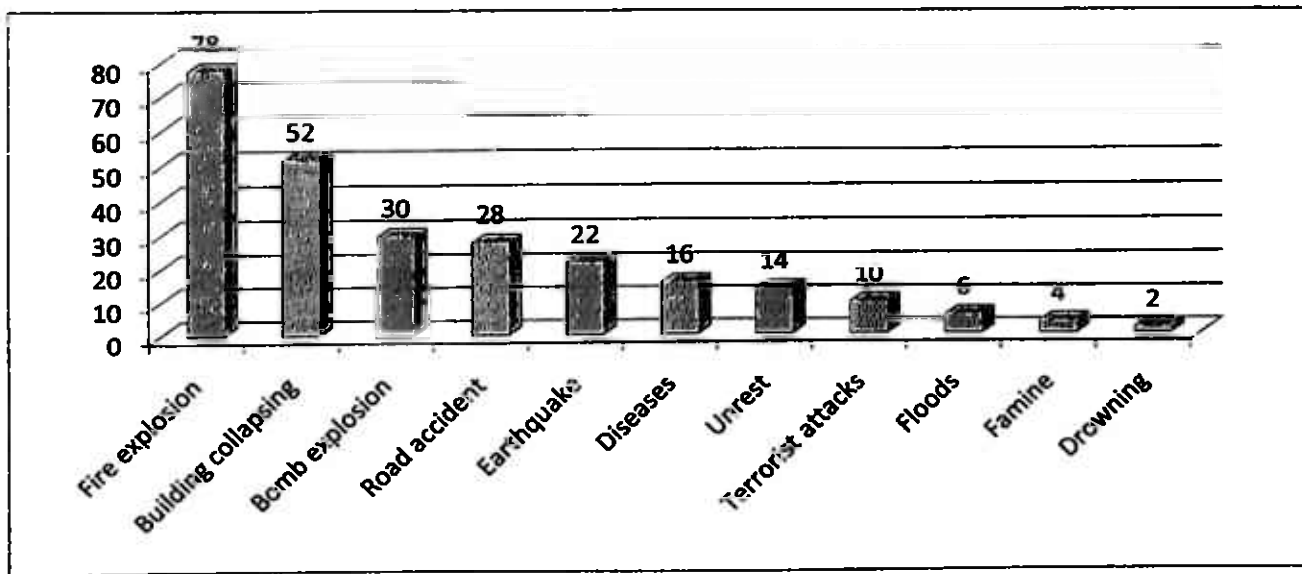


Figure 4.3 presents disasters that the police officers experience commonly in the city of Nairobi. The police officers mentioned fire as the most realized disaster at 78, (30%), followed by collapsing of the buildings at 52, (20%). Explosion (either oil tanker or bomb) was the third highly mentioned at 30, (11.5%). They also mentioned traffic accidents, earthquake, diseases, unrest that included hawkers menace and violence from unlawful groups such as Mungiki, terrorist attacks, floods, famine and drowning. It should be noted that of the disasters mentioned by the police officers, there existed only three natural calamities (earth quakes, diseases and floods) while the rest were manmade. From the figure above most officers stated that fire disasters are most common within the city but from the interview conducted the officers lacked know how to categorize the classification of fire types and the effective extinction agent. Also this was captured during the administration and training part above.

According to Mwangi (1995) fire can be classified as class A involving solid materials like wood, papers and can be extinguished by water applied in jet or spray. Class B petroleum products, extinguishing agents foam, dry powder. Class C involves liquefied gases and can extinguish by dry powder and foam. Class D involves flammable metals such as aluminium, sodium and can be extinguished by dry powder like soda ash, dry sand. Yet most respondents

confirmed that they had scanty knowledge about the fire which puts into question their level of preparedness.

4.5 Perception of Police Performance in Disaster Mitigation.

The perceptions of police officers were solicited by use of several statements that they were to respond to by agreeing or disagreeing. The respondents were asked to note their approval or disapproval by marking from Agree that was assigned a value of 1 to Disagree that was assigned the value of 3. This implies that as the mean tends towards 1, the statement is highly accepted and as the mean tends towards 3, the statement is highly disapproved. The respondents agreed with most of the statements. Table 4.9 gives details of perceptions given by the Police Officers.

Table 4.9 Perceptions of Police performance in disaster mitigation.

