

**COMMUNITY AWARENESS AND PARTICIPATION IN DISASTER RISK
MANAGEMENT: THE CASE OF KHAYELITSHA TR-SECTION**

TANO S. MWERA

**A mini thesis submitted in fulfilment of the requirements for the degree of Magister
Artium (MA) in Public Administration, School Of Government, and University of the
Western Cape.**



Supervisor: Dr. Leon G Pretorius

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DECLARATION

I declare that “Community awareness and participation in disaster risk management: The case of Khayelitsha TR-Section” is my own work, that it has not been submitted before for any degree or examination at any other university, and that all sources I have quoted have been indicated and acknowledged as complete references.



Tano S. Mwera

September 2013

Signed:

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DEDICATION

I dedicate this precious work to my parents, my late father, Seif Said Mwera and my living mother Maua Omari Mwangia, with thankfulness for raising me up to understanding the qualities of self- drive, determination, perseverance and patience.



TABLE OF CONTENTS

DECLARATION.....	ii
ACKNOWLEDGEMENTS.....	iii
DEDICATION.....	v
ABSTRACT.....	xii
KEY WORDS OR PHRASES.....	xiii
ACRONYMS AND ABBREVIATIONS.....	xiv
LIST OF TABLES.....	x
LIST OF FIGURES.....	xi
CHAPTER ONE: BACKGROUND OF THE STUDY.....	1
1.1.INTRODUCTION.....	1
1.2. BACKGROUND TO THE PROBLEM.....	2
1.3. PRIMARY OBJECTIVES.....	5
1.4.SIGNIFICANCE AND CONTRIBUTION OF THE STUDY.....	6
1.5.ASSUMPTIONS OF THE STUDY.....	6
1.6. SCOPE AND DELIMITATION OF THE STUDY.....	6
1.7. RESEARCH METHODOLOGY.....	7
1.7.1. Methodology.....	7
1.7.2. Quantitative method.....	7
1.7.3. Qualitative method.....	8
1.7.4. Semi structured interviews.....	8
1.7.5. Data Analysis and Presentation.....	9
1.8. RESEARCH PROCEDURE.....	9
1.9. RESEARCH LIMITATIONS.....	10
1.10. ETHICS STATEMENT.....	11
1.11. THE STRUCTURE OF THE THESIS.....	11
CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK...13	
2.1. INTRODUCTION.....	13
2.2. DISASTER STUDIES AND THEORIES.....	13
2.2.1. Evolution of Disaster Studies.....	13
2.2.2. Paradigm Shift	15
2.3. DEFINITION OF KEY TERMS AND CONCEPTS ON DISASTER.....	18
2.3.1. Disaster.....	18
2.3.2. Disaster Management.....	18
2.4. DEFINITION OF KEY TERMS AND CONCEPTS ON COMMUNITY AWARENESS PARTICIPATION.....	22
2.4.1. Participation.....	22
2.4.2. Participating Actors in Disaster Risk Management.....	23
2.4.2.1. International Actors.....	23
2.4.2.2. State.....	24
2.4.2.3. Private Sector.....	25
2.4.2.4. Nongovernmental organisation and Community based organisation.....	25
2.4.2.5. Academic Institutions.....	27

2.4.3. Mechanisms for community awareness and participation in Disaster Management.....	27
2.4.3.1. Disaster public education for awareness.....	27
2.4.3.2. Volunteerism.....	29
2.4.3.3. Local based structures.....	30
2.5. THEORETICAL FRAMEWORK OF THE RESEARCH.....	31
2.5.1. Political ecology of disaster.....	31
2.5.2. Decentralization.....	32
2.5.3. Capacity building.....	33
2.5.4. Social capital theory.....	34
2.5.5. Sustainability theory.....	34
2.6. TOWARDS COMMUNITY PARTICIPATION IN DISASTER RISK MANAGEMENT: EMPIRICAL REVIEW.....	36
2.7. SUMMARY.....	41
CHAPTER THREE: CASE STUDY AREA, POLICY FRAMEWORK AND INSTITUTIONAL ARRANGEMENT FOR COMMUNITY PARTICIPATION AND AWARENESS IN DISASTER RISK MANAGEMENT.....	42
3.1. INTRODUCTION.....	42
3.2. SOUTH AFRICA PROFILE.....	42
3.2.1. Location of South Africa.....	42
3.2.2. Population of South Africa.....	42
3.2.3. South Africa's Socio-Economic Profile.....	43
3.2.4. Overview of South Africa's hazards profile.....	44
3.3. KHAYELITSHA TR-SECTION CASE STUDY AREA.....	45
3.3.1. Khayelitsha TR-Section hazard profile.....	46
3.3.2. Factors exacerbating vulnerability.....	48
3.4. SOUTH AFRICA'S DISASTER MANAGEMENT LEGISLATIONS.....	50
3.4.1. Disaster Management Act 57 of 2002.....	51
3.4.2. The National Disaster Management Framework.....	52
3.5. COMMUNITY PARTICIPATION IN SOUTH AFRICA.....	53
3.6. INSTITUTIONAL ARRANGEMENT FOR COMMUNITY AWARENESS AND PARTICIPATION IN DISASTER RISK MANAGEMENT.....	55
3.6.1. Institution arrangement for community participation at Municipal level.....	56
3.6.1.1. Municipal Disaster Management Advisory Forums.....	57
3.6.1.2. IDP Structures.....	58
3.6.1.3. Ward structure and volunteers.....	59
3.6.2. Community awareness mechanisms.....	60
3.7. SUMMARY.....	62

CHAPTER FOUR: COMMUNITY AWARENESS AND PARTICIPATION IN DISASTER RISK MANAGEMENT; IMPLEMENTATION, PRACTICES AND IT'S EFFECTIVENESS.....	63
4.1. INTRODUCTION.....	63
4.2. CURRENT COMMUNITY AWARENESS AND PARTICIPATION MECHANISMS AVAILABLE IN DISASTER RISK MANAGEMENT.....	63
4.2.1. Current implemented community participation mechanisms in disaster risk management.....	64
4.2.2. Current implemented community awareness mechanisms.....	64
4.3. PRACTICE OF IMPLEMENTED COMMUNITY AWARENESS AND PARTICIPATION.....	66
4.3.1. Practice of implemented community participation mechanisms.....	66
4.3.1.1. Municipal disaster management advisory forums.....	67
4.3.1.3. Volunteers structure.....	67
4.3.2. Ward structure officials.....	70
4.3.2.1. Sub-Councils.....	71
4.3.2.2. Ward Councillors.....	73
4.3.2.3. Ward Committees.....	73
4.3.2.4. Community development workers.....	74
4.3.3. Practice of implemented community awareness mechanisms.....	75
4.3.4. Incident reports.....	76
4.4. SECTION TWO.....	77
4.4.1 Demographic characteristics of the sampled area.....	77
4.4.1.1. Gender and Age group characteristics of sampled households.....	77
4.4.1.2. Employment status of the respondents.....	78
4.4.1.3. Education status.....	79
4.4.2. Assessment of community awareness and understanding of the current community Participation mechanisms.....	80
4.4.2.1. Mechanisms awareness.....	80
4.4.2.2. Performance and Relationship with elected Councillor.....	81
4.4.2.3. Awareness and relationship with Ward Committees Members.....	82
4.4.2.4. Relationship with community development worker.....	83
4.5. ASSESSMENT OF THE EFFECTIVENESS OF THE COMMUNITY AWARENESS AND PARTICIPATION.....	84
4.5.1. Knowledge and awareness of the hazards risk.....	85
4.5.2. Knowledge of mitigation measures.....	86
4.5.3. Knowledge of disaster preparedness measures.....	88
4.5.4. Media usage.....	89
4.5.5. Frequencies of meeting attendance.....	90
4.5.6. Capacity assessment.....	92
4.6. SUMMARY.....	94

CHAPTER FIVE: SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS...	95
5.1. INTRODUCTION.....	95
5.2. SUMMARY OF THE MAIN FINDINGS IN AN OBJECTIVE ANALYTICAL ORDER.....	96
5.2.1. Summary of the main findings of objective one.....	96
5.2.2. Summary of the main findings of objective two.....	96
5.2.3. Summary of the main findings of objective three.....	97
5.2.4. Summary of the main findings of objective four.....	100
5.2.5. Summary of the main findings of objective five.....	100
5.3. THEORETICAL REFLECTIONS OF THE STUDY.....	101
5.3.1. Political ecology of disaster/Paradigm shift.....	101
5.3.2. Decentralization.....	102
5.3.3. Capacity building.....	103
5.3.4. Social Capital Theory.....	103
5.3.5. Sustainability theory.....	103
5.4. CHALLENGES ON COMMUNITY PARTICIPATION.....	104
5.4.1. Political tension.....	104
5.4.2. Lack of Capacity and political will.....	104
5.4.3. Lack of resources for community participation.....	105
5.4.4. Communication facilities.....	105
5.4.5. Legislative challenge.....	106
5.4.6. Crime.....	106
5.4.7. Socio-economic problems.....	106
5.5. RECOMMENDATIONS.....	106
5.6. AREAS OF FURTHER RESEARCH.....	110
5.7. CONCLUSIONS.....	111
REFERENCES.....	112
APPENDIXES.....	131

LIST OF TABLES

Table 4.1. Age group percentages	77
Table 4.2. Employment percentages.....	78
Table 4.3. Social grant percentages.....	79
Table 4.4. Monthly Incomes.....	79
Table 4.5. Education percentages.....	80
Table 4.6. City of Cape Town Disaster Risk Management is responsible for disaster management Within municipality.....	81
Table 4.7. Do you know about volunteering in disaster risk management?.....	81
Table 4.8. Councillor performance is not good during emergency/disaster.....	82
Table 4.9. Ward Committee’s members are not working together with community during emergency or disaster.....	83
Table 4.10. Community Development worker performance is excellent during emergency or disaster.....	84
Table 4.11. Floods is the most hazardous event that might cause disaster in my area.....	85
Table 4.12. Fire is the hazardous event that might cause disaster in my area.....	85
Table 4.13. I have been asked to raise my floor above ground level.....	87
Table 4.14. I have been advised on building materials to use to build my house.....	87
Table 4.15. I have been told to build homes at least three metres apart to prevent fires from spreading.....	87
Table 4.16. I have been educated about early warning mechanisms, what they mean and the possible actions that will be taken.....	88
Table 4.17. I have been taught about evacuation procedures.....	88
Table 4.18. I have family emergency plan.....	89
Table 4.19. Media usage.....	90
Table 4.20. How often do you attend community meetings about disaster risk management issues?.....	91
Table 4.21. How often do you attend disaster preparedness events?.....	91
Table 4.22. I attend one of the jungle theatre spirits of fire drama.....	92
Table 4.23. I do have family disaster preparedness guidelines booklets.....	93
Table 4.24. I do have pamphlets teach me how to protect myself from floods.....	93
Table 4.25. I often receive pamphlets about disaster management written in Xhosa.....	93

LIST OF FIGURES

Figure 2.1. The disaster management cycle.....	20
Figure 2.2. Main phases of disaster management cycle.....	21
Figure 2.3. Theoretical framework model.....	36
Figure 3.1. Political map of South Africa.....	43
Figure 3.2. Bongani TR-Section of Khayelitsha.....	47
Figure 3.3. Population distributions of Cape Town.....	49
Figure 3.4. Stakeholder participation structure at municipal level.....	57
Figure 4.1. Example of one educational material.....	66
Figure 4.2. Community participation model applied by Disaster Risk Management.....	71
Figure 4.3. Gender distributions of the sampled area.....	77
Figure 4.4. Employment status of the area.....	78
Figure 4.5. Education percentages of the area.....	80
Figure 4.6. Ward committee's member's relationship graph.....	83
Figure 4.7. Floods graph.....	86
Figure 4.8. Community meetings attendance graph.....	91
Figure 4.9. Disaster events graph.....	91



ABSTRACT

Community participation and awareness in disaster risk management is widely recognized as a cornerstone for disaster risk reduction and effective response and recovery strategies. This goes parallel with the world paradigm shift from relief and response to prevention and mitigation. There is gradually increase of fire and floods in informal settlements and Khayelitsha TR-Section in particular. *“From 1995-2005 more than 8554 informal dwelling fire incidents occurred in Cape Town alone, affecting 40 558 households and around 160 000 peoples (DiMP, 2008). And in 2007 alone floods affected 8,000 households and 38 residents in the Cape Town informal settlement of Khayelitsha; Bongani TR-Section and Phillippi; Phola park (Bouchard et al, 2007).*

This study analyzed community participation and awareness mechanisms in disaster risk management, its implementation, practice and effectiveness, following the promulgation of the Disaster Management Act No 57 of 2002, taking Khayelitsha TR- Section as a case study. In order to achieve the stated objectives, the researcher employed a combination of both qualitative and quantitative research paradigms. In qualitative context semi-structured interviews were conducted with the key informants disaster management officials and Khayelitsha TR-Section ward structure officials. Quantitative method, 100 structured questionnaires were distributed to Khayelitsha TR-Section residents.

Using Khayelitsha TR- Section as a case study the thesis argues that despite the enabling policy and resource allocation for community participation and awareness its implementation proved to be a failure. Most of the mechanisms directed by the act are not implemented and those implemented its practice is not effective to achieve its stated objectives of risk reduction and effective response and recovery to disaster incidents.

The study reviewed literature and theories of community participation and awareness in disaster risk management. It reviewed and outlined a policy framework and institutional arrangement for community participation and awareness in disaster risk management in accordance with the Disaster Management Act (No 57 of 2002). It further determined the level of community

participation and awareness mechanism implementation. Records the level of community awareness and understanding, it determines the effectiveness of community participation and awareness mechanisms and finally based on the empirical results, literature reviews and theories, the study provides a number of recommendations to enhance and improved of community participation and awareness to disaster risk management officials and policy makers.



KEY WORDS/OR PHRASES

1. Community,
2. Disaster,
3. Disaster risk Management,
4. Participation,
5. Vulnerability,
6. resilience, risk,
7. Khayelitsha TR-Section,
8. Community participation,
9. Community based organisations,
10. Integrated Development Plan.



ACRONYMS AND ABBREVIATIONS

AusAID	Australia Agency for International Development
CBDRM	Community Based Disaster Risk Management
CDC	Centers for Disease Control and Prevention
CIDA	Canada International Development Agency
DFID	British Department for International Development
DiMP	Disaster Mitigation for Sustainable Livelihoods
DM	Disaster Management
DRM	Disaster Risk Management
DRMCs	Disaster Risk Management Centre
DRR	Disaster Risk Reduction
FEMA	Federal Emergency Management Agency
GDP	Gross Domestic Product
GGLN	Good Governance Learning Network
HDI	Human Development Index
IDNDR	International Decade for Natural Disaster Reduction
IDP	Integrated Development Plan
IFRC	International Federation of Red Cross and Red Crescent
IMF	International Monetary Fund
ISNDR	International Strategy for Natural Disaster Research
MDMAF	Municipal Disaster Management Advisory Forum
NDMF	National Disaster Management Framework
NZAID	New Zealand International Aid and Development Agency
SADC	Southern Africa Development Cooperation
SIDA	Swedish International Development Cooperation Agency
TEAM	Training, Education, Awareness and Marketing
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNESC	United Nations Economic and Social Council
UNISDR	United Nations International Strategy for Disaster Reduction
USAID	United States Agency for International Development

VISTA Volunteers in Service to America
WCDMF Western Cape Disaster Management Framework
WHO World Health Organization



CHAPTER ONE: BACKGROUND OF THE STUDY

“...We need to take a common-sense, practical approach to reducing the risks we face and protecting our citizens and our communities. We need to identify our risks, educate and communicate to our people about those risks, prepare as best we can for the risks, and then, together, form partnerships to take action to reduce those risks. This approach applies whether we are dealing with a flood, a tornado, a hazardous material spill, a wildfire, a potential suicide bomb explosion, or a pandemic flu outbreak”(FEMA, 1997).

1.1 INTRODUCTION

Globally, community participation and awareness in disaster risk management have been acknowledged as the main components to overturn the global trend of exponential increase in disaster occurrence and loss from small and medium- scale disasters (Kadel, 2011). This is as a result of disaster management theory paradigm shift from response and recovery to sustainable hazard mitigation. It is argued that in order for this shift to occur, it is imperative to integrate disaster risk management and community development planning. Moreover, it is asserted that in order for these concepts to work successfully, community awareness and participation must be an integral part of the whole process of disaster management initiatives (Pearce, 2002).

Khayelitsha TR-Section is situated in the Western Cape Province. Khayelitsha is South Africa's fastest growing township located about 30 kilometers away from the metropolitan areas of Cape Town. According to Western Cape Disaster Management Framework (2007) and Holloway (2009), the Western Cape Province is the most disaster prone province in South Africa and Khayelitsha TR-Section is one of the most vulnerable townships within the Western Cape. This is caused by its climatic condition of arid and semi-arid category, mountainous condition, crowded and underserved informal settlements exacerbated by rural immigration which makes this area exposed to disaster risks, mainly, fire during the summer and floods during winter.

Despite the enactment of the Disaster Management Act 57 of 2002 which stipulates the needs

and importance of community participation, and followed by the implementation of Training, Education, Awareness, and Marketing (TEAM) project between November 2005 and April 2007 aimed to strengthen community – based disaster risk management capacities in 11 informal settlements within the Western Cape which includes Khayelitsha TR-Section its adoption and practice is still contested today. Additionally, no study has been done yet to evaluate the implementation and practice of community participation and awareness in Khayelitsha TR-Section.

The study reviews the literature and theories of community participation and awareness in disaster risk management. Reviews and outline policy framework and institutional arrangement for community participation and awareness in disaster risk management in accordance with Disaster Management Act (No 57 of 2002). It further determines the level of community participation and awareness mechanism implementation. Records the level of community awareness and understanding, it determines the effectiveness of community participation and awareness mechanisms and finally provides recommendations issues of community participation and awareness in disaster risk management based on the gaps identified in the findings and in the context of community participation and awareness theories.

WESTERN CAPE

1.2 BACKGROUND TO THE PROBLEM

Floods and fire incidents are on the increase in informal settlements and Khayelitsha TR-Section in particular. *“From 1995-2005 more than 8554 informal dwelling fire incidents occurred in Cape Town alone, affecting 40 558 households and around 160 000 peoples”* (Dimp, 2006). Bouchard at el (2007) reports that in July 2007 the heavy rain caused flooding affected 8 000 households (38 000 residents) primarily located in the informal settlements of the Khayelitsha area such as Bongani TR-Section and Philippi area such as Phola Park.

Geographically, these areas are low lands which are naturally vulnerable to flooding. Nevertheless, the notorious apartheid regime ended in 1994, but its legacy is still rife hitherto (Bouchard, at el. 2007). These areas still remained the same; exacerbated by the failure of post - apartheid government housing policy to accommodate the growing population, lead to growth of

density informal settlement in the area. According to Disaster Mitigation for Sustainable Livelihoods Program (2006) about 20 percent of the people in the informal settlement, built in the area of high risk of flooding.

Moreover, the Khayelitsha TR-Section has been identified as one, in the group of 11 most vulnerable communities within the Western Cape Province. Other vulnerable communities include Masiphumelele, Phola Park, Doornbach, Wallacedene, Witsand, Kayamandi, De Doorns, Roodakke and Water Works and Haarlem (Western Cape, 2008). Its population living in fragile and vulnerable conditions as a result of climate changes and numerous other social economic factors such as poverty, unemployment, population growth, rural migration, unequal access of resources, poor service delivery and slow economic growth (Buys, 2005).

In this regard, the Act calls for the active participation of all stakeholders, including the private sector, NGOs, technical experts, communities, traditional leaders and volunteers, to be effectively involved in the matter of disaster risk management planning and operations. It is urged that disaster risk reduction is a community- driven process. With this in mind “...*broad community participation in disaster risk management as well as the enrollment of individual as volunteers, must be actively promoted and encouraged, particularly in communities at risk*” (NDMF, 2005: 19). The Act further directs specific arrangement to be formed to ensure the integration of stakeholder participation. These structures at municipal level include, Municipal Disaster Risk Management Advisory Forum (MDMAF), Interdepartmental Disaster Risk Management Committee, Ward disaster risk management committees or forum and volunteer unit.

Furthermore, the Disaster Management Act (No 57 of 2002) and the Municipal Systems Act (No 32 of 2000) stated the insertion of a disaster management plan into the municipality’s integrated development plan (IDP) (NDMC, 2007). Integrated Development Planning (IDP) is a process by which municipalities set up a five-year strategic plan that is reviewed annually in consultation with communities and stakeholders (Van Niekerk, 2006). Integrated development planning compilation is an interactive and participatory process which requires the involvement of community and other stakeholders. Current studies conducted by the National Disaster Management Centre (2007) and Botha et al (2011) indicated that, disaster management planning process and integration with IDPs varies in a great deal within areas.

