

**HUMANITARIAN RESPONSE: AN INVESTIGATION OF THE CITY OF
EKURHULENI'S STRATEGIES IN RESOLVING RESPONSE CHALLENGES**

By

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Declaration of originality

I, Tshepo Innocent Makua, hereby declare that this dissertation, submitted for the fulfilment of a Master's Degree in Disaster Management at the University of the Free State, is my original work and independent investigation and has not been previously submitted in its entirety or part by me or any other person to this University or any other institution of higher education for the awarding of any qualification. All the sources that I have used or quoted have been indicated or acknowledged by complete references.

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Dedication

This study is dedicated to my beloved parents, Lydia Mogale Makua and late France Tladiamotse Makua, whose affection, love, patience and encouragement enabled me to come this far. *Mma*, I cannot give you life as you gave it to me but I hope this will make life worth living and contribute to your jubilation and feeling of deep satisfaction.

Abstract

Disasters are physical events or human activities that may lead to loss of lives or injuries, damage to properties and disruptions to the economic and social environment. However, the effects of disasters can be reduced through disaster response and effective humanitarian response strategies. This study examines the barriers the City of Ekurhuleni disaster practitioners encounter during humanitarian response operations, as well as the strategies employed to resolve the challenges and propose recommendations for ensuring efficient response in disaster relief operations.

Face-to-face interviews were used to obtain data from the City of Ekurhuleni disaster practitioners. The study revealed several challenges affecting the humanitarian response operations in the City of Ekurhuleni. The major challenges associated with disaster relief operations are insufficient resources, corruption, political interference, community unrest and lack of coordination among humanitarian agencies. Strategies for efficient humanitarian response operations should include public awareness campaigns, community capacity building, proper coordination among stakeholders and strengthening the humanitarian response plans with appropriate and corresponding details of how to manage the challenges.

Keywords

Disasters, disaster response, disaster relief operations, and humanitarian response challenges

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Acronyms

CoE - City of Ekurhuleni

CI - Critical Infrastructure

DEMS - Disaster and Emergency Management Services

DMA - Disaster Management Act

GOs - Governmental Organisations

IFRC - International Federation of Red Cross and Red Crescent

UNISDR - United Nations International Strategy for Disaster Reduction

UNOCHA - United Nations for Disaster Risk Reduction

NDMF - National Disaster Management Framework

NGOs - Non-Governmental Organisations

KPAs - Key Performance Areas

CHAPTER 1: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

Worldwide, there has been an increase in the number of people affected by disasters. Disasters are physical events or human activities that may lead to loss of lives or injuries, damage to properties and disruptions to the economic and social environment. They also lead to environmental degradation (Western Cape Government, 2015). Between the years 1996 and 2015, about 7 056 disasters were recorded worldwide by the Emergency Event Database (EM-DAT) and United Nations secretariat of the International Strategy for Disaster Reduction (UNISDR, 2015). Almost 81.7 million people have been affected by different types of disasters with varying magnitudes (geophysical and weather-related) and above 1.3 million people have lost their lives to disasters globally (Centre for Research on the Epidemiology of Disasters (CRED), 2018). According to EM-DAT records, globally there were about 357 000 deaths between the years 2006 and 2015 (UNISDR, 2015). Ritchie (2014), states that, on average 60 000 people around the world, die yearly due to disasters.

This shows the need to design and implement humanitarian response that minimises the impacts of these events. *Humanitarian response* refers to the provision of immediate and short-term needs such as food, non-food items and first aid materials as a form of assistance to those who are affected by a disastrous event, to maintain life, improve health, and boost the morale of the victims (Todd and Todd, 2011; Al-Dahash, Thayaparan and Kulatunga, 2016). Globally, Governmental Organisations (GOs), in general, carry out this operation, in collaboration with Non-Governmental Organisations (NGOs) such as the Red Cross/Red Crescent and private sectors (Cheema, Mehmood and Imran, 2016). Yet, these organisations face many challenges regarding humanitarian response around the world. The literature review chapter discusses in more detail the challenges encountered by humanitarian workers during humanitarian relief response operations.

According to Davis (2002), humanitarian response is politicised or hijacked by politician's interest around the world, which is contrary to the humanitarian team's interest. Humanitarian aid is based on the principle of need alone while politician's

interest is to elevate support base and popularity. Ferris (2008) concurs by stating that the United States (US) is a good example of how politicians view humanitarian aid. For the US, humanitarian response is an opportunity to pursue its political objectives or a war on terror. Despite this, humanitarian response organisations must remain devoted to assisting communities and reducing the effects of disasters.

With this in mind, it is the objective of this study to investigate challenges and the strategies implemented in resolving problems faced by the City of Ekurhuleni (CoE) disaster managers during the humanitarian response operations within their boundaries. Therefore, this chapter gave a description of the study area; the research context, which is the background of the study, the problem statement of the research, research questions and objectives to clarify the aims of the research and the rationale for the study. To help answer the afore-mentioned, the researcher described the research theory and research design and methodology. In conclusion, the researcher provided an outline of the entire study.

1.2 Study area

Figure 1.1 below shows the map of the City of Ekurhuleni boundaries, wetlands, catchment boundaries, national roads, canals and industrial dams, main roads, and railways.

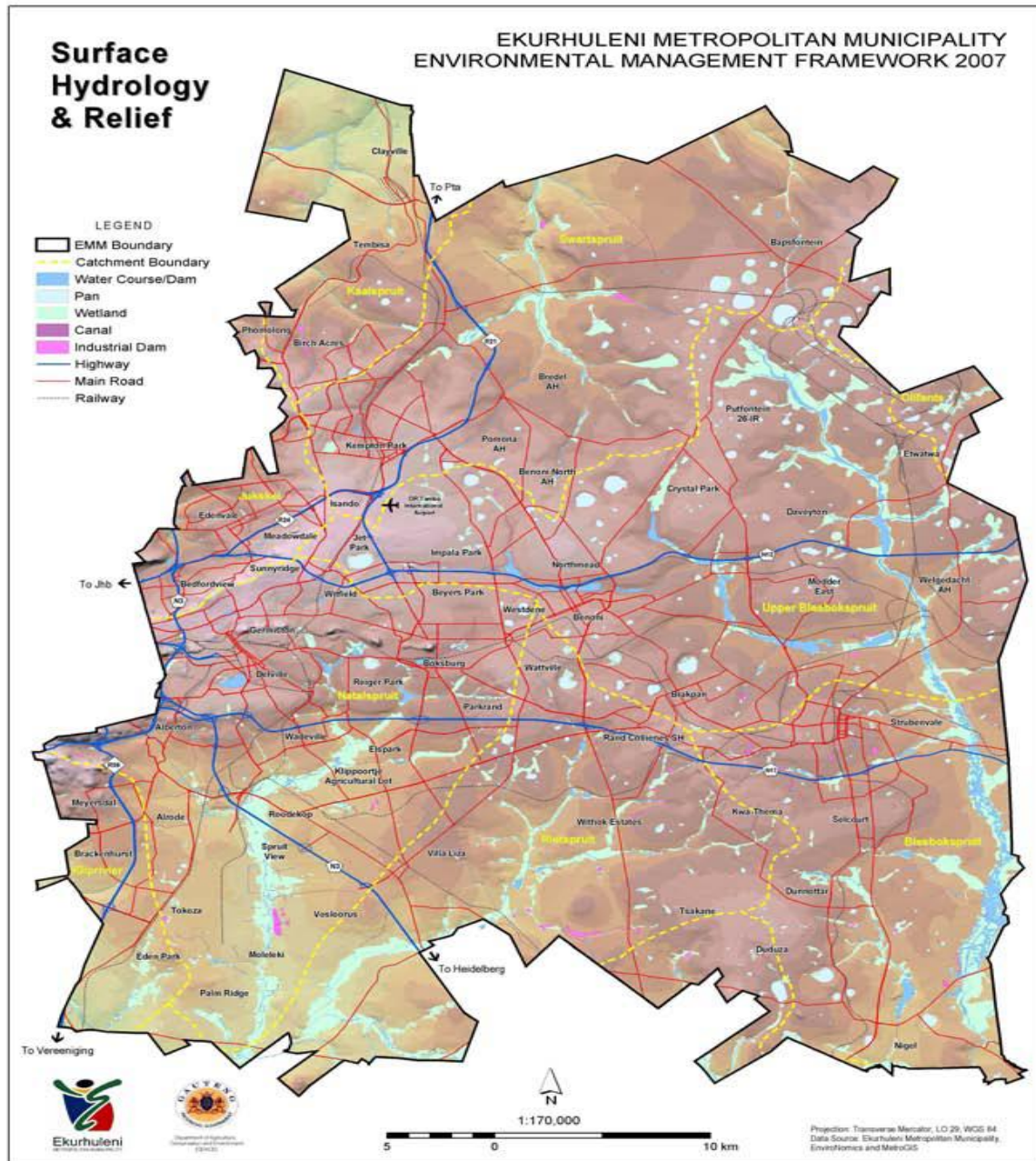


Figure 1.1: City of Ekurhuleni jurisdiction
Source: City of Ekurhuleni Biodiversity Report (2008:11)

The City of Ekurhuleni is a metropolitan municipality that forms the local government of the East Rand region of Gauteng, South Africa. The City comprises three regions, which are Eastern, Southern, and Northern regions, and is home to more than 3.3 million people. According to the Ekurhuleni Institute of Higher Learning *Situational Analysis Report* (2017), the City's population comprises 6 percent of the national population and 24 percent of the population of Gauteng. Currently, the City is facing

challenges in housing backlog, land invasion and in-migration, which has led to densification and growth in settlements (IDP, BUDGET & SDBIP, 2014/15-2016/17). The Metro is struggling to clear the housing backlog and the reform of the informal settlements due to population growth and in-migration (IDP, BUDGET & SDBIP, 2014/15-2016/17). Marutlulle (2017), states that the CoE has a housing backlog comprising 134 000 shacks in 122 informal settlements and 360 000 backyard shacks of which 80 percent of the 122 informal settlements have not been upgraded.

The City is famous for its infrastructure, an excellent transport network (airport and rail lines), telecommunication and energy grid. Its infrastructure rivals those in Europe and America. The transportation (O.R Tambo International Airport and Germiston railway) hubs connect the City to major population centres and ports in the Southern African region and the rest of the world (IDP, BUDGET & SDBIP, 2014/15-2016/17; Marutlulle, 2017). Population concentration and major infrastructure makes the CoE vulnerable to the impacts of climate change and environmental degradation. Furthermore, the City falls within the summer rainfall region of South Africa, which makes the land conducive for commercial farming. Unfortunately, it also makes the City's vulnerable to torrential rainfall and thunderstorms, which account for major flooding events (Tyson and Preston-Whyte, 2000 cited in Ekurhuleni Metropolitan Municipality, 2015).

The City of Ekurhuleni disaster management centre is part of the Disaster and Emergency Management Services (DEMS), which is one of the 26 departments of the Metropolitan Municipality. One Head of Department (HoD) leads the DEMS department and he is in charge of Disaster Management Services, Emergency Medical Services, Support Services and Governance Compliance Services. The HOD acts as both Fire Chief and Head of the Disaster Management Centre.

The HOD delegates responsibility to head of divisions in the department including the disaster management centre to carry some of his functions. The disaster management centre has emergency call taking centres and three-dispatch centres spread per each region. The following organisational chart illustrates the structure of the CoE disaster management centre and its chain of command.

Illustration Chart

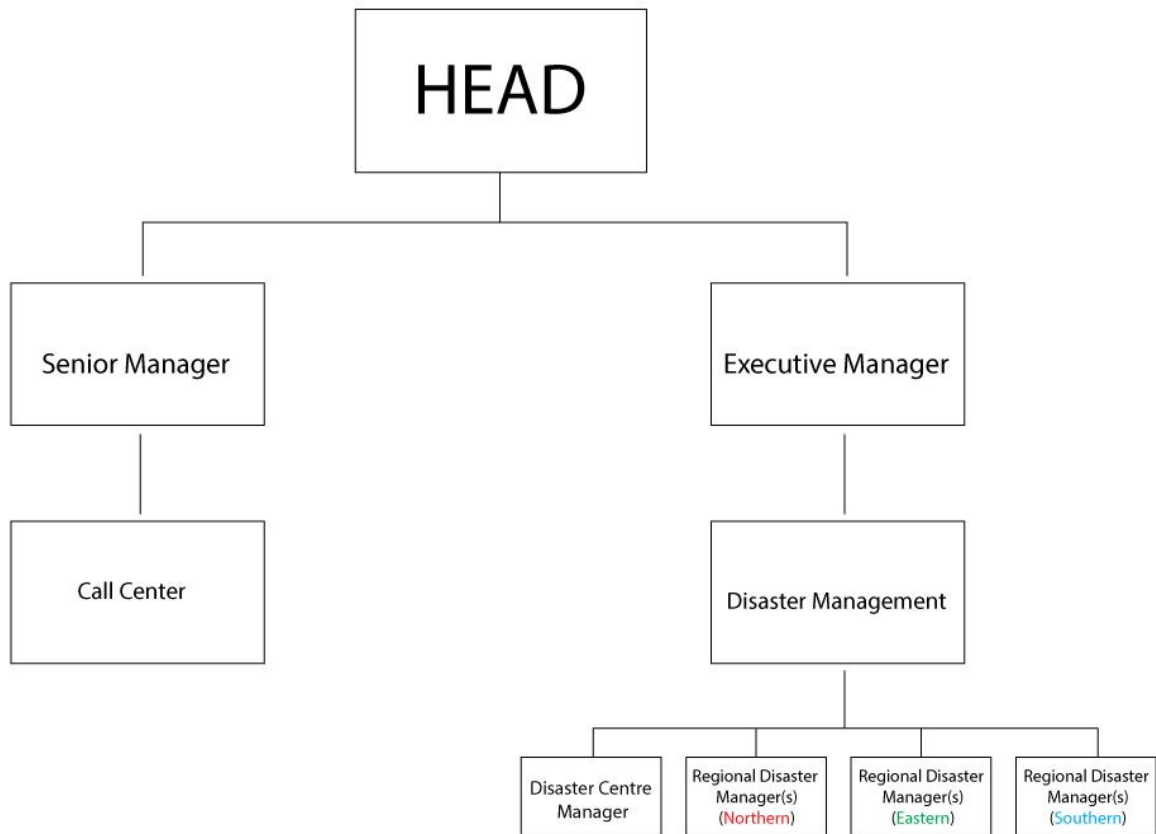


Figure 1.2: An illustration chart of CoE disaster management structure.

According to a senior disaster manager in the CoE disaster management centre, the call centre operates 24 hours a day and is manned by 56 call centre agents. On the chart at the bottom right corner, the first block is the disaster centre manager and there are two disaster centre managers in the centre - one responsible for major disasters while the other is responsible for safety matters. The dispatching centres also operate 24 hours a day. The second block (regional, Northern) – is said to be manned by 36 call dispatchers divided into 4 shifts and 4 disaster managers. The third block (regional, Eastern) – is manned by 35 call dispatchers divided into 4 shifts

and 4 disaster managers while the fourth block (regional, Southern) – is manned by 36 call dispatchers divided into 4 shifts and 3 disaster managers. This brings the number of disaster managers in the City of Ekurhuleni disaster management centre to 15 including the executive manager and the head of the centre. Forty-seven disaster managers are required in the centre, which means that there are 32 disaster managers' vacant posts in the CoE disaster management centre. In short the centre runs on one-third (1/3) of staff (disaster managers).

1.3 Background

Disaster management teams reach to the survivors of disaster by provide emotional and physical assistance. At times, the teams have to deal with dangerous and demanding situations during disaster events including other challenging matters (Substance Abuse and Mental Health Services Administration (SAMHSA, 2018). A single disaster event can overstretch humanitarian aid and workers beyond their capacity such as the current crises, the pandemic (COVID-19) which is causing havoc across South Africa and the rest of the world.

The South Africa's Disaster Management Act (DMA), No. 57 of 2002 (as amended by Disaster Management Amendment Act, No. 16 of 2015) states that Municipalities (Metropolitan and District) are mandated to manage a local disaster within their jurisdiction. According to the Disaster Management Act (DMA) (Republic of South Africa, 2002), Following a disaster, municipalities are expected to do the following:

- Release any available resources of the municipality, including stores, equipment, vehicles, and facilities to assist and protect its populace;
- Implement a municipal disaster management plan that is applicable in the circumstances to prevent or combat disruptions and other effects of the disaster;
- Evacuate people who are severely affected by the event to temporary shelters to prevent an escalation of the disaster;
- Regulate the movement of people and relief goods to, from, or within the disaster area; and
- Provide and control the use of temporary emergency accommodation.shelter

The South African National Disaster Management Framework (NDMF) of (2005), Key Performance Area (KPA) 4, states that in the case of a disaster, a response management system must be implemented to ensure the effective utilisation of the resources, procedures and facilities to maximise response. When difficulties arise during response operations, people, households and communities who are supposed to benefit from the aid might not receive the much-needed help.