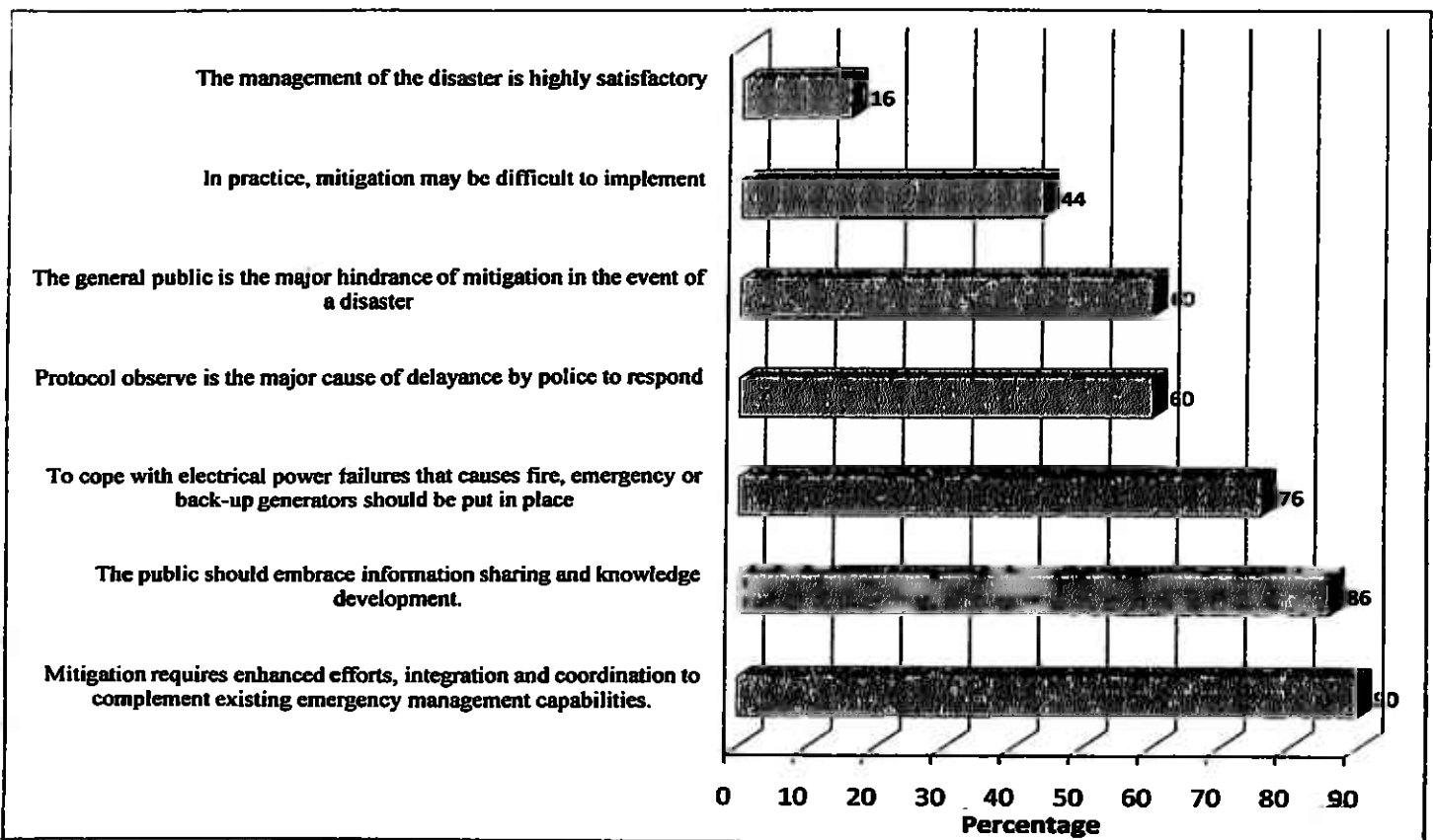
Perception Statement	N	Agree		Neutral		Disagree	
		Freq	%	Freq	%	Freq	%
Determining the location and nature of the potential hazards	86	70	82.0	10	12.0	6	7.3
Characterizing the population and structures that are vulnerable to specific hazards	86	68	79.0	14	16.0	4	4.7
Establishing standards for acceptable levels of risk	80	72	78.0	12	15.0	6	7.5
Adopting mitigation strategies based on an analysis of realistic costs and benefits	84	54	65.0	20	24.0	10	12.4
Incorporating policies aimed at curbing vulnerability	80	64	80.0	12	15.0	4	5.0
Risk reduction through daily decision making	78	62	80.0	8	10.0	8	10.2
Recovery activity to manage disasters when they occur	82	66	81.0	10	12.0	6	7.3
Readily available life saving gadgets e.g life jackets	80	68	85.0	8	10.0	4	5.0