Despite the area being identified as the most vulnerable for disaster risks, community still not involved in the process of disaster risk management. This view was supported by the report presented by DiMP (2006) at the end of the TEAM project for the Western Cape Provincial Disaster Management Centre, which indicated that communities were left in vain of what is going to happen next after they have attended training and involved in risk assessments activities. Furthermore, it is reported that volunteers who were ready to support their community lacked support from the government officials and ended up not being taken seriously by their communities (DiMP, 2006). Community workers as liaisons between communities, and government officials were not effective. Government officials were not always attending community based meetings, reasons being that some of the government officials were not mandated by their superior to attend and some had no time to attend the meeting, although they wanted to. Additionally, the report pointed out that lack of staff to deal with community issues is a big challenge since one staff was assigned to more than one community (DiMP, 2006). These scenarios draw the picture that community participation and awareness is not taken seriously in disaster risk management initiatives. This view is also supported by a recent study done by Botha et al (2011) who concluded that Disaster Risk Management Advisory Forum at metropolitan municipalities perform at low level and in many instances the Disaster Risk Management Center does not utilize them for the purposes of engaging stakeholders like providing and getting advice, but rather to only inform stakeholders on very superficial disaster risk management issues (such as the amount of past events). In essence, very little disaster risk management related information is shared and discussed at this forum. The study further reveals that community participation and NGO involvement are of great concern. The majority of the NGOs indicated that they are not involved in disaster risk initiatives. In most other instances respondents indicated that communities are only sometimes involved in the necessary committees (ibid).

1.3 PRIMARY OBJECTIVES

This study sought to examine community awareness and participation mechanisms in disaster risk management, their implementation, practice and effectiveness following the promulgation of the Disaster Management Act No 57 of 2002, taking Khayelitsha TR- Section as a case study.

Secondary Specific Objectives

The research objectives which were covered in this study are.

1. To review the literature and theories of community participation and awareness in disaster risk management context.
2. To review policy framework and institutional arrangement for community participation mechanisms and awareness in disaster risk management in accordance with the Disaster Management Act (No 57 of 2002).
3. To examine the extent to which these mechanisms have been implemented and practiced in Khayelitsha TR Section.
4. To determine community participation, awareness and understanding of the current community participation and awareness mechanisms available.
5. To assess the effectiveness of the current community participation and awareness mechanisms available in disaster risk management.
6. To provide recommendations issues of community participation and awareness in disaster risk management based on the gaps identified in the findings and in the context of community participation theories.

1.4 SIGNIFICANCE AND CONTRIBUTION OF THE STUDY

To date, much research work has been done to broaden the knowledge about the positive link between sustainability hazard mitigation and community participation to mark the paradigm shift from relief and response to hazard mitigation. Consequently, this draws the attention of policy makers on the important role of community participation in disaster risk management. Despite these recent increases of scholarly attention in community participation in disaster risk management, practice is significantly a challenge. In addition, few studies have been conducted in community participation and awareness in disaster risk management, particularly in Africa; most of the studies that are available have been conducted in the USA, Australia and Asia. In view of that, much is yet to be discovered on how to improve community participation in disaster risk management. The study has sheds the light on the existing body of knowledge with regard to the topic in question by analysing community participation and awareness in disaster risk management, its implementation, practice and effectiveness in Khayelitsha TR section.

1.5 ASSUMPTIONS OF THE STUDY

- Community participation and awareness are the dynamic components for successful disaster risk management initiatives.
- A well involved and informed community can reduce the implication of severe hazards.
- Current community participation and awareness mechanisms are not effectively implemented to achieve meaningful participation.

1.6 SCOPE AND DELIMITATION OF THE STUDY

Scope and delimitation of the study refer to the boundaries that are planned by researcher to ensure a proper organization of the study this includes the choice of objectives, the research questions, variables, theoretical perspectives that you adopted and the population you have chosen to investigate (Leedy&Ormrod, 2010).

Professional organizations involved in the study are The City of Cape Town Disaster Risk management Center, Khayelitsha TR-Section ward structure and Sub council 9 offices of Khayelitsha. Case study area was Khayelitsha TR-Section. Participants mainly where Disaster Risk Management Center officials, Khayelitsha TR-section ward structure officials, and Sub council manager and Khayelitsha TR-Section residents.

The main objective of the study is to examine community participation and awareness mechanisms and practice in disaster risk management followed by the promulgation of the disaster management Act No 57 of 2002 taking Khayelitsha TR- section as a case study.

1.7 RESEARCH METHODOLOGY

1.7.1 Methodology

According to Vos, Strydom, Fouche, Delpont (2002) Research methodology is the how of collecting data and the processing thereof within the framework of the research process. Recently dominated research paradigm in social science includes: quantitative, qualitative, and participatory action paradigms (Babbie& Mouton, 2001:49). In this study two paradigms were used namely, qualitative and quantitative. The motives behind these is the concept that mixed method research results are superior compared to monomethod strengths by the mixture of the data collected by multiple data collection techniques (Johnson & Onwuegbuzie, 2004).

1.7.2 Quantitative method

Quantitative methods measure a phenomenon for example, attitudes of individuals towards a certain topic, using numbers in conjunction with statistical procedures, to process data and summarize the results (Creswell, 1994:2; Babbie& Mouton, 2001:53; Payne and Payne 2004:180; Teddlie&Tashakkori, 2009:5). A total of 100 structured questionnaires were distributed to Khayelitsha TR-Section households through a simple random sampling method.

This method provides equal opportunity to all members of the population to be selected. Indeed, Terre Blanche and Durheim (2002:276), suggest that, this selection method avoids bias on the side of researcher in terms of respondents' selection and therefore, enhancing the quality of the results. The voters roll for Ward 90 was used as the sampling frame. Due to circumstances beyond researcher's controls only 73 questionnaires were collected back, instead of 100 that were distributed.

1.7.3 Qualitative method

Qualitative methodology refers to research which produces descriptive data generally people's own written or spoken words generally human action from insider perspectives usually no number or counts more focus on explanation and prediction of human behavior. Its analysis is based on grounded theory and inductive analysis approach (Vos et al, 2002; Babbie& Mouton, 2001: 53). Qualitative data gathering techniques used in this study were semi – structured interviews.

1.7.4 Semi structured interviews

Babbie and Mouton (2001) Stated that researcher's use semi structured interviews to gain a detailed picture of a respondent's belief about, or perceptions or accounts of a particular phenomenon in question. In this setup the researcher has a general plan of inquiry, including the questions to be covered. Semi-structured interviews normally engage the use of open-ended questions as its interview approach. Additionally, this method is critical to the study in order to collect more in-depth information relating to the research problem.

A total of eight semi – structured interviews were conducted with Disaster Risk Management Centre officials, six interviews with Khayelitsha TR-Section ward structure officials and one interview with the volunteer coordinator. All interviews were conducted to obtain in depth information about the current community participation and awareness mechanisms available in place their implementation and practice as provided by the Disaster Management Act.

1.7.5 Data Analysis and Presentation

Qualitative data collected through semi structured interviews, were grouped into similar categories and themes that are relevant to the research objectives. The data are presented in the form of written text quotes and narrations.

According to Creswell (2009) coding includes the processes of constant comparison of the phenomena, case, concepts and so on and the formulation of the questions addressing the research objectives. Quantitative data from survey questionnaire were coded, processed and analyzed using the Statistical Package for Social Sciences (SPSS) and the results presented in the form of frequencies, percentages, tables, graphs and pie charts.

1.8 RESEARCH PROCEDURE

This section highlights the research procedure that took place in conducting the research.

After the study was approved by the University Of The Western Cape Higher Degrees Committees, the following procedure was followed:

Literature relevant to the research objectives and problems were reviewed to establish what studies had been conducted in the past, how these studies were conducted and concluded.

The researcher consulted the head of the City of Cape Town Disaster Risk management Centre and setting a meeting for the purpose of introducing the aim of the study and getting permission to conduct interviews with his colleagues. Permission was granted and interviews with relevant officials were arranged. Conveniently, Disaster Risk Management officials introduced the researcher to Khayelitsha TR- Section Ward officials. The researcher was introduced to ward councillors, sub council manager and ward committee members.

Interviews were conducted with – City of Cape Town Disaster Risk management officials and – Khayelitsha TR – Section ward structure officials.

A total of 100 questionnaires were distributed to Khayelitsha TR-Section residents. Ward committee members played a double role, apart from being respondent, they were also recruited as a research assistant in order to assist in data collection. These individuals were trained in data collection, more importantly, in explaining in details and interpreting the questions in the Xhosa language. The data collection process took place between October 2012 and February 2013.

1.9 RESEARCH LIMITATIONS

Some of the limitations encountered in conducting this study, include the following:

The situation of the case study area is believed to be very fragile in term of security. Crime is the main challenge of the area. The area is unpredictable, even to drive around with vehicle branded as Disaster Risk Management might be dangerous. The residents may at any time get angry; they feel like they are not doing their work, they can do anything harmful or dangerous. This problem was solved by being escorted by the police at a time the researcher wanted to visit the area.

Another limitation was language barriers; the researcher is not familiar with the languages mainly Xhosa. This problem was solved by recruiting ward committee members as research assistants.

Another challenge was the time the research was conducted, that is, from October 2012 to February 2013. This time, many people were busy preparing for December festival, therefore it was very difficult to get interview appointments and questionnaires distribution had to stop and resume mid January. Again with the help of disaster risk management officials and ward committee members these problems were solved.

Another big blow happened when the worst informal settlement fires in the history of Cape Town, South Africa struck on the night of New Year's eve, that was, 30 December 2012 at the neighboring of a case study area Khayelitsha BM-Section which left at least 5 people dead and over 4,000 homeless (IRIN, 2013). Following this incident all disaster officials and ward officials were busy with this occurrence. For that matter many appointments were cancelled and

postponed to the next month, which caused a lot of delays and inconvenience on the researcher's side.

Despite all these limitations the researcher is confident that the research was conducted very well and all the necessary information was gathered.

1.10 ETHICS STATEMENT

Permission to carry out this study was granted by the School of Government (SOG) and the Senate of the University of the Western Cape-South Africa. Ethical issues were addressed in conducting this study. The study adhered to the University of the Western Cape Research Ethics' Policy. The researcher received ethics clearance for the project and complied with the University's code of conduct for research throughout the study. Consent obtained from the City of Cape Town Disaster management Centre and Khayelitsha TR-Section community. Participation was voluntary; respondent could be withdrawn at any time. Confidentiality was maintained throughout the study. And the purpose of the study was explained verbally and in writing to the management and staffs of the City of Cape Town Disaster Risk Management Centre and other participants. No one was harmed in the process.

1.11 THE STRUCTURE OF THE THESIS

Chapter one provides introductory information and background to the study. It includes an introduction, background information for the study, a statement of the problem, purpose of the study and research questions, assumptions of the study and a brief outline of the methodology.

Chapter Two deals with the theoretical foundation of the study and the literature related to the study. Building on the experiences of others, this chapter reveals what has previously been done on the topic and what is proposed in this study.

Chapter Three describes the study area where the research was conducted. It also provides a general overview of the community participation policy framework in South Africa and disaster management policy framework focusing on community participation. It further explores current

community participation mechanisms in disaster risk management as provided by Disaster Management Act 57 of 2002.

Chapter Four presents the empirical findings and analysis from both research paradigms, qualitative and quantitative. It presents the interpretation of results and gives the evidence relevant to the research objectives. The chapter conveys the meaning of the findings and provides linkages to other sections including the research questions, theoretical framework and existing literature. Empirical results of qualitative data are presented in the form of written text quotes and narrations. Empirical results of quantitative data are presented in the form of frequencies, percentages, tables, graphs and pie charts.

Chapter Five provides a summary, conclusions and recommendations of the study findings. The recommendations were made based on the research objectives of the study. The chapter also suggests areas for further research.




CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The theoretical framework of the research is an important theme which shapes the main concepts and ideas surrounding the research objectives. This chapter reviews five main themes relevant to this research. It begins with an overview of disaster studies and theories by analyzing the evolution of disaster studies and paradigm shift in disaster risk management. It then provides definitions of key terms and concepts in disaster risk management, community participation and awareness, followed by theoretical frameworks which underpin the objectives of the study. Before the summary, the chapter provides empirical reviews of community participation and awareness in disaster risk management.

2.2 DISASTER STUDIES AND THEORIES

2.2.1 Evolution of Disaster Studies



Disaster theories and perceptions of the source of hazards changed over time, based on theoretical and empirical evidence. During the earliest days of human development, all cultures and religions around the world conceived disaster as the act of god per se, attributed with false casual attractions such as “Des Astro” or “evil star”, “bad luck” and “blind faith” it happened significantly as a negative effect of failing to please God (Drabek, 1991:4; UNDP, 2004, Dombrowsky in Quarantelli, 1998:19). Disasters such as tsunamis, earthquakes, floods and volcanic eruption were perceived inevitable and completely beyond human control (supernatural domain) (Quarantelli, 1998). Subsequently, at this period disaster policy of national governments and the international community were heavily concentrated in response and relief context and in some cases preparing for them (UNDP, 2004).

However, development in science and the evolution of non-religious ideologies challenged the perception put under scrutiny by earlier theorists by approaching the root causes of disaster from social science and natural / physical science perspective. Nonetheless, at this point disaster

causes and impact in different contexts and dimensions were progressively becoming the question of investigation (Botha et al., 2011). Carr (1932) and Sorokin (1942) were some of the earliest theorists who approached disaster and risk in social science perspective. These theorists addressed and questioned the impact of disaster and catastrophe on social pattern. These ideas in 1950s were further reinforced by other theorists such as (Endelman, 1952; Powell, Rayner & Finesinger, 1952; Quarantelli, 1954 & 1957; Moore, 1956; Fritz & Williams, 1957 & Drabek & Quarantelli, 1967; Dynes & Quarantelli, 1968). These theorists approached the concept of disaster from social science as well as natural/physical science perspective. Another remarkable contribution worth noting is that of Doughty, 1971; Hewitt & Burton, 1971; Kreps, 1973; Dynes, 1974; Mileti, Drabek & Haas; 1975; Glantz, 1976; Westgate & O'Keefe, 1976; O'Keefe, Westgate & Wisner, 1976; Jager, 1977; Torry, 1978; Turner, 1978) in 1970s.

It is further stipulated in literature that, from the 1970s natural science theorists such as engineers and architectures aimed to understand the dynamics of hazards by examining the hazard component in terms of hydro meteorological, geodynamic and technological/anthropogenic phenomena such as earthquakes, floods, mudslides, cyclones, industrial accidents and nuclear fallout. The natural science theorists, therefore, aimed at understanding the dynamics of hazards (Smith, 2002; Cutter, 1994). In their analysis, UNDP (2004) found that the same natural hazards had a varying impact two different kinds of building and set up. Therefore, in this realization the emphasis was on the impact of natural hazards to the communities rather than natural hazard itself. In such a case, concentration grew more in the design and implementation of ways to mitigate the impact of natural hazards through physical and structural measures to reduce vulnerability of natural hazards (ibid).

However, in some part of 1970 with increased momentum in 1980 and 1990 social science theorists strongly rejected the perception that natural disasters were just acts of God by conceptualizing disasters as social phenomena which stem from interaction between two key elements: hazards - triggering agents stemming from nature, and human activity and vulnerabilities - susceptibility to injury or loss influenced by physical, social, economic, and cultural factors (Alexander 1997; Mileti 1999; McEntire 2001). In similar vein the advocates of this theory (UNDP, 2004; Lechat, 1990:2; Lavell, 1999; Botha, et al 2011; Quarantelli, 1998; Blaikie et al. 1994; Hewitt 1997) indicate that the impact of a natural hazard depends not only on

the physical resistance of a structure, but the inability of the stricken community to absorb the impact within its capacity and recover from loss or damage.

These general consensuses highlighted the need towards a risk, rather than disaster event and focus attention moved to social and economic vulnerability with mounting evidence that natural hazards had widely varying impacts on different social groups and in different countries. The causal factors of disaster thus shifted from the natural event towards the development processes that generated different levels of vulnerability. Vulnerability reduction began to be advanced as a key strategy for reducing disaster impact, though this proved elusive to implement (UNDP, 2004).

Finally (UNDP, 2004) noted that:

“By the end of the 1990s, it was clear that development processes were not only generating different patterns of vulnerability, but were also altering and magnifying patterns of hazard — an argument that has gained increasing currency as evidence mounts regarding the impact of global climate change. Risk management and reduction has been advanced as an integral paradigm that builds on and incorporates all the previous strategies from the perspective that all development activities have the potential to increase or reduce risks”.

Based on the discussions above, for the purposes of this study, disaster is conceived as a social phenomenon impacted by different interactions between human and physical factors and that disaster reduction measures should include vulnerable community in question. This is also known as political ecology of disaster.

2.2.2 Paradigm Shifts – From Relief and Response to Disaster Risk Management and Development

There is a general consensus among scholars of disaster studies that concurs with the social science perspective of disaster as nothing but a social phenomenon (Alexander 1997; Mileti 1999; McEntire 2001; UNDP, 2004; Lechat, 1990:2; Lavell, 1999; Bother, et al 2011; Quarantelli, 1991; Blaikie et al. 1994; Hewitt 1997). In this context disasters are understood as being a consequence of insufficient development of protection against vulnerability and insufficient adoption of new conditions in times of crisis (Alexander 1997;

Mileti 1999; McEntire 2001; Paton and Johnston 2001; Collins, 2009: 28). Disasters are also the results of “unsolved problems of development” (Yodmani, 2001). It is now clear that risks (physical, social and economic) issues if not properly managed for over a long period of time may lead to occurrence of disasters. Advocates of this approach argue that disasters do not just happen, they result from failures of development paths that accumulate increased vulnerability to hazards (UNDP, 2004). It is also frequently asserted that vulnerability to natural hazards is directly associated with community level of development (Blaikie et al 1994).

Similarly, Majova (2010) and Quarantelli (1998) asserted that disasters as a social phenomenon rather than physical happenings have important implications for preparing and planning for and managing such social occurrences. They also empower people to be the managers of disasters rather than victims of, then.

The shift of scholarly attention to vulnerability and risk reduction was also accompanied and underpinned by the declaration of the International Decade for Natural Disaster Reduction (IDNDR) On December 11, 1987 by the United Nations General Assembly that declared 1990s as decade for natural disaster reduction. This deed was taken to encourage internationally coordinated efforts to reduce material losses and social and economic disruption caused by natural disasters, particularly in developing countries. The main aim of IDNDR was to improve each United Nations (UN) member country’s capacity to prevent or lessen the adverse effects of natural disasters and to establish a framework for applying existing science and technology to reduce the impact of natural disasters (Coppola, 2011:6).

These ideas were reiterated and expanded by the declaration of the UN International Strategy for Disaster Reduction (ISDR) established to underpin disaster concepts in awareness, assessment and management of disaster risks. This lead to the publication of *Living with Risk: A Global Review of Disaster Reduction Initiatives*, by the ISDR Secretariat as an important guideline for disaster reduction initiatives. “The UN commitment to promote sustainable development and mitigating disaster losses brought together in this document”. These two remarkable global declarations were further strengthened by the introduction of Hyogo Framework for Action 2005- 2015 (Holloway, 2009).

These global trends emphasized a desire to merge disaster risk reduction into development planning and practice. In this context countries required to rethink and reshape their development agendas incorporating disaster risk reduction issues, since there are two sides of the same coin (UNDP, 2004). Proponents of this concept argue that “Integrating disaster risk reduction into development has the capacity to transform ‘vicious spirals’ of failed development, risk accumulation and disaster losses into ‘virtuous spirals’ of development, risk reduction and effective disaster response” (DFID, 2005). However, Majova (2010) reports that despite most countries, including South Africa, integrating risk reduction initiatives into development practice, there is still a wide gap between the goal of reducing vulnerability and its achievement.

The above scenario led to disaster risk management paradigm shift from relief and response (once – off) events to prevention and mitigation (continuous process) which lead to highly concentrated in disaster reduction. Disaster risk reduction reflects a new global approach to the management of disasters and disaster risk. It can be seen as ‘the systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) adverse impact of hazards, within the broad context of sustainable development’ (ISDR, 2002:25).

Strategies for disaster reduction include, first and foremost, vulnerability and risk assessment, as well as a number of institutional capacities and operational abilities. The assessment of the vulnerability of critical facilities, social and economic infrastructure, the use of effective early warning systems, and the application of many different types of scientific, technical and other skilled abilities are essential features of disaster risk reduction. It is therefore multidisciplinary in nature and does not assume that only one function of government has responsibility (Van Niekerk, 2006.). This section helps us to understand the new paradigm that includes development concerns, characterized by emphasis on good governance, accountability and greater focus on bottom-up approaches which raise the focus into community participation and awareness.

2.3 DEFINITION OF KEY TERMS AND CONCEPTS ON DISASTER

2.3.1 Disaster

Disasters have been defined in many perspectives, but a more recent and detailed definition is that which considers both socioeconomic and natural factors that lead to disasters. Disasters occur when there is a brink of the natural phenomenon combined with the status of human-ecological systems that severely disrupt survival and livelihood of society or community, causes loss of life and or properties on a scale which exceed the capacity of the affected community or society to cope often rendered inadequate (DFID, 2004; Westgate and O’Keefe, 1976; IDNDR, 1992; Alexander, 1993; Quarantelli, 1998; Keith, 2001). Indeed, there are so many facets of disasters. Some scholar’s classified disasters according to what hazards triggered them. Others categorized disasters with regard to empirical and intellectual and endeavors for the purpose of establishing the scope in which the study aims to focus and explore in details. Traditionally, disasters are classified into two main groups, namely, natural and man-made disasters (DFID, 2004).