There have been studies' regarding challenges encountered during this critical phase of disaster management. In their studies, AL-Dahash, Thayaparan, and Kulatunga (2016) found that several respondents criticised humanitarian response for being weak and time-consuming. Srivastava (2010) argues that the community benefits most if the assistance is concrete, explicit and direct as it enables them to attain basic needs they have lost due to the disaster.

However, the City of Ekurhuleni disaster managers experience challenges when carrying out their duties. The problems include accessibility of some areas due to improper structuring mostly in informal settlements or roads that are not passable. AL-Dahash, Thayaparan, and Kulatunga (2016) wrote that informal traders such as fruits and vegetables, scrap yards, and other business who operate on the side of the road and prohibited areas are the cause of impassable roads in some incidences. Market stalls on the side of already narrowed and unpaved or unlevelled streets delay humanitarian assistance to reach victims on time and exacerbates survivor's vulnerability (Baidoo, 2018). Like any residents, CoE residents are entitled to assistance (physical, mental and emotional) during disaster events regardless of their status. However, the challenges disaster managers encounter while providing the much-needed help during disaster events affect the city's residents negatively.

Local officials such as religious leaders and councillors or local actors such as Community Based Organisations (CBOs) with limited knowledge in humanitarian actions interfere with the humanitarian response (AL-Dahash, Thayaparan, and Kulatunga, 2016; Marcos and Thieux, 2019). Tipper (2016) reviewed some of the challenges encountered during humanitarian response operations. Corrupt officials are a challenge. For example, the agitators want humanitarian assets and the relief goods for their use, or sometimes they would try to prevent the distribution of relief goods by threatening humanitarian responders (Tipper, 2016).

In some cases, affected communities expectations were higher than their immediate needs (food, temporary shelter, medical assistance including temporary solutions such as a tarpaulin over a hole on a roof) creating tension between them and the CoE disaster managers (Marcos and Thieux, 2019). In 2016, Makause informal settlement, Boksburg, experienced the displacement of 105 people when parts of the CoE (Edenvale, Benoni and Boksburg) were flooded by torrential rain. During the response activities by CoE disaster managers the Mayoral spokesperson was interviewed by Germiston City News to report on the progress and challenges they were encountering. On the 15th of November 2016, the paper reported that according to the Mayoral spokesperson some of the challenges identified included, *“the victims refusing temporary accommodation in fear of losing their belongings which remained trapped in their structures”* (Germiston City News, 2016). This and other challenges create a barrier between the City’s populace and its disaster managers when discharging their responsibilities.

The DMA of South Africa states that the municipal disaster management centre should prepare a plan setting out expected climate change impacts and risks for the municipality. The NDMF expects municipalities to improve, review and update their response plans annually, yet, the policy and legislation does not discuss anything or provide any guidance on how to deal with humanitarian response challenges. Considering the importance of humanitarian response, it is also important to investigate strategies to deal with the afore-mentioned challenges to provide recommendations that can ensure a more efficient and effective humanitarian response. Thus, this study seeks to investigate the challenges encountered during relief operations and strategies implemented by the CoE in resolving the challenges encountered during the operation (humanitarian response) in their jurisdiction.

1.4 Problem statement

Efficient and effective humanitarian response leads to a positive outcome when a disaster occurs (Srivastava, 2010). However, in most cases, CoE disaster managers face challenges during humanitarian operations. Challenges that arise during this critical stage are likely to derail the response management system causing those affected by the event not to benefit from the response by receiving the much-needed assistance. There is no provision of a detailed plan in the case of the CoE for dealing with the challenges encountered when carrying out their duties. This leads to the

need to identify challenges experienced by CoE disaster managers during humanitarian operations and how they are addressed. Such an investigation will help the researcher to present recommendations that contribute to efficient and effective humanitarian response.

The researcher's background as an emergency care practitioner and fire fighter played a role in the decision to conduct research to find solutions to the challenges faced during disaster response in the CoE. CoE residents have been at the receiving end of calamities such as tornadoes, floods and shack fires for a long time.

1.5 Research questions

The research project is underpinned by the following question:

Could a humanitarian response plan effectively be used as a tool for addressing disaster response challenges faced by disaster managers in the City of Ekurhuleni?

The following sub-research questions are to guide the researcher to answer the research question:

- i.) What response challenges do City of Ekurhuleni disaster managers' encounter when responding to disaster incidents?
- ii.) Does the City of Ekurhuleni disaster management center have a humanitarian response plan to address the challenges?
- iii.) Does the South African disaster management legislation and policy prescribe guidelines on addressing humanitarian response challenges?
- iv.) What are the recommendations for addressing the challenges encountered by the City of Ekurhuleni disaster managers' when responding to disaster incidents?

1.6 Objectives of the study

The study has primary and secondary objectives.

1.6.1 Primary objective

The primary objective is twofold, the study intends to investigate the challenges CoE managers experience during a humanitarian response as well as assess the strategies they implement to resolve the challenges.

1.6.2 Secondary objectives

To address the primary objective, the following secondary objectives were formulated:

- i.) To examine the response challenges encountered by CoE disaster managers when responding to catastrophes;
- ii.) To evaluate the humanitarian response plan used to address the challenges faced by the City of Ekurhuleni disaster management centre
- iii.) To evaluate South African disaster management legislation and policy regarding humanitarian response challenges; and
- iv.) To suggest recommendations for addressing the challenges encountered by the City of Ekurhuleni disaster managers' based on the research findings.

1.7 Research design and methodology

This section briefly outlines the research design and methodology used in the study, and is discussed fully in Chapter 5. Information on population and sample would not be included in the research design and methodology. According to Zickmund (2015), a research design is a plan of action used to approach a research problem. The research design highlights the appropriate data collection methods among other things. It provides the overall strategy used to collect and analyse data, thereby ensuring the researcher will effectively address the research problem. The research design constitutes the blueprint for the collection, measurement, and analysis of data (Yin, 2014). It plays an important role in outlining the methods used in gathering data, the tools and their administration.

According to Merriam-Webster (2020), methodology refers to *“a set of methods, rules, or ideas”*, employed by a discipline which encompasses concepts such as a paradigm. While Kivunja & Kuyini (2017) defines paradigm as, *“the conceptual lens through which the researcher examines the methodological aspects of their research project to determine the research methods that will be used and how the data will be analysed”*. Goundar (2012) argues that research methodology is a method or procedure used by researchers to *“describe, explain and predict phenomena”*.

1.7.1 Research design approach

The qualitative approach was chosen to explore the challenges experienced by CoE disaster managers and the strategies implemented to resolve the challenges. The

approach focuses on increasing the depth of understanding of a phenomenon or developing new and refining existing models (Creswell, 2013). Bhandari (2020) further argues that this method involves gathering and analysing non-numerical data to understand concepts, opinions, or experiences. Hammarberg, Kirkman and de Lacey (2016) argue that qualitative research techniques can be used to *“investigate beliefs, attitudes and concepts of normative behavior”*.

1.7.2 Target population

Lawson (2015) defines a target population as the entire set of people who have information needed to understand the research problem. The target population in this study constituted all disaster managers in the CoE disaster management centre including the head of the centre. Disaster managers and the head of the centre were targeted because they had the required in-depth knowledge of the subject matter. Due to the size of the target population, phenomenological approach is uniquely positioned to support this inquiry. According to Moser & Korstjens (2018), fewer than 10 participants are adequate in phenomenological studies to explore the challenges experienced. Therefore, the CoE disaster management centre is deemed to have sufficient disaster managers to address the research question at hand.

1.7.3 Data collection tools

Data collection is viewed by Kabir (2016) as a *“process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions”*. Therefore, the study utilised *face-to-face interview* as presented by Trigueros, Juan, and Sandoval (2017) to gather information. The procedure gave the researcher the opportunity to conduct intensive interviews with individuals to explore their experiences and their way of interpreting the problem (Boyce & Neale, 2006). Strict Covid-19 preventative measures such as wearing of a face mask; physical distancing and sanitising of hands were adhered to while conducting the interviews. In some instance Zoom technology was used to access managers working from home.

1.7.4 Data analysis

Durcevic (2020) alludes to data analysis as a *“process that relies on methods and techniques to taking raw data, mining for insights that are relevant to the business’s primary goals”*. In short, it is the summary of the collected data. Thematic analysis method was utilised to minimise the volume of texts collected. According to Caulfield

(2019), this method is applied to a set of texts, such as interview transcripts to identify common themes – topics, ideas and patterns. It involves reading and reviewing all data collected to code, group, and relate different ideas (O'Connor & Gibson, 2003). Chapter five of this study elaborates more on data analysis.

1.7.5 Reliability and validity

According to Anderson (2010), the findings are said to be reliable if they can be reproduced, while validity is the extent to which the findings are an accurate representation of the phenomena they are intended to represent. Leung (2015) refers to validity in research as the appropriateness of the tools, process and data, while reliability refers to the consistency of employed analytical procedures (Noble & Smith, 2015). As the study used an interview method to gather the data, the questions were tested for content validity by conducting a pre-test before the interviews to evaluate whether the questions effectively capture the topic under investigation.

During data analysis, the researcher ensured that contradictory evidence was examined to manage researcher's bias. Secondary data from the CoE disaster management centre reports was reviewed to examine past challenges faced during humanitarian response activities.

1.8 Conceptual framework

A conceptual framework is used to underpin the study. According to Adom, Hussein, and Adu-Agyem (2018), a conceptual framework is a *“structure which the researcher believes can best explain the natural progression of the phenomenon to be studied”*. The responsibility of disaster managers among others is lending a hand to those severely affected by disasters. In the event of a disaster, all stakeholders involved in disaster management act to assist those who are negatively affected by the event.

Disaster management organisations are expected to make proper preparations to ensure that the severe effects of a disaster are effectively reduced (Ferry, 2017; International Federation of Red Cross and Red Crescent (IFRC, 2018). The disaster management cycle illustrates the ongoing process by which these stakeholders ensure that communities prepare for, react during, mitigate and recover after a disaster event. The view of the researcher is that without a strong disaster response plan in place, obstacles will hamper the humanitarian response operation. Therefore,

effective disaster management is dependent on a good disaster response plan and availability of resources. Chapter 2 will provide more background and discussions around the 'response' concept.

1.9 Ethical clearance

The researcher ensured that the participants' right to privacy was observed during the data collection process (Babbie & Mouton, 2004). Confidential records such as company, personal records and communications records were protected (Resnik, 2015). A research information leaflet was provided for participants and both the researcher and participants signed the consent form before interviews. The results of the research and new ideas were shared with the participants and it will be available to the public when Ekurhuleni internal newspaper to publish them. Furthermore, the researcher ensured that data is not fabricated or misrepresented.

1.10 Delimitation of the study

The study focused on the challenges faced by CoE disaster managers during humanitarian response operations. Therefore, this study confines itself to interviewing CoE disaster managers concerning humanitarian response operations in their jurisdiction only. The research participants were taken from the CoE disaster management centre.

The reason is to improve the standard of the CoE humanitarian response plan by revealing findings and recommendations derived from the research.

1.11 Limitations of the study

- *Implementation of the data collection method* – due to the researcher's lack of experience in primary data collection, there was a chance that the nature of the implementation of the data collection method may be flawed. However, the application of validity and reliability mechanisms resolved this limitation.
- *Discussion and interpretation* –to counter the researcher's lack of experience in conducting and producing research papers, discussions and interpretation in this study were compared to the works of experienced researchers'.
- *Contradictory evidence* – Researcher bias and participants being aware that their work is under study might lead to the collection of superficial information and bending the information to present a positive image of the center.

However, in-depth semi-structured interview and probe questioning resolved this limitation.

1.12 Defition of terms

The following key terms in the study are given operational definitions to make issues clearer and to allow the reader to make sense of what is presented.

1.12.1 Disaster manager/practitioner

Disaster manager/practitioner is a person who is entrusted with the responsibilities of plainning, preparing for, responding to, and come up with procedures to coordinate relevant organs of state to manage disasters. They also conduct training exercises to ensure that communities are ready for any possible disaster.

1.12.2 Humanitarian worker

Humanitarian worker (also known as aid worker) refers to individuals who operate in front-line conditions during disaster. The work include assessing the damage caused by the disaster, distributing aid materials, and managing the overall disaster activities and monitoring their effectiveness.

1.12.3 Relief worker

Relief worker develop and refine disaster response plans, coordinate logistics for carring out response plans. They evacuate people who are severly affected by the disaster to safe shelters, and ensures that affected people get their immediate needs such as food, medicine, and other suppliers.

1.12.4 Disaster

The Disaster Management Act (DMA) (Republic of South Africa, 2002) characterises a disaster as a 'progressive or sudden, widespread or localised' event, which can be caused by nature or man, which exceeds the coping capacity of individuals and communities using their own resources. A disaster causes or threatens to damage the environment, infrastructure, property, death and injuries and has potential to disrupt the life of a society

1.12.5 Disaster Response

Disaster response is the immediate phase following a disaster event in the disaster management cycle. The aim of the disaster response is to provide immediate

assistance to maintain life, improve health and support the morale of those severely affected by the disaster.

1.12.6 Disaster Relief

Disaster relief are the process of responding to a disaster event, providing immediate aid such as food and shelter to badly affected people. It involves supporting and rebuilding communities after a disaster has occurred.

1.13 Chapter outline

The study was divided into seven chapters and each chapter tackled a section of the study being undertaken. Chapter 1 introduced the layout of the research report and gave detailed information on how the research project was conducted to achieve the aim and objectives of the project. Chapter 2 introduces the relevant conceptual framework and gives a critical analysis of the response phase and rapid assessment. International and national legislation is reviewed in Chapter 3. Scholarly articles and research documents are unpacked in Chapter 4. The processes used to collect data for the study; data analysis and interpretation of the results are discussed in Chapter 5. The results, discussion and interpretation of findings are presented in Chapter 6. Chapter 7 presents the conclusions and recommendations derived from Chapter 6.

1.14 Conclusion

This chapter outlined the summary of the thesis by highlighting some of the challenges encountered by the CoE disaster managers during disaster relief operations in their jurisdictions. The chapter described the study area in terms of population and infrastructure vulnerability and it briefly reflected on the challenges that the researcher might face when collecting and analysing data.

The research design and methodology of the study was also discussed briefly as well as the instrument to be used in collecting data and the research ethics. In Chapter 2, the emphasis is on the conceptual framework.

CHAPTER 2: CONCEPTUAL FRAMEWORK

2.1 Introduction

To understand the nature of human related and natural catastrophes, multiple bodies of knowledge that belong to different disciplines are required (Jabareen, 2009). A multidisciplinary approach is required to respond to such events, as the events demand resources and capabilities of individuals, groups and communities to ensure an effective response. Worldwide, the disaster management cycle has become a crucial instrument in a bid to avoid or reduce disaster impacts (Coetzee & Van Niekerk, 2012).

According to Tamene (2016), a conceptual framework is an important element of disciplined inquiry. Plakhotnik (2009) argues that the main aim of a conceptual framework is to describe concepts applicable to the phenomena. A conceptual framework is a concept that is already out there (Tamene, 2016). Therefore, disaster management cycle is the structure or concept that can best help to understand disaster response. The disaster management cycle can help disaster managers to develop and decide on strategies and specific tactics to combat challenges encountered during disaster risk reduction and response. For example, disaster management is a sequential and continuous process of planning, hence, the word 'cycle' and disaster response plan is among the important elements to be considered at all stages during disaster management (Vijayan, Iyer and Mastorakis, 2006).

This chapter explores the disaster management cycle together with its advantages and disadvantages to understand what disaster response entails.

2.2 Disaster management cycle

The disaster management cycle is the most relevant conceptual framework to help achieve the study's objective of identifying remedies for challenges encountered during humanitarian response operations. Asghar, Alahakoon and Churilov (2006), highlight four main reasons why the disaster management cycle can be useful:

- It simplifies complex events and is useful when responding to disasters with time constraints.
- It quantifies disaster events.

- It allows active coordination and collaboration during relief and recovery efforts.
- It facilitates the planning process and the comprehensive completion of disaster management plans.