The perceptions that received very strong acknowledgement from the respondents included: readily available life saving gadgets like life jackets that was acknowledged by 68, (85%) of the Police officers who were interviewed; recovery activity to manage disasters when they occur that was acknowledged by 66, (80.5%) of the respondents and incorporating policies aimed at curbing vulnerability that was acknowledged by 64, (80%) of the respondents. This implies that most of the respondents agreed to the statements. Other statements that were agreed to included; determining the location and nature of the potential hazards, characterizing the population and

Structures that are vulnerable to specific hazards, establishing standards for acceptable levels of risk, risk reduction through daily decision making and Adopting mitigation strategies based on an analysis of realistic costs and benefits. The opinions expressed indicated that the Police force believe they are trying their best to prepare to handle disasters. This is because all the perception statements were positively agreed to by the respondents.

An assessment of disaster mitigation in disaster management revealed a lot from the responses. Figure 4.4 shows the perception upheld by Police Officers in areas of mitigation in disaster management.

Figure 4.4 Perception on mitigation in disaster management



A total of 90% of the respondents acknowledged that mitigation required enhanced efforts, integration and coordination to complement existing emergency management capabilities. This was closely followed by 86% of the respondents who acknowledged that the public should embrace information sharing and knowledge development. A total of 76% of the respondents also mentioned that there is need for emergency or back-up generators to cope with electrical

power failures that causes fires among others. Carter, (1992) notes that during the occurrence of a disaster, there is need to adopt an emergency operation centre as a hub. Its system and procedures should be designed in such a way that information can be promptly assessed and relayed to concerned parties. Rapid dissemination contributes to quick response and effective decision making during an emergency. A well rehearsed emergency plan developed as part of the preparedness phase enables efficient coordination of rescue.

4.6 Public perception on police preparedness

In a Focus Group Discussion with members of the public, the participants dwelt so much on lack of relevant equipment for disaster response activities. A participant wondered why a police officer appears at a disaster centre in a full riot gear. To the participants, this was a show of lack of relevant training for both the officer on the ground and his/her superiors. They appreciated that most police work is on security but pressed for the need to change with the changing times. Police activities have diversified and if this force is to remain relevant then there is need for serious training on disaster management.

The respondents also raised concerns on the equipment that the police officers bring to the disaster scene. One member of the public said, "Police are useless, they always come after an incident". The only visible duty that they perform has been to guard the scene and keep anxious crowd a distance. They need to come with rescue equipment to be more useful at the site.

It also emerged that the officers are not friendly to the public. This is also fueled by the general phobia of the public towards police officers another member of the public said "the police always look at us as enemies yet we reach the scene and rescue before they arrive". Their presence thus turns away even resourceful members of the public who would have otherwise given important service another member of the public said "am a trained medics and I feel bad the way police handle accidents victims placing them on land rover rather than ambulances". There is dire need to enhance public-police relations so that both can work together without fear or intimidation.

5.0 CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS.

5.1 Introduction

This chapter focuses on summary, conclusions based on the findings and makes recommendations on ways of improving efficiency in disaster response by the Kenya Police. This chapter also highlights the areas that need further research. The main reason for this study was to understand operational capacity of the Kenya police preparedness during disasters. The guidelines revolved around level of preparedness, challenges faced during disaster response and perception of the Kenya Police towards disasters.

5.2 Summary of the findings.

There were more male Police Officers than the female ones. Majority of these Officers at the division were young with mean age as 33.3 years and standard deviation of 7.1 years. The years of service by the officers is evenly distributed with Officers having served for as minimal as less than five years to those who have served for more than 21 years. Most of the officers (79%) perform general duties.

Inferior, old equipment, inadequate communication tools and inadequate technological appreciation are the major challenges that the police face while involved in disaster response activities. This exposes the officers to high risks.

Administrative and training issues also affect response rate as it takes time to marshal the officers, organize transportation and other equipment required. Financial constraints also play a major role as this dictates the activities to be executed. Irrelevant/inadequate training also makes officers lack the know-how required for efficient execution of duties.