2.3.2 Disaster Management

Disaster management (DM) is central to all aspects of the disaster management cycle from prevention, mitigation, preparedness, response or relief and reconstruction. It aims to reduce or avoid the potential losses from hazards and ensures an effective response to disaster victims and to achieve effective and quick recovery (Pelling, 2003). Coburn, Spence and Promonis (1991:67) sum up by asserting that, it deals with the management of both the risks and the consequence of disasters. However UN-ISDR (2002) suggests five phases of DM, which are predicting, warning, emergency, relief, rehabilitation and reconstruction, with the fundamental activities being mitigation and preparedness, response and recovery. This is what is referred to as a disaster management cycle. Traditionally disaster management cycle has been regarded as a series of actions, step by step (South Africa, 1998: 14).

Despite its usefulness in organizational concepts and policies for the purposes of disaster risk management, which encompass pre-disaster risk reduction phase and post – disaster recovery

phases DFID (2005) criticized this by stressing some view point that disaster management cannot be done in sequence where elements are arranged in series. In practice they often need to coincide, especially where disasters are extended processes as in many complex political emergencies and slow onset disasters rather than events in time. More fundamentally, the idea of a 'disastrous cycle' appears inherently to discount successful prevention and preparedness, and where a disaster has not been avoided, it suggests a return to some notion of 'normality' represented by the pre-disaster situation. More often than not, it is the situation which contains the potential for disaster in the first place, and/or the disaster impact itself that precludes any return to what was there before. A more positive concept might therefore be a 'risk management cycle', or better still a spiral, as learning from a disaster event can stimulate adaptation and modification in development planning rather than a simple reconstruction of pre-existing social and physical conditions (DFID, 2005: 17-18).

Due to the fact that the former disaster management programs focused on the pre – crisis and the immediate aftermaths of disaster the new approach of Disaster management program was initiated. This new program took disaster reduction in perspective of sustainable development, taking into account social, economic, cultural and political climate prevailing in different phases. This is a result of a paradigm shift (IDNDR, 1999; ISNDR, 2001; WSSD, 2002 White et al., 2004; Heijmens, 2004; Khan et al, 2008).

In transposing this view, in his recent book, Coppola (2011: 9-10) acknowledged the existence of disagreement on how "disaster management cycle" visualized and adopted a diagram (see Figure 2.1) which suggested a modern disaster management phase, which comprises four distinct components: Mitigation, preparedness, response and recovery. He further clarifies that this platform must always be perceived that many exceptions can be identified in each phase. In practice all of these features are inter-mixed and are performed to some degree before, during and after disasters. Disaster tends to operate on a continuum, with the recovery from one often leading straight into another. Additionally, the response is often viewed as the starting point immediately after disaster impact. It is not logical for an actual response to begin well before the disaster actually happens.

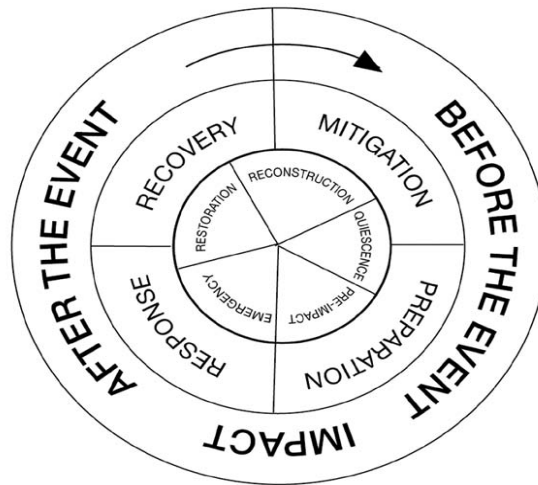


Figure 2.1 The Disaster management cycle (From Alexander, 2002).

For the purposes of this study, the focus is on the modern disaster management cycle approach with the main four components: mitigation, preparedness, response and recovery.

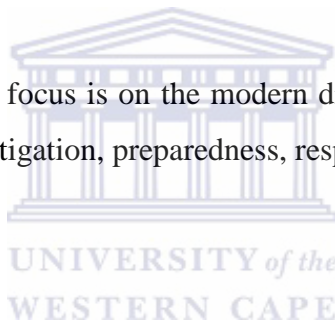


FIGURE 2.2: MAIN PHASES OF DISASTER MANAGEMENT CYCLE

Mitigation: Refers to structural and non-structural measures that are applied for the purpose of reducing or eliminating the likelihood or the consequences of natural hazards, environmental degradation and or man-made hazards on vulnerable areas, communities and households (Coppola 2011: 9; NDMF, 2005: 46-47).

Preparedness: Constitutes the measures taken to equip people in advance to effectively respond to the disaster events. These measures include effective warning systems, evacuation procedure that will help to minimize the impact of hazards (Coppola, 2011: 9; NDMF, 2005: 46-47).

Response: involves taking action immediately after disaster has occurred or are currently occurring to reduce its impact to the people, saving lives, financial losses, or the combination of all. The term relief is commonly used in international disaster management to imply giving out the basic subsistence needs of those affected. It is also an aspect of the response (Coppola 2011: 9; NDMF, 2005: 46-47).

Recovery: Involves the returning of the victim's lives to normal, following the implication of disaster consequences. Recoveries including rehabilitation and reconstruction, these phases are normally followed immediately after disaster response finishes. They consist of rehabilitation of the affected areas and communities. Reconstruction of infrastructure, building and development in recovery phase can be used as foundation to make communities resistant to future similar occurrences (Coppola 2011: 9; NDMF, 2005: 46-47).

2.4 DEFINITION OF KEY TERMS AND CONCEPTS ON COMMUNITY PARTICIPATION AND AWARENESS

2.4.1 Participation

Various scholars and institutions define participation in different perspectives and in different views. World Bank defines participation as a procedure through which stakeholder's influence and share control over development initiatives and decisions about resources which affects them (World Bank, 1996).

On the other hand, Morgan (1993) and Bronfman & Gleizer (1994) define participation as an *empowerment* tool through which local communities take responsibility for diagnosing and working to solve their own development problems. In the other words, takes control of their own development path. Others describe this as an empowerment approach or people – centred development.

Another interesting definition is that of Jennings (2001:1) which states that:

“Participation is involvement by a local population and, at times, additional stakeholders in the creation, content and conduct of a program or policy designed to change their lives. Built on a belief that citizens can be trusted to shape their own future, participatory development uses local decision making and capacities to steer and define the nature of an intervention” (Jennings, 2001:1).

Finally, Paul (1987) combines these two concepts by defining

“Community participation as an active process by which beneficiary client groups influence the direction, execution of a development project with a view to enhancing their well being in terms of income, personal growth, self reliance or other values that they cherish”

For the purposes of this study, the term community participation and community involvement will be used interchangeably and the study will use participation as defined by Jennings (2001:1).

2.4.2 Participating Actors in Disaster Risk Management

2.4.2.1 International Actors

The complexity of disasters makes it difficult for one nation to handle alone. This is reflected in the statement made by Coppola that:

“Whether due to political, cultural, economic or other reasons, the unfortunate reality is that some countries and some regions are more capable than others at addressing the problem. But no nation, regardless of its wealth or influence, is advanced enough to be fully immune from disasters negative effects. Furthermore the emergency of global economy makes it more and difficult to contain the consequences of any disaster within one country’s boarder” (Coppola, 2011).

This fact piloted international disaster management. According to Coppola (2011:10) International disaster management is the study of diverse disaster risk management structure and mechanisms available around the world, and it is also applied in a scenario where the aptitude of a single nation’s response machinery is overwhelmed.

Contemporary, the UN, whose members consist of almost every country in the world, in its attempt to address disaster issues, dedicated the 1990s as the “International Decade for Natural Disaster Reduction” (IDNDR). Amongst other concerns, the main focus was to influence national disaster – mitigation programs, as well as economic, land use, and insurance policies for disaster prevention, particularly in developing countries, to be integrated into development programs and policies. As explained in section (2.2.2), this was followed by ISDR and Hyogo Framework for Action 2005 – 2015) with similar purposes of monitoring and evaluation of the world disaster reduction initiatives (Holloway, 2009).

Apart from these three main international protocols, the international community is also involved in the form of International NGOs and International Development Agencies for the purposes of disaster management. There are a number of International NGOs involved in disaster risk management. To mention but a few the common known are Red Cross and Catholic Relief Services. Furthermore, many developed countries have International Development Agencies

which have been involved in international assistance for decades. Formally, disaster management and risk reduction have never been their area of concentration, but recently, they have realized that their projects would enjoy much more sustainable outcomes if they could take into account risk aspects affecting the beneficiary country. The main examples of International agencies that integrate disaster management into their development planning include:

- United States Agency for International Development (USAID)
- British Department for International Development (DFID)
- Canada International Development Agency (CIDA)
- Australia Agency for International Development (AusAID)
- Swedish International Development Cooperation Agency (SIDA)
- New Zealand International Aid and Development Agency (NZAID) (Coppola, 2011: 463).

According to National Disaster Management Framework (2005) Currently, South Africa in regard to international co-operation activities is focused on the SADC region due to limited resource availability.



2.4.2.2 State

The state has the mandate to protect its people from disasters. It is also responsible for implementation and maintenance of structures, policies and procedures necessary for disaster risk management. As a result of UN efforts, almost all countries in the world, have established an office structure at the national government level that manages disasters (Coppola 2011: 444).

However, nationally based structures are most successful when their role is entirely supportive, parting the actual decision making to local or regional government authorities. Embedded in this assumption is that a small number of national government offices for disasters have inadequate staff or budget to effectively address the particular needs of every community in their country. Consequently, national government authorities are not directly stakeholders in the community and therefore are not likely to promote important risk reduction preparedness and mitigation measures with the same enthusiasm or effectiveness (ibid). The South African government has a

constitutional mandate to protect its people. This is enshrined in the Constitution (Act 108 of 1996) of South Africa, which states that the government of South Africa must ensure the health, safety and generally the well being of its people. This, in turn, led to the promulgation of the Disaster Management Act of 57 (2002) that established a holistic approach to deal with disaster risks that cuts across all the three spheres of the government. The details of the Disaster Management Act of 57 (2002) will be discussed in chapter three.

2.4.2.3 Private Sector

The private sector has a crucial role to play in disaster risk management. Businesses constitute jobs, community income, vitality and identity. Businesses are affected by disaster just like any other elements of the society. Therefore, their involvement in disaster risk management is of paramount importance. Through private partnership initiatives, business plays a very important role in disaster management activities that extend beyond the company properties. Many companies, especially large Multinational Corporations, increase their philanthropic giving in the aftermath of a disaster, providing in-kind donations of their products, food, lifting equipment and medical supplies. Apart from response assistance, they also boost community resilience by providing first aid. The other provides response education to their employees. (Coppola, 2011: 507). In South Africa the Act calls for private sector involvement in disaster risk management.

2.4.2.4 Nongovernmental organization (NGOs), and Community based organization CBOs

A nongovernmental organization is a broad concept with diverse categories and orientation. For the purposes of this study the focus will be on disaster management perspectives. In disaster management discourse, NGOs are universally defined as nonprofits, humanitarian's organizations that depend on outside sources of funding and materials and sometimes from governments to pursue humanitarian activities and associated objectives in a target population (Spar & La Mure, 2003).

Community based organizations form the basis for community based disaster risk management. This approach was raised in the late twentieth century. In fact, local governments have used citizen participation in disaster response since half a century ago. However, over the past few

years, the community-based disaster risk management concept has been promoted worldwide in different programs (Liang-Chun Chen¹, Yi-Chung Liu² and Kuei-Chi Chan², 2006).

According to Kadel (2011:1) the main roles and functions of community based disaster risk management (CBDRM) is covering a broad range of disaster risk management aspects such as interventions, measures, activities, projects and programs to reduce disaster risks basically prepared and engineered by the community at risk, considering urgent needs plus capacity building. The main objectives of CBDRM are to:

1) Reduce vulnerabilities and increase capacities of vulnerable groups and communities to cope with, prevent or minimize loss and damage to life, property, and the environment,

2) Minimize human suffering. Through CBDRM vulnerable groups and communities can be transformed into disaster resilient communities. Indeed, Holloway (2007) pointed out that, the main principle for CBDRM is to create a sense of ownership of risk, builds local capacity, strengthens local livelihoods, ensures sustainability and community driven disaster reduction initiatives.

According to Maskrey (1989:91) the roles of NGOs in disaster risk management are to act as an enabler and adviser of CBOs in all aspects of disaster management from, preparedness, mitigation, response and recovery. In a similar context, Botha et al, (2011) highlight the main roles of NGOs, which include promoting public awareness in disaster risk management issues, to organize and coordinate volunteers, to compile and document disaster risk management plans and strategies and to support community based organizations to take charge of the program or project implementations. Furthermore (UNISDR, 2006) indicated that there are a number of benefits associated with NGOs involvement in disaster risk reduction efforts. This is due to the fact that NGOs normally operate at the grassroots level with communities and community based organizations as partners in development initiatives. This enables them to respond better to local people's priorities and build on local capacities. Moreover, NGOs are autonomous, not dependent on the government or market forces. In this regard, they are flexible and free from bureaucratic formation and systems. In this respect, they can adapt and respond timely and

effectively. They often work with and on behalf of most needy groups, previously disadvantaged, marginalized communities and the most vulnerable.

In the Western Cape Province, there are about five NGOs involved in disaster risk management initiatives these NGOs are Historical Disadvantaged Individual (HDI). South Africa National Zakhah Fund (SANZAF), Red Cross Society of South Africa, Salvation Army, and Mustadafin. All these NGOs are registered in the city of Cape Town Disaster Risk Management Centre as Relief partners. They do not play any other roles as NGOs needed to do so. Their main functions are to concentrate on relief issues, aftermath of disasters, providing blankets and hot meals (DRMC, 2012).

2.4.2.5 Academic Institutions

Research institutions and Universities have played an important role in conducting research in hazard dynamics that in turn contributed emergency to be regarded as a profession. Their work has contributed to the reduction of hazardous risks through a deeper understanding of the threats, hazards pose and the actions that may mitigate them. Furthermore academia has expert knowledge that improves emergency management practices and applications. Working with the international community and other multilateral organizations, universities are helping to create a “culture of disaster prevention” (Blanchard, 2004). Their research tracks disaster events and analyses the consequences, helping disaster management organizations learn from their mistakes and capitalize on their success. As a result, academic institutions have become the vital repository for hazards and disaster knowledge (Coppola, 2011: 509).

This part helps to understand other participating actors in disaster risk management in broader context.

2.4.3 Mechanisms for Community Participation and awareness in Disaster Management

2.4.3.1 Disaster Public Education for Awareness.

Disaster education to the public is also known as risk communication, preparedness, education and or social marketing (Coppola, 2011: 272). According to Morgan, Fischhoff, Bostrom and Atman, public education is “*Communication intended to supply the public with the information*

they need to make informed, independent judgments about risks to health, safety, and the environment” (Morgal et al, 2002). Through the introduction of the International Decade of Natural Disaster Reduction, the UN fostered the essence of disaster risk awareness to more vulnerable communities as an essential aspect of an affective risk reduction operation. This was strengthened by its successor, International Strategy for Disaster Reduction. At this stage the UN asserted that, public disaster education is a fundamental aspect of reducing countries’ vulnerability to hazards; hence governments have the mandate to provide disaster education to their citizens (Coppola, 2011: 271).

Various factors of valuable disaster public education have been highlighted as crucial for successful disaster public education. Singer and Endreny (1993) indicated that, in order for a message to be regarded as complete, it should include the annual mortality rate connected with the hazards (if known) the “spatial extent” of the hazards, the time frame associated with the hazard, and alternative mitigation measures. The communicators must ensure that their messages are simple and plainly understood by their intended community (Morgan et al, 2002). Furthermore, the U.S. Centers for Disease Control and Prevention (CDC) argues that community representatives must be involved in planning and developing public education campaigns to ensure community “buy-in”(CDC, 1995). Additionally, the process of raising awareness should involve more than simply informing citizens what causes risk. Citizens must also be educated on how the risk affects them, why they are at risk, and where and when the hazards will possibly strike. Communities must be explicitly clear about the risk as it applies to them and all scenarios of prevention, mitigation, response, and recovery so that they are able to make use of the information effectively (Coppola, 2011: 272). Disaster managers should also consider audiences in different perspectives that acquire the information or knowledge when designing their message. Many people, especially disadvantaged communities, gather their information through informal social networks rather than newspapers, government source or other formal means of communication. They should also consider special needs groups like elderly, young children, the disabled and the illiterate. These special groups must be approached in their particular ways and methods relevant and suitable to them (Coppola, 2011: 273).

There are different means and ways that disaster managers can select to educate communities. The nature of the target group will determine which means will be more appealing and relevant

to them. Each method has its pros and cons which must be considered and examined independently when designing and planning a public education project or program. There is a range of methods available in different categories of disseminating information to the community. They include the mass media, notably, television, Radio, newspapers, magazines and internet. The methods that might be used within the community include schools, course, special events, distributed materials, games, coloring books and contents. In the business category, advertisements, posters, endorsements, phone books, shopping bags, calendars and giveaway items can be applied. Moreover, organizations can make use of guest presenters and special course offerings as one of the public education strategies. Library facilities, outdoor advertisement signs, and special events can also be used. Interpersonal methods like social networks, one-on-one meeting, informal social networks, textbook lending, video, and DVD can also be used for the purposes of public education (Coppola, 2011:277 – 279).

This section highlights the evolution and importance of disaster public education for awareness purposes and some techniques on how to disseminate information and message contents. More about public awareness provision in accordance with the Disaster Management Act will be discussed in chapter three.

2.4.3.2 Volunteerism

Volunteerism is broad. In this thesis it will be narrowed down to the American context and disaster risk management perspectives. According to Van Tils (1988: IV) Volunteerism is “human endeavor not motivated by private gain or compulsion of law”. Other literature defined volunteering as neighborly, altruistic dedication to the good of society (Bellah, 1985).

Traditionally, a volunteer was one who offered his services freely and without compensation (Hardy & Cull, 1973:17). Volunteerism originated in America as a result of social concern for various health problems. Now it has been extended to include other community activities, like education because of increased awareness of the inequalities of educational opportunities. Basically volunteer activities focus helping disadvantaged communities. Volunteer work is a tradition in America. According to the 1974 Census Bureau Survey, there is a continued rise in volunteering. ...” One out of every four Americans over the age of 13 does some volunteer work ... 36% volunteered at least once a week” (Feinstein & Cavanaugh, 1978:143). Additionally,

America has big volunteering organizations like Volunteers in Service to America (VISTA), Peace Corps, and Grandparents (Hardy & Cull, 1973).

Aspects of volunteers include altruism, commitment, free will, learning, organization, psychological benefits, sacrifice and the absence of financial remuneration. Absence of financial remuneration was often included in the definition of volunteerism. However, a closer examination shows that this element is conceptually unimportant in the definition of formal or even, perhaps informal voluntary action. Volunteers from organizations such as the Peace Corps and Vista are paid some stipend amount. And, many other volunteers receive benefits equivalent to monetary rewards, such as meals, registration fees, use of facilities, or discounts on merchandise (Ilsley, 1990:10).

Recently the increased trend in disaster events has highlighted the need for coordinated, community – based volunteer. Embedded in this disaster, researchers and practitioners have documented that, a trained team of local volunteers can help provide effective disaster risk management activities in all phases of disaster management (Brennan, Barnett, & Flint, 2007). They further assert that, when disaster does occur citizen groups and organized efforts of local volunteers can respond to lessen the impact of disaster and recover back better. In this regard, they expect that in any disaster risk management, regulation should include a piece that, states how to recruit, prepare, and train volunteers (Brennan, Barnett, & Flint, 2007). In South Africa Disaster Management Act includes a piece on how to recruit and train volunteers. More about volunteers refer (see chapter three sections 3.6.1.3).

2.4.3.3 Local based structures

There is a saying that “all disasters are local”. Therefore the local government should constantly deal with disaster management. Communities are at the heart of the problem and they are the first responder to the scene. Nobody knows better about what the community wants when disaster strikes they are the first victims. Although the effect of disaster may spread far beyond, the individual losses have profound effects at the local community level. In line with this, most governments developed strong emergency management systems at local level, with equipment and trained local emergency management capability. Local based response organizations may

engage numerous or all of the following, fire department, police department, emergency medical services, office of emergency management and emergency call centre (Flynn & Talbot, 1996).

2.5 THEORETICAL FRAMEWORK OF THE RESEARCH

2.5.1 Political ecology of disaster / paradigm shift from natural to social perspectives.

Political ecology is a term used to describe social perspectives of disaster risks and hazards. As such disaster vulnerabilities are described in terms of the relationship that human being have with their environment with close scrutiny with the political, economic forces surrounding the society in which they live that form and influence that relationship (Oliver-Smith, 2004:10). Political ecology fosters the integration of a wide range of established disciplines from the natural and social science and also brings with them their dominant epistemologies and ontology (Blaikie, 1999:143, Bang, 2009).