The reasons listed above are key activities, programmes and measures to put in place before, during and after the disaster event to reduce the impacts of the event on the populace. According to Sithole (2014), disaster management incorporates all parts of the arrangement before a disaster (pre-disaster), during a disaster (occurrence of disaster), and after a disaster (post-disaster). It involves multiple processes of active coordination and collaboration between Governmental Organisations (GOs), Non-Governmental Organisations (NGOs), private sectors, and communities (Cheema, Mehmood and Imran, 2016).

According to Coetzee & Van Niekerk (2012), there are various disaster management cycles that are used to manage disasters, some cycles comprise of six, five, or four stages while others comprise of two over-arching phases. What is common about the cycles is that they are divided into activities before, during and after a disaster. Figure 2.1 below shows the ongoing process of six stages of the disaster management cycle by which GOs, NGOs, private sectors and communities plan for and react to the catastrophes. These include policies, guiding procedures and arrangements to reduce the effects of catastrophes before, during and after the event (AL-Dahash, Thayaparan and Kulatunga, 2016; Cheema, Mehmood and Imran, 2016).

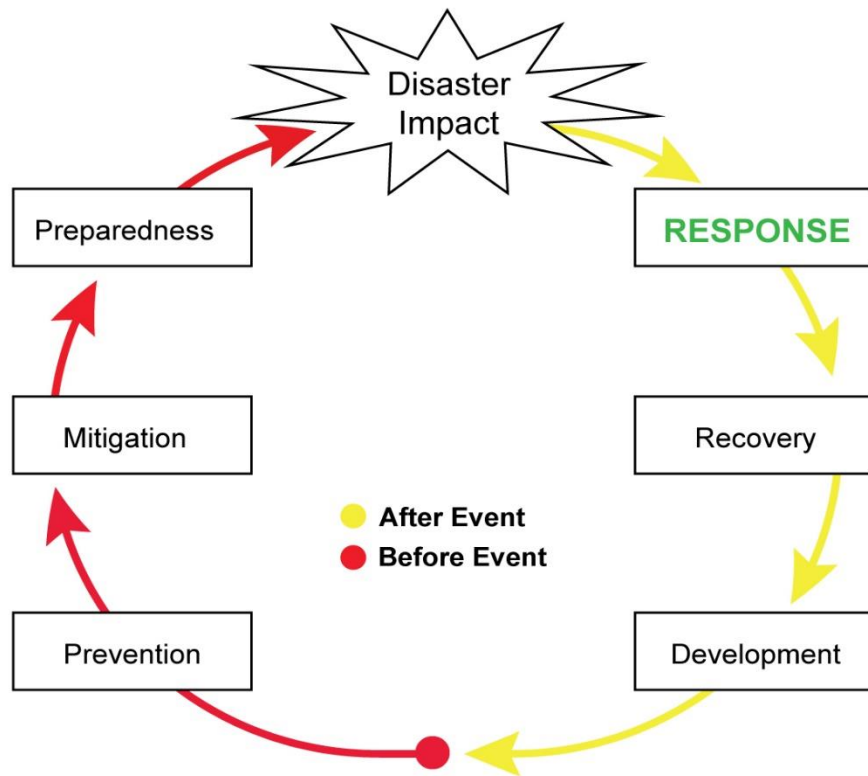


Figure 2.1 Phases of disaster management

Source: Modified from Phillips (2009)

According to Drabek (2004), disaster managers can implement strategies and specific tactics through functions such as response, recovery, development, prevention, mitigation and preparedness for every hazard.

2.2.1 Phases of the Disaster Management Cycle

The stages of the disaster management cycle are discussed briefly in the next section.

2.2.1.1 Disaster

The Disaster Management Act (DMA) (Republic of South Africa, 2002) characterises a disaster as a ‘progressive or sudden, widespread or localised’ event, which can be caused by nature or man, which exceeds the coping capacity of individuals and

communities using their own resources. A disaster causes or threatens to damage the environment, infrastructure, property, death and injuries and has potential to disrupt the life of a society. Sena & Michael (2006) define a disaster as an event that forces a community into acute deprivation of food and other necessities to such an extent that the normal functioning of that community is disrupted and it cannot recover without outside intervention. The event results from a combination of a hazard, condition of vulnerability, and a lack of capacity to minimise the potential impacts of the risk (Republic of South Africa, 2005).

2.2.1.2 Response

Disaster response is the immediate phase following a disaster event. It focuses on lessening the effects of the event on those severely affected by providing basic subsistence needs to preserve life and ensure that they are not left exposed to the event (Republic of South Africa, 2005). The focus is to cater for the basic needs of the affected population during such calamities until sustainable solutions can be found (Baidoo, 2018). The first consideration during the disaster response phase is the preservation of life. The disaster response phase is a critical stage in the disaster management cycle because it involves taking care of victims of catastrophes by offering humanitarian assistance (United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), 2018; AL-Dahash, Thayaparan and Kulatunga (2016); Cheema, Mehmood and Imran, 2016)).

Disaster response includes activities like warning/evacuation and assessment of damage and restoration or construction of infrastructure, communities, institutions, industries and businesses. The focus during the response phase is on minimising the effects caused by a disaster event by providing immediate and short-term needs such as food, temporary shelter and medical assistance to maintain life, improve health and boost the morale of the victims (Todd and Todd, 2011; AL-Dahash, Thayaparan and Kulatunga, 2016).

The terms '*disaster response*', '*disaster relief*', and '*humanitarian response*' are often used inter-changeably because there is no distinction between them. The terms share the common belief of the need to assist those negatively impacted by natural and human-induced disaster events. Furthermore, these terms all share similar features. For example, each involves preparing, providing support, and helping

societies to rebuild lives in times of unforeseen event(s). Lastly, each is underpinned by these principles: humanity, neutrality and impartiality to deliver life-saving assistance to those in need without any adverse distinction (UNOCHA, 2012; United Nations for Disaster Risk Reduction (UNDRR), 2007; United Nations International Strategy for Disaster Reduction (UNISDR), 2015; Parmar, 2012).

Baidoo (2018) states that *disaster response* should meet the immediate basic needs of victims while a more permanent and sustainable solution will follow after. According to Pan American Health Organisation (PAHO) (1999), humanitarian assistance can be beneficial or effective if disaster managers can follow some of these principles:

- *Do not stereotype disasters* – disaster managers must know that the effects of disasters differ due to the economy and infrastructure in the area.
- *Observe procedures for communication, coordination and supervision* – disaster managers must have regular meetings with other humanitarian stakeholders including communities in their jurisdiction.
- *Assess needs* – disaster managers must assess the specific type of assistance that is needed, bearing in mind that a delay in identifying the needs will result in delayed assistance.
- *The assistance should complement not duplicate* – this can be achieved through well-coordinated humanitarian assistance to avoid chaos among aid agencies.

UNISDR (2008) characterises *disaster relief* as the, “*provision of assistance or intervention immediately after and during a disaster to meet the life preservation and basic subsistence needs of the affected population*”. It consists of the delivery of specific and quality of goods to those affected by a disaster (UNISDR, 2015). Assistance includes goods such:

- *Food* – that is culturally and nutritionally appropriate for affected people.
- *First aid material* – immediate practical assistance such as ensuring that those who are injured get help and are transported to the nearest health care facility and those on chronic medication like hypertension and diabetes get their medication to maintain their health.

- *Non-food items* – in the form of clothing, blankets, bedding, water containers and hygiene products.

Humanitarian response/assistance refers to the provision of material and logistic assistance to those affected by a disastrous event to meet their immediate needs. Assistance can be in the form of food, temporary shelter, medical assistance and temporary solutions such as a tarpaulin over a hole on a roof to save lives, alleviate suffering and maintain human dignity (Organisation for Economic Co-operation and Development (OECD), 2018).

Humanitarian response aims to reverse the negative effects caused by a catastrophic event, which means its immediate objective should be to save lives, reduce human suffering and maintain people's dignity, especially the most vulnerable groups such as children, elderly and frail and low-income groups. This is likely to include provision of first aid, tea and coffee. The effects include health (psychological, disease and injuries), properties and infrastructural damage, loss of life, which requires different types of interventions (Tollen, 2013; Kayden, 2013). During disasters such as shack fires people loss their shelter, reserved food, medications and experience trauma. To assist in such situations, different kinds of skills or strategies are needed to deal with any challenge that may arise while providing relief assistance.

2.2.1.3 Recovery

Disaster recovery focuses on rebuilding and offering long-term assistance and it involves a set of policies and procedures to assist victims of disaster to bounce back (Baidoo, 2018). According to the Republic of South Africa (2005), the objective during recovery stage should be to restore or improve the pre-disaster living conditions of the victims, and at the same time encourage and hasten necessary adjustments to reduce disaster risks (Republic of South Africa, 2005). Lindel (2013) characterises disaster recovery in three distinct phases:

- i.) It involves the restoration of disrupted normal activities of the community due to the event;
- ii.) Its aim is to stabilise disaster conditions until the community has returned to normal; and
- iii.) It involves helping the community to return to normal routines.

Lastly, disaster recovery includes the recovery of services such as health, education and any other vital life-support systems.

2.2.1.4 Development/ Rehabilitation

This stage focuses on improving well-being of affected population through the promotion of sustainable livelihoods and their protection and recovery during a disaster (Messer, 2003) as cited by (Phillips, 2009). The disaster development/ rehabilitation phase addresses the protection of basic needs, equity and the redistribution of wealth (Republic of South Africa, 2005). In short, it is the restoration of basic social functions (Sena & Michael, 2006).

2.2.1.5 Prevention

According to the National Disaster Management Framework (NDMF) (Republic of South Africa, 2005), disaster prevention refers to activities and measures used to stop a disaster from occurring or preventing the hazard from becoming a disaster by minimising environmental degradation, technological and biological hazards. It is the actions implemented to eliminate the root causes that puts the community at risk and is based on hazard identification (actual threat) and vulnerability assessment (evaluation of risk and capacity of a community to respond) (Sena & Michael, 2006).

2.2.1.6 Mitigation

According to the DMA (Republic of South Africa, 2002), mitigation refers to all proactive measures (structural and non-structural) to eliminate or minimise the adverse impacts including the risks associated with impending hazards. It is an attempt made to reduce the harmful effects of a possible disaster and to limit their impact on human suffering and economic assets (Sena & Michael, 2006). This includes limiting environmental degradation and technological hazards in vulnerable areas, societies and households.

2.2.1.7 Preparedness

The NDMF (Republic of the South Africa, 2005) defines disaster preparedness as the activities and measures taken before the occurrence of a disaster to prepare for and ensure effective disaster response to reduce the impacts of the event. It involves predicting and preventing a disaster if possible and/or mitigating its impact on vulnerable populations so that they can effectively cope with the consequences of

the event if happens. The activities include early warnings, temporary evacuation of community or individuals and properties from endangered areas. In short, disaster preparedness refers to 'a state of readiness' whereby GOs, NGOs, private sectors and communities mobilise, organise and provide relief measures to deal with the effects of the threatening event (Republic of South Africa, 2002).

2.2.2 Critical analysis of the response phase

The disaster response phase is the most appropriate phase when it comes to humanitarian parameters. The study pays special attention to the process of disaster response during a phenomenon. Immediately after a disaster event, emergency services personnel such as fire fighters, ambulance crews and disaster managers receive calls to respond to the incident. The first disaster management crews to arrive on the incident scene are expected to do the following:

- i.) Rapid assessment;
- ii.) Make decisions based on professional judgement;
- iii.) Evaluate the decision ;and
- iv.) Command/Implementation.

2.2.2.1 Rapid assessment

Rapid assessment according to the International Federation of Red Cross and Red Crescent Societies (IFRC & RC) (2017) refers to a quick assessment of the extent and impact of the damage (the needs) caused by the disaster. It assesses the degree of vulnerability of people and their capacity to meet their immediate survival needs. Rapid assessment is carried out immediately after a disaster event (as early as a few hours after the event) to get information on the needs of victims, the possible course of action and resource requirements (Arii, 2013; IFRC, 2017). According to Arii (2013), the objective should not be to conduct a detailed survey, but to get a broad picture of the damage and identify the basic needs of the affected community that would require external intervention.

The Methodology Rapid Assessment for Humanitarian Assistance (2006) states that rapid assessment should answer questions such as the following:

- *What happened?* Disaster managers should be able to describe the event;

- *Who is affected?* Analyse an incident to determine the nature and extent of the problem and give a clear picture of the subjects or objects affected;
- *What is the impact?* People, environment or property and the level of suffering caused by the event, number of people affected and their demographic characteristics;
- *Why intervene?* Develop a defensive plan of action to address the problems presented by the incident (response plan). What are the immediate needs which might not be met by those affected (lack of capacity) and the objective of the intervention;
- *How to intervene?* Initiate a plan to lessen the harm caused by the incident, taking into consideration safety issues (security), access and coordination of response actions.

2.2.2.2 Making decisions based on professional judgment

According to Cohen (2015), professional judgement refers to, *“applying knowledge, skills and experience, in a way that is informed by professional standards, laws and ethical principles, to develop an opinion or decision about what should be done to best serve clients”*. The mission of disaster management is to save and protect lives and properties and alleviate suffering during catastrophic event(s). Therefore, after doing a rapid assessment, disaster managers should apply their professional knowledge, skills and expertise to identify concerns (lives, properties and needs) to make a decision.

Decisions include whether to remove the affected population from the situation, to leave them to cope using their own resources, or to assist the community to cope with the impacts of the event. Ivan (2016) states that in the event where professional judgement is challenged, the use of proper documented procedures can be useful to analyse facts, circumstances and alternatives. In addition, when processes are documented it is much easier to defend and support the decision (Ivan, 2016). This emphasises the importance of a detailed disaster response plan, which clearly defines responsibilities and specific actions to follow during disaster response operations including the communication channels to be used. Accurate, timely and useful information and instructions to people during a disastrous event is important. A disaster response plan should specify procedures for making a decision during a

rapid onset and slow onset disaster event(s) to save lives and properties and to reduce damages and protect the population and the environment.

2.2.2.3 Evaluate the decision

During disaster events, people's lives and properties are at risk and they require disaster response that is timely and effective. A disaster response that is timely and effective in the face of a disaster is dependent on the decision taken immediately after rapid assessment. The decision plays a critical role for both disaster managers and the affected community. When it comes to a disaster event, a decision can either save more lives and prevent the situation from spreading to other areas or worsen the situation causing more casualties, secondary disaster such as epidemics especially after flooding or drought event, and/ or the disaster can spread to other areas.

This calls for an evaluation of a decision before it can be implemented. When it comes to humanitarian response, evaluation should generate credible evidence that is sufficient to answer questions about the implementation process. It must also address questions about the relevance and coherence of interventions, their adaptation to the context, cause-and-effect concerns and their contribution to the results.

Questions such as:

- i.) Is this action appropriate for this kind of situation? To remove or not to remove;
- ii.) Will this action make a difference? Quality of service and material used;
- iii.) What are we hoping to achieve with this action? The intention.
- iv.) Is there an alternative action to achieve the objective? Variety of options
(United Nations High Commissioner for Refugees (UNHCR), 2016).

An evaluation that answers the above questions is said to be credible and timely, is informed by evidence and can positively influence planning and implementation (UNHCR, 2016).

2.2.2.4 Command/Implementation

A decision that is not implemented will not achieve its objective. Command is the process where disaster managers turn strategies and plans into actions to achieve

the objectives and desired goals (Olsen, 2020). After implementation of a decision, the progress needs to be monitored to see if it achieves its objective and goal. During the process, disaster managers should revisit the decision-making process to re-evaluate the action and alternatives. This will help them to avoid being rigid because rigidity might cause tension between them and the community they intend to service if the strategy or plan is not working.

With priorities set, the next question is how can the priorities be executed? Efficient execution of the task will determine the level of assistance offered to the victims. Arii (2013) argues that efficient execution of the priorities should improve the quality and speed of the operation. Stikova (2016) provides a summary of the tactical operation during disastrous events. Soon after incident analysis, disaster managers are expected to do the following:

- Ensuring victims security;
- Bring in food parcel;
- Making water available;
- Provide temporary shelter for worse affected individuals and sanitation;
- Bring in non-food items (clothes and blankets); and
- Ensure that victims have access to health services.

The strategies or tactics used in a disaster relief operation rests on the nature of the calamity, lives involved and the type of critical infrastructure under threat (Mijalković and Cvetković, 2013). Rapid assessment is the key to improving ability, capability and speed during the humanitarian response (Baidoo, 2018). However, if the rapid assessment is not done properly then the disaster managers are bound to experience problems during the relief operation. IFRC (2017) highlights that, “*a poorly conducted rapid assessment is likely to lead to poor planning decisions and an inadequate response*”. The local municipality according to the Disaster Management Act, No. 57 of 2002 (as amended by Disaster Management Amendment Act, No. 16 of 2015) has responsibility to ensure that a disaster is well managed within its jurisdiction. Therefore, an effective humanitarian response must be achieved irrespective of the challenges encountered during the operation process. The current population growth in the CoE, which is alluded to be the cause of dense and unplanned settlements, presents disaster managers with tremendous

challenges during disaster relief operations. The execution of the processes highlighted above should assist the City's disaster managers to manage any challenge that might arise during a disaster response phase within the Metropolitan Municipality.