The political interference by influential politicians to micro-manage disaster situations at the scene pose pressure to the police as they are not able to execute their activities well. Poor cooperation of members of the public also hampers rescue activities.

The Police Force is ill prepared to handle disasters in terms of training received during their normal training at their training school. Police Force has not taken any deliberate steps in planning for disasters. This makes them deal with disasters on an ad-hoc basis.

Though the Officers considered administrative issues to slow their response activities, 67% of the respondents consider their response duration to be fast enough. Administration is therefore rated as above average.

Human resource is a serious concern in disaster response considerations. The two police stations under this study reflect serious understaffing. This hinders response activities.

The Police Officers recommended that there is need to have regular refresher courses and that training is not enough by itself and needs to be supplemented with the provision of equipment. They echoed the need for regular basic drills such as evacuation which are suitable to hazards that are found in Nairobi.

Measures taken in disaster mitigation included; readily available life saving gadgets e.g life jackets, recovery activities to manage disasters when they occur and incorporation of policies aimed at curbing vulnerability.

The Police were also able to determine the location and nature of the potential hazards, characterize the population and structures that are vulnerable to specific hazards, establish standards for acceptable levels of risk, put measures to ensure risk reduction through daily decision making and Adopting mitigation strategies based on an analysis of realistic costs and benefits.

The Police Officers underscored the fact that mitigation required enhanced efforts, integration and coordination to complement existing emergency management capabilities. There is no better way of doing this than when the public embraces information sharing and knowledge development.

5.3 Conclusions

According to the study the police preparedness towards disasters remains a challenge as police are working with old and inferior and inadequate equipments. The issue of understaffing and lack of training in disaster management show a lot of laxity in police department. The administrative wise is complex due to the chain of command and it hinder the speed of response as a lot of concern on time taken between reporting and departure of officers to assist during the disasters incidents. The need for integration and coordination to other stakeholders to complement existing emergency management capabilities. Lack of department handling disaster within the police force and also lack financial budgeting for disaster indicates lack of seriousness in preparedness. The study therefore concludes that in light of this apathy towards mitigation of disasters incidents, heavy casualties will continue to be realized due to incidents of disasters which could have been prevented.

5.4 Recommendations.

The study recommends the following;

- There is need to have an experienced command structure to avoid the administrative hiccups that takes too long.
- It is paramount to have chain of command at rescue sites to discourage interest groups from interfering with rescue activities.
- There is need for the government to have substantial resource allocation for disasters management activities and institute disaster management department within the police force.
- The police should establish a standby response team comprising of medics, experts in firefighting, ambulances in all police stations and at least one fire fighting engine in all police divisions instead of relying on the city council and private firms like G4S.
- Curriculum in training and updating, refresher courses.
- Educate public/police on response at disaster site to avoid secondary disasters.

5.5 Areas for further research.

Given that the issues being raised surround efficiency of the Police force, there arises the need to study the Police procedures in performing their duties.

There is also need to understand the reasons behind poor police perceptions and the best ways of addressing them. It would also be of interest to understand Police procurement procedures and priorities in resource allocations.

Further research should be undertaken in other disaster areas to promote mitigation as an economical and efficient strategy. The other calamities that occur in the country include floods, droughts, mudslides and road traffic accidents may be better managed through such policies and enhanced protection measures.

APPENDIX 1: QUESTIONNAIRE

Appendix (2): Questionnaire

Hi, my name is Beethoven Gachago and I am currently a student at University of Nairobi. I am collecting information among police officers from Central Police Division for a research study on Operation Capacity of Kenya police Preparedness during disaster, a case study of Nairobi Area. The main objective of this research is to understand the challenges and preparedness by the police officers during disasters. I am requesting your consent to ask you some questions that will contribute greatly to this study. You have been selected randomly from other officers and the information you will give will be treated with strict confidentiality. The information received will be used only for this study. Please note that this is not a test.

PART I: GENERAL INFORMATION

Kindly all the questions either by ticking in the boxes or writing in the spaces provided.

Department----- Your position in the organization-----

Gender:

1. Male 2. Female

1.2 Age ____

1.3 Number of years employed by police force? (Tick) _

0- 4 years 5-10 years 11-15 years

16-20 years 21 years and above

1.4 Number of years worked in Nairobi Area Province? Please indicate number of years---

1.5 Which police unit do you belong? _____

1.6 What is your police job rank? _____

1.7 What are your daily duties _____

1.8 a) Where do you live? A) Police lines B) own house C) rental/government lease house away from police lines.(please tick).

b) If you live outside the police station, how far is your house from the station?