The earliest theorist of political ecology studies, Blaikie et al (1994) developed a Pressure and Release model that traces the factors that generate vulnerability into context of socio- economic and political factors. Based on this model Blaikie et al, suggested that, the Political economy considered the historical and socio-cultural patterns, economic and political factors such as social status, access to resources and power relation as well as influences on location choices. This means that political and economic forces equally place people at risk and limit adjustments to natural hazards, thus making some people more vulnerable to disasters than others. The least powerful groups and classes in a given society inhabit the most hazardous environments (O'Keefe et al. 1976). This may be caused by factors such as society's access to resources and power inequity due to race, class, and poverty and gender aspects. The implications of the political ecology are relevant to this research as we see Khayelitsha TR- Section community as being vulnerable and marginalized as a result of socio- economic challenges facing the area.

Furthermore, the research adopted a position now common in the political ecology that believes that, disaster risk reduction measures should integrate socio economic and socio cultural problems. It is now recognized that risk management approaches should focus on reducing the vulnerability of the affected people by increasing their capacity to cope, and in theory at least, to tackling the root social, economic, institutional and political causes of vulnerability.

2.5.2 Decentralization

Community participation has its roots in the decentralization system which called for the establishment or strengthening of local decision making bodies in developing countries. The reason being that a decentralized system will embrace the bottom up approach which is a vehicle for poverty alleviation policies, efficient administration, increased responsiveness, felicitous implementation of national policies and programs through the mobilization of local resources and increased participation in contrast to centralized system which uses a top-down approach (Ahmad & Tanzi, 2004). The community participation theory gained prominence in the 1960s and 1970, when it became central to the development discourse as a means to seek sustainability and equity, mainly to the poor. However proponent of community participation (Midgley, Hall, Hardiman & Narine 1986: 27) argues that participation is advocated not only because it facilitates social service delivery by lowering costs and smoothing implementation but because it fosters a sense of belonging and the integration of communities. This in turn helps local people to contribute positively to national development.

Disaster risk management it is a rule of the thumb that governments have the principal mandate to manage disasters. In the past, top-down, command – and control approach was often used to manage the consequence of disasters. In this approach, decisions came from higher authorities based on their discretion on the needs. The communities served as simply victims or receiving of aid. In practice this approach was proven to be a failure. Due to the fact that it did not meet the appropriate and vital human needs, brought about, unnecessary increase in dependence of external resources, and general dissatisfaction over performance despite the use of exceptional management measures (Pandley & Okazaki, 2005).

The theory of decentralization is very important to this study because it provides the background and overview of the evolution of the community participation notion in development discourse and subsequently in disaster risk management. South Africa implemented a highly decentralized political system in an attempt to solve the past injustice. Linked to this, is the formation of the three spheres of government, such as national, provincial and local as separate, autonomous and interdependent entities (Pillay, 2008). The Local government sphere is responsible for policy implementation and community participation activities.

2.5.3 Capacity building

Capacity, more broadly increases in community group's abilities to define, assess, analyze and act on disaster / or any other concerns of importance to their members (O'Brien et al, 2006) defines community capacity as a function of the capabilities (aggregates of individual and community level endowments) and socio-environmental conditions (facilitating condition minus barriers.). Community capacity is not an inherent possession of a particular neighbourhood or of the individual or groups within it but the interactions between both. It is also a function of the resource opportunities or constraints (economic, political and environmental) of the conditions in which people and groups live (ibid).

Amatya Sen (1999) in his book "*development as freedom*" relates "poverty" to the lack of capabilities rather than merely as low income. He asserted that, when you see people being poor, unhealthy and illiterate, these are indications that those people miss certain capabilities to overcome their problems. Sen's argument is relevant to Khayelitsha TR- Section because its people are poor and vulnerable to disasters. This is the case taking into account that poverty and vulnerability are highly correlated. Poorer people are generally both more exposed and more susceptible to hazards, suffer greater relative loss of assets, and have a lower capacity to cope and recover (Yodmani, 2001).

Accordingly, Sen suggests that, any form of capacity support will help to empower them to get rid of their problems of hazards and become a resilient community. Sen mentions some of the capacity support initiatives in general, such as engage in economic activities, participating in political activities and access to resources. In disaster risk management the community empowerment model suggested by scholars (Kadel, 2011; Pearce, 2002; Louw & Van Wyk, 2011) in the process of enhancing community capacity is the formation of community based disaster risk management organizations which involves communities in all phases of the disaster management cycle refer to section 2.3.1.4).

2.5.4 Social Capital Theory

Loeffler et al (2004) defines social capital as a process of building trusting associations, mutual understanding and collective actions that bring together individuals, communities and organizations. This creates opportunities and /or resources that are recognized through networks, shared norms and social ethics.

French theorist Pierre Bourdieu (1985: 248-9), defined social capital as

“the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group – which provides each of its members with the backing of the collectively owned capital, a ‘credential’ which entitles them to credit, in the various senses of the word”.

In a similar vein, Putnam (2000) pointed out that if people lack the money, then they can give time firmly out of self-interest that can be harnessed through social capital in communities that need help. Putnam’s theory of social capital believes that the more people connect with each other, the more they will trust each other and the better off they will be individually and collectively, because social capital has a strong common interest.

This theory is relevant to our study given that, it provides a detailed analysis of the importance of social capital in fostering community participation. Social Capital theory suggests that, the level of relationships between individuals and their larger neighborhoods and communities has a great impact on the way communities interact and involve in community related matters (Perkins et al. 2002; Perkins & Long 2002; Saegert&Winkel 2004). And this will be the case to Khayelitsha TR- Section.

2.5.6 Sustainability theory

Sustainability was one of the huge international development buzzwords of the 1990s, so perhaps it was inevitable that the term would be applied to disaster risk management. Like any other concept, sustainability has several meanings. According to Morgan (2001) Sustainability to donors may mean that, “project costs can be borne by local without further international aid” and

for policymakers it may mean that “the initiative in question (such participation in disaster risk management) has to be continually reinvented and reinvigorated in order to stand the test time.”

Taking the former definition in disaster risk management context, government, international communities, including donor agencies made various efforts in minimizing the damages caused by disasters through the various project’s agenda. However, despite the efforts done during the project period, it has been observed that many of the projects failed to be sustainable at the local level after the completion of the project. For that matter sustainability became crucial in disaster risk management projects, subsequently as critical an element of sustainable disaster management is community participation (Pandley& Okazaki, 2005). In this respect, community participation and sustainability are said to be attained when programs initiated by the external entities like government, international communities or donor agencies in the community are effectively sustained by themselves after all support has been phased out (Midgley et al, 1986: 27). Indeed, Pandley& Okazaki (2005) insisted that, unless the disaster management efforts are sustainable at individual and community level, it is difficult to reduce the losses and the scale of the tragedy. They further indicate that there is a need to involve communities from the initial stage of disaster management activities (Pandley& Okazaki, 2005). Indeed, Gopalakrishnan& Okada (2007) assert that sustainability gives the residents of a risk area a sense of confidence and security, knowing that whatever disasters strike in future there is a chain of mitigation and post disaster relief measures already in place that can be quickly and efficiently activated. Additionally, Mileti (1999) recommended six sets of action that would be concurrently pursued in order to foster sustainability in disaster risk management perspective: people’s quality of life, environmental quality, vibrant local economies, equity and consensus building, local resiliency and responsibility (Mileti, 1999, pp. 5–6).

This theory is very significant to the study since it assesses the current community participation as one of the aspects of sustainable disaster management. This is because of how it works and achieves its stated goals of sustainable disaster risk management initiatives as stated above.

In summary the main theory of the study is political ecology of disaster risk management, which state that disasters are no longer perceived as a natural phenomenon per se rather as social phenomenon happenings as a result of interaction between human and physical factors. In this

sense preparing and planning for and managing such occurrences become on top of the agenda. For this matter community participation and awareness in disaster risk management become central to all the activities of disaster risk management. This can be pragmatically presented in the diagram below. Political ecology theory brings about community participation; in turn community participation's flourish depends on four interrelated pre-condition theories such as sustainability, capacity building, social capital and decentralization.

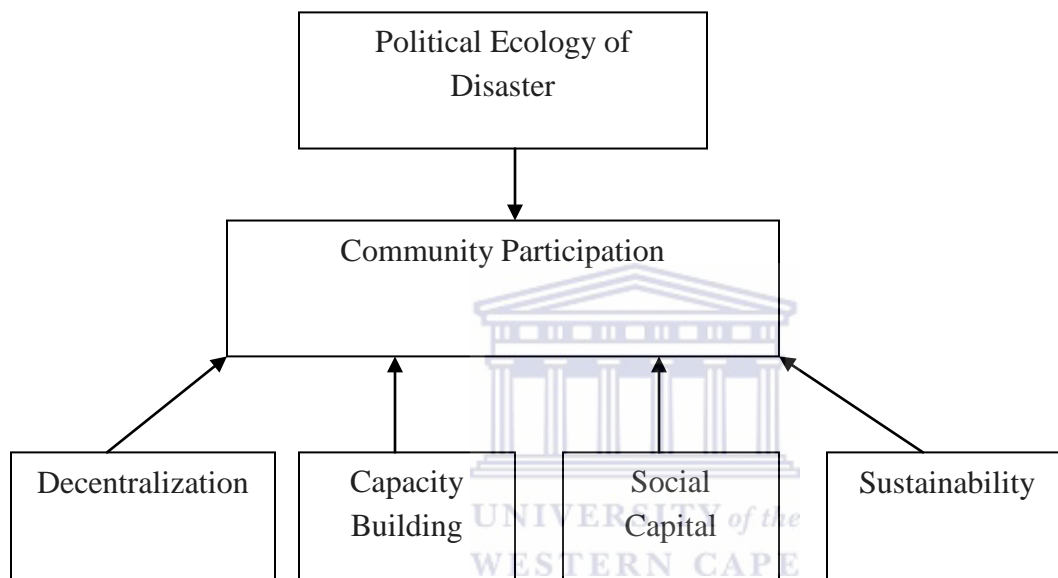


Figure 2.3: Theoretical framework model. Source: Author constructs.

2.6 TOWARDS COMMUNITY PARTICIPATION IN DISASTER RISK MANAGEMENT: EMPIRICAL REVIEW.

Ever since community participation in disaster risk management became on top of the agenda following paradigm shift and its recognition as the main component of sustainability and hazard reduction, disaster scholars and practitioners draw attention on this subject. A number of researches have been done on this subject most internationally and a few within South Africa. This section analyzes some of the studies done around the world regarding with community participation in disaster risk management. This section analyzes four case studies.

One of the most interesting studies was, conducted by Pandley& Okazaki (2005) of United Nations Centre for Regional Development in Japan. In their study, they highlighted the needs

and significance of community participation. According to them, in order for disaster risk management projects to be sustainable, the community needs to be involved from the initial stage of disaster management activities, that is, both from pre-disaster mitigation and post disaster response and recovery process.

They further argued that, due to the fact that when disasters strike it is these communities that constitute what is called disaster fronts. Being at the forefronts, communities need to have the capacity and knowledge necessary to respond and overcome the threats affecting them. Moreover, they pointed out that through participation and empowerment, the community persuades a sense of ownership as a result of continuous engagement and long term commitment to these activities. In this regard UNCRD carried out various communities based programs' around Asia in their recent analysis of their programs focusing on six case studies. They found that, Community empowerment and communication contribute a big deal to achieve sustainable, community based action plans and training improves community capacity of problem solving skills, transparency of activities and dissemination of knowledge and information encourages people to participate in the activities. However, community based efforts need stable financial resources. What is accepted by the community is more important than what is necessary.

However, they warn that, communities should not be left alone with limited resources to fully cope with disasters. They should always participate alongside government officials and expert groups as the direct stakeholders in these activities.

Another study conducted by Pearce (2003) discussed Disaster management, community planning and public participation on how to achieve sustainable hazard mitigation with reference to a case study of California's Portola Valley. In this study the author provided an overview of the disaster management paradigm shift from response and recovery to sustainable hazard mitigation. She argued that, the most important component to facilitate these shifts is the integration of disaster management and community planning. She also noted that, all disaster research in the past decades has clearly indicated that community members in disaster –stricken areas knew of both the risks and (for the most part) of mitigation. The gap has been in the political will to apply proper mitigation prior to full scale disaster management and to commit resources to this vital developmental need. However, she pointed out that, community participation on the other hand

is fruitless in resolving issues, mostly seen to contribute to the problem rather than support in making solution, time consuming, delaying the process and costs. Furthermore, it overemphasizes the interests of the active citizen, and takes over the role of elected officials. Apart from these criticisms she concluded that, when public participation is integrated into disaster management and community planning, the result is sustainable hazard mitigation.

Moreover, another study conducted by Allen (2006) discussed the increased importance of community – based disaster planning and preparedness as elements of vulnerability reduction and disaster management strategies with reference to Philippines. In his study, he noted the importance of community based on disaster preparedness as well as its weakness and strengths. He argued that community based approaches are intended to strengthen the capacity at local level where the primary impacts of hazard events and environmental stress are experienced and claim to build on existing local knowledge and experienced as well as the resources to cope and adaptive strategies of local people. He further indicated that CBDDP approaches emphasize community self-reliance, raising awareness of vulnerability and the root causes of disasters and developing practical problem-solving skills. He indicated the main concerns or primary weakness of community based initiatives is the lack of resources and decision making legislative and regulatory power available to local level actors and institutions at the centre of initiatives. To solve this problem, he advised that community projects should be viewed as part of a wider and deeper process of developmental change and should not be considered in isolation from social, economic, cultural and political context within which they are embedded. His views supported that of Pandley& Okazaki (2005) that in order for communities to achieve their goals, communities should not be left alone, community –based institutions need to cultivate and carefully define linkages with broader social networks. It must be understood that different group of actors brings different set of understanding, values and expectations as well as competing agendas to the negotiating table. He concluded by saying that even though he is supporting the use of CBDP approaches, he warned that, this should not be treated as a panacea to the problems of disaster management as it has both potential to empower and disempower communities and call for more critical analysis of the implementation and outcomes of CBDP in practice. He explained that disempowerment occurs where local knowledge, institutions and understanding are neglected. The underlying message is that organization forms and knowledge

introduced to the community by outside experts are the best such processes that undermine community self-reliance and may damage existing community institutions. Moreover, it may also occur where participants are steered away from linking the bigger, more political contentious issues, including land use planning to coping and adaptive capacity agenda of a project. Empowerment occurs when it is vice versa.

A study carried out by ISDR (2005) documented three community based disaster reduction initiatives in three different countries, namely, Bangladesh, Cambodia and Philippines and their objectives, agents and results. In Bangladesh, since it is one of the most disaster prone nations in the world, to reduce vulnerability of flood prone communities in the Tongi and Gaibandha Municipalities of Bangladesh, CARE Bangladesh took a community based approach in collaboration with a range of stakeholders, including partner NGOs in the municipalities and the Disaster Management Bureau of the Government of Bangladesh. They began by building the capacity of community volunteers who then conducted baseline surveys and vulnerability assessments with community members. The results from these assessments formed the basis for developing sustainable mitigation solutions at the community level. As a result this process induced the motives of community participation and disaster mitigation. It is expected that the best practices and lessons learned from the two municipalities will be replicated in other parts of Bangladesh and shared with other countries in the region.

In Cambodia, a project under the Asian Disaster Preparedness Center's (ADPC) Asian Urban Disaster Mitigation Program has achieved positive results. The project, implemented by Pact Cambodia, the Cambodian Red Cross and the International Federation of Red Cross and Red Crescent Societies (IFRC) targets communities in flood-prone provinces along the Mekong River. Since September 1998, 159 Red Cross Volunteers (RCVs) have been trained to organize community involvement in carrying out risk assessments, developing preparedness plans and facilitating the implementation of small-scale mitigation solutions to minimize communities' risk of flooding.

Currently the project is in the process of transferring the lessons learned with other communities along the Mekong River. The sustainability of the project has become its main priority area and

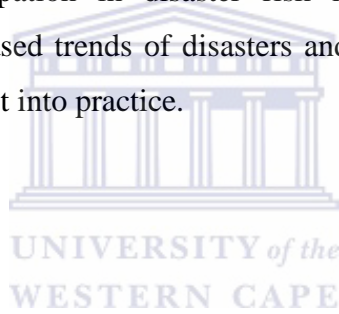
efforts are being focused on integrating and institutionalizing project activities in the Cambodian Red Cross under their ongoing Community Based Disaster Preparedness Program.

In the Philippines, the Citizen's Disaster Response Network (CDRN), a national network of 14 grassroots and regional NGOs have undertaken community based disaster preparedness work. Since its inception in the early 1980s it has conducted campaigns and advocacy work to mitigate the impacts of disasters. Together with communities, it has developed strategies to enhance people's capacities. These include community organizing, forming village-level disaster response committees, developing early warning systems, organizing rescue teams and diversifying livelihood sources. With little support from donor agencies, it has reached hundreds of villages and initiated community based disaster mitigation initiatives. Later in the year when a typhoon hit the area after these initiatives, the Warning Committee informed the community well in advance and no one was killed or hurt as the water reached 1 – 2 meters high in the villages. This initiative demonstrates the importance of building people's capacities to take upon themselves the responsibility of monitoring hazards and issuing warning to save lives.

In South Africa, community based disaster risk management is still a new concept in practice apart from being rich in rhetoric. In the recent study conducted by Botha et al (2011) indicated that stakeholder involvement such as communities, response agencies and municipal departments is still a big challenge in South Africa. The following were the results from the respondents when they were asked about how stakeholders are involved as proposed by South African legislation. Only 27% of districts, 20% of metros and 12% of local municipalities indicated that the stakeholders are always involved in committees. Moreover, the study conducted by Bouchard, et al (2007) indicated that one of the main reasons which increase the effects of flooding within the informal settlements is lack of community participation in disaster risk management.

2.7 SUMMARY

This Chapter laid the foundation and theory relevant to this research. It also provides the relevant background knowledge necessary to understand contemporary issues concerning the research subject. Key epistemologies that underpin this study include the understanding that disasters are now conceived in a political ecology or social perspective and not the act of God per se but also as a result of unresolved development issues. And thus the focus now is on hazard mitigation. In this respect, disaster risk management initiatives should include affected people by increasing their capacity to cope and tackle the root of their social, economical and political causes of their vulnerabilities. A review of empirical findings from a number of studies presented in this chapter suggests that community participation in disaster risk management is one of the main components to overturn the increased trends of disasters and most part of the world have now recognized its importance and put it into practice.



CHAPTER THREE: CASE STUDY AREA, POLICY FRAMEWORK AND INSTITUTIONAL ARRANGEMENT FOR COMMUNITY PARTICIPATION AND AWARENESS IN DISASTER RISK MANAGEMENT

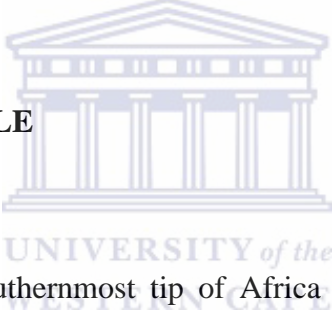
3.1 INTRODUCTION

The first section of this chapter offers a brief overview of the case study area that includes South Africa profile in relation to location, population, socio-economic and general South Africa's hazard profile. Next part of this section explores a brief history of Khayelitsha TR-Section its hazard profile and factors exacerbating hazards and vulnerability in the area.

Second section provides South Africa's disaster management legislation background, general overview of the community participation policy framework in South Africa, and finally the institutional arrangement for community participation and awareness in disaster risk management as provided by Disaster Management Act (57 of 2002) and chapter summary.

3.2 SOUTH AFRICA PROFILE

3.2.1 Location of South Africa



South Africa is located at the southernmost tip of Africa and shares borders with Namibia, Botswana, Zimbabwe, Mozambique, the Kingdom of Swaziland and Lesotho. It comprises an area of approximately 1 218 000 km² and has 2985 km of coastline, with the Atlantic ocean to the west and the Indian ocean to the east. The surface is divided into two major physiographic features: the interior plateau, and the land between the plateau and the coast (extending from the west to the northeast coast). The boundary between these two areas is known as the Great Escarpment, the most important and continuous range of mountains in South Africa varying in height from 1 500m above sea level in the south-west to 3 482m in the Drakensberg. It consists of nine provinces, namely, Limpopo, North West, Gauteng, Mpumalanga, Kwazulu Natal, Northern Cape, Western Cape, Eastern Cape and Free State (IFRC, 2012). The case study area is in the Western Cape Region in Cape Town, in the Khayelitsha TR section of the black township, Khayelitsha.