2.2.3 Advantages of the disaster management cycle

The disaster management cycle is an ongoing process for planning and putting measures together to minimise or prevent the hazard from becoming a disaster. It is a framework for responding to man-made and natural hazards, reducing the effects and assisting those affected to recover from the impact of the disastrous events. The cycle offers a balanced approach, which is both proactive for disaster risk reduction as well as a reactive approach to disaster management. The disaster management cycle is organised according to activities before a disaster (prevention, mitigation and preparedness) and activities after the event (response, recovery and rehabilitation). Before a disaster, pre-disaster planning is a practical and necessary component of disaster management. It focuses on reducing the probability of the event from happening and strengthening the resilience of individuals, communities and businesses through building preparedness capabilities prior to the disaster in case the hazard becomes a disaster.

The pre-disaster planning focuses on activities such as early warning, education, training and awareness raising programmes which are an important aspect of reducing the hazard and preparing for a tragedy. These activities are meant to reduce the vulnerability of the affected communities by helping them to put necessary measures to protect themselves, their livelihood and their properties. Protection mechanisms reduce the effects and probability of loss that might be caused by the hazard, most importantly it enhances community resilience. For example, the CoE is vulnerable to disasters such as tornadoes, storms and floods. Activities like early warning systems, training and awareness programmes when put in place, equip people to be resilient against risks. Measures may include reinforcing shelters or part of the house and people can also design structures that have safe places such as basements that can be used during storms and tornado events.

Pre-disaster planning is the foundation for preparing, reducing and preventing new disaster risks to ensure safety of the populace. A rapid and effective disaster

response is easier when all parties involved in disaster management engage in pre-disaster planning because the planning include actions that facilitate the delivery of relief assistance. The good thing is that, when structural and non-structural safety measures are implemented, disaster managers will not run into problems when responding to disaster events because the damages will be minimal and communities will not be expecting much from them.

Moreover, the cycle provides guiding procedures in a situation where the hazard turns into a disaster (after a disaster). The post disaster phase does not only focus on immediate needs but it encourages the parties to look at long term solutions. The post-disaster planning puts emphasis on immediate (food and shelter) and long-term needs (policies and procedures) to allow the victims to fit back into the society including to rebuild better. When this sequence is followed, the affected community bounces back stronger than it was before the event and the chances of another disastrous event becomes minimal and if it does happen resilience is enhanced.

2.2.4 Disadvantages of the disaster management cycle

If the disaster management cycle is to achieve satisfactory disaster risks reduction, there is a need to prioritise human, social, financial and physical capital assets. The disaster management cycle does not pay enough attention to these assets and they play an important role in the vulnerability of individuals, households and communities in the presence of hazards. For example, disaster managers can do rigorous warning, training and awareness campaigns regarding the hazard but if the affected people lack the ability and means to cope with the present hazard, nothing will change.

Inadequate attention to the capital assets pushes more people to unplanned and unsafe settlements which are prone to disasters. The following are the capital or livelihood assets that exacerbate vulnerability and risk, and most of the time people find themselves making trade-offs and choices about (Serrat, 2017):

Human capital – poor health, nutrition and incapacity to adapt cannot be overlooked when it comes to strengthening the resilience of communities. These are underlying causes of vulnerability and they need to be addressed accordingly because they contribute to disaster risk.

Social capital – impertinent of social factors such as collective groups, networks, shared values and behavior of people will derail any programme that is meant for disaster risk reduction.

Financial capital – savings and wages determine people's attitude and perception. People will always choose risk areas where they can make a living to survive than to relocate to areas where there is no means of living.

Physical capital – roads, water supply and sanitation, energy and communication, these are community needs. If not there, people will make a plan to get them. For example, it is pointless to warn people who reside in dense informal settlements about shack fires while there is no supply of electricity in the area. People will not stop using make-shift stoves to warm themselves during winter or unlawful connect electricity.

Furthermore, during the post-disaster planning phase the priority is on restoration and reconstruction of damaged infrastructure. According to UNISDR & UNOCHA (2008), restoration and reconstruction is the rebuilding of the conditions of risk that existed before the disaster. Therefore, the disaster management cycle in this context resembles a driver who drives a car constantly looking in the rear mirror and hoping to reach his/her destination safely. Alternatives must be identified to solve the problems (Seneviratne et al, 2011).

2.3 Conclusion

This chapter explored the disaster management cycle as the conceptual framework that underpinned this study. It outlined the processes of disaster response by giving a critical analysis of the response phase and decision-making. Disaster managers must consider all the stages of the disaster management cycle and rapid assessment to design a strategy or specific tactic operation that will ensure effective humanitarian operation. When all of the above is adhered to, disaster managers will be able to overcome any challenges during the relief operation and this in turn should translate into overall efficient and effective disaster response of the calamity at hand. A literature review of international and national policy is presented in Chapter 3.

CHAPTER 3: LEGISLATION AND POLICY REVIEW

3.1 Introduction

Disaster management is governed by national and international legislation and policies that are designed specifically to manage the increasing number and intensity of catastrophes and their humanitarian impacts. They serve as a foundation for reducing present hazards therefore, minimising the chances of a disaster, preventing new disaster risks and ensuring the safety of communities (International Federation of Red Cross and Red Crescent (IFRC & RC), 2018). Some of the legislations and policies are binding while others are non-binding, but they are all important for reducing disaster risks and building resilience.

Binding policies or legislations are the main regulatory frameworks to ensure protection of the rights of the people impacted by catastrophic events. All stakeholders (Governmental Organisations, Non-Governmental Organisations, Private sectors and Community Organisations) involved in humanitarian work should respect, protect and guarantee these rights. Non-binding policies or legislations are recommendations, declarations or guiding principles to ensure that affected communities are protected during disasters. Though they are not mandatory, they are legal instruments and widely accepted. Moreover, they have the moral duty to address humanitarian action.

Disaster managers must not deviate from these instruments if they are to achieve efficient and effective disaster response. Policies provide guidelines on the management of catastrophic events and they play an important role in dissemination of relief aids. When adhered to, they can limit unnecessary delays in the dissemination of humanitarian assistance (IFRC, 2017). The policy instrument serves as a guiding instrument for humanitarian action and is essential to ensuring that the most affected communities and vulnerable groups receive assistance. Policies dealing with calamities are founded on comprehensive disaster risk management (Corsel, Ray-Bennett & Hebden, 2017). According to the World Bank Group (2019), following a disaster event there should be policies to ensure the following aspects:

- *Accountability*: There should be internal and external controls to guide adherence to set standards for public officials to take full responsibility for their actions.
- *Efficiency*: Service must be delivered in a proficient manner.
- *Flexibility*: There should be tractability in regulatory frameworks so that modes of operation are easily adaptable.
- *Gender sensitivity*: Attention must be given to the different issues that affect men and women during disasters.
- *Reliability*: All processes should be reliable even though circumstances are not as conducive as desired.
- *Resilience*: This entails the judicious use of resources in the restoration of the socio-economic status of the community so that they can withstand any future adversities.
- *Responsiveness*: The strategic reaction by disaster management teams to ensure a rapid delivery of service to the affected.
- *Transparency*: This involves earning trust from the public through honest dealings during the mitigation phase.

Policies and processes put in place for disaster management should encompass the above notions so that there is proper use of both financial and material resources. According to IFRC (2006), when laws, rules or policies are present and implemented effectively, humanitarian aid operations flow more quickly and saves more lives.

The purpose of humanitarian assistance is to alleviate the suffering of affected communities, protect lives, livelihoods and environments bearing in mind the special needs of vulnerable groups such as women and girls. Humanitarian assistance must not create or aggravate inequality and discrimination, conflicts among the affected community and environmental degradation. The researcher believes disaster managers can benefit the most from a holistic approach where disaster risk is fully covered. With this in mind, this chapter explores two major global instruments that can help to understand disaster risks. The instruments are the Sendai Framework for Disaster Risk Reduction (2015-2030) (SFDRR) and the Sustainable Development Goals (SDGs). Lastly, the chapter discusses the South African Disaster Management Act No. 57 of 2002 (as amended by Disaster Management Amendment

Act, No. 16 of 2015). These policies and legislations are discussed according to the context of humanitarian response challenges.

3.2 The Sendai Framework for Disaster Risk Reduction

The Sendai Framework for Disaster Risk Reduction (2015-2030), is a legal instrument adopted in March 2015 during the 3rd World Conference on Disaster Risk Reduction (DRR) to reduce the vulnerability of communities to catastrophic events. The instrument is non-binding and is the first major agreement of the post-2015 development agenda succeeding the Hyogo Framework for Action 2005 – 2015: *Building the Resilience of Nations and Communities to Disasters*, it was organised according to seven targets and four priority areas (United Nations International Strategy for Disaster Reduction (UNISDR, 2015). The Sendai Framework recognises that governments have the primary role of managing disasters and reducing disaster risks and that the duties must be shared with other stakeholders such as local governments, the private sector, non-governmental organisations and other stakeholders involved in disaster management.

The Sendai Framework for Disaster Risk Reduction aims to achieve, within 15 years, a reduction of disaster risks and disaster mortalities, protect livelihoods, economies and environments (physical, social and cultural) by preventing new risks and reducing existing ones. The framework aims to achieve these through implementing integrated and inclusive measures that strengthen resilience (UNISDR, 2015). To help achieve these objectives, the Sendai Framework recommends four priorities for action to align or facilitate and encourage better participation in Disaster Risk Reduction (DRR). The following are the four priorities for action as presented by UNISDR (2015):

- *Priority 1: Understanding disaster risk*

This priority articulates the need for improved understanding of disaster risk and recognises that disaster risk is a combination of a hazard, condition of vulnerability and a lack of capacity to minimise the potential impacts. Given this understanding, disaster risks should not be taken as isolated events but as a series of interconnected vulnerabilities (Wisner, 2004). Factors such as poverty, lack of education and population growth play a role in disaster risk. It is important to address underlying risk factors cost-effectively than just to rely on disaster response.

Therefore, humanitarian assistance should be tailored to each factor through cooperation and shared mechanisms and practices. Humanitarian action that addresses these factors is bound to reduce disaster mortalities and the effects of disasters such as disruptions of school days for school-going children.

- *Priority 2: Strengthening disaster risk governance to manage disaster risk*

This priority recognises that all spheres of government are responsible for preventing, mitigating, preparing and responding, to man-made and natural calamities within their jurisdictions. Responsibility should be shared with other stakeholders involved in disaster management. At times, societies cannot overcome the impacts of disasters without outside help or support resources (Mijalković and Cvetković, 2013). Disaster managers in collaboration with other stakeholders can help or support the affected community to overcome the effects of disasters. Sometimes a multi-humanitarian approach (local, regional and national) might be necessary to ensure that the affected population prevails against such a calamitous event. In other cases, international assistance can be requested when it is deemed necessary and appropriate for that event. According to Niekerk, Wentink, and Shoroma (2018), lack of intergovernmental relations and community participation or trust in governmental organisations leads to failure in disaster response. Failure to institute collective strategies results in the loss of property and human life (Noran, 2014). An effective coordinated multi-sectoral approach will ensure minimal damages and assist the community to recover from the impacts of the disaster. This calls for disaster managers to mainstream and integrate disaster risk reduction within their borders to avoid failure during humanitarian operations.

- *Priority 3: Investing in disaster risk reduction for resilience*

This priority recognises public and private investment as essential elements for enhancing the economy, social, health and cultural resilience of communities and their assets. Private sector companies such as mines are increasingly involved in humanitarian response in areas of their operations, sometimes as part of their commitment to a corporate social responsibility strategy. A humanitarian response plan that invests in the community can enhance the capacity of individuals and communities, it can save lives, reduce suffering and maintain the dignity of people during disasters (Organisation for Economic Co-operation and Development

(OECD), 2012). This calls for disaster managers to implement a strategic humanitarian response plan that will improve the quality of life of local communities. When the locals are adversely affected by disasters, the regional and national economies will also be affected (Surianto et al, 2019).

- *Priority 4: Enhancing disaster preparedness for effective response and to “build back better” in recovery, rehabilitation and reconstruction*

This priority recognises the importance of taking action in anticipation of the event and ensuring that capacities are in place for effective response and recovery. When disaster response and preparedness are strengthened, this results in effective humanitarian relief operations. This calls for disaster managers to engage civil society and community organisations regarding their roles and responsibilities. It helps to avoid misinterpretation of roles and responsibilities during relief operations. Understanding of the relevant legislation and policy assists communities to accept their responsibilities and recognise that they can strengthen their resilience. However, this does not mean disaster managers should shift responsibilities, it is an ‘opportunity to rebuild better’ or achieve sustainable development (Surianto et al., 2019).

Therefore, underlying factors such as poverty, lack of education and population growth, which pushes people into settling in dense and risk areas, should be addressed. Failure to address this will lead to more people competing for humanitarian aid during disastrous events than the ones initially planned. Competition for limited resources can lead to conflicts between disaster managers and the community. Again, it might be difficult for disaster managers to be partial or to decide who receives assistance or who does not and that can lead to violence. Failure to strengthen disaster risk governance can exacerbate the situation. If informal settlements are not monitored, unsafe structures (shacks) in high risk areas will mushroom. Mushrooming shacks is the cause of the initial planned aid being overstretched due to the increased number of people or properties in that area.

Investing in disaster risk reduction improves the accountability of communities. When people know their susceptibility to a certain hazard, they will try to reduce the danger or put appropriate measures to strengthen their resilience. Risk acceptance by the society means that people will be responsible enough not to build structures on high-

risk areas. Reduced risk equals reduced number of affected people, which decreases the chance of conflicts between community and relief workers.

Humanitarian response is always under close public scrutiny. Therefore, disaster managers have to take cognisance of international and national regulations to deliver a timely and effective humanitarian relief and act in a more professional manner (de Guttery, Gestri & Venturini, 2020). For disaster managers to come up with 'antidotes' for the challenges they encounter during the humanitarian operations all key factors listed above must be considered and implemented. These will facilitate effective delivery of services to the victims of a disaster.

The link between disaster risk reduction and sustainable development is examined below.

3.3 Sustainable Development Goals

The 2030 Agenda for Sustainable Development Goals is a transformative plan of action for all countries and all stakeholders to implement and it is organised along 17 sustainable development goals and 169 global targets to advance sustainable development (UNISDR, 2015).

The study looks into some goals that can relate or contribute to reducing disaster risks and strengthen the resilience of communities. The researcher believes that reducing disaster risks is a step towards solving the challenges that disaster managers encounter during humanitarian response operations. UNISDR (2015) states an important issue regarding the relationship between disaster risk reduction and sustainable development. The progress in the implementation of disaster risk reduction acts as a measure of the success of the 2030 Agenda for Sustainable Development Goals (UNISDR, 2015). It means that there cannot be talks of sustainable development without disaster risk reduction programmes or vice versa. According to UNISDR & UNOCHA (2008), disaster risk reduction is an essential part of a state's investment in sustainable development. The following sustainable development goals as presented by UNISDR (2015) are key in saving lives, reducing suffering and maintaining the dignity of people before, during and after a disaster.

- *Goal 1: End poverty in all its forms everywhere*

Poverty is a key driver to disaster risk as it contributes to the dense and growth in informal settlements in high-risk areas and it limits the progress of sustainable development. As mentioned early on in the study that during a disaster, the disaster managers battle to access victims due to narrow streets or impassable streets from such areas. Therefore, if the eradication of extreme poverty is not prioritised, that means more and more people will remain vulnerable to disasters. Poor people are not only at high risk to disasters, but they also have fewer materials or resources to reduce or prevent, cope with and adapt to disasters. Strengthening the resilience of poor communities will ensure that there are no future disaster risks and should the disaster event take place, they will be able to recover from it.

- *Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture*

Man-made and natural catastrophes can destroy agricultural assets and infrastructures. Destruction of these assets can halt projects aimed at improving the living conditions of communities and such can cause food insecurity and loss of livelihood. Many people in the CoE depend on agriculture for their livelihood. The protection of vulnerable natural resources that people depend on builds the resilience of the populace. Disaster managers must know that disaster is an external stress inducing phenomena where the affected community or society cannot deal with stress without outside help. Therefore, it is important to reduce disaster risks to eliminate the chances of disaster events.