_____ Km.

1.9 Have you ever experience disaster situation in Nairobi?

Yes No

2.0 What would you say disasters are? _____

2.1 What was your experience of a disaster you are called to assist? Comment on you readiness (tools) _____

2.2 What are likely disasters that you think may occur in Nairobi?.(list)

a) _____

b) _____

c) _____

2.2 Name various resources /equipments that you use during disasters?

a) _____

b) _____

c) _____

2.3 What tools were not available but are useful during a disaster?

a) _____

b) _____

c) _____

2.4 State whether the resources you have named above are readily available at the time they are needed _____

PART II: DISASTER PREPAREDNESS

Please tick the number corresponding to your personal opinion for each statement. Please

State the extent to which you agree or disagree. **Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD).**

STATEMENT	SA	A	N	D	SD
The police force is fully prepared for disaster management					
The police force has enough financial resources to cater for the disaster management					
The police force has enough personnel for the disaster management					
All disasters take the organization by surprise					
The police force has been strategically positioned disaster management					
The police force lacks a contingency plan for a disaster of great magnitude					
The police force cannot immediately Marshal all the resources required for disaster management					
The police force is able to mobilize all the relevant departments for effective disaster management					
It takes my organization long before it can respond to any disaster					

There are too unique crisis that the police cannot prepare for.					
There are unpredictable disasters that the police cannot plan for.					
The training you received at Kiganjo police college prepared you adequately to handle disasters					
Policemen and policewomen are overworked					
In this station we are more officers than needed					
Police constables are usually taken for refresher courses?					
There is lack of recognition during disasters					
There is unequal sharing of work and responsibility during disasters					
There is low public confidence towards the police in Nairobi area					

1. How would you rate police work performance in Nairobi so far?

a) Very poor b) poor c) good d) very good (please tick)

2. Have you ever been trained on disaster drills?

Yes No

If yes which are they _____?

3. Do you feel adequately trained to deal effectively and confidently with disasters?

Comment _____

PART III: CHALLENGES OF OPERATION

Please tick the number corresponding to your personal opinion for each statement

State the extent to which you agree or disagree. **Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD).**

	SA	A	N	D	SD
Disaster management issues are very complex and extremely challenging					
My department usually faces structural challenges during disaster period.					
The political climate makes it difficult for the police to effectively address disasters.					
The infrastructural amenities usually impeded our operations					
Ethnicity is affecting the operation of the police officers in disaster management.					
The general security situation during disasters is unbearable for the police					
The cultural diversity present insurmountable challenge					
The religious diversity presents a difficult situation for the police to handle disasters					
Technological remoteness of some areas makes the work of police difficult					
Most disaster management situation are emotionally challenging for the police staff.					
Police work with too old/outdated equipments					
There is a risk of being injured during disasters					
There is lack of coordination during disasters					

Police lack resource to respond to disasters					
--	--	--	--	--	--

1. What is likely to hinder your department from carrying out a rapid and effective response incase of disasters. Comment

2. How would you maneuver around these hindrances?

**PART V: EXAMINE POLICE PERCEPTION ABOUT DISASTER RESPONSE
(MITIGATION)**

Is disaster mitigation important in disaster preparedness?

Yes No

State the extent to which you agree or disagree. **Strongly Agree (SA), Agree (A), Neutral (A), Disagree (D), Strongly Disagree (SD).**

STATEMENT	SA	A	N	D	SD
Determining the location and nature of the potential hazards					
Characterizing the population and structures that are vulnerable to specific hazards					
Establishing standards for acceptable levels of risk					

Adopting mitigation strategies based on an analysis of realistic costs and benefits.					
Incorporating policies aimed at curbing vulnerability					
Risk reduction through daily decision making					
Recovery activity to manage disasters when they occur					
Readily available life saving gadgets e.g life jackets					

Give your Yes or No opinion on the following statements.

STATEMENT	Yes	No
The general public is the major hindrance of mitigation in the event of a disaster		
Mitigation requires enhanced efforts, integration and coordination to complement existing emergency management capabilities.		
The public should embrace information sharing and knowledge development.		
In practice, mitigation may be difficult to implement		
Protocol observe is the major cause of delayance by police to respond		
to cope with electrical power failures that causes fire, emergency or back-up generators should be put in place		
The management of the disaster is highly satisfactory		

PART VI: WHAT NEW STRATEGIES ARE BEING CONSIDERED BY THE POLICE IN THE FACE OF INCREASING DISASTERS?