Figure 3.1 Political Map of South Africa: Source: IFRC, 2012

3.2.2 Population of South Africa

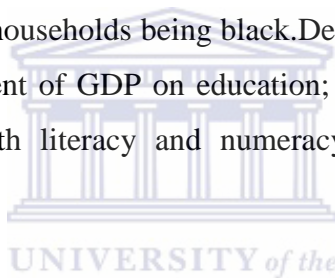
South Africa has a population of 50.59 million with Gauteng, the smallest province, accommodating the largest percentage of the population (11.3 million people or 22.4 per cent). Kwa-Zulu Natal is the second-most densely populated province with 10.8 million people (21.4 per cent). The Eastern Cape and Limpopo provinces are experiencing a net out-migration of people, whilst the Western Cape and Gauteng are estimated to receive a net inflow of migrants. These indicate an urbanizing state with an urban level of approximately 56 per cent heavily weighted in favor of the latter two provinces. The Northern Cape and the Free State are also more urbanized than rural, while the converse applies in respect of the Eastern Cape, Kwazulu-Natal, Limpopo, Mpumalanga and the North West provinces (IFRC, 2012). Khayelitsha is the most densely populated areas within the Western Cape Province with an approximate of 900,000 people (Ngxiza, 2011).

3.2.3 South Africa's Socio-Economic Profile.

South Africa is regarded as a rising or developing economy, since the beginning of representative government transformation process. The country has faced the challenge of reintegrating into the world economy. While this integration has also exposed the country to

global political economy, sensible monetary and fiscal policies, a flexible exchange rate and sound supervision of financial institutions has supported South Africa to stand firm. This significant achievement has made South Africa stand in good position economically, improved access to primary and secondary education, formal housing, primary health care, electricity and water (IFRC, 2012).

Nonetheless, (IFRC, 2012) noted that, there is little doubt that there are many chronically poor people in South Africa. While the current GDP per capita of almost R50 000 per annum indicates South Africa as an upper middle-income country, the distribution of income and wealth is still among the most inequitable in the world, with 48 per cent of people living on less than \$2 a day or R524 a month. According to a national survey, the Gini coefficient was 0.67 in 2005 – indicating a high level of inequality. Substantial differences in average incomes by race groups remain, with the majority of poor households being black. Despite the fact that the South African government spends about 6 per cent of GDP on education; the quality of public education for black children remains poor, with literacy and numeracy tests low by both African and international standards.



Unemployment is high (at around 23 per cent) and the country's health outcomes are poor by world standards. These factors are reflected in South Africa's Human Development Index (HDI) value (a composite index measuring average achievement in the three basic areas of long and healthy life, knowledge and a decent standard of living) which has fallen marginally from a high of 0.63 in 1994 to 0.59 where it has remained since 2006. It is therefore ranked at the lower end of the human development index, positioned at 110 out of 169 countries. These factors compound the vulnerability of particular groups like Khayelitsha TR- section in South Africa – of their capacity to anticipate, cope with, resist and recover from an impact of a natural hazard. This in turn makes some people more vulnerable than others (ibid).

3.2.4 Overview of South Africa's hazards profile

South Africa encounters a wide range of natural and human-induced hazards that could potentially lead to disaster events. These include floods, droughts, fires, dam failures, mining-induced earthquakes, epidemics, sinkholes, large –scale transportation accidents, and spillages of

hazardous waste. However, other forms of disaster hazards are also emerging in the form of water shortages and acid mine drainage (AMD) (IFRC, 2012; NDMF, 2005; South Africa, 1998).

Traditional natural disasters category arguably, between 1980 and 2010 there were 77 disaster events, which killed 1 869 people and affected more than 18 million. On average, about half a million people per annum in South Africa are affected by natural disasters at a cost of \$109 486 to the fiscus. The most frequently-occurring natural disasters are (in order of frequency) floods and storm events, droughts and fires. Although floods are more deadly (accounting for 57.1 per cent of people killed by disaster type) and also more costly in terms of estimated economic damages, droughts are by far the most wide-ranging in their felt effects (accounting for 94.7 per cent of people affected by disasters) (IFRC, 2012) . The Khayelitsha TR- Section is mostly affected by fire, flash floods and environmental hazards.

3.3 KHAYELITSHA TR- SECTION CASE STUDY AREA.

Khayelitsha is South Africa's fastest growing township located about 30 kilometres outside the inner-city areas of Cape Town. It was established in 1984, during the *apartheid* period of South Africa, as a mono-functional dormitory town at some distance from the main industrial and commercial localities for the purposes of allowing the labor pool in this case mainly poorer from Ciskai and Transkei (Eastern Cape) to be housed close to provide labor to industry and commerce while at the same time separated from developed suburbs of Cape Town (Hirschowitz, 2000; Lingeletu West City Council, 1992).

People who had previously been living in a number of scattered shacks areas near Cape Town were relocated to Khayelitsha (which means "new home"). The township has grown to a population of more than 600 000 people, absorbing new in-migrants as well as some of the natural growth from communities in other Cape Town township areas and within Khayelitsha (ibid).

Khayelitsha consists of both formal and informal settlements. The formal settlements are known as Bongweni, Ikwezi Park, Khulani Park, Khanya Park, Tembani, Washington Square, and

Zolani Park. The formal settlements are located in the original area of Khayelitsha that was built by the government in order to persuade people to move to the area. In contrary, informal settlement areas were built by the residents themselves as a way of dealing with overcrowding in their households. These comprise Site B, Site C, TR- Section, RR- Section, BM-Section, Green Point, Litha Park, Makaza and Harare. Later the government was obliged to provide services to these areas (Dyantyi et al, 1998). This research focuses on TR-Section.

At a glance Khayelitsha manifests political, socio-economic challenges of poverty due to high levels of unemployment, low household income, underdevelopment, lack of economic base and political unrest caused by spatial dislocation and historical neglect (Ngxiza, 2011).

3.3.1 Khayelitsha TR-Section Hazard Profile

Hazards are threats to life, well being, material goods and the environment. Extreme natural processes or technology causes them. Some examples of hazardous agents are hurricanes, chemical explosions, earthquakes, floods, fire, environmental health related hazards, radiation fallouts etc. When a hazard results in great suffering or collapse, it is usually termed as a disaster (South Africa, 1998; Quarantelli, 1998; Alexander, 1993, 1995;). The United Nations International Strategy for Natural Disaster Reduction (ISDR) defines natural hazards as: *“Natural processes or phenomena (geological, hydro-meteorological or biological) occurring in the biosphere that may constitute a damaging event”* (UN-ISDR, 2004). And according to Disaster Mitigation for Sustainable Livelihoods (2006) hazards that pose the highest threat to Khayelitsha TR-Section includes flooding, fires and environmental health related hazards.

Floods: Khayelitsha TR- Section is an informal settlement located in a rather barren and low - lying area of the Cape Peninsula. The ground is sandy, and the area is wind-swept and exposed, which make the area significantly vulnerable to flash floods, during winter rainy season. Figure 3.2 shows a flooded area of the Khayelitsha TR-Section.



Figure 3.2: Bongani TR Section of Khayelitsha. Source: Bouchard et al (2007)

Fires: Informal dwelling fires are most frequently hazards that pose the highest threat in the area. “From 1995-2005 more than 8554 informal dwelling fire incidents occurred in Cape Town alone, affecting 40 558 households and around 160 000 people” (DiMP, 2008). These incidents resulted into houses being destroyed, loss of identity and other documents brought about serious implication to the households who already had limited resources before the incidents. It also places huge demands to the local authorities and humanitarian organization (DiMP, 2008; Godwin, Hudson, & Blouch, 1997).

Environmental health related hazards: Khayelitsha TR-Section is a crowded area with homes situated in very close proximity to one another. Embedded to this, there are poor drainage infrastructures which cause dirty water to stand. This runoff combines with human faeces from sewers, drains, and latrines spread throughout the homes and streets of the settlements. These unhealthy environments carry bacteria, viruses, and parasites that are responsible for a wide number of gastrointestinal infections, including diarrhea, typhoid, cholera, and intestinal worm infections. Wet sand is also favorable for optimal breeding ground for worm infections, such as roundworm, hookworm, and whipworm, which can ultimately lead to anemia.

3.3.2 Factors Exacerbating Vulnerability

Having briefly outlined conceptual dimensions associated with vulnerability and hazards, the focus now is on in depth analysis of the factors that exacerbate vulnerability and specific hazards that are known as threats in Khayelitsha TR Section.

Geographically the area is located in a rather barren portion of the Cape Peninsular. The ground is sandy and is part of a wetland. This situation makes the area vulnerable to bad flooding during the rainy season. Poor service delivery is another factor which exacerbates this situation. The area is poorly serviced by the city council, ill maintained infrastructure. As a result, the drainage system is blocked. This condition increases risks of flooding during rainy winter seasons (DiMP, 2006).

Garbage collection is very irregular in the area, no public bins, and not enough collection points. As a result the people of the TR section have designated empty spaces between the houses to throw away their garbage when it is not collected. Children playing in these sites are vulnerable to illness or injury. Sometimes residents burn the garbage or leave it unattended to. The heavy rains would then wash the garbage to the houses, the strong winds would blow and scatter it, and the heaps would then decay and produce a bad smell all over the area resulting in pollution and bad conditions in the environment. When garbage is burnt the whole area would be filled with smoke and cause a very uncomfortable situation in the households. This poses a threat of health related hazards such as cholera, diarrhea and asthma (DiMP, 2006; Ndingaye, 2005).

Overcrowding, the township is home to approximately 900,000 people, the majority of them are unemployed, trapped in the web of poverty, as a result of the apartheid racist regime and gross neglect in post apartheid government in terms of service delivery and economic development (Ngxiza, 2011). He further asserts that, there are significant challenges caused by urbanization and in-migration into the areas for people mainly from the rural areas of Eastern Cape plus natural growth of from communities in other parts of Cape Town townships. The challenge of overcrowding of people in small areas is widespread in Khayelitsha in general and TR- Section in particular (refer figure 3.3 below). Khayelitsha is the most populated area within Cape Town. Historically, there is a phenomena called 'double occupation' meaning two families occupying

one plot and also large numbers of people in one household due to lack of adequate space for expansion (ibid).

This high density, over-concentration, dwelling system prevents well maintained drainage systems. Additionally, people hand-dug their own informal drains. This in turn leads to water pooling between homes and draining into homes. Overcrowding, together with the legal and illegal electricity wires, plus the use of paraffin/flame stoves, candles and or imbawula's (self-made heaters) put residents of TR- Section at risk of fires. Since the dwellings are closer to each other, fire can move rapidly from one shack to another. Unavoidably, this situation poses serious health, safety and environmental problems for the community (DiMP, 2006).

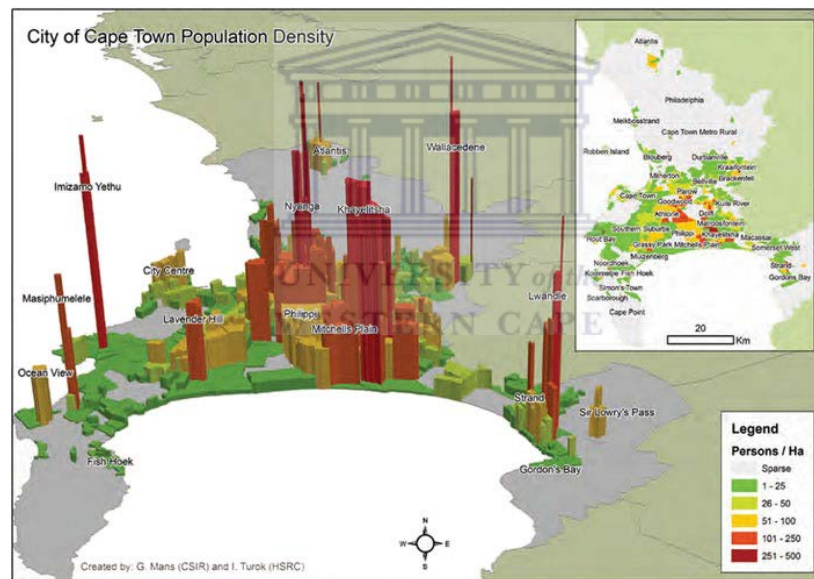


Figure 3. 3: Population distributions in Cape Town: Source: Ngxiza, (2011).

Finally, the factor that compound disaster vulnerability in Khayelitsha TR section is poverty. The area experiences a high rate of unemployment. According to the latest statistics Khayelitsha has more than 50% of the city's unemployed population. The majority of the families in the area depend on pension funds, disability grants, and single parent maintenance grants. Mostly, women work as domestic workers and they are the primary breadwinners in subsistence economies. This state of poverty exacerbates their vulnerability given that they do not have money to buy concrete building materials and or to acquire a proper plot to build their homes. They have no

choice rather than to settle in cheap lower lying land area (Ndingaye, 2005; DiMP, 2006). In order to solve these problems, the South African government formed Disaster Management Act to deal with vulnerabilities and hazard issues.

3.4 SOUTH AFRICA'S DISASTER MANAGEMENT LEGISLATIONS

Prior to 2003 South Africa used the Civil Protection Ordinances of 1977 and the Fund Raising Act of 1978 (Act 107 of 1978) to deal with disaster management functions. At this stage, South Africa adopted the traditional disaster management paradigm whereby disaster was perceived as a natural phenomenon which is inevitable, unpredictable and cannot be avoided. Owing to this belief, the ordinance's main focus was on active aspects of response and recovery during disaster situations. The approach focused solely on the post disaster part of disaster continuum which is relief, rehabilitation and reconstruction (Van Niekerk, 2006).

Following the wind of change in disaster management discourse in international arena and subsequent severe flood occurrences in Cape Town's historically disadvantaged Cape Flats, two months later, after the 1994 national elections, Cabinet resolved to assess South Africa's ability to deal with risk reduction and disaster management issues. This phenomenon is frequently taken as a benchmark in triggering legislation reform in the field of disaster risk management in South Africa (South Africa, 1998; NDMF, 2005; NDMC, 2007). However, the National Disaster Management Centre (2007) critically argues that this is partly true on one hand and on the other hand it overlooks other initiatives that were developed in the early 1990's due to severe region – wide drought of 1991 – 93 which considerably informed the subsequent policy.

It is worth noting that a number of processes were pursued before the Green Paper on Disaster Management was officially introduced. In 1995 Cabinet ruled that the Department of Constitutional Affairs which administered the Civil Protection Act 67, in 1977, was to serve as the focal point for Disaster Management in the interim and National Disaster Management Committee (NDMC) was formed in 1996 for national level purposes. Nonetheless, to strengthen government's commitment in developing national policy and strategy for Disaster Management, Cabinet approved the formation of an Inter – Ministerial Committee for Disaster management (IMC) in mid – 1997 followed by task teams in August 1997 that generated both the discussion

paper in 1998 (Green Paper) and policy document (White Paper) (South Africa, 1998; NDMC, 2007).

Paradoxically, the transformation processes of South Africa's disaster management policy and legislation spanned during a period of 11 years, from June 1994 to April 2005. There were a number of distinct phases in this progress, most notably, the Green Paper on Disaster Management (Feb 1998); the White Paper on Disaster Management (Jan 1999); the Disaster Management Bill (Jan 2000); Disaster Management Bill (58-2001 in September 2001); Disaster Management Bill (B21-2002 in May 2002); the Disaster Management Act (No. 57 of 2002 promulgated in Jan 2003) and the National Disaster Management Framework (Apr 2005) (NDMC, 2007).

3.4.1 Disaster Management Act 57 of 2002

The Disaster management Act, 2002 introduces a holistic system and uniform approach to disaster risk management to all spheres of the government. Disaster Management Act 57 of 2002 marked a significant paradigm shift from relief and response to disaster risk management. The Act provides for an integrated and co-ordinated disaster risk management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, preparedness, rapid and effective response to disasters, and post – disaster recovery; the establishment of national, provincial and municipal disaster management centres; disaster risk management volunteers; and matters relating to these issues. (South Africa, 2005)

The main key performance areas identified in need to be developed in terms of the Disaster Management Act, 2002 are,

- The integration of risk reduction strategies into all development initiatives
- The development of a strategy to reduce the vulnerability of people, especially poor and disadvantaged communities, to disasters.
- The establishment of Disaster Management Centre
- The introduction of a new disaster management, funding system
- The empowerment of communities to be informed, alert and self-reliant and capable of supporting and cooperating with government in disaster prevention and mitigation

- The establishment of a national disaster management framework that provides for a coherent, transparent and inclusive policy for disaster management that is appropriate for the Republic as a whole (South Africa, 2003).

The Disaster Management Act, No 57 of 2002 provides an integrated and coordinated approach not only to all spheres of the government (national, provincial and local) but also including all stakeholders such as private sector, civil societies, non-government organizations (NGOs), and community based organization, research institutions and institutions of higher learning. Basically the Act brought forward the fact that disaster risk management is “every one's business” (Van Niekerk, 2006). Moreover, it intends to increase community participation to reduce the risk and impact of disasters.

3.4.2 The National Disaster Management Framework

The national disaster management framework is the legal policy document specified by the Disaster Management Act to direct a consistent approach across the three spheres of the government and multiple interest groups, by specifying a coherent, transparent and inclusive policy on disaster management suitable for the Republic of South Africa (South Africa 2004: 7; South Africa 2003, Section 6).

In this respect, the national disaster management framework puts in place the guidelines and appropriate policy and procedures to deal with disasters, in consideration of all types of risks and disasters that occur in Southern Africa. The policy puts emphasis on disaster prevention and mitigation as a core principle to the whole of South Africa (South Africa, 2005, 1).

The National Disaster Management Framework guidelines are categorized into four key performance areas (KPAs) and three “supportive enablers” (South Africa 2005, 2). Key performance areas and enablers set specified objectives as required by the Act. These are followed by key performance indicator to ensure the successful implementation of key performance area objectives (South Africa 2005, 2).

The key performance areas and enablers are:

- . KPA1: Integrated institutional capacity for disaster risk management
- . KPA2: Disaster risk assessment
- . KPA3: Disaster risk reduction
- . KPA4: Response and recovery
- Enabler 1: Information management and communication
- Enabler 2: Education, training, public awareness and research
- Enabler 3: Funding arrangement for disaster risk management (ibid).

This section provided a brief history of South Africa Disaster Management Act 57 of 2002. Its main key performance areas that need to be addressed according to the Act have also been discussed. The National Disaster Management Framework document has also been explained briefly in terms of its objectives and structure. The following section will cover policy discussion on community participation in South Africa in general, followed by community participation in disaster risk management in particular.



3.5 COMMUNITY PARTICIPATION IN SOUTH AFRICA

Community participation, discourse in disaster risk management will not be comprehensive without discussing the context of community participation in general, in the South African context. The South African post-apartheid government acknowledged community participation as an imperative mechanism for entrenching democracy and promotion of social consistency between government and the citizens, specifically, in the provision of quality and sustainable services (Nyalunga, 2006; Fortuin, 2010; Williams, 2006). In this context, public participation became a Constitutional mandate, thereby, in terms of the South Africa Constitution in subsection 152 e) it states the objectives of local government as being to “encourage the involvement of communities and community organizations in the matters of local government” (RSA, 1996a) cited by (Williams, 2006).

Aligned with this constitution statutory, there are several government legislations and policy documents, such as the Reconstruction and Development Programme; White Paper on Local Government of 1998; Local Government Municipal Structures Act 117 of 1998; Local Government Municipal Systems Act 23 of 2000 (LGMSA) and Draft National Policy Framework for Public Participation of DPLG (2005). These legislations and policy documents serve as the legislative cornerstone advocating for and promoting the need and structure of public participation. Reconstruction and Development Program (RDP) articulated as the political manifesto of the ANC during their election campaign for the first democratic elections of 27 April 1994, state that the RDP is

“an integrated, coherent socio-economic policy framework, that seeks to mobilize all our people and our country’s resources toward the final eradication of the results of apartheid and the building of a democratic, non-racial and non-sexiest future. It represents a vision for the fundamental transformation of South Africa. That integrated process of transformation must ensure that the country develops strong and stable democratic institutions and practices which are characterized by representatives and participation”(RDP, 1994).

White Paper on Local Government of 1998 aimed to transform local government level to democratic status thereby stated the number of interrelated development oriented goals, such as meeting the social economic and material needs of all citizens, especially the historically neglected, marginalized black communities. In this regard two legislations were developed for this function, which include Municipal Structures Act, 117 of 1998 and the Municipal Systems Act, 23 of 2000. This was done with the view of bringing together as many stakeholders as possible to delineate, define and promote their common interest. The LGMSA makes IDP mandatory at the local level. The Draft National Policy Framework for Public Participation provides the policy framework for public participation in Local Government in South Africa. The document highlights the importance of ward committees and ward councillors as a vehicle for enhancing participatory democracy at the grassroots level.

However, a recent study conducted by Good Governance Learning Network (GGLN) (2012) indicated that, apart from South Africa having one of the most progressive community

participation policy frameworks in the world, comprehensive local government institutions are lagging behind in terms of performance to achieve the aimed objectives. GGLN noted that, in 2009, the Department for Cooperative Government and Traditional Affairs (COGTA) highlighted that “the sphere of local government is ‘in distress’ and that many municipalities are poorly governed or dysfunctional. The dysfunctionality has its root causes in a host of factors, including institutional design and intergovernmental relations, political culture and social values, socioeconomic context, weak leadership and/or capacity, and poor internal systems for performance management and accountability (COGTA 2009:9)”. They further asserted that, failure of the local government sphere is reflected by the wide spread of service delivery protests which took place in the highly urbanized provinces of Gauteng and the Western Cape. The empirical data presented from Municipal IQ shows that, the number of service delivery protests was highest in 2009 and 2010 (GGLN, 2012).