- *Goal 3: Ensure healthy lives and promote well-being for all at all ages*

People's health and well-being are often affected by disasters. Health facilities are considered critical since their failure leads to a great deal of suffering for the affected communities. When clinics are destroyed by disasters, lives are in danger because people will not have access to health service which can result in interruption of preventative care (vaccinations and pre-natal). When people find themselves in an unusual situation, they redefine their behaviour. They behave in a way aligned to the situation, which is different from their norm. In such situations, people exhibit collective behaviour reflecting the disruptive state of affairs, which contributes to disaster risks.

- *Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*

The current coronavirus (Covid–19) pandemic quickly comes to mind as it serves as an illustration of how a disaster can bring the educational sector to a standstill. Such interruptions result in long-term implications. Poor disaster response during such calamities has ripple effects (long-term implications) in the locality and the world beyond. Education is an important tool for reducing vulnerability and building resilience of communities to disaster risks. Through education, people acquire knowledge, become aware of local and global risks, and are able to build infrastructures and properties that are resistant to disasters. This inevitably calls for early warnings, training and awareness campaigns to ensure that communities are aware of local hazards so they can best protect their lives, properties and livelihood, contributing to disaster resilience.

- *Goal 5: Achieve gender equality and empower all women and girls*

Gender inequalities play an enormous role in humanitarian settings, men and boys are less exposed to disaster risk compared to women and girls. Women and girls are the ones who care for children, the elderly and disabled people. When warnings are issued to evacuate the risk area, this group sometimes stays behind which explains why there is high mortality in these groups during disasters. Howe (2019) attest by stating that, during the 2004 Indian Ocean tsunami, 250 000 deaths were recorded and 70% of that were women.

Despite this, women can participate in effective disaster risk reduction. Naturally, women and girls are capable of caring for other people, which can be used as an advantage in reducing disaster risks and building community resilience.

- *Goal 6: Ensure availability and sustainable management of water and sanitation for all*

The CoE is prone to disasters such as flooding and droughts. Sustainable water management plays a part in addressing vulnerability and strengthening the resilience of communities to such disasters. Densification and growth in informal settlements in flood-prone areas and increased agricultural development on marginal lands increases exposure and vulnerability. Sustainable water management contributes to

reducing exposure and vulnerability including the impacts of such disasters through clearing waterways of debris and building new dams to contain water.

- *Goal 9: Ensure resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation*

The disaster management subject identifies Critical Infrastructure (CI) as an important element in disaster risk reduction. The UNISDR (2009) developed an elaborate definition of CI. It is defined as, “*the primary physical structures, technical facilities and systems which are socially, economically or operationally essential to the functioning of a society or community, both in routine circumstances and in extreme circumstances of an emergency*” (UNISDR, 2009). As mentioned earlier, the City boasts an excellent transport network such as airport and rail lines, and telecommunication and energy grid infrastructures. These facilities are considered critical since their failure can lead to a great deal of suffering to the City’s populace. CIs are interdependent, failure of one leads to failure of the other. For example, when there is a power outage in an area, the telecommunications system is also affected.

The interdependence of CI vulnerability is expounded on by Pescaroli and Alexander (2016) using the notion of cascading disasters. We are living in a global village where CIs become more vulnerable to large-scale catastrophes, as they are interconnected. Examples of such CIs are transportation, communication or energy supply. The more CIs grow interdependent, the more cascading disruptions across sectoral boundaries (Pescaroli and Alexander, 2016). Furthermore, when a bridge is destroyed by a flash flood, humanitarian actors have difficulty accessing victims on the other side of the bridge and workshops or restaurants become disconnected from customers and suppliers for days.

- *Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable*

The CoE continues to struggle to keep up with the housing backlog and the reformation of informal settlements, which means that these informal settlements are and will remain at high risk to disasters. Speeding up the upgrading of informal settlements means unparalleled opportunity to reduce risk. The Sendai Framework mentioned this important issue regarding urbanisation, “*a rapid and poor planned*

urbanisation does not strengthen resilience or reduce disaster risks” (UNISDR, 2015). Meaning that urbanisation should not be done at the expense of the population.

- *Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*

Desertification and degradation of the land increases disaster risks and losses. In most cases, degradation is caused by urbanisation, pollution and extractive industries, and unsustainable agriculture.

In closing, poor management and implementation of the above SGDs will hinder relief operations during disastrous events. When the resilience of poor people or communities and women and girls is not strengthened, problems occur when disaster managers respond to disasters in those communities. As shown in Chapter 1, humanitarian assistance is governed by the principle of humanity, neutrality and impartiality; sometimes it is difficult to adhere to these principles during disasters if poor communities or women’s resilience is not strengthened. For example, sometimes only a street separates informal settlements and formal settlements. If a tornado tears through both areas blowing off roof tiles and the shacks, disaster managers must decide whom to help first. This causes tension or conflicts about which of the two settlements is most deserving of the assistance. Strengthening of these communities and groups is another way of reducing challenges that might arise during disastrous events.

Furthermore, lack of prior education or training on disaster risks and land-use policy development and implementation, and reformation of the informal settlements will also raise same challenges when disaster managers respond to disasters in such areas. Lack of disaster risks education, land-use policy, and reformation of settlements leads to inaccessible roads including misunderstanding between the humanitarian actors and the communities during disasters.

During such situations, disaster managers must engage other governmental departments and relevant stakeholders involved in disaster response to reduce the present disaster risks and strengthen the resilience of communities. If not, this will result in the previously mentioned challenges during disaster relief operations.

Implementation of international and national policies and legislations should ensure positive delivery of assistance during all difficult times. As far as disaster management is concerned, every country must have appropriate legislation and policy to combat present and future hazards that might put its populace in danger. Considering this, South Africa uses Disaster Management Act (DMA), 2002 (Act No. 57 of 2002) enacted on 15 January 2003 to reduce disaster risks, prepare for and mitigate the effects of such catastrophes in the country. The Act serves as the primary legislation to combat catastrophic events in South Africa.

3.4 South African Disaster Management Act 57 of 2002

South Africa's legislation is an important aspect of disaster management in the country. It puts the responsibility of reducing disaster risks on the populace and managing the catastrophes on the government because the government has the resources and capacity to do so. The events triggered by a hazard are such that communities cannot overcome without outside help or support resources (Mijalković and Cvetković, 2013). Therefore, countries must identify their risks to disasters and establish appropriate measures to reduce current and future risks and mitigate the impacts on the most vulnerable communities.

The DMA was enacted to make disaster management activities coordinated, object-oriented and strengthened and to formulate rules to build up the infrastructure of effective disaster management to fight catastrophes (Republic of South Africa, 2005). The Act requests cooperation from all spheres of government including NGO's, private sectors and communities to participate in the mitigation, preparation, rapid and effective disaster response and post-disaster recovery in the country (Cheema, Mehmood & Imran, 2016). The government structures responsible for coordinating, planning, setting procedure guidelines and strategising to ensure a rapid and effective disaster response are:

- National Sphere: National Disaster Management Centre (NDMC);
- Provincial Sphere: Provincial Disaster Management Centres (PDMC); and
- Metropolitan/District Sphere: Municipal Disaster Management Centres (MDMC).

Each sphere is responsible for arranging, working strategies and reacting to disaster events, according to the mandate given to them. In South Africa, policy on disaster

management is anchored on the Disaster Management Act 57 of 2002. The National Disaster Management Framework (NDMF) of 2005 is the policy specified by the Act.

3.5 Overview of the South African National Disaster Management Framework of 2005

The NDMF is guided by the Act on the matter of disaster risks including disaster relief issues. Chapter 5 of the Disaster management Act No. 57 of 2002 (as amended by the Disaster Management Amendment Act, No. 16 of 2015), speaks specifically to Municipalities to have their own policy and that they must prioritise disaster risk reduction and certain aspects of disaster response. The policy derived thereof focuses on:

- Disaster prevention and risk reduction;
- Amelioration of disaster severity;
- Emergency pro-activeness;
- Swift and efficient response; and
- Restoration and rehabilitation (Dyssel, 2018).

The national policy comprises of four (4) Key Performance Areas (KPAs) and three supportive enablers, which are informed by objectives, set out in the KPAs.

- KPA 1: Integrated institutional capacity for disaster risk management;
- KPA 2: Disaster risk assessment;
- KPA 3: Disaster risk reduction; and
- KPA 4: Response and recovery.

The supporting enablers are:

- Enabler 1: Information management and communication;
- Enabler 2: Education, training, public awareness and research; and
- Enabler 3: Funding arrangements for disaster risk management.

The research focuses on KPA 4: response and recovery, as it is relevant to the study. KPA 4 insists on clear practices that will ensure effective disaster response during disastrous events. It addresses key elements that ensure effective and appropriate disaster response in the case of a disastrous event. The following are the elements as set in KPA 4 and they are important in achieving precise and realistic humanitarian response operations:

- Dissemination of early warnings;
- Assessment and classification of a disaster, and declaration and review of a disaster;
- Integrated response and recovery;
- Relief measures, and
- Rehabilitation and reconstruction.

3.5.1 Dissemination of early warnings

The municipal disaster management centre is responsible for identifying and monitoring prevailing hazards, prepare, and issue early warning to the affected community. Miscommunication between the centre and community regarding the danger that the community is facing will create tension when humanitarian actors respond to catastrophic events in those communities. Therefore, disaster managers must develop and implement communication channels and strategies to ensure that the affected communities receive the warnings as early as possible. People can either evacuate the area or develop coping mechanisms (Republic of South Africa, 2005).

Sufric, Dwirahmadi, Phung, and Rutherford (2019) view early warning systems as an essential component for life saving and reduction of environment and property damage that might result from a pending disaster. Early warning needs to be on time, reach the intended community and must be understandable to the affected community to minimise damages or save lives (Sufric et al., 2019).

The absence of early warning or inconsequential warning to the community at risk will destroy lives and livelihood. Furthermore, it will lead to an unsatisfied community during the disastrous event which can lead to conflicts or disaster managers being attacked and chased away during relief operations.

3.5.2 Assessment and classification of a disaster, declaration and review of a disaster

The municipal disaster management centre is responsible for establishing mechanisms for the assessment of impacts and needs caused by disasters in their jurisdictions. Establishing needed resource using uniform methodologies under the national guideline to ensure the provision of immediate, effective and appropriate response and relief measures to the affected population during disasters. The centre

must also establish operational guidelines for rapid assessment; to facilitate the classification of events as disasters regarding the extent of the magnitude and severity of damages and impacts; to prioritise immediate needs of the affected communities. Last, to implement appropriate relief measures, and to disseminate relevant information to other organisations involved in disaster response.

It is also responsible for strategic coordination and management of response to all non-security related disasters, which occur, or are potential threats together with the head of the centre. The head of the centre is also responsible for making recommendations to the appropriate organ of state or statutory function on whether a local state of disaster should be declared in terms of sections 23 of the Disaster Management Act, No 57 of 2002. That is if capabilities are exceeded, resources depleted and the municipal contingency fund threshold exceeded (Republic of South Africa, 2005).

If the head of the centre does not make recommendations to declare a local state of disaster to get external support, this may lead to more casualties and damages to properties during the disaster event and the event might affect or spread to other areas. When lives, livelihoods, infrastructures and properties are destroyed people start questioning the existence of a disaster management centre within their Metropolitan Municipality and might lead to the attack of disaster managers by the population they are tasked to service.

3.5.3 Integrated response and recovery

It is the responsibility of the centre to assign primary responsibilities to relevant organs of state for contingency planning for specific known rapid- and slow-onset hazards. The centre must consider operational plans and guidelines of other stakeholders involved in disaster management that contribute to field operations when assigning responsibilities for response and recovery. The aim is to identify gaps and thereafter provide training to achieve effective response in the event of a disaster. Operational plans and guidelines must be reviewed and updated annually or after the occurrence of a major disaster. Primary and secondary responsibilities must be assigned for each operational activity associated with disaster response – evacuation, temporary shelter, and emergency medical assistance (Republic of South Africa, 2005).

Lack of unity between disaster managers and other stakeholders involved in disaster management including community forums may lead to ineffective disaster response, which might result in mass loss. People have different perceptions regarding disaster management and its functions. If things do not go according to the community's way during relief operation, people might think relief operation is pointless and attack disaster managers.

3.5.4 Relief measures

Disaster relief operations must be coordinated. It is the responsibility of the centre to coordinate relief operations so that relief assistance and donations are equitably distributed among victims of disaster. The centre must develop regulations consistent with national regulations to regulate the practice and management of relief operations. The regulations must address donations appeals, relief standards (to keep up with international standards), period of relief operation, when to ask for outside assistance (i.e. provincial assistance), and when to assist other municipalities (Republic of South Africa, 2005).

Uncoordinated relief operation will not achieve its objective - life preservation and basic subsistence needs of the most affected population. Instead, it will lead to wastage of resources and tension among various humanitarian actors including delayed assistance.

3.5.5 Rehabilitation and reconstruction

The municipal disaster management centre is responsible for establishing task teams after a disaster occurs for rehabilitation and reconstruction. The programme or project must have a developmental or build back better focus (Republic of South Africa, 2005). Failure to restore or reconstruct will leave people unhappy and that will cause problems for disaster managers during the second episode of the disaster.

3.6 Analysis of the Disaster Management Act and the National Disaster Management Framework regarding humanitarian response challenges

One of the weakest aspects of the Disaster Management Act and National Disaster Management Framework is the lack of clear guidance to local municipalities on how to deal with humanitarian response challenges (van Niekerk, 2014). The researcher found that, the two documents provide clear guidance on how the municipalities can ensure an effective and appropriate disaster response in their jurisdictions. Yet, the

fact that disaster managers might run into stumbling blocks during the response period is ignored.

It is surprising how the documents ignore such an important issue given the importance of response and relief operations as these operations save lives, minimise damage, and assist people to strengthen their resilience after the event. The response and relief operations should not just be the provision of resources but exclusive. The National Disaster Management Framework gives guidance action on how to reduce vulnerabilities and disaster risks. It provides activities or strategies that can reduce the vulnerability of people such as prevention and preparedness planning prior to the disaster. Activities include early warning, education, and training of those most affected by the pending hazard. These activities are important in ensuring effective disaster response in case the hazard becomes a disaster. Yet disaster managers still encounter problems even after clear execution of these activities.

Furthermore, the policy and legislation does not pay enough attention to factors that are associated with vulnerability such as poverty, dense settlements and population growth when addressing disaster risk reduction. These underlying factors remain problematic during relief operation if not attended to before the disaster event.

3.7 Conclusion

To eliminate the hurdles encountered during humanitarian response operations disaster managers must adhere to the clear practice of KPA 4 on response and recovery. Efficient and effective humanitarian response operation requires constant development and update of disaster response strategy and this chapter showed how it can be achieved. The chapter provided realistic and measurable guidelines on how disaster risks can be reduced to strengthen the resilience of a community. The execution of the above can minimise the chances of disaster managers running into hurdles during disaster relief operations. Approved international and national policy frameworks were also discussed to see how they could facilitate disaster risk reduction in communities to avoid disasters or minimise the effects of the disaster.

CHAPTER 4: LITERATURE REVIEW

4.1 Introduction

Globally disasters cause large-scale damages, displacements and losses of properties and lives, which affect the livelihood of communities negatively. The government, together with non-governmental organisations and the private sector respond to such calamitous events to lessen the effects on the affected populace. However, when these organisations render humanitarian services, they encounter difficulties. Researchers have conducted studies on the challenges encountered during this critical phase of disaster management. Therefore, the aim of this section of the study is to review some challenges encountered during the humanitarian relief operations relevant to this study. Bharosa, Lee and Janssen (2009) highlight that, *“the identified past challenges continue to be relevant today”*. The researcher also believes that looking into those challenges will help guide and shape the directions of the study.

This chapter discusses the scholarly findings on challenges that humanitarian agencies encounter when responding to disasters globally. The chapter also discusses the root causes of humanitarian response challenges and strategies that humanitarian agencies use when responding to various disasters.

4.2 Challenges encountered during humanitarian response

According to Gelsdorf (2010), food crisis, financial crisis, extreme poverty, water scarcity, migration and population growth are the current challenges faced by humanitarian actors worldwide in the face of these calamitous events. These factors impede disaster managers from achieving an effective and coherent disaster response.

For example, if a decision to evacuate those severely affected by the disaster event to a temporarily shelter is made, other community members who are living in poor conditions in the area demand same benefits even if they are not negatively affected by the event. They also want the food parcels and blankets. If these people do not benefit in any form, they would attack disaster manager's carrying the relief goods or fight the recipients of the assistance. According to Kurtzer (2020), globally, over 660 humanitarian workers were attacked between the years 2014 and 2017, and 90% of those attacked were local relief workers. These attacks jeopardise the chances of aid

reaching the most affected and vulnerable people or for the victims to reach humanitarian workers.