Are there any new, updated strategies that the police department has come up with to manage the increasing disaster?

Yes

No

State the extent to which you agree or disagree. **Strongly Agree (SA), Agree (A), Neutral (A), Disagree (D), Strongly Disagree (SD).**

STATEMENT	SA	A	N	D	SD
Identifying the major categories of disasters					
Assess risk and vulnerability of disasters and identifying hazards.					
Budgeting for disasters in the annual budgets					
Re-examine the public safety rules					
Capital Purchases i.e. equipment for emergency response					
Leasing capital equipment, such as emergency communications whose technology evolves quickly					
Create agreements with private sector companies that may be called upon to support your operations					
Understanding capabilities and expectations of support agencies like the Red Cross					
Frequent checks on the safety measures e.g fire exits and extinguishers					

sustained public awareness, training, and education programs					
Working with the media during crisis management and response,					
Gender sensitivity in relief and rehabilitation					
Provision of services to reduce mental health risks for the injured families who lose their loved ones.					
Assessing the pre-impact conditions that produce disaster vulnerability within communities					
Exploring the role of technology in the support of emergency planning, response, recovery, and mitigation efforts.					

PART IV: DEVELOPMENT AND UTILIZATION OF LOCAL NETWORKS

Please tick the number corresponding to your personal opinion for each statement.

State the extent to which you agree or disagree. **Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD).**

STATEMENTS	SA	A	N	D	SD
My department has advanced networks in the most prone disaster sites					
Developing local networks during disaster management is not possible					
The local communities are usually reluctant to collaborate with the police.					
Most disasters bring mistrust making it difficult to network.					
There are few institutions for effective networking					
Networking is not important during the disaster management					
The state of insecurity impede networking					
Other organizations participating in disaster management are not cooperative					
The situation on the ground is usually not conducive for networking					
Networking make the disaster management easier and situation manageable					
The disasters which happens within Nairobi are more complex and sophisticated compared to police equipment					

1. How do you communicate to officers in case of a disaster?

2. What type of communication equipments do you use?

3. How do you communicate with other organization incase of disasters?

4. What problems do encounter when communicating with officers about the disasters?

APPENDIX 2: KEY INFORMANT INTERVIEW GUIDE

Disaster preparedness survey

1. What is the responsibility of your department in general? How prepared is the department in performing the duties you have identified? (probe for disasters related responsibilities/duties and collaboration with other department)

2. What resources are at the disposal of your department? (probe for disasters related equipments, medical facilities, communication gadgets, trained personel, ambulances e.t.c?)

3. Which other individuals/departments are you supposed to collaborate with in case of disasters?

4. How fast do officers assemble to attend disasters scenes?

5. How fast should the police respond to disasters?

6. a. How often should the police attend refresher courses?

b. If yes during the refresher course are the officers exposed to disaster training?

Comment: _____

7. What new topics should be introduced at the Kenya police college in dealing with disasters

8. Does your organization have a unit which deal with disasters? YES or NO (please tick)

a) If yes above what type of skills do the officers have?

b If no what plans does your organization have to deal with escalating disasters?

c. If they have plans what topic would they propose?

9. a. Is disaster management part of training?

Yes

No

b. What are they trained in? Comment

c. Are they giving tools when they go to the field?

10. Please mention problems that your organization faces during disasters and possible solutions?

11. What recommendations would you suggest towards improving your department in response to disasters?

Thank you for taking your time to complete the questionnaire

APPENDIX 3: FOCUS GROUP DISCUSSION INTERVIEW GUIDE

Hi, my name is Beethoven Gachago and I am currently a student at University of Nairobi. I am collecting information among police officers from Central Police Division for a research study on Operation Capacity of Kenya police Preparedness during disaster, a case study of Nairobi Area. The main objective of this research is to understand the challenges and preparedness by the police officers during disasters. The information received will be used for this study purpose only.

1. What do you understand by disaster preparedness?
2. What role do the public play in disaster response?
3. Is there anything else that can be done to improve public participation in disaster activities given that they are usually the first to reach disaster sites?
4. What is your perception of police participation in disaster response activities?
5. How do you judge the public police relations?
6. Do you think this relation plays a role in joint activities like helping in disaster site?
7. In-case of poor relations, what should be done to enhance the relations?

Thank You

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