3.6 INSTITUTIONAL ARRANGEMENT FOR COMMUNITY PARTICIPATION AND AWARENESS IN DISASTER RISK MANAGEMENT

Having described South Africa’s disaster management legislations background and community participation in general, the focus is now on institutional arrangements for community participation and awareness in disaster risk management in accordance with the Disaster Management Act of 57 of 2002. The first part of this section presents the overview of the community participation requirement in disaster risk management, according to the Disaster Management Act, the second section elaborates institutional arrangement for community participation, and the last part describes community awareness mechanisms as provided by the act.

Overview of community participation requirement in disaster risk management, according to the Disaster Management Act will be explained and analyzed following disaster management cycle’s items such as mitigation, preparedness, response and recovery. Disaster Management Act 57 of 2002 provides guidelines through the National Disaster Management Framework on how communities should be involved and informed during all phases of disaster management.

On mitigation phase, the Act made it explicitly clear that disaster risk assessment and disaster reduction project planning processes are a participatory driven process and therefore efforts should be made to include vulnerable communities and households. It further asserts that special

needs people like isolated communities, female headed and child headed households should also be included in the processes. Moreover the Act suggests that traditional leader's views and indigenous knowledge must be critically considered in the process of disaster risk reduction initiatives (NDFM, 2005, subsection 1.3.2.2.:18).

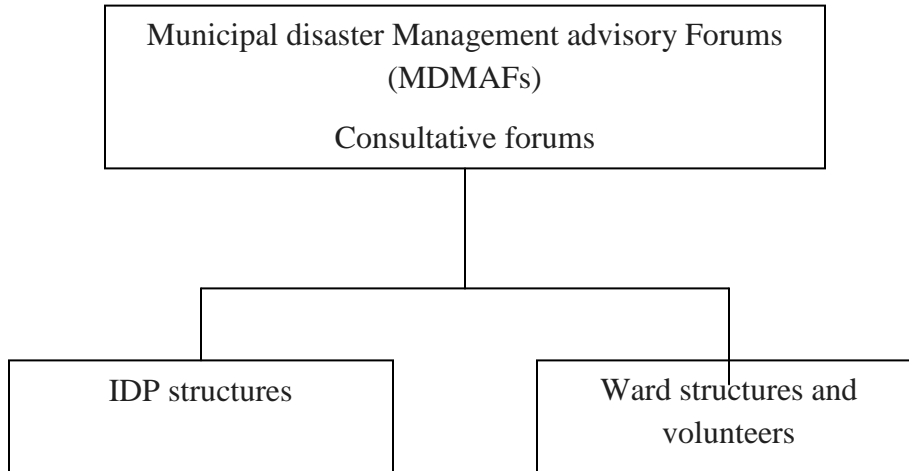
On preparedness phase, there are efforts of empowering communities to help themselves, their neighbors and families or anybody else in case of disaster. For providing skills like search and rescue, first aid, fire suppression, or hazard awareness, preparedness planning this should basically involve communities at risk (NDFM, 2005).

On response phase, municipalities must ensure that hazard warnings are timely and effectively disseminated to the communities know to be at risk, including isolated remote areas. And vulnerable communities are educated about the sign and the meaning of the warning and its media of communication (NDFM, 2005: 54).

On recovery phase it includes rehabilitation of the affected communities, and households, reconstruction of damaged and destroyed infrastructure, recovery of losses sustained during the disaster event, combined with the development of increased resistance to future similar occurrences. Disaster recovery initiatives present excellent opportunities to incorporate disaster risk reduction actions. Following a disaster event, there are usually high levels of awareness about the risk factors that increased its impact. These present opportunities to introduce disaster risk reduction efforts consultatively with the affected communities and key stakeholders in order to reduce the likelihood of future loss (NDFM, 2005: 19).

3.6.1 Institution arrangement (mechanisms) for community participation at municipal level

The previous section highlighted what the Act directs in terms of how the community should be involved through National Disaster Management Framework policy. This part provides the institution arrangement or mechanism available to fulfil this obligation at municipal level. In order to fulfil this obligation, stakeholder participation mechanisms at the municipal level have been analyzed in the National Disaster Management framework (2005) which are as follows: Municipal Disaster Management Advisory Forums, IDP structure, ward disaster risk management committees or forums and volunteers (NDMF, 2005, subsection 1.3.2.2 :18). This is as depicted in figure 3.4 below.



**Figure 3.4: Stakeholder participation structure at municipal level:
Source: (NDMF, 2005: 5)**

3.6.1.1 Municipal Disaster Management Advisory Forums (MDMAFs)

The primary responsibility for co-ordination and management of local disasters rests within the local sphere of government. These institutions are the first line of defense in the event of disaster occurrences or threatening to occur. In this respect, the Act, directs all metropolitan and district municipalities to establish a municipal disaster management advisory forum for their areas. MDMAF is a municipal level disaster management, institutional arrangement according to the Act which enable active participation of all stakeholders, including national organs of state, NGOs, communities, technical experts and the private sector at municipal level. The main responsibilities of the forums are recommending, advise, plan, coordinate, establish a joint standard of practice, implement response management systems, gather information about capacity to assist disaster and resource access, assist in public awareness, training, and capacity building on issues related to disaster risk management (NDMF 2005: 17) . However, a current study conducted by (Botha et al, 2011) stated that the same amount of metros stakeholders indicated that their advisory firm is either functioning at a low level (40%) or they have partial functioning with room for improvement (40%). Additionally, they indicate that most of the time the DRMCs do not utilize the DRMAF for engaging stakeholders according to its functions of advising, planning, etc as stated above, but rather to only inform stakeholders on very shallow

disaster risk management issues like the amount of past events. Very small actual disaster risk management related information is shared and discussed in these forums.

3.6.1.2 IDP Structures

Integrated Development Planning (IDP) is a process by which municipalities set up a five-year strategic plan that is reviewed annually in consultation with communities and other stakeholders (Van Niekerk, 2006). The IDP is a principal strategic planning mechanism that guides and informs all development planning, budgeting, management and decision-making in a municipality. This plan seeks to promote integration by balancing social, economic and ecological (human and environmental) pillars of sustainability without compromising the capacity of the institution to implement its ideals. The IDP also aims to coordinate actions across sectors and spheres of government” (Van Niekerk, 2006). Integrated development planning compilation is an interactive and participatory process which requires the involvement of community and other stakeholders. IDP passes through core processes, namely analysis, strategy, development, project identification, and integration and approval phases.

Linked to this, the Disaster Management Act (No 57 of 2002) and the Municipal Systems Act (No 32 of 2000) stated the insertion of a disaster management plan into the municipality’s integrated development plan (IDP) (NDMC, 2007), to make IDP serve as the operational plan for development and disaster risk reduction in any municipality. This form of integration indicated in Disaster Management Act 9 sections 33(1), 38(2), 39(2)a and NDMF (subsections 1.2.3, 3.4.1, 3.4.2) gives priority to the integration of disaster management activities into the core business of government departments as well as into spatial and integrated development plans (IDPs). This view was underpinned by section 1.3.2.2 of (NFDM, 2005) which states that “Municipalities must involve local communities in the development of disaster risk profiles, facilitate understanding of the concepts and value of disaster risk reduction in communities, prioritize projects aimed at risk reduction in their IDPs and facilitate community participation in training, preparedness planning and awareness programs”.

In terms of the Act, all disaster management activity planning should be integrated with IDP planning at the local government level. Therefore, it functions as an integrated, multi-sectoral,

multi-disciplinary approach towards planning, disaster risk reduction, emergency preparedness and disaster recovery. This disaster risk management activity planning process goes parallel with IDP planning phases. Nonetheless, the research conducted by (NDMC, 2007) indicated that disaster management plan, development and integration with IDPs vary in a great deal within municipalities. Furthermore (Botha et al, 2011) indicated that there are still irregularities regarding to disaster risk management plans as part of existing IDP planning, particularly on the metro and district municipalities.

3.6.1.3 Ward structures and volunteers

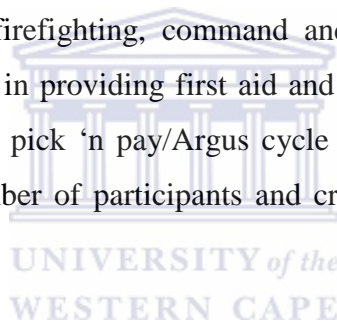
The National Disaster management framework emphasized the establishment of ward disaster risk management committees or forums. The main idea of this forum is to provide leadership, ensure community ownership of and participation in disaster risk management and awareness program and to facilitate preparedness in the local sphere (NDMF, 2005: 18 subsections 1.3.2.1).

Act, however, did not desert the importance of volunteers in disaster risk management. Chapter 7 of the Act, provides a metropolitan and district municipality with the option of establishing a unit of volunteers to participate in disaster risk management in the municipality. This category provides for participation of individuals, groups or organizations that already have specialized skills as well as those who wish to be trained in specific skills in order to participate voluntarily in disaster risk management initiatives (NDMF, 2005:19). (WCDMF, 2007: 84 sub sections 6.1.5.4) affirms that a special training program must be developed for persons interested in volunteering their services in disaster risk management. These programs should address issues such as disaster risk reduction, vulnerability assessments, awareness of risk and hazards and general preparedness and response. It further articulates that:

“there should be an emphasis on the training of community trainers in order for them to serve as forces multipliers by, in turn, training others. In this regards special consideration must be given to the costs of training provision of protective clothing, travel expenses, insurance and incentives”(WCDMF, 2007: 84).

Additionally, the Act provides another form of volunteers such as General volunteer and Spontaneous volunteer. The former is the form of volunteers whereby disaster management centres promote the recruitment, training and participation of volunteers in disaster risk management only in the event of disaster and not to be involved in organized structures as stated above. The latter is the group of people who respond spontaneously in case of emergencies. The Act recognizes these as spontaneous volunteers (NDMF, 2005: 19-20)

Under the Disaster Management Act, the City of Cape Town Disaster Management Centre has established Unit Volunteers. The unit is subdivided into 10 sections across Cape Town areas. These sections are, Plumstead, Atlantis, Fishhooks, Macassar, Melton Rose, Melkbosstrand, Milnerton, Strand, Khayelitsha and Belher plus other smaller informal unit structure based in areas like Wallacedene, Kensington, and Fisantekraal. According to the City of Cape Town websites, volunteers are given cross-trained and receive training in various aspects such as first aid, advance life support, basic firefighting, command and control communication etc. The services of volunteers are utilized in providing first aid and assistance to the local schools and churches and in major events like pick 'n pay/Argus cycle tour, carnivals and any other large functions which attract a big number of participants and crowds around Cape Town (DRMC, 2012).



3.6.2 Community awareness mechanisms

Community awareness is an important aspect in order to ensure people are aware of the hazards surrounding them. Section 15 and 20(2) of the Act specifies the endorsement of a broad based culture of risk avoidance by the promotion of education and training throughout South Africa. Parallel to this, section (6.5 subsection 6.5.1) of the National Disaster Management Framework states that an integrated public awareness strategy must be developed by all role players to schools and communities know to be at risk. These programs should focus on the hazards to which the communities are exposed and steps they should take to reduce the impact. Some mechanisms indicated by the NDMF are the establishment of user – friendly websites, imbizo meetings, planned awareness programs aimed at communities, information centres and if possible formation of networks. It further suggests that public information should be disseminated to all role players, especially those at risk through the use of radio, television, print

outs, electronic media and in schools. It also suggests the use of posters, videos, publication, early warning systems and other innovative means (NDMF, 2005: 83-84).

The policy further recommends that communities, NGOs, and the private sector must be consulted in designing public awareness programs. The use of volunteers is also advocated in order to ensure community buy-in and ownership of public awareness programs. In turn, this motivates community participation. Awareness campaigns are suggested to be conducted at least 30 days before a change of season or climate. Rewards, incentives, competitions and recognition schemes to enhance awareness of and participation in risk reduction activities are considered as of necessity to foster effective participation. In addition, it recommends employment of qualified resource personnel to deal with external consultation and media liaison (ibid).



3.7 Summary

This chapter has provided the brief overview of the case study area, in terms of its geographical position, population, social, economic profile, hazard profile and factors exacerbating the hazard vulnerability. This helps us to understand in details social, economic and hazards dynamics of the case study area and motivation behind the selection of the case study area. Furthermore, the chapter offered detailed information on South Africa's disaster management legislation background, general overview of community participation policy framework in South Africa and institutional arrangement for community participation and awareness in disaster risk management as provided by Disaster Management Act (57 of 2002). This chapter forms a foundation or benchmark of research objectives two and three which are to determine which mechanisms for participation and awareness are currently being implemented, and to what extent these mechanisms are practiced as provided by the Act.



CHAPTER FOUR: COMMUNITY PARTICIPATION AND AWARENESS MECHANISMS IN DISASTER RISK MANAGEMENT: IMPLEMENTATION, PRACTICES AND ITS EFFECTIVENESS.

4.1 INTRODUCTION

The focus of this chapter is to present details of research findings and analysis from both research paradigms, qualitative and quantitative. The chapter consists of two sections. The first section presents findings and analysis of the findings of a qualitative study, that is, structured interviews in response to research objectives two “current community participation and awareness mechanisms available, and research objective three “to examine to what extent these mechanisms have been implemented and practiced in Khayelitsha TR-Section”. The second section presents the research findings and analysis from quantitative study done through questionnaires in response to to the research objective four “to determine community participation, awareness and understanding of the current community participation mechanisms, and research objective five “to assess the effectiveness of the current community participation and awareness mechanisms available in disaster risk management”. Finally, the chapter closes with a summary.

4.2 CURRENT COMMUNITY AWARENESS AND PARTICIPATION MECHANISMS AVAILABLE IN DISASTER RISK MANAGEMENT

4.2.1 Current implemented community participation mechanisms in disaster risk management.

The Act calls for the active participation of all stakeholders in disaster risk management and it specifies on how these stakeholders, especially the community at risk should be involved in the process. According to National Disaster Management Framework of (2005) municipalities are advised to establish a Municipal Disaster Management Advisory Forum, IDP structure, ward and volunteer’s structures for the purpose of community participation.

Interviews with disaster risk management officials revealed that they are making use of private

consulting companies like Aurecon to conduct participatory risk assessment on their behalf, whenever the need arises. The last, participatory risk assessment project was done in 2007. Empirical data further reveals that disaster officials deployed two other community involvement mechanisms such as Municipal Disaster Management Advisory Forum and unit of volunteers. However, in any other matters requiring community consultation, they make use of the available structure of the general public participation mechanisms initiated by the Municipal System Act of (2000) that is ward structures officials, such as ward councillors and ward committees. They also make use of Community Development Workers.

According to the National Disaster Management Framework, there are about four mechanisms directed to engage communities at municipal level. However, Disaster Risk Management Centre implements a different mechanism to engage communities in risk assessment initiatives. The other mechanisms such as ward structure and general volunteers are not implemented at all (see section 3.6.1.3). This reveals discrepancy on the ability of disaster officials to interpret the national policy as they could not comprehend and exhaust all the available policy options. Moreover, the use of private companies such as Aurecon to do a risk assessment on the behalf signifies the lack of essential skills and capacity to perform their duties they are required to accomplish. Nevertheless, it is argued that private consultants usually working on the template. There are draft reports typically drawn from the secondary data source rather than on the basis of information gathered through community consultations (Tapscott, 2007: 87). For that matter final document lacking community relevance with little or no buy-in from the community, in which participation is viewed like a “rubber stamp – factories” rather than the significant need for the community involvement in the process (Thompson, 2007). These findings indicate that community participation mechanisms in disaster risk management are rich in rhetoric and poor in their implementation.

4.2.2 Current implemented community awareness mechanisms

For the purpose of effective performance and administration, the Disaster Risk Management Centre office was planned and structured in a particular set up according to the portfolio it presents. These arrangements are as follows: Head office, Disaster Operations Centre (DOC), Corporate Planning and Integrated Development Planning (IDP), Systems Integration and

Special Projects, Special Planning, Critical Infrastructure and Liaison, Training and Capacity Building: Corporate, Commerce and Industry, Training and Capacity Building: Community and Volunteer Management, Public Awareness and Preparedness and Logistics Planning and Management. It is further divided, according to administrative, operational areas, such as, West, East, North and Central. Each area has its own office apart from head office in Goodwood and has its designated areas of responsibilities. Khayelitsha TR-Section follows under area east.

The interviews revealed that, the function of community participation and awareness is mainly under Public Awareness and Preparedness Department. Their main role is to do public awareness with regards to the hazards that posed the highest threat in the areas, which are mostly fire and floods. This department decides and plans which area they should go to do their awareness initiatives, informed by Corporate Planning and Integrated Development Planning (IDP). Linked to this, the Act suggested the establishment of user-friendly websites, the imbizo meetings and networks. It further emphasizes on the use of radio, televisions, print out, posters, videos, publication and other innovative means.

Primary data reveal that the main mechanisms or strategies currently used for community awareness include arts, a drama from the Jungle Theatre Company (split of fire), and mass media such as community radio called Zibonile, community newspaper called Vukani and City vision, and internet such as City Council website. Other strategies include the use of brochures, pamphlets, DVDs, posters and or other handouts. These awareness media of information carry out materials on how to guide the residents on how to avoid and protect themselves from floods and fire. Other initiatives include schools, public awareness programs. However, it is important to note that the schools, public awareness program are out of the scope of this study and will be mentioned as an area of further research needs. One of the examples of these materials is depicted in figure (4.1) below.

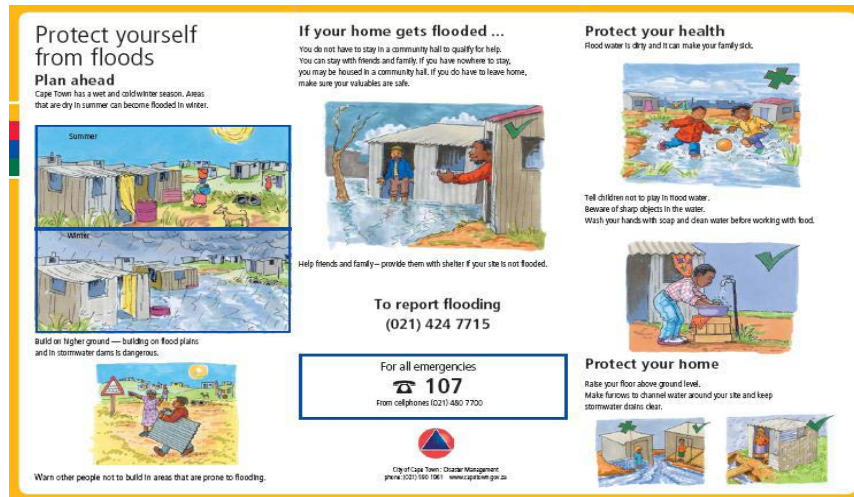


Figure 4.1: Example of one educational material (City of Cape Town, 2007)

In relation to the Act, primary data show that they have implemented almost a quarter of the strategies. Nevertheless, DVDs and posters strategies are not implemented. Also, they do not make use of television for educational purposes; rather, they have a good relationship with Cape Town Weather Stations only for purposes of providing severe weather conditions information and warning through different television stations. In addition, the study found a lot of inconsistency in practice in the implemented strategies. This will be discussed in the following section.

4.3 PRACTICE OF IMPLEMENTED COMMUNITY AWARENESS AND PARTICIPATION MECHANISMS

4.3.1 Practice of implemented community participation mechanisms

As discussed earlier, community participation mechanisms that are currently available include private Consultation Company, Municipal Disaster Management Advisory Forum (MDMAF) and volunteer unit. The others are, ward Councillor, Community Development Workers, and Ward Committees. The following is the presentation of the empirical findings of the practice of each mechanism. It is worth noting that private consultation companies practice and implementation are beyond the scope of this study, it may be advised as a future area of study.

4.3.1.1 Municipal Disaster Management Advisory Forums.

Municipal Disaster Management Advisory Forum (MDMAFs) serves the purpose of all disaster risk management stakeholders to meet and coordinate their actions on the matter relating to disaster risk management (Refer section 3.6.1.1). According to Western Cape Disaster Management Framework (2007) the composition for Western Cape Disaster Management Advisory Forum are: the head of the Western Cape Disaster Management Centre (WCDMC); Heads of provincial departments designated by the Premier, Designated disaster risk management focal points for provincial departments which have disaster risk management responsibilities, disaster risk management functionaries of the WCDMC, Representative of the South Africa Local Government Association (SALGA), head of the disaster management centres of each of the five district municipalities in the province, head of neighbouring provincial and district disaster management centres, South Africa police forces, NGOs, CBOs, and other relevant role players just to mention but a few. In relation to the Act this is supposed to be consistent with the Municipal Disaster Management Advisory Forum (MDMAF) which should also include councillors. Interview with councillor of Khayelitsha TR section reveals that, he is not aware of the forum and he has never been invited. This finding is more interesting than that of Botha et al (2011) who pointed out that, there is very little or close to nothing regarding disaster risk management information shared in these forums.