Kurtzer (2020), found that access denial, delay (checkpoints) and diversion (taking other routes to avoid insecure areas) of humanitarian assistance are obstacles faced by disaster relief workers during disasters. This causes victims of disaster not to receive help quickly. The United Nations Children's Fund (UNICEF) (2017) views access denial as the largest challenge that humanitarian workers face during catastrophic events because humanitarian workers waste precious time negotiating access than doing their job.

According to Shipley (2019), the major challenge faced by humanitarian actors during relief operations is corruption. As far as humanitarian assistance is concerned, corruption involves more than cash bribes and other financial forms. According to Shipley (2019), corruption comes in different forms such as fraudulent diversion or theft of resources whereby relief workers use aid materials for their benefit or give them to people close to them. In addition, relief officials sometimes extort things from the affected population or exploit them sexually, especially women and girls seeking access to aid (Shipley, 2019).

Archer (2017) noted that during disasters, disaster managers are confronted with the challenge of a suddenly increased population. Sudden population influx puts more pressure on already-limited relief resources and that causes tensions between humanitarian workers and the community during humanitarian relief operations (Archer, 2017).

4.3 Root causes of humanitarian response challenges

According to Holloway et al., (2013), disaster events are no longer treated as isolated incidents without considering their root causes. To address the challenges efficiently, underlying causes and their inter-connectedness need to be identified and addressed. Al-Dahasha & Kuateunga (2018) in their study found that lack of modern technology and equipment, multiple sources for the decision at the scene, lack of public education and failure in imposing a proper security cordon, complicates relief work during disaster response.

Modern technology or equipment has changed the way people share or collect information and can enable disaster managers to deliver life-saving information. The technology can help to collect essential information and making a decision on an action plan during disaster events. According to Sakurai and Murayama (2019), social media such as Instagram and WhatsApp can provide humanitarian workers with crucial information such as geographical locations that can enhance situation awareness during the relief operation.

The lack of public education can also cause problems between the humanitarian actors and the populace they intend to service. The support of local communities including their close participation during a disaster response phase is important in achieving an effective operation. If a local community has a different perception of how the relief operation should be conducted or what the needs of the affected people are, things can go wrong during the relief operation. In extreme cases, people might obstruct access routes to prevent disaster managers from entering the area. According to UNOCHA (2018), the first philanthropic player on the spot after a disaster occurs in a community is the community members. Thus, the world outside the affected community or country comes in to provide a supportive role. This means the external supporters (disaster managers) must operate within the local community's system. If there is no prior public education regarding disaster management including its functions, conflict of interest is bound to arise between the external supporters and the community.

An unstable security situation during disaster response compromises the safety of disaster managers and of those severely affected by a disaster, especially when the community and the external supporters differ in opinions regarding the provision of assistance. According to the UNICEF (2017), humanitarian workers find themselves investing more in security functions instead of relief functions. Prior relevant public training and warning for vulnerable communities coupled with the dissemination of warnings will ensure that people take ownership of the disaster risks. Ownership is the best defence because people will put measures to manage the hazard. As a result, people appreciate the collective effort and it will be easy for them to appreciate the assistance during times of need. They will understand that sometimes disaster impact demands capacity beyond the community's capabilities to rescue itself and so would need external assistance at some point. According to Kurtzer

(2020), violence against humanitarian workers and lack of security ruins the chances of relief workers accessing the most affected population. Therefore, proper security during the humanitarian response operation will also help to ensure that the most affected population gets the much-needed help on time.

Lack of financial resources, the endowment of equipment and tools are said to be a nightmare for disaster managers during disaster response (AL-Dahash, Thayaparan, and Kulatunga, 2016). Humanitarian workers are faced with the challenge of raising funds for humanitarian situations and it affects those mostly affected by disasters because of the huge gap between demand and supply. This sometimes leads to resources *“not moving towards greater flexibility but towards greater conditionality”* (UNICEF, 2017). Kurtzer (2020) further argues that, sometimes, governments exploit humanitarian response by reducing administrative allowances or by excessive taxes and fees. Davis (2002) highlights that humanitarian actors are forced to use the little they have to avoid their responsibilities being manipulated by political donors. Lack of financial resources denies the survivors of disasters the chance of rebuilding their lives.

Modern equipment and tools are essential in achieving the objectives of disaster response. Failure of this equipment and tools during the relief operation means that disaster managers and people must wait hours for the arrival of support resources (AL-Dahash, Thayaparan & Kulatunga, 2016). Late arrival of the supporting resources or depleted aid materials during the relief operation might result in an unhappy community that might lead to the attack on disaster managers by people whom they are intending to help. Furthermore, inadequate human resources to work in emergencies also affect humanitarian actors given the significant increase of humanitarian emergencies (UNICEF, 2017). A poor strategy to deal with the said factors or lack of it can worsen the situation while a good strategy can help disaster managers to implement the response plan (Neilson, Martin & Powers, 2008).

According to the International Committee of the Red Cross (ICRC) and Nanyang Technological University (2015), the lack of coordination among the various disaster response actors is another challenge faced by disaster managers. Lack of coordination leads to unnecessary duplication of efforts, wastage of resources, tension among various disaster response workers and delays in aid reaching the

most affected and vulnerable people (ICRC and Nanyang Technological University, 2015). Humanitarian aid coordination according to UNOCHA (2016) refers to various humanitarian actors working together under one umbrella to organise and provide relief operations to meet basic needs of those affected by a catastrophic event. Precise and realistic humanitarian assistance requires cooperation of all involved stakeholders including the community (Wankmuller and Reiner, 2020). Noran (2014) states several barriers for effective collaboration in disaster management.

- Different views of the roles of the participants leading to operational incompatibility.
- Mistrust among the intended participant members that may arise because of various reasons.
- Difficulties in coming up with functional collaborative teams due to disagreements precipitated by unclear rules.
- Focusing on a narrow and exclusive set of collaborative aspects that may leave out other important issues.
- Bureaucracy leading to slow decision making that culminates in information and cooperation impediment.
- Overriding of decisions among and within teams rather than engaging each other cooperatively.
- Inability to join and operate in a task upon being summoned on an impromptu basis.
- Difficulty in identifying suitable candidates to constitute teams that are versatile.

The above-listed hindrances to collaborative disaster response call for disaster managers to have strategies in place to overcome the said barriers during the relief operation. This places the responsibility of setting up strategies on disaster managers to ensure that the relief operation is efficiently done in their jurisdictions. Altay and Labonte (2014) suggest the following strategies for disaster managers to avoid misinterpretation and excessive information:

- When information is inadequate, disaster managers should rely on assumptions of data or accelerate information processing if there is an overload of information.

- Separate and clarify roles and expectations because the lack of clear roles has implications for how humanitarian assistance functions.

The cooperation of stakeholders saves effort and resources and it substantially reduces response time because it reduces tension between relief workers and the community (UNOCHA, 2016). Tipper cited by Humanitarian Logistics Association (HLA) (2017) views efficient disaster response as both a science and art. Science refers to disaster managers knowing their rights and responsibilities as per disaster legislation and policy, including the proper use of tools such as rapid assessment. While the art is the implementation of the science as the event unfolds. For a relief operation to be effective, it is important that all participating stakeholders including the community meaningfully participate in the science and art during the disaster response phase.

4.4 Strategies that humanitarian agencies employ when responding to various disasters

Disaster response strategy or activity that encompasses the above factors including other underlying factors to vulnerability is developed based on a sound assessment of risks and can help disaster managers to avoid obstacles and secondary events during the disaster (United Nations International Strategy for Disaster Reduction (UNISDR) & United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), 2008).

Looking at problems that could hinder effective humanitarian response during catastrophic events, Noran (2014) suggests solutions inspired by collaborative networks, interoperability and enterprise architecture research disciplines.

- Roles of participants should be clearly laid out and agreed upon.
- Building of confidence and trust among teams well in advance.
- Use of participatory and inclusive approaches by the lead team.
- Adopting a holistic approach, which brings in all the relevant issues.
- Elimination of bureaucracy and creation of information and process interoperability.
- Participants prepared well in advance to engage in the various disaster response task forces.

- Teams to work cooperatively following agreed and laid out modes of operation.
- Taskforce members to be prepared in advance so they are readily available when the need arises.

The implementation of the above proffered solutions should see effective humanitarian operation during catastrophic events.

Tipper (2016) highlights the challenges of choosing how to respond to difficult humanitarian situations and outlines two different frameworks for action: Classical and Naturalistic. A classical decision occurs at the non-operational level. It outlines the potential outcomes of the options available and compares outcomes to determine which is best (Tipper, 2016). Risks are weighed during the catastrophic event to determine which part of the affected area disaster managers should concentrate their assistance. This is done to avoid relief workers becoming confused and ending up double compensating or depleting the resources without meeting the disaster response objective especially during a large-scale disaster. Moreover, the classical decision is more of a reassurance for disaster managers that they are fulfilling their responsibility to assist those most affected by the disaster and vulnerable groups (Tipper, 2016).

A naturalistic decision is viewed as the selection of the first option from a classic decision. The first one that comes to mind must be evaluated quickly to see if it will yield positive results. Decisions are evaluated to select or find the most appropriate option (Tipper, 2016). Studies done by Noran (2014) and Tipper (2016) have answered part of the problems encountered by the CoE disaster managers during disaster relief operations in their jurisdiction.

4.5 Conclusion

Chapter 2 of this study gave details of how a decision is evaluated following an event to generate credible evidence sufficient to guarantee implementation. For a humanitarian response to be effective, it must be principled, informed, coordinated, appropriate and accountable. This chapter gave details of how a balanced humanitarian relief operation can be achieved by addressing the underlying causes of the challenges encountered during relief operations and employing strategies to deal with them. Furthermore, precise and realistic humanitarian assistance can be

achieved by implementing 'antidotes' of the challenges encountered during the operation. For these reasons, it is necessary to find solutions to the challenges that disaster managers face while helping those affected or vulnerable to disasters. Chapter 5 of this study provides the methodology to be used in finding the remedies for the challenges that the CoE disaster managers face when assisting victims.

CHAPTER FIVE: RESEARCH DESIGN AND METHODOLOGY

5.1 Introduction

A qualitative research approach was used to examine the response challenges encountered and the strategies employed to resolve them by the City of Ekurhuleni disaster managers when providing humanitarian assistance during disasters within their jurisdiction. According to Reeves, Peller, Goldman, & Kitto (2013) a qualitative research studies people (communities, organisations and teams) in their own environment to get the stories of their lived experiences. A qualitative approach will ensure that the target population (CoE disaster managers) are given a platform to express their opinions and lived experiences regarding the subject matter, while the objective of the study is obtained. Therefore, this chapter outlines a detailed plan and the methodology used including instruments, data collection and analysis methods used to obtain the information and achieve the objectives of the study.

The following research question and sub-questions were to be answered:

Research question

Could a humanitarian response plan effectively be used as a tool for addressing disaster response challenges faced by disaster managers in the City of Ekurhuleni?

Research sub-questions

- i.) What response challenges do City of Ekurhuleni disaster managers' encounter when responding to disaster incidents?
- ii.) Does the City of Ekurhuleni disaster management center have a humanitarian response plan to address the challenges?
- iii.) Does the South African disaster management legislation and policy prescribe guidelines on addressing humanitarian response challenges?
- iv.) What are the recommendations for addressing the challenges encountered by the City of Ekurhuleni disaster managers' when responding to disaster incidents?

By answering the above questions, the study would achieve the following objectives:

- i.) To examine the response challenges encountered by CoE disaster managers when responding to catastrophes;

- ii.) To evaluate the humanitarian response plan used to address the challenges faced by the City of Ekurhuleni disaster management centre
- iii.) To evaluate South African disaster management legislation and policy regarding humanitarian response challenges; and
- iv.) To suggest recommendations for addressing the challenges encountered by the City of Ekurhuleni disaster managers' based on the research findings.

5.2 Research design

A research design is the set of methods and techniques used for collecting, analysing, interpreting and reporting data in accordance with the study objectivity (Boru, 2018). It is the conceptual blueprint of a research study (Akhtar, 2016). In short, it is the action plan for addressing the research problem. According to Jilcha (2019), a research design determines how data is obtained for a study. It plays a key role in detailing the techniques for gathering data including the methods to be used in obtaining the information, the tool(s) to be used and the administration of the tool(s), and "*how all of this is going to answer the research question*" (Boru, 2018).

The goal was not to generalise but to investigate the challenges encountered and the strategies used by disaster managers while providing help to the communities. To ensure that the study attains its goal and objectivity, in-depth semi-structured interviews were used to explore opinions and experiences lived by individuals. According to Bolderston (2012), ethnography, grounded theory and phenomenology are common approaches in qualitative research. However, due to the given number of disaster managers in the CoE the latter (*phenomenology*) is preferable. *Phenomenology* – is rooted in investigating the experiences of people (communities, organisations and teams) to understand their lived experiences (Bolderston, 2012). While Neubauer, Witkop & Varpio (2019) describes phenomenology as the study of an event or phenomenon through the perspective of those who are in the situation. In short, phenomenology is based on a participant's subjective experiences and the way they perceive and interpret them. Based on this strategy, any experience outside the targeted population experiences was ignored because they were not of value or useful in coming up with solutions or recommendations.

5.3 Research methodology

Merriam-Webster (2020), describe research methodology as ‘a set of methods, rules, or ideas’ employed by a study. While Kothari (2004) refers to research methodology as a systematic way of solving the research questions. “*It encompasses concepts such as paradigm, theoretical model, phases and qualitative or quantitative procedures*” (Igwenagu, 2016). The researcher’s choice to undertake a qualitative approach will ensure that rich and detailed data from the perspective of participants regarding the topic is produced (Bush, 2016; Cader, 2016; Larry, 2014). However, this also depends on the form of methods used to collect the information. Many methods are used in qualitative research to collect data. According to Reeves, Peller, Goldman & Kitto (2013) to transcribe the culture, perspectives, and practices of individuals or groups of individuals, most often, a face-to-face interview method is used in this approach. Hammarberg, Kirkman & de Lacey (2016) wrote that, the face-to-face interview method ensures that the researcher obtains in-depth information regarding the topic at hand.

5.4 Data collection tools

Kabir (2016) describes data collection tools as a means of collecting detailed answers and measuring data from variables of interest to solve the problem. In short, data collection tools are means to collect primary research findings. According to Yin (2014), questionnaires and interviews are the most common means of collecting data in the field of research. As highlighted above, the study will utilise a face-to-face interview process to attain its objectivity. A face-to-face interview or one on one interview is a data collection method, which directly involves the participant and the interviewer. The researcher travels to participants and physically asks the survey questions or it can be done over the telephone (Marshall, 2016). A telephone interview produces the same result as face-to-face. According to Bolderston (2012), remote interviews such as telephone and internet or e-mail’s are reliable and efficient forms of data collection. A face-to-face interview using a technology device such as a smart phone and tablet or personal computer allows the respondent the chance to be interviewed in his or her own comfortable, familiar space, and to feel free to express their opinions. Strict Covid-19 preventative measures such as wearing of a face mask; physical distancing and sanitising of hands were adhered to while conducting the interviews. In some instance Zoom technology was used to access

practitioners working from home. Zoom accorded the researcher the same intensive interview as in-person.

The researcher porbed for explanations of responses and clarified questions that respondents found confusing or ambiguous to get more information, annexures (interview guide) is below for reference. The interview was structured in five categories. Section A asked the respondents demographic characteristics while section B – E required the respondents to give detailed information. Sundler, Lindberg, Nilsson & Palmer (2019) links probe questioning to a reflective attitude. Nurfaidah (2018) defines reflective attitude as, “*being open-minded, wholehearted and responsible*”. Therefore, probe questioning gave participants a chance to reflect during the interview and admit if previous fact(s) are wrong (Nurfaidah, 2018).

5.5 Data analysis

The one on one interview generated a large amount of information, which required the researcher to do a lot of reading to analyse such a large amount of data (Wong, 2008). Kawulich (2004) describes data analysis as the process of reducing a large amount of information collected by extracting useful information and making sense of it. According to Wong (2008), the researcher needed to identify significant patterns including the similarities or differences in collected data to extract useful information.

According to Braun & Clarke (2012), thematic analysis is a popular method used to extract useful information in qualitative research. Thematic analysis refers to identifying common patterns in collected data according to the way they relate to the topic at hand. O'Connor & Gibson (2003) summarised thematic analysis by stating that, it involves lots of reading and reviewing the collected data to code, group, and relate different ideas. Therefore, the researcher coded and grouped ideas that came up repeatedly in the data to analyse them.