4.3.1.2 Volunteer's structure

Volunteers are the most important vehicle to facilitate community participation in disaster risk management, significantly, at communities most at risk. An interview with disaster officials shows that Disaster Risk Management Centre deploys units of volunteers in this regard. There are ten units of volunteers established across Cape Town (see section 3.6.1.3). To date, the whole of Khayelitsha including TR-Section which is the most vulnerable community has 26 registered volunteers; among them only 12 are reliable most of them are paramedics who serve the purpose of safety and security. This gives the indication that these volunteers are there mainly for the purpose of the response in case of emergency or disaster. Consequently, the current Disaster Risk Management Centre setup of volunteer units has no special consideration of the areas which are the most vulnerable as suggested by the Act. Volunteer units are formed

according to geographical location and not according to the level of vulnerabilities.

WCDMF (2007) states that those who are ready to volunteer their services in disaster risk management should be given training programs that address issues like disaster risk reduction, vulnerability assessments, awareness of risk and hazards and general preparedness and response. It further articulates that,

“there should be an emphasis on the training of community trainers in order for them to serve as forces multipliers by, in turn, training others” (WCDMF, 2007: 84).

Ironically, information from interviews indicates that the current training given to volunteers is first aid and fire fighting training which is the reactive side of the disaster management cycle and not proactive side of disaster management. These findings are also consistent with secondary data from Disaster Risk Management Centre website which asserts that volunteers are offered first aid, advance life support, basic fire fighting, command and control communication kind of training. It is also worth noting that, nine years of Disaster Management Act promulgation, they still do not have proper trained community trainers. The researcher holds the view that some areas like this one, are not taken seriously.

Inadequate number of staffs have also been identified by disaster officials as one of the major challenges affecting the smooth operations of volunteer unit, taking into account that, there are only two staffs, to coordinate the units of volunteers and at the same time running training courses in disaster risk management. Additionally, leadership capacity of volunteer coordinator was also identified as a challenge for these individuals do not have enough time to run the units. This may be due to the fact that, volunteer coordinators are also employees of other places as they are not full time workers. City of Cape Town disaster officials should have known this better.

Another challenge identified by disaster officials is unreliable of volunteers. Most of the time they change their telephone numbers without communicating with the volunteer coordinator. This shows that volunteers are not committed to their duties simply because they are volunteering. This may be caused by the fact that volunteers are not motivated and are not given incentives and transport allowance and they are not oriented on the core aspect of volunteerism

such as altruism, commitment, free will, learning, organization, psychological benefits and sacrifice. Together with social - economic problems facing these volunteers in their daily life since some of them are not employed. In highlighting the disappointment, disaster official had this to say:

Most of the big events took place in December month at a time most of volunteers from Khayelitsha will be visiting Eastern Cape for December vacations (Interview with disaster official).

This paints a picture that volunteers are most valued and needed during the time of big events not in continuously disaster risk reduction initiatives. This view is also supported by secondary data from Disaster Risk Management centre website as described in section (3.6.1.3) which stated that,

“the service of volunteers is utilized in providing first aid and assistance to the local schools and churches and in major events like pick ‘n pay/Argus cycle tour, carnivals and any other large functions which attracts a big number of participants and crowds around Cape Tow”.

Another challenge is that, people come to volunteer with the mindset that they will get something to put on their tables since most of them are unemployed, even though they will be orientated in advance on the basics and the essence of volunteering. And others come with the mentality that they will be employed in the long run. This pointed out disjuncture between how communities perceive volunteerism and the basics and essence of volunteerism. Education in volunteerism is of paramount important to close this knowledge gap.

Some of the challenges identified by the volunteers are limited scope of work. They are not allowed to do some of the work, for instance, they are not involved in issues like pre-planning of events, and safety procedure. They are literally working as strangers. They are not orientated on all scenarios of the events. For that matter, they are just working in an ad hoc situation. Moreover, the volunteer coordinator is given a number of volunteers to recruit regardless of the needs. In addition, their requests are not met or given feedback at the right time. For instance, if they ask to load airtime on their phones in order to phone required officials in case of emergence, they are not given feedback. Volunteers are not given incentives and transport allowances as the

Act stipulates. They are only given a uniform and covered by the insurance. To insist on the relationship existing between volunteers and disaster official one respondent put it this way,

There is no recognition or satisfaction; we are treated like they are just volunteers
(Interview with respondent).

Another challenge volunteers confronts is a crime. In some areas they are not welcome. This suggests that there is a lack of education and communication among communities they are working for. Another challenge is a lack of resources. The respondent mentioned that the whole of Khayelitsha has got only 1 vehicle. Sometimes when two accidents happen at the same time they have to prioritize and establish which one is red, green or whatever. Political influence is another challenge. Some communities are manipulated by politicians not to cooperate in any matters relating to the disaster risk management issues for their own interest.

4.3.2 Ward structure officials

This part offers a brief explanation of the background and roles of ward structure officials, notably, sub council manager, councillors, ward committee's and community development workers. It further presents the detailed findings and analysis of how they are involved in the current community participation mechanisms in disaster risk management initiatives in the area. Current community participation model and approach practiced and applied by City Of Cape Town Disaster Risk Management Centre is illustrated in figure 4.2 below.

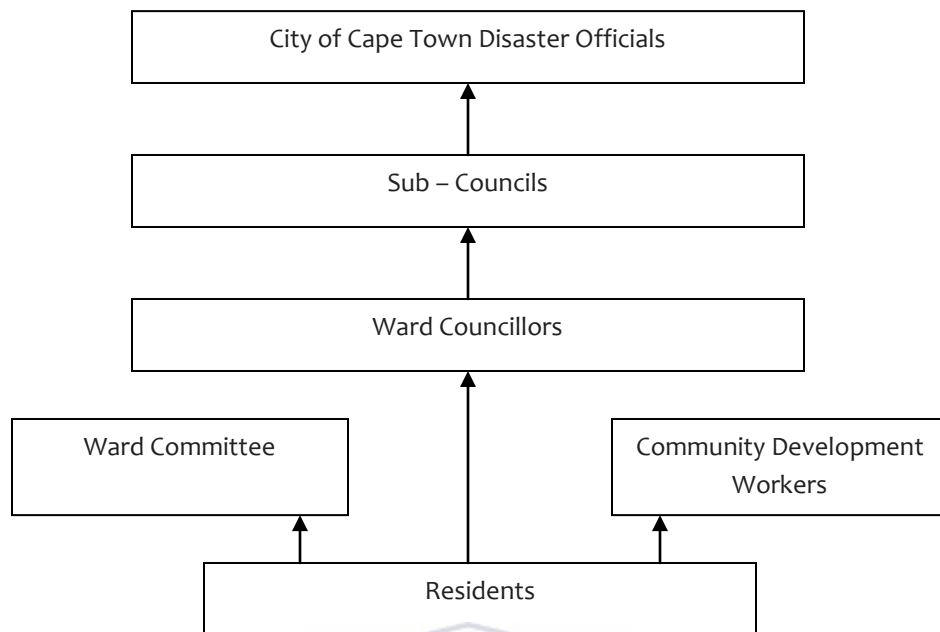


Figure 4.2: Community Participation model applied by Disaster Risk Management Centre: Source Author constructs

4.3.2.1 Sub – Councils

The Sub Council is a specialized decentralized government structure that provides residents with the opportunity to participate in matters pertaining to local government affairs. According to the City of Cape Town website, Cape Town’s sub-councils are governed by the City’s Cape Town Sub-Council By-law of 2003 and subsequent amendments thereto which specify the delegation of powers and functions. Sub councils are organized in terms of groups of neighboring wards. Khayelitsha TR-Section falls under councils nine. There are about five wards which constitute nine councils of Khayelitsha. Sub-councils consist of Ward councillors who are elected on the proportional representation list, in relation to the number of votes acknowledged in the local government elections (Fortuin, 2010).

The main duties and responsibilities assigned directly to sub-councils by the City's Council include encouraging communities to participate in decisions on the City’s policies and legislation, such as policy draft, draft by –laws, its annual budget and its 5 year plan. They work closely with the City of Cape Town monitoring service delivery performance, in settling resident

disputes, handling complaints and inquiries. They check and balance onwards spending. Most importantly, community participation is a fundamental aspect of sub council work. Sub councils collect the views and opinions of residents and make recommendations on any matter affecting the area they represent to Council. The Sub Council is also responsible for compiling different interest groups like professional or business associations and community based organization within the area (ibid).

According to qualitative input gathered at the Sub council office, in terms of disaster risk management, there is no formal platform or structure of communication between disaster officials and Sub council office. The Sub Council office conducts monthly meetings for overall matters prevailing in their area. In these meetings disaster risk management official will only attend if there is something to do with disaster on the agenda. And most of the time the agenda is about the number of incident which had already happened. The main concern here is to get clarification and confirmation in balancing the records from both sides, on how incidents happened, the number of death, victims etc. This finding is consistent with the research findings conducted by Bothal et al, (2011) who argued that these community participation platforms are not used to engage stakeholders, for instance, to provide or obtain advice rather to only inform stakeholders on very superficial disaster risk management issues such as amount of past events.

Generally respondent indicated that, the nature of communication between disaster officials and the Sub Council office is characterized by top- down attribute. To express the relationship respondents narrate that;

Most of the time we receive orders from them, they communicate with us when there is a need in their side. We are sending very little information to them and this information will be sent only the time disaster has occurred. The nature of information is always about incident reporting (Interview with respondent).

The findings confirm that the Sub council officials do not exercise their duties of promoting community participation in their area in regard to disaster risk management. This disjuncture on one hand may be caused by lack of understanding and awareness in sub – council office side and on the other hand, may be due to disaster risk management officials undermining the importance of community participation.

4.3.2.2 Ward Councillors

Councillors are elected official representative of the ward. Each councillor serves as a member of a sub-council and a member of a portfolio committee. According to Nyalunga (2006) Councillors are the direct link between residents, Committees members, sub council and the local government. Councillors are responsible to oversee the day to day activities and services delivered in a proper manner within their constituencies. However, they are responsible for safeguards and maintain local needs and report to their political parties.

In terms of disaster risk management, the Councillor as the vehicle to facilitate community participation in the matter of local affairs and as representative of the ward has the obligation to attend meetings regarding disaster risk management matters. The interview revealed that the Councillor is not aware of the Municipal Disaster Management Advisory Forum and he has never attended any meeting regarding the disaster. This gives the indication that he may be either not invited or informed or he is simply not interested in attending this meeting necessary for his ward.

4.3.2.3 Ward Committees

Section 152 of the South African Constitution requires a local government to encourage the involvement of communities and community organizations in matters of local government. In this regard the Municipal structures Act of 1998 direct local Governments to establish ward committees. In accordance with the Act the main objectives of ward committees are to enhance community participation at the grass root level.

Ward committees serve as liaisons between the community and the council. In the same way ward committees provide communities with an opportunity to lodge or express their views and complaints. Ward committees also have the responsibility to identify and analyze the capacity of its communities in terms of finance, expertise, skills, new materials, labor, and resources for the purposes of project implementation with the community. The ward committees should be organized in such a way that they represent most sectors and areas in the ward (Fortuin, 2010).

According to Fortuin (2010) normally ward committees need to have up to 10 members representing different sectors and interest groups within the ward. Primary data revealed that in

Khayelitsha TR-Section, has only five members representing different organization such as the youth, health and safety, and the other three unknown interest groups that make up five in total. According to the data gathered in the interviews, disaster officials pointed out that in the ward structure they normally use health and safety representatives to represent disaster risk management matters. However, the health and safety respondent indicated that he had never been involved in any matter relating to disasters. To him health and safety meant, handling crime in the area and garbage collection issues. These findings pointed out a huge knowledge gap between disaster officials' understanding of health and safety representative and that of ward committee's representative. The communication between the two sides is very important to bridge this gap. Moreover, these findings are consistent with that of Hicks (2006) who argues that *"whilst ward committees are a key component of community based involvement, many municipalities still do not have formal or functional ward committees in place"*.

4.3.2.4 Community Development Workers

Community Development Workers are another structure created for similar strategies to improve community involvement in different government development programs. Secondary data suggest that there should be two Community Development Workers per ward (Nyalunga, 2006). Research evidence from interviews indicates that currently, there is only one Community Development Worker in Khayelitsha TR-Section who is not coping with the demands of the area. According to the respondent *"the area is too big for one Community Development Worker to handle and the demand is too high"* (Interview with respondent).

Information from the interview revealed that the main task of the Community Development Worker in term of disaster risk management is to monitor the situation during disasters by means of identifying and registering the actual victims to avoid those who would like to take chances for the purpose of relief benefit. Another function is to call disasters relief organizations. Researcher probe on what organizations normally phoned for this purpose the respondent responded that *"I normally call Catholic Welfare Development"*. When the research probed about other registered organizations with Disaster Risk Management Centre like Mustadafin, Sanzaf, Red Cross and HDI respondent asserted that:

We do not call those NGOs like Mustadafin, Sanzaf, Red Cross and HDI. Those are

called by the City of Cape Town Disaster Risk Management Centre on our behalf, we are not directly connected (Interview with respondent).

The interview also revealed that there is a lack of communication between wards structure officials and disaster officials. Concerning the Councillor, she mentioned that:

The Councillor does not call us to discuss any issues in this community let alone about disaster issues. He only calls us for a meeting when there is a need or something happened like disasters, emergence or any other chaotic situation in the communities and the councillor is not interested in any questions. (Interview with respondent).

In relation to disaster officials, the respondent mentioned that there is no communication between us and them.

They will come with big tracks of sands twice or once as flood mitigation toward winter season without informing the community (Interview with respondent).

Apart from these challenges respondents indicated that Disaster Risk Management Centre officials are doing very well during emergencies or disasters. She asserted that

They are responding very fast, the disaster management team will come to do an assessment of disaster and they will give people building materials called “Starter kit” and they will register people for a relief grant from the Social Development Department (Interview with respondent).

4.3.3 Practice of implementing community awareness mechanisms

As described in the previous section current implemented community awareness strategies are drama (split of fire), community radio and newspapers, websites, brochures, pamphlets, DVDs, posters, handouts and imbizo meetings. According to National Disaster Management Framework public awareness needs to be disseminated 30 days before the start of the season, be it winter or summer. However, the current practice revealed that, there is no proper planning and coordination of the events. No proper plan of actions, of how events are going to be operated within a framework of time. The events operate in a haphazard fashion. Even the staffs of the area involved are not informed in time. Mostly they are informed in a haphazard way, not to mention the community itself. When the researcher further probed about what the reasons behind this, respondent stated that:

The public awareness initiative is always at the bottom of disaster risk management centre office budget list (Interview with respondent).

This paints the picture that disaster officials perceive community participation as a cumbersome; waste of time and resource process. At the end of the day it is the disaster, officials who make decisions. So, they do not see its significance. These findings signify that, there is a lack of skills and understanding on the significance of community participation amongst disaster officials.

Primary data further reveal the drawbacks for applying drama and imbizo strategies. Mostly people are not interested in attending these events. When they attend the public meetings their thought is on housing problems and not on disaster risk management issues. This may be caused by the lack of the community involvement in designing and developing these strategies at the initial stage as the principle of public education in disaster risk management suggests (see section 2.4.3.1). Furthermore, it may be also caused by the lack of rewards, incentives, competitions and recognition schemes to enhance awareness and participation in risk reduction activities. Also, it may be due to the way the community is informed about these events, mostly in short notice and some people may not get the information. To show the disappointments the respondent stated that,

Residents attend public events only if they will be told there is something to eat or some sort of incentives like T-shirts, Caps, diaries etc. We have given up on them. Our concentration now is on their children at school (interview with respondent).

In Radio category, they are using community Radio called Zibonile. For News paper they are using community newspapers called Vukani and City Vision. However, they have a good relationship with Cape Town Weather Stations only for the purpose of providing severe weather conditions information and warning through different television stations. Surprisingly, there is no survey conducted or any form of monitoring and evaluation to establish the level of understanding and effectiveness of these strategies since 2007 and the same strategies are used over and over again.

4.3.4 Incident reports

The City of Cape Town disaster risk management centre, has undertaken a number of initiatives to assist the community in their response to emergencies of fire or flooding. One of the ongoing

measures is the use of public call centres, which ensure that emergencies and requests for assistance are dispatched to the appropriate department efficiently. However, community officials reported that, they do not have public call boxes in place to call emergency numbers. Linked to this, disaster officials stated that the area is of high crime. Each time a call box installed it is vandalized. This is a major problem which causes delays in response and increases the impact of hazards and even death.

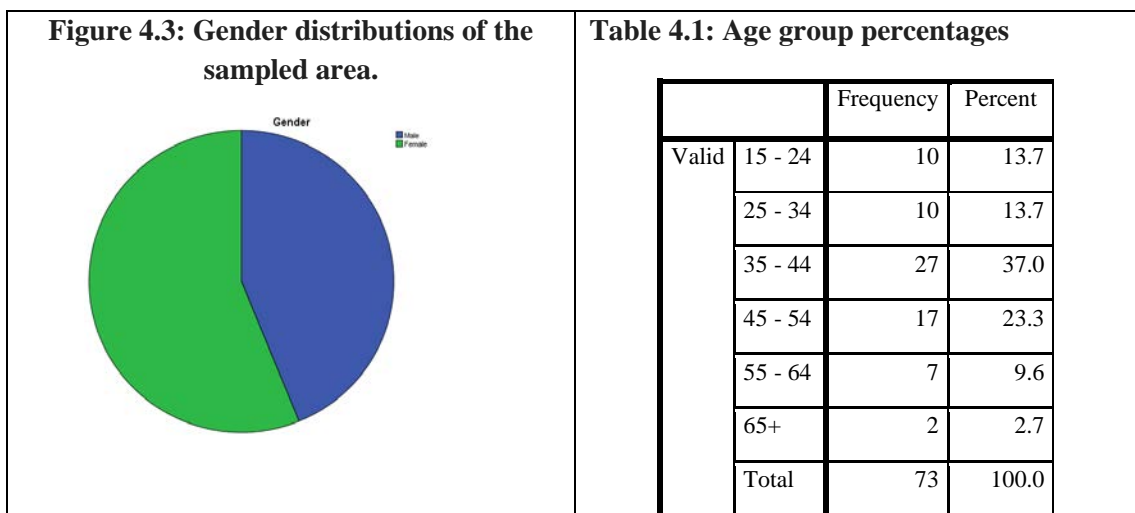
4.4 SECTION TWO

This section begins with the analysis of the respondents' profile which is also applied in a research objective five discussed after this section. Thereafter the assessment of community awareness and understanding of the current community participation mechanisms is done. This is followed by effectiveness of the current community participation mechanisms.

4.4.1 Demographic Characteristics of the sampled area.

4.4.1.1 Gender and Age group characteristics of the sampled households

The sample for the quantitative data consists of a total of 73 randomly selected residents of Khayelitsha TR-Section. The number of females is slightly higher than that of males (56.7 percent and 43.8 percent, respectively, (see Figure 4.3). The majority of the respondents are of the age between 35 and 44 as it shown in (Table 4.1) below. These findings are consistent with the South African statistics, which indicates that there is a fairly larger number of females than males in all age groups in South Africa (Statistics South Africa, 2012).



4.4.1.2 Employment status of the respondents

Turning into an employment situation of the area, the unemployment rate is reasonably high. The results show that 37.4% of the respondents are not employed, 17.4% employed in the informal sector, 9.6% employed in the formal sector, 13.7% doing contract work, 9.6% are seasonal workers, 12.3% others. The findings indicate that most of the respondents are not employed and a few who are employed are either employed in the informal sector, season works or contract works. Their income is also very low (see Figure, 4.4; Table, 4.2; Table, below). However, the research evidence from (Table 4.3 below) seems to suggest that most of the households' survival depends on social grant mostly child and old age grant (child grant 41.1% and old age 26.5% respectively). These findings support the view that although South Africa is regarded as a developing economy, poverty and inequality is growing at an alarming rate (IFRC, 2012). It is also argued that, higher levels of poverty may hinder citizens to use formal institutions for the purpose of effective participation. Alternatively, they make use of informal institutional settings led by civil society organizations (Von Lieres, 2007). In transposing this view, research evidence confirms that Khayelitsha TR-Section is lagging behind in formulation of community based organizations since the ward committee seats are still vacant.