To ensure that data was not compromised during analysis, the following interactive phases of thematic analysis by Mortensen (2020) were followed:

- *Data familiarisation* - the researcher started by going through the audio recordings and texts to familiarise himself with the collected data, identified common elements, and took notes (Labra, Castro, Wright & Chamblas, 2019).

- *Generate initial data codes to describe the content* - according to Mortensen (2020) this phase involves the part where the researcher writes down a code each time he/she come across something interesting in the data. During this phase, the researcher grouped elements according to similarities or differences (Labra et al, 2019).
- *Search for patterns* – after grouping the data, the researcher used words or phrases that aligned with the purpose of the study taken from the collected data. The researcher revisited the words and phrases and he was able to tell a story according to the respondents words and phrases (Mortensen, 2020).
- *Presenting and discussing the result* – the researcher wrote the findings.

5.6 Conclusion

The chapter outlined the research design and methodology followed in this study. Detailed information regarding the method used in collecting data was also covered including the strategic plan to scrutinise collected data to ensure it answered the research questions. Chapter six builds from this methodological proposition, it provides the results, discussion and interpretation of findings.

CHAPTER 6: DATA ANALYSIS AND PRESENTATION OF RESULTS

6.1 Introduction

This chapter presents the results of the data obtained from the field concerning the research objectives. It discusses the demographic characteristics of respondents; the challenge experienced in the City of Ekurhuleni during humanitarian response and evaluates the root causes of humanitarian response challenges and the response strategies. The research project is underpinned by the following question and sub-questions:

Could a humanitarian response plan effectively be used as a tool for addressing disaster response challenges faced by disaster managers in the City of Ekurhuleni?

and

- i.) What response challenges does the City of Ekurhuleni disaster managers' encounter when responding to incidents?
- ii.) Does the City of Ekurhuleni disaster management center have a humanitarian response plan to address the challenges?
- iii.) Does the South African disaster management legislation and policy prescribe guidelines on addressing humanitarian response challenges?
- iv.) What are the recommendations for addressing the challenges encountered by the City of Ekurhuleni disaster managers when responding to incidents?

6.2 Demographic characteristics of respondents

Eight participants were selected for interviews using the phenomenological approach. The criteria ranged from lower ranking officials to senior disaster managers in the City of Ekurhuleni (CoE). Junior and senior disaster managers were believed to have acquired in-depth knowledge of the subject matter. The mean age of the participants was between 30 and 41 with 6 females and 2 males. The education status of disaster managers in the City of Ekurhuleni disaster management centre influences their ability to make decisions associated with humanitarian response (Davis, 2018). Participants agreed by stating that sometimes

they have to use discretion to overcome the challenges they face with during humanitarian response.

6.2.1 Education status of respondents

Concerning the results from the interviews, all disaster management managers in the City of Ekurhuleni had tertiary qualifications. The results from the respondents support the idea of Cohen (2015) who suggested that disaster managers should apply their knowledge, skills and experience in professional standards, laws and ethical principles to make informed decisions during humanitarian response. It is important for disaster managers to obtain relevant qualifications for them to be able to conduct rapid assessment, and use proper documented procedures to analyse the facts, circumstances and make decisions.

In the humanitarian response, people at risk need timely and effective communication. According to the UNHCR (2016) timely and effective communication depends on quality information, better coordination and better decision- making and thus improving the response to the beneficiaries.

6.3 Challenges encountered during humanitarian response

The respondents were asked to identify and list the challenges that they encounter when responding to disasters. They were required to list all the challenges that apply. As presented in figure 6.1 below, most of the respondents mentioned insufficient resources (eight), corruption (eight) and political interventions (seven), community unrest (six) and the lack of coordination among humanitarian agencies (four). Based on these responses, the major challenges were corruption and insufficient resources.

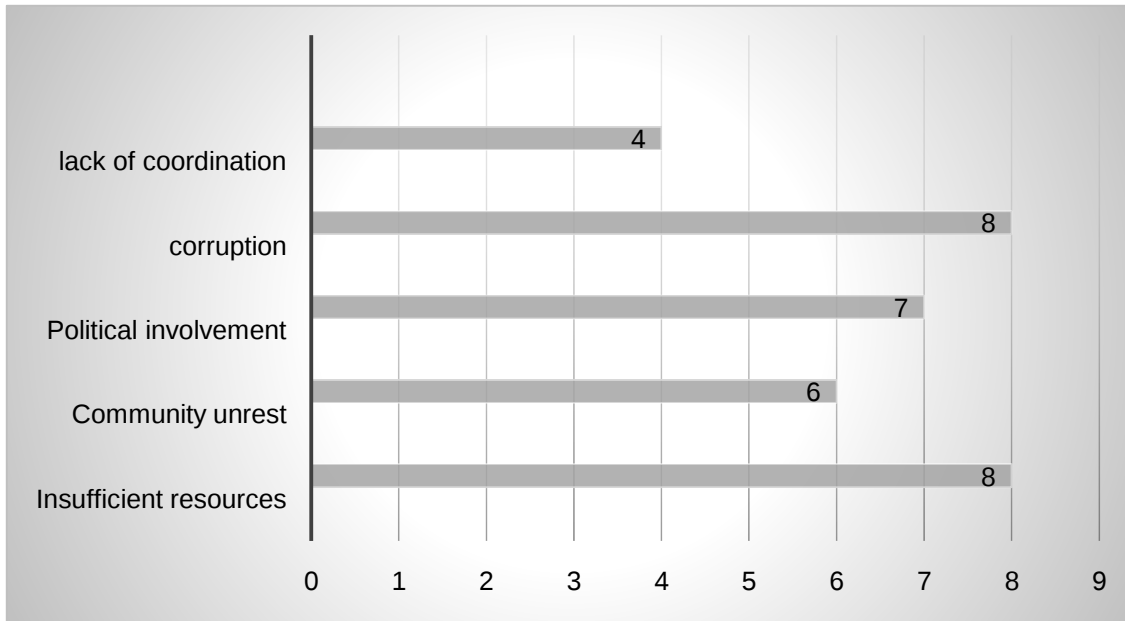


Figure 6.1: Challenges that are faced by disaster managers in the City of Ekurhuleni

Source: Field survey 2021

Many researchers confirmed in their studies, that disaster managers are facing more challenges during humanitarian responses (Archer, 2017; Gelsdorf, 2010; Kurtzer, 2020; and Shipley, 2019). Humanitarian response focus is to save lives and provide basic needs to the affected population usually on a short-term basis until sustainable solutions are found. However, on many occasions, the distribution of resources becomes a difficult task. In the context of the Disaster Management Cycle Framework, which was adopted for this study, Asghar, Alahakoon and Churilo (2006) suggested that, it could be used to identify redress for challenges encountered during humanitarian operations. It simplifies complex events when responding to catastrophes, it quantifies disaster events, it allows for active coordination and collaboration during relief and recovery efforts and it facilitates the planning process and the comprehensive completion of disaster management plans.

South Africa is currently experiencing multi-dimensionality of hazards, which calls for relief resources and humanitarian aid at the same time. For example, before COVID-19 occurred, the country experienced long dry seasons (drought) and at the beginning of the year 2021, the tropical cyclone ELOISE occurred. Humanitarian workers are faced with the challenge of distributing limited relief materials to meet the huge number of affected communities. Population expansion puts more pressure on already-limited relief resources that causes tensions between humanitarian workers and the affected communities.

The respondents' observations in terms of corruption are consistent with the finding of the study by Shipley (2019) who discovered that as far as humanitarian assistance is concerned, corruption comes in different forms such as theft of resources whereby relief workers use aid material for their benefit or distribute to people who do not qualify.

Political intervention was found to be a major concern during the process of distributing humanitarian response. The respondents suggested that political leaders within the communities have the tendency of manipulating or controlling the distribution of resources in favour of their friends or family. This view is supported by the findings of Bommer, Dreher and Alvarez (2019) study that revealed that during the cyclone Nargins at Myanmar that killed approximately 140 000 people, the humanitarian relief was systematically blocked and delayed for political reasons. In their research, they suggested that to facilitate rapid and efficient assistance that is independent of politics, such aid is supposed to follow the principle of impartiality that humanitarian action should be implemented based on need, without discrimination on the grounds of other factors such as sex, ethnic affiliation, religion or political views.

Poor coordination from the sector departments and the organisations responsible for disasters is considered a serious challenge for managing the humanitarian response. The respondents believed that assisting organisations are not sufficiently coordinated, cooperative at various levels from the management and strategic at operational levels. As a result, due to the lack of coordination, resources, staff and equipment are sent to the affected regions but without proper coordination. ICRC and Nanyang Technological University (2015) who sited lack of coordination results in unnecessary duplicates of efforts, misuse of resources and delay in distributing aid to affected and vulnerable people, support these findings. Poor incident management also results in lack of efficient and effective accountability.

The respondents' were also concerned about community unrest, which is caused by communities' high expectations during such events. According to a respondent, *'community members see disaster management officials as people who donate food parcels and blankets during catastrophic events'*. After a disaster occurs, one of the responsibilities of disaster management officials is to conduct damage assessment

of the affected communities. People expect assistance within a short period. When their expectations are not met, they start to complain and sometimes protest. This condition threatens the lives and safety of humanitarian workers.

With the above information, on a scale of 1 to 5, 1 being the most problematic area, disaster managers were asked to select the areas that they mostly experience challenges in the City of Ekurhuleni during response operation. As presented in Table 6.1 below, Etwatwa was mentioned to be the most problematic area followed by Benoni, Thembisa and Daveyton.

Table 6.1: Areas within the City of Ekurhuleni in which disaster managers experience most challenges

City of Ekurhuleni problematic areas ↓	SCALE → 1- Most problematic 5- Least problematic				
	1	2	3	4	5
Etwatwa	H				
Benoni		M			
Thembisa			L		
Daveyton			L		

Source: Field survey 2021

City of Ekurhuleni is one of the fastest-growing areas in South Africa (IDP, 2013). Many factories that produce goods and commodities are in Ekurhuleni where manufacturing accounts almost 20% of the gross domestic product of Gauteng. The municipality is home to OR Tambo international airport, the busiest airport in Africa. South African largest railway hub is in Ekurhuleni (Germiston) and links the

population of all major centres and ports in the Southern African region. All this makes it a potential target for employment seekers from inside and outside the country. With a total surface area of 1928 kilometres, a population of 3.2 million and 896 117 households and approximately 1650 people per square kilometre makes the City of Ekurhuleni the most densely populated city in Gauteng province (City of Ekurhuleni Annual Report, 2010/11).

The City of Ekurhuleni has a huge informal settlement with shacks and backyard shacks which are situated on unsuitable and vulnerable land. Etwatwa, Benoni, Thembisa and Daveyton are some of the areas that are concentrated with informal settlements. Population growth, urban migration, economic vulnerability and multi-dimensionality of risks are all compounding challenges during disaster response.

6.4 Causes of humanitarian response challenges in The City of Ekurhuleni

To address the challenges efficiently, underlying causes should be identified. Disaster managers were asked to outline what they felt were the causes of challenges during humanitarian response based on their experience of the operations. Lack of public education and awareness, limited resources, poverty, political involvement were mentioned as some of the causes of challenges during humanitarian response.

Most of the participants claimed that the lack of public and organisational education is considered the most important barrier. Communities affected by a disaster are not familiar with the procedures that are used to identify people in need, delivering and distribution of humanitarian aids. Such lack of information may cause conflicts between humanitarian workers and the beneficiaries. Safarpour (2020) findings revealed that in many aspects of humanitarian response, people are not familiar with ways of helping and people who are interested in humanitarian aids are not informed of which kind of donation, to whom, in which time and how it should be delivered.

On several occasions, the resources provided are not sufficient to meet all the needs of the affected households. Concerns arise when disaster managers have to decide on who should get assistance first.

South Africa is largely characterised by extreme poverty and income inequalities, which continue to leave community and households in a devastating state of

vulnerability and need (Gelsdorf, 2010). In many areas of Ekurhuleni, the situation is worse with most of the shack dwellers having their shacks and property being destroyed during restructuring of informal settlements (IDP, 2020/21).

Political preference also cause challenge during the distribution of humanitarian aid. Some political leaders prefer aid to be donated to their supporters and make unrealistic promises to the affected communities as a way of increasing the support base. According to Bommer, Dreher and Alvarez (2019), politicians try to direct aid to reward those who support them so that others will do the same in future.

6.5 Response strategies in the City of Ekurhuleni

The Disaster Management Act, 2002 (Act No. 57 of 2002) as amended requires an integrated and coordinated policy that focuses on rapid and effective response to disasters and post-disaster recovery and rehabilitation. The National Disaster Management Framework of 2005 addresses key requirements that ensure planning for disaster response and recovery. When a significant event or disaster occurs or is threatening to happen, there must be no confusion as to the roles and responsibilities and the procedures to be followed (van Niekerk, 2014).

With this background, the respondents were asked if there is an existing disaster management plan or humanitarian response plan for the City of Ekurhuleni that deals with response operations. Five out of eight disaster managers agreed that the City of Ekurhuleni had a humanitarian response plan whereas three disaster managers were not familiar with that plan.

Five respondents were further asked about the content of the response plan of the City of Ekurhuleni whether it includes the activities that are listed in Table 6.2 below. Four respondents out of five confirmed that rapid assessments in the City of Ekurhuleni are done and the decisions of humanitarian response are based on procedures documented in the response plan. This result is consistent with the finding in section 6.2.1 that all disaster management managers at the City of Ekurhuleni disaster management centre have professional qualifications and can conduct rapid assessments, and use properly documented procedures to analyse facts, circumstances and make decisions.

Table 6.2: Contents of the City of Ekurhuleni response plan

Does the response plan include the following?	Number of respondents
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	Yes	No	Maybe
Rapid assessment	4		1
Decision-based on professional judgement, e.g. what should happen if people refuse temporary shelters?	4	1	
Evaluate the decision, e.g. Is this decision in the best interest of the community?	4	1	
Command implementation, e.g. after deciding, is the decision implemented.	4		1

Source: Field survey 2021

The respondents were asked further if the response plan includes the outline of the Key Performance Area (KPA) 4: Response and recovery as stated in the National Disaster Management Framework of 2005. The respondents confirmed that the response plan of the City of Ekurhuleni includes all the contents as per the KPA 4.

Table 6.3: Elements of KPA 4

Does the response plan include the elements of KPA 4?	Number of respondents		
	Yes	No	Maybe
Dissemination of early warnings.	5		
Assessment, classification, declaration and review of disaster.	5		
Integrated response and recovery.	5		
Relief measures.	5		
Rehabilitation and reconstruction.	4		1

Source: Field survey 2021

According to the responses from respondents, early warnings have been designed to alert communities and individuals about an impending or imminent event or disaster so that they can take the necessary steps to avoid or reduce the impact of the risk and prepare for an effective response. South African Weather Service (SAWS) was mentioned as a government agency that disseminates warnings related to weather. People receive warnings through radio, television and social media.

The respondents agreed that assessment, classification, declaration and review of a disaster occurrence are done to ensure immediate and appropriate response and relief actions when significant events of disaster occur or are threatening to occur. However, clear guidelines for the measures that have to be taken need to be established. The response plan also includes all affected and interested stakeholders for integrated coordination. Disaster managers ensure that relief operations, relief assistance and donations are distributed equitably.

Lastly, the respondents were asked whether the South Africa's Disaster Management Act, No. 57 of 2002 (as amended by Disaster Management Amendment Act, No. 16 of 2015) as well as the National Disaster Management Framework of 2005 prescribe guidelines of addressing the humanitarian response challenges. Seven out of eight respondents indicated that the two policy documents only deal with recovery, and does not address the challenges incurred when responding. Their views are consistent with the analysis of van Niekerk (2014) which revealed that one of the weakest aspects of the Disaster Management Act and the National Disaster Management Framework is the lack of clear guidance to local municipalities on how to deal with humanitarian response challenges. The researcher found that, the two documents provide clear guidance on how the municipalities can ensure an effective and appropriate disaster response in their jurisdictions. Yet, the fact that disaster managers might run into stumbling blocks during the response period is highly ignored.

6.6 Chapter summary

This chapter presented the findings of the data obtained from the field concerning the research objectives. It discussed the demographic characteristics of the respondents; the challenge experienced in the City of Ekurhuleni during humanitarian response and evaluated the root causes of humanitarian response challenges and the response strategies.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This chapter presents the major findings of the study concerning the analysis performed in the previous chapter. The objective of the research was to investigate the challenges experienced by the City of Ekurhuleni disaster managers during a humanitarian response, as well as to assess the strategies they implement to resolve the challenges. To align the study's main findings, this chapter revisits the study objectives, which are:

- i.) To examine the response challenges encountered by City of Ekurhuleni disaster managers when responding to catastrophes;
- ii.) To evaluate the humanitarian response plan used to address the challenges faced by the City of Ekurhuleni disaster management centre;
- iii.) To evaluate South African disaster management legislation and policy regarding humanitarian response challenges; and
- iv.) To suggest recommendations for addressing the challenges encountered by the City of Ekurhuleni disaster manager based on the research findings.

Face to face interviews were used as the research instrument to collect data. The interview was used to collect data on the demographic characteristics of respondents, discuss the challenges experienced in the City of Ekurhuleni during humanitarian response and evaluate the root causes of humanitarian response challenges and the response strategies. Information was sought on whether the Disaster Management Act, 2002 (Act No. 57 of 2002) as amended (Act No. 16 of 2015) as well as the National Disaster Management Framework of 2005 prescribed guidelines on addressing the humanitarian response challenges.

The study took into consideration the insights of eight disaster managers, ranging from junior to senior disaster managers in the City of Ekurhuleni. The selection of the practitioners was based on the phenomenological approach with the aim of providing the researcher with detailed answers to the research questions, related to their lived experiences.

Interviews were conducted in English and transcribed, analysed and presented. The findings supported the adopted Disaster Management Cycle Framework, which guided the study. The use of the Disaster Management Cycle Framework was justified because it can identify redress for challenges encountered during humanitarian operations; it simplifies complex events when responding to catastrophes. It quantifies disaster events, and allows for active coordination and collaboration during relief and recovery efforts. The framework also facilitates the planning process and the comprehensive completion of disaster management plans. Therefore, this chapter presents the study conclusions, which include the study main findings, followed by the recommendations for the study and recommendations for further studies.

7.2 Study conclusion

Based on the analysis of the evidence derived from the field investigations, below are the conclusions of the study:

- The study sought to examine the response challenges encountered by the City of Ekurhuleni disaster managers when responding to catastrophes. Based on the data analysed, it was concluded that the major challenges were insufficient resources, corruption, political interventions, community unrest and lack of coordination among humanitarian agencies.
- Lack of public education and awareness, limited resources, poverty, political involvement are identified as the main causes of challenges encountered during the humanitarian response efforts.
- The study also evaluated the humanitarian response plan used to address the challenges faced by the City of Ekurhuleni disaster management centre. It was concluded that the City of Ekurhuleni has a humanitarian response plan, which included rapid assessment, response and recovery procedures.
- The assessment of the Disaster Management Act, 57 of 2002 and the National Disaster Management Framework, 2005, led to the conclusion that these two documents do not address the challenges faced by disaster managers.

The major findings of the study are summarised in the next section.

7.2.1 Challenges encountered during humanitarian response

The findings revealed that disaster managers face many challenges during humanitarian responses, including insufficient resources, corruption, political interventions, community unrest and lack of coordination among humanitarian agencies. Shortage of resources such as personnel, equipment and materials to meet the enormous needs of affected communities is concerning and causes tension between humanitarian workers and the affected communities. The political leaders within the communities who try to redirect or manipulate the distribution of aid resources to benefit their supporters and people close to them were also a concern.

The respondents believed that the organisations engaged in disaster relief operations are not sufficiently coordinated and cooperative at various levels resulting in unnecessary duplication of efforts, misuse of resources and delay in distribution of aid to affected and vulnerable people. Community members see disaster management officials as people who donate food parcels and blankets during catastrophic events and when their expectations are not met, they complain, and threaten the lives and safety of humanitarian workers. The most problematic regions identified in the City of Ekurhuleni were Etwatwa, Benoni, Thembisa and Daveyton.

7.2.2 Causes of humanitarian response challenges in the City of Ekurhuleni

Lack of public education and awareness, limited resources, poverty, political involvement were mentioned as the most causes of challenges during humanitarian response. The interviewees confirmed communities are not familiar with the procedures that are used to identify needy people, the delivery and distribution of humanitarian aids after a disaster, which causes conflicts between humanitarian workers and the beneficiaries. On several occasions, the resources are overwhelmed by large-scale emergency incidents. Poverty was found to exacerbate the households' vulnerability and need.

7.2.3 Response strategies in the City of Ekurhuleni

The practitioners confirmed that the City of Ekurhuleni has the humanitarian response plan document, which includes response procedures and the rapid assessment requirement for decision-making. The response plan also includes the contents of the Key Performance Area 4 as stated in the National Disaster Management Framework, 2005. It was confirmed that assessment, classification,

declaration and review of a disaster occurrence is done to ensure immediate response and relief actions when disaster occurs or are threatening to occur. However, the City's response plan is not capable of dealing with the challenges encountered during a disaster relief operation phase. Practitioners have to use their own judgment when faced with challenges during such a critical time. As one practitioner noted, 'every region of the city has their way of overcoming the challenges they are faced with'. Questions about the City's humanitarian response plan are raised when disaster managers find themselves having to decide on who gets the assistance first because of insufficient resources. There is no clear guidance in the City's humanitarian response plan for the practitioners to use when they encounter challenges during a disaster relief phase.

The study revealed that the Disaster Management Act, 2002 (Act No. 57 of 2002) as amended (Act No. 16 of 2015) as well as the National Disaster Management Framework of 2005, provide high-level, strategic insight into the development of aspects such as disaster response, coordination, preparedness and risk reduction measures. However, these two documents do not address the challenges faced during humanitarian response. The Act and framework provide clear guidance to local municipalities to ensure an effective disaster response in their jurisdictions. However, this legislation and policy omitted the fact that during disaster response disaster practitioners will incur challenges along the process.

7.4 Recommendations

The humanitarian response constraints must be minimised and where possible, eliminated as they derail the response management system. The existence of the identified challenges means that those affected by the event do not benefit from the response by receiving the much-needed assistance. To overcome constraints identified in the study and ensure that the City of Ekurhuleni disaster management centre achieves an efficient and effective humanitarian response that leads to a positive outcome when a disaster occurs, the following recommendations are made.

7.4.1 Development of a disaster preparedness plan

Investing in preparedness makes sense. Preparedness that is rooted in comprehensive risk and contextual analysis can minimise the potential of challenges during the disaster response. The centre should have adequate resources

especially, on relief items such as tarpaulins, canned food, blankets and first aid materials. Disaster relief organisations within the City should be encouraged to donate such items or fund them beforehand and store them in a warehouse to ensure that the centre meets the immediate needs of those in need on time. Better resource preparedness against risks is a central part of a comprehensive approach to disaster management, it means that when resources (relief items, funds, vehicles and warehouse) are in order, aid is delivered faster and efficiency increases.

7.4.2 Inclusion of specific hazard contingency arrangement in the humanitarian response plan

It is a good practice for humanitarian workers to ensure that planning for known risks is included in humanitarian response plans. Understanding the world of communities within the organisation parameters should lead to avoidance of community unrest. People are angry over service delivery, some communities live in abject poverty, lack of such knowledge and understanding will always affect the implementation of a proper response plan prepared for use during humanitarian response. The centre must include public awareness campaigns in community participation processes. Increasing general public knowledge regarding disasters will assist, as people will be able to separate politics and disaster relief efforts. The City must provide agenda that separates politics and humanitarian response to assist humanitarian workers during the relief response phase.

7.4.3 Develop a well-respected organisation

The behaviour of people changes over time. The organisation needs to develop a system, like an employee's chart to record the employee's performance. The chart will help monitor the behaviour of an individual within the organisation. It will be easy to recognise the difference in behaviour and to eliminate any cause of corruption as early as possible. The organisation should ensure that its duties under the Disaster Management Act, 2002 (Act No. 57 of 2002) as amended (Act No. 16 of 2015) are upheld and not subjected to improper political interference on a decision of disaster response. Investing in a relationship with politicians will assist the disaster managers to identify political losses that drive improper interference and take steps to diminish those losses (Mfuru, Sarwatt and Kanire, 2018).

7.4.4 Establish community-based capacity building

Local communities are the first responders to emergencies and they are the key actors in disaster risk management. Community capacity building should encompass all stakeholders and not be limited to students in primary and secondary school. Men and women need to be active players in disaster risk management and emergency response in the future. Broad community participation, as well as a unit of volunteers to participate in disaster management, must be initiated. Providing local communities with disaster risk reduction and humanitarian response knowledge means people will be familiar with the procedures that are used to identify needy people, delivering and the distribution of humanitarian aids.

7.4.5 Effective humanitarian response coordination

The partnership between municipal organs of state and the private sector, NGOs and CBOs exist for public awareness programmes and projects. The centre should have regular contact with these organisations to discuss the problems that the centre and practitioners are facing. One-on-one and group meetings will encourage people to integrate solutions that are acceptable to all. Coordination is a process, which means there must be regular contact. Effective communication will help in outlining the authority and responsibilities of each organisation and promote deep understanding among members by bringing and maintaining coordination to achieve an effective humanitarian response.

7.4.6 Reinforce humanitarian response plan

Disaster practitioners have a comprehensive and evidence-based understanding of why such challenges occur during relief response operations. Since the causes and motives are known, the response plan should be strengthened with appropriate and corresponding details of how to manage the challenges. When processes are documented it is much easier to defend and support the decision (Ivan, 2016) Operational guidelines need to be established for large-scale emergency incidents where a shortage of resources is likely.

7.4.7 The Disaster Management Act, 57 of 2002 and the National Disaster Management Framework, 2005

The disaster response will be much more effective if disaster practitioners have clear guidance on what to do when they encounter challenges during the disaster response phase. Guidance in respect to the challenges should not exist at the

national level. However, the Act and Framework should mandate local municipalities to have a humanitarian response plan that deals with challenges that arise during disaster relief operations. The two can set standards and boundaries for action, for example, by defining keywords such as improper political intervention, corruption for practitioners in the disaster management field. Also, provide guidance to local municipalities on underlying factors such as poverty, dense settlements and population growth. Addressing these gaps will lead to an efficient and effective humanitarian response.

7.5 Recommendation for further research

The research has led to some useful results and conclusions on challenges encountered during disaster relief operations. However, it will also be helpful to capture qualitatively the experiences and perspectives of other organisations involved in relief response operations such as the private sector, NGOs and CBOs. Further research could explore their lived experiences regarding humanitarian response and how collectively they might support effective disaster relief response operations. Furthermore, it would be helpful to explore the extent of the uncovered challenges such as corruption and lack of resources. The following ideas can be explored:

- Examine the attitude of top management regarding a shortage of resources
- What causes corruption in disaster management?

Such research might lead to further review of the National Disaster Management Framework of 2005 concerning humanitarian response.

Although the City of Ekurhuleni Disaster Management Centre has a humanitarian response plan, it does not address the challenges the practitioners face when providing the assistance. Therefore, it can be concluded that the findings of this study sufficiently validate its outlined objectives.

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ANNEXURES

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



DATE	 / / 2021
SURBURB	City of Ekurhuleni
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INTERVIEW GUIDE

I am a registered Masters in Disaster Management, student number 2017245081 from the University of the Free State – Disaster Management Training and Education Centre for Africa (UFS-DiMTEC). I am conducting a study in the City of Ekurhuleni Disaster Management Centre regarding the challenges encountered by disaster managers during the humanitarian response operations.

The title of the study is **HUMANITARIAN RESPONSE: INVESTIGATING THE CITY OF EKURHULENI'S STRATEGIES IN RESOLVING RESPONSE CHALLENGES.**

Your answers are confidential and all information obtained are for academic purposes only. Your honest answers to questions will provide an understanding of the challenges experienced by disaster managers and will assist in finding solutions to the challenges.

The research was reviewed and approved by the University of the Free State's Ethics Review Committee. You can contact the researcher, Tshepo Innocent Makua, at tshepomakua82@gmail.com or 083 747 1260 for more details of the study and findings.

- Please feel free to skip questions you are not comfortable with;
- You are free to discontinue the survey at any time;
- There is no reimbursement for participating in this research;
- To complete the questionnaire will take not more than 30 minutes.

Please indicate answers with an **X** in the applicable box, except when asked to give an answer.

Do you consent to participate in this survey?

YES	NO
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SECTION A: DEMOGRAPHIC DATA

1.	Please indicate your gender	1. Male	2. Female
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2.	Please indicate your age	1. 18	2. 19-29	3. 30-41	4. 42-53	5. over 54
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3.	What is the highest level of education you attained?	1. Never went to school	
		2. Primary School	
		3. High School	
		4. Tertiary Education	
		5. Vocational training	

SECTION B: HAZARDS IN THE CITY OF EKURHULENI

4. What hazards are experienced in the City of Ekurhuleni?

5. How often does the City of Ekurhuleni's Disaster Management Centre respond to incidents? *(Mark your answer with an X)*

Daily		Weekly		Monthly		Other (please specify)	
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SECTION C: RESPONSE CHALLENGES

6. Does the City of Ekurhuleni disaster managers encounter challenges when responding to an incident?

YES		NO	
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7. What challenges does the City of Ekurhuleni disaster managers face during humanitarian response operation? *(Please list all the challenges)*

8. In which areas of the City of Ekurhuleni do you most experience challenges you mentioned above? *(Please select 5 and mark with a number from 1 to 5, 1 being the most problematic)*

Northern Region	Eastern Region	Southern Region
------------------------	-----------------------	------------------------

Tembisa		Etwatwa		Alberton	
Kempton Park		Daveyton		Germiston	
Edenvale		Benoni		Boksburg	
Bedfordview		Brakpan		Katlehong	
		Springs		Vosloorus	
		Kwa Thema		Thokoza	
		Duduza		Palm Ridge	
		Nigel		Zonkizizwe	
		Tsakane			

8. What do you think causes the challenges?

SECTION D: RESPONSE STRATEGIES

9. Is there any humanitarian response plan in the City of Ekurhuleni that deals with the above-mentioned challenges?

YES		NO		NOT SURE	
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10. If Yes, Does the plan include the following:

	YES	NO	MAYBE	COMMENT
Rapid assessment				

Decisions based on professional judgement e.g what should happen if people refuse temporary shelters?				
Evaluate the decision e.g is this decision in the best interest of the community?				
Command/Implementation e.g after deciding, does the decision gets implemented?				
Other (please specify)_____				

11. Or, Does the plan include the elements set in KPA 4 of the NDMF for achieving precise and realistic relief operations? Such as:

	YES	NO	MAYBE	COMMENT
Dissemination of early warnings e.g communication, does the affected community receive the warning on time?				
Assessment and classification of a disaster, and declaration and review of a disaster e.g methodology, which guideline is				

used for assessment and classification of events as a disasters?				
Integrated response and recovery e.g operational plan, does other stakeholders (NGOs, Private sectors, and community organisations) contribute to field operations?				
Relief measures e.g resources, will the relief materials preserve lives during disasters?				
Rehabilitation and reconstruction e.g programmes, do the projects focus on improvements or building back better?				
Other (please specify)_____				

12. In case you answered NO or NOT SURE, how do you deal with the challenges?

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13. Considering the importance of humanitarian response, how do you ensure that your own judgement is in the best interest of the victims?

14. How have the City of Ekurhuleni communities been educated about disaster response and relief operation that take place after a disaster?

SECTION E: THE SOUTH AFRICAN DISASTER MANAGEMENT LEGISLATION AND POLICY

15. Do you think the South African Disaster Management Act 57 of 2002 (as amended, 16 of 2015) and the National Disaster Management Framework of 2005, discuss anything or provide any guidance on how to deal with the humanitarian response challenges you mentioned in Question 8?

16. What other policies do you know of that guide disaster managers in mitigating possible response challenges in the City of Ekurhuleni?

17. Other comments regarding disaster response challenges and strategies you would like to share.

THE END
THANK YOU FOR YOUR TIME

APPENDIX



DKM

LANGUAGE AND TECHNICAL EDITING • PROOFREADING • PLAGIARISM CHECKING • ACADEMIC RESEARCH
(THONS AND MASTERS) AND PROJECT SUPERVISION • BUSINESS PROPOSAL

30 June 2021

LETTER OF CONFIRMATION

I hereby confirm that I have done the language editing for the following dissertation:

Author: Mr Makua

Title: Humanitarian response: an investigation of the City of Ekurhuleni's strategies in resolving response challenges

Document: Masters in Disaster Management

This letter serves to confirm that I have edited Mr Makua document and I have made appropriate changes. The document was edited using track changes.

I am not responsible for any additional information that is added to the document after I have edited it. The student is responsible for the final document submitted.

I trust you find the above in order.

Regards

Registered Board: South African Translators Institute
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