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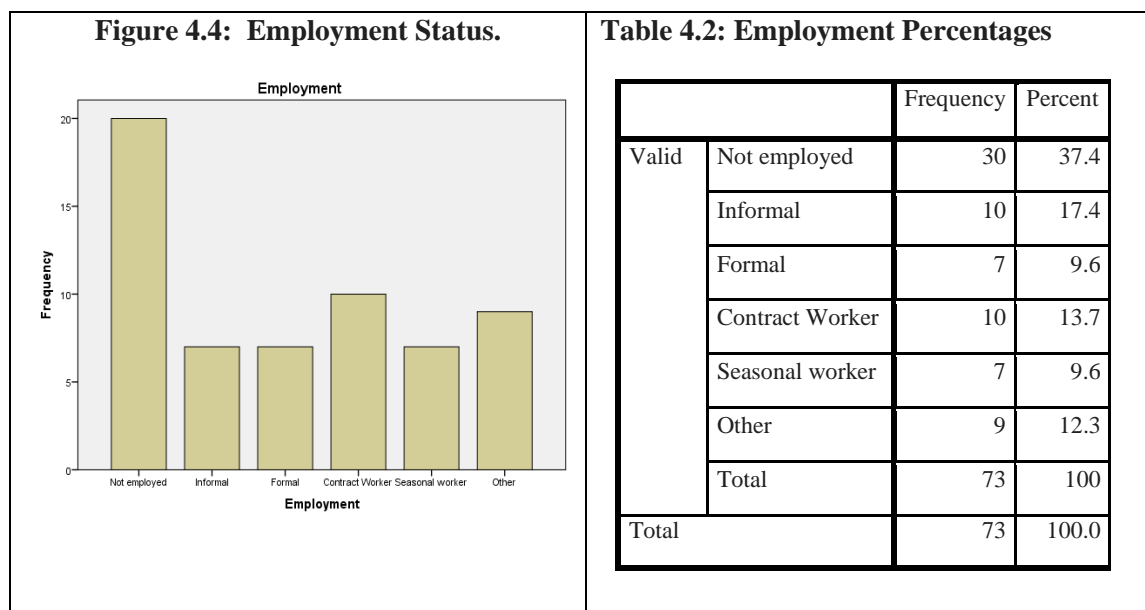
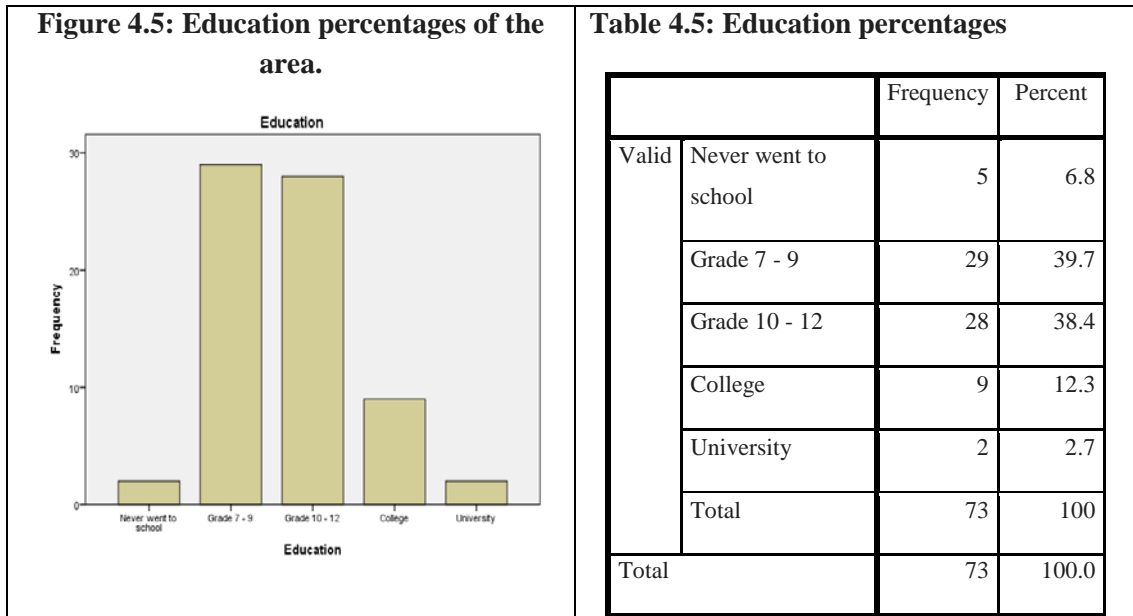


Table 4.3: Social grant percentages				Table 4.4: Monthly Incomes			
		Frequency	Percent			Frequency	Percent
Valid	Child support	30	41.1	Valid	1401 - 2000	27	33.3
	Disability	20	24.2		2001 - 3000	39	57.1
	Old age	17	26.5		4001 - 5000	7	9.6
	Unemployed	6	8.2		Total	73	100
	Total	73	100		Total	73	100.0
Total		73	100.0	Total		73	100.0

4.4.1.3 Education status

Survey on the educational status of the area shows that education level is relatively low as the results show that 6.8% of respondents never went to school, almost, 39.7% ended up grade 7-8. At least 38.4% managed to reach grade 10-12, and only 15% managed to complete tertiary level (see Figure, 4.5; Table 4.5 respectively). The results suggest the fact that there is an abundance of unskilled labor in the area as majority of the respondents have education level ranging from grade 7 – 12 and some few others never went to school. This analysis is consistent with literature reviews which highlighted a historical backing group of Khayelitsha that was established by the apartheid regime to host a pool of unskilled labor mainly from Ciskei and Transkei (Eastern Cape) for the purposes of providing labor to the industries and businesses.



4.4.2 Assessment of community awareness and understanding of the current community participation mechanisms

This part seeks to examine community awareness and understanding of the implemented community participation mechanisms. In order to achieve this, the survey was conducted to test their level of understanding and awareness. This was done through the administration of questionnaires. Linked to this, four themes were tested: mechanisms awareness, performance and relationship with the elected ward councillor, awareness and relationship with ward committee members, and the relationship with Community Development Workers. To ensure good analysis and presentation of data Likert scale is presented in this fashion: Strongly disagree and disagree data was added to represent the category of ‘Disagreed’ Strongly agree and Agree data was added to represent “Agreed” and Unsure remained as it was.

4.4.2.1 Mechanisms awareness

In order to test mechanisms awareness two variables were tested; awareness of the City of Cape Town Disaster Risk Management Centre office and awareness of volunteering activities in the area. Primary data show positive results as 64.3% of the respondents agreed to the proposition “City of Cape Town Disaster Risk management Centre is responsible for disaster management within municipality”, 20.6% disagreed, and 15.1 are unsure as shown in (Table 4.6 below). For

volunteering (Table 4.7), shows negative results as only 38.4% agreed with the proposition “Do you know about volunteering in disaster risk management” and 61.6% disagreed.

Table 4.6: City of Cape Town Disaster Risk Management is responsible for disaster management within municipality		Table 4.7: Do you know about volunteering in disaster risk management	
		Frequency	Per cent
Valid	Strongly Disagree	1	1.4
	Disagree	14	19.2
	Unsure	11	15.1
	Agree	22	30.1
	Strongly Agree	25	34.2
Total		73	100.0
		Frequency	Per cent
	Yes	28	38.4
	No	45	61.6
Total		73	100.0

These findings indicate that most people are aware of City of Cape Town Disaster Risk Management Centre. This may be for the purposes of responding, relief and recovery given that the research evidence confirms that they are doing very well for that purpose. Turning to the case of volunteering most respondents negate that they are not aware of this activity in their area. These findings are directly linked to the empirical information obtained from interviews with volunteer coordinator who asserts that “volunteers are very few compared to the needs and the size of the area”. With this dominant view, it is obvious that volunteers are not visible to the wider population and no one educates them about this particular responsibility.

4.4.2.2 Performance and Relationship with elected Councillors

This section investigated councillor performance during emergency or disaster and his relationship with the community. The proposal set was “Councillor Performance is not good during emergency/disaster. The results show negatives as 35.5% disagreed, 45.3% agreed that his performance is not good during a disaster and 19.1% of respondents are unsure as presented in (Table 4.8.).

These findings suggest that most people have little or uncertain understanding of the roles and the existence of ward councillors. This leads to greater ill perceptions and misconceptions about the roles and performance of ward councillor given that 45.2% hold the views that the Councillor is not performing well and almost 19.1% of respondents are unsure of what is going on and only 35.5% of respondents have the view that the Councillor is performing well. This is in line with the study conducted by Tapscott (2007) who argued that, local politicians do not effectively communicate with their constituencies. This gap should thus be the entry point for any form of awareness and capacity building intervention.

Table 4. 8: Councillor Performance is not good during emergency/disaster

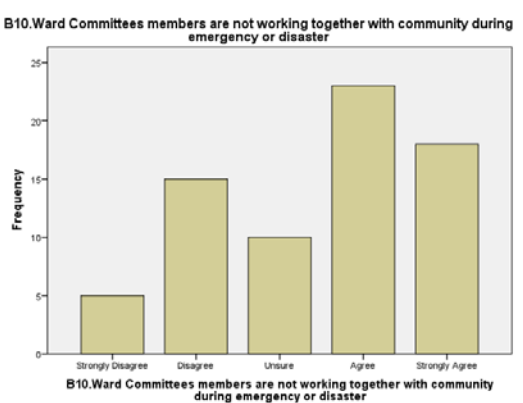
	Frequency	Percent
Strongly Disagree	12	16.4
Disagree	14	19.2
Unsure	14	19.1
Agree	13	17.8
Strongly Agree	20	27.5
Total	73	100.0

4.4.2.3 Awareness and relationship with Ward Committees Members

This part attempted to measure perception and engagement of ward committee members during a disaster or emergency. The research survey shows that 27.3% disagreed with the statement that “Ward committee members are not working together with community during emergency or disaster”, 56.3 agreed, and 16.4% unsure as depicted in (Table 4.9., & Figure 4.6 respectively).

	Frequency	Percent
Strongly Disagree	5	6.8
Disagree	15	20.5
Unsure	12	16.4
Agree	23	31.5
Strongly Agree	18	24.8
Total	73	100.0

Figure 4.6: Ward committee member's relationship graph



Empirical data show that the community is not happy with ward committee's member's performance since more than half of the respondents, 56.3%, agreed with the proposition. These findings are supported by Nyalunga (2006) who argued that Ward committee members are perceived as ineffective in promoting community participation at grassroots level. Their incompetence is caused by, among other things, lack of capacity and incentives to convince and motivate them to work whole heartedly towards the betterment of their constituencies.

4.4.2.4 Relationship with Community development worker

This section seeks to investigate Community Development Worker relationships with the community. The data show that 21.9% disagreed with the proposition "Community Development Worker Performance is excellent during emergency or disaster, 53.5% agreed with the proposition and 24.6% were unsure.

These findings show that Community Development Worker is closer to the community. For these reasons this may be due to the fact that, Community development worker is the one who registers disaster victims during emergencies.

Table 4.10 Community Development Worker Performance is excellent during emergency or disaster

		Frequency	Percent
Valid	Strongly Disagree	3	4.1
	Disagree	13	17.8
	Unsure	18	24.6
	Agree	15	20.5
	Strongly Agree	24	33
Total		73	100.0

To sum up, one can say that community awareness and understanding of the current community participation mechanisms are on the lowest level. Despite the data showing that most of the people are aware of City Of Cape Town Disaster Risk management Centre office, they are not aware of disaster risk management volunteering activities in the area. And they do not have good relationships with their ward committee members and elected councillor. Most of them are only happy with a Community Development worker. This poor relationship of residents with their ward committees members and elected Councillor will definitely jeopardize the effectiveness of community participation.

4.5 ASSESSMENT OF THE EFFECTIVENESS OF THE COMMUNITY AWARENESS AND PARTICIPATION MECHANISMS.

This section attempts to evaluate the effectiveness of the community participation and awareness initiatives as implemented by DRMC office. As discussed earlier, there are a number of materials and public awareness events organized by disaster officials for the purpose of educating the community on risk avoidance. This section used some of the materials distributed by DRMC to test the knowledge and understanding of those materials and questions on how often the residents attended certain events. In an attempt to achieve this, six themes were used with different variable inside each theme. The main themes are knowledge of awareness of the hazards risk, mitigation, and preparedness. Other themes are media coverage, frequencies of

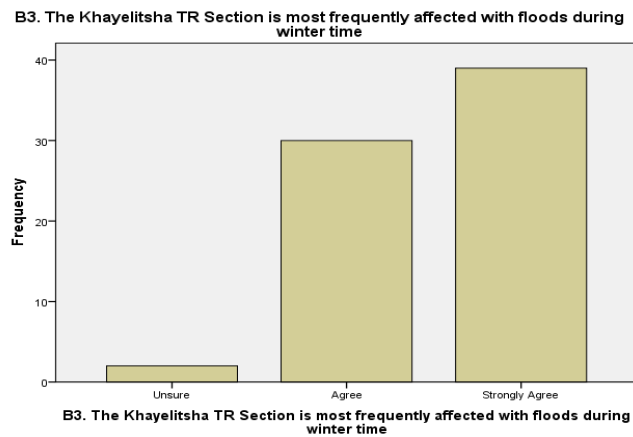
meeting attendance and capacity assessment.

4.5.1 Knowledge and awareness of the hazard risk.

This section attempted to examine the knowledge and awareness of hazard risk in Khayelitsha TR-Section. Two variables were tested in this aspect, namely floods and fire. In terms of the floods, the knowledge is positive. The data show that, 16.4% of the respondents disagreed with the proposition “Khayelitsha TR section is most frequently affected by floods during winter time”, 82.2% agreed and only 1.4% are unsure as indicated in (Table 4.11., & Figure 4.8 respectively). In the case of fire the results also show positivity. As only 21.9% disagreed with the preposition that “Fire is the most hazardous event that might cause a disaster in my area’, 71.3 % agreed with the proposition and only 6.8% are unsure as presented in (Table 4.12).

Table 4.11 Floods is the most hazardous event that might cause disaster in my area				Table 4. 12 Fire is the most hazardous event that might cause disaster in my area						
		Frequency	Percent			Frequency	Percent			
Valid	Strongly Disagree	11	5.3	Valid	Strongly Disagree	1	1.4			
	Disagree	2	11.1		Valid	Disagree	15	20.5		
	Unsure	2	1.4			Valid	Unsure	5	6.8	
	Agree	26	37.1				Valid	Agree	14	19.2
	Strongly Agree	32	45.1					Valid	Strongly Agree	38
Total		73	100.0	Total					73	100

Figure 4.7: Floods graph



These findings indicate that most people are aware of the hazards surrounding them. Owing to social economic factors, they do not have any choice rather than to stay in the area. These findings are supported by the political ecology theory which states that, political and economic factors equal place people at risk and limit adjustments to natural hazards. Consequently, cause some least powerful groups and classes in a given society more vulnerable to disasters than the others.

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4.5.2 Knowledge of mitigation measures

This section's effort was to measure the understanding of mitigation measures provided by public education materials given by DRMC office. A number of variables were tested in this regard. These include, raise floor above ground level, building material and build homes at least three meters apart to prevent fires.

Raised floor above ground level: The data shows positive results as 26% disagreed, 58.9% agreed, and 15.1% unsure, with the proposition "I have been asked to raise my floor above ground level" as shown in (Table, 4.13).

Table 4.13: I have been asked to raise my floor above ground level		Frequency	Percent
Valid	Strongly Disagree	3	4.1
	Disagree	16	21.9
	Unsure	11	15.1
	Agree	20	27.4
	Strongly Agree	23	31.5
Total		73	100.0

Table 4.14: I have been advised on building material to use to build my house.		Frequency	Percent
Valid	Strongly Disagree	1	1.4
	Disagree	18	24.7
	Unsure	11	15
	Agree	19	26
	Strongly Agree	24	32.9
Total		73	100

Building Material: The primary data shows positive results as 26.1% disagreed, 58.9% agreed, and 15% are unsure with the proposition “I have been advised on building material to use to build my house” as shown in (Table, 4.14).

Build homes at least three meters apart to prevent fires: The data shows good results as 34.3% said no and 65.7% said yes, they have been told to build homes at least three meters apart to prevent fires from spreading as depicted in (Table, 4.15)

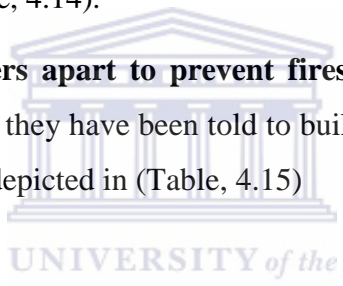


Table 4.15: I have been told to build homes at least three metres apart to prevent fires from spreading

		Frequency	Percent
Valid	Yes	48	65.7
	No	25	34.3
Total		73	100.0

The findings suggest that most people have the knowledge and are aware of mitigation measures. These findings are consistent with empirical evidence of hazard awareness surrounding the areas which indicated that most people are aware of the hazards surrounding them, no wonder they are also aware of the mitigation measures. However, owing to the political ecology of disaster these people found themselves in this situation exacerbated by poverty. Poverty reduction and risk reduction projects are of the paramount importance in this regard.

4.5.3 Knowledge of disaster preparedness measures

This section evaluates community knowledge of disaster preparedness measures. A number of variables were tested in this regard. These include early warning systems, evacuation procedure and possession of family emergency plan as provided by the Disaster Risk Management Centre.

Knowledge of early warning system: There are designed to alert areas, communities, households and individuals that a hazard risk has reached a threshold that necessary steps should be taken to avoid or reduce the risk and prepare for an effective response. Examples of early warning systems are radio and television (NDMF, 2005: 54). In this variable the results are negative at 38.5% disagreed, 12.4% agreed and almost 49.3 are unsure with the proposition “I have been educated about early warnings mechanisms, what they mean and the possible actions that will be taken as shown in (Table, 4.16).

Table 4.16: I have been educated about early warnings mechanisms, what they mean and the possible actions that will be taken.

		Frequency	Percent
Valid	Strongly Disagree	2	2.7
	Disagree	26	35.6
	Unsure	36	49.3
	Agree	6	8.2
	Strongly Agree	3	4.2
Total		73	100

Table 4.17: I have been taught about evacuation procedures

		Frequency	Percent
Valid	Strongly Disagree	2	2.7
	Disagree	27	37.0
	Unsure	29	39.8
	Agree	6	8.2
	Strongly Agree	9	12.3
Total		73	100

Evacuation procedure: This is the action taken to move people away from hazard risk and its consequences. This exercise will be successful if people comprehend the meaning of early warning system (Coppola, 2011: 312). In this category the survey shows depressing results as almost 39.7% disagreed, only 20.5 agreed and certainly 39.8% are unsure with the proposition “I have been taught about evacuation procedures” as indicated in (Table, 4.17).

Family emergency plan: Is an educational material which explains how family should be prepared in case of emergency. Again in this category the results are negative at 53.4% disagreed, only 15.1% agreed and almost 31.5% are unsure of the proposition “I have a family emergency plan” as presented in (Table, 4.18).

Table 4.18: I have family emergency plan

		Frequency	Percent
Valid	Strongly Disagree	5	6.8
	Disagree	34	46.6
	Unsure	23	31.5
	Agree	4	5.5
	Strongly Agree	7	9.6
Total		73	100.0

These findings illustrate that people are not educated about early warning systems. Additionally, people are not aware of evacuation procedures and families have no family emergency plan in their houses. This finding suggests that Disaster Risk Management Centre is doing very little in addressing the issues of public education in disaster preparedness in the area.

4.5.4 Media usage

Media of communication such as Radio, newspaper and television are very important in providing public education and hazard notifications. Current media used by DRMC in the area are community radio called Zibonile, Newspaper called Vukani and City vision. The survey was conducted to determine how often people use these instruments. Primary data show positive results as indicated in (Table, 4.19) 49.3% of respondents always listen to Radio Zibonele, followed by almost 39.7% of respondents reading Vukani and 38.4% reads City Visions. There was a very small percentage of 9.6% of the respondents who never listened to Radio Zibonele. These findings indicate that Radio Zibonele is very popular in the area, followed by Vukani Newspaper, and City Vision is the least. This research evidence suggests that DRMC can

continue to take advantage of these media to educate people and give out an early warning notification since it's very useful to the community. They only need to organize their programs as well.

Table 4.19: Media usage

	Never	Sometimes	Often	Frequently	Always
Radio Zibonele	9.6%	16.4%	9.6%	15.1%	49.3%
City Vision	21.9%	9.6%	11.3%	17.8%	38.4%
Vukani	23.3%	9.6%	11%	16.4%	39.7%

4.5.5 Frequencies of meeting attendance

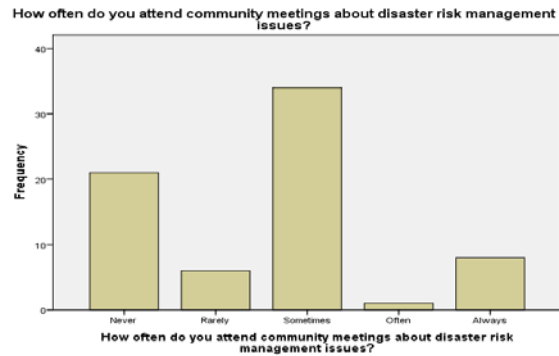
In this part the effort was made to assess how often people attend public meetings or events prepared by DRMC. In this sense, three variables were used to test this phenomenon. One was how often do you attend community meetings about disaster risk management issues? Two, how often do you attend disaster preparedness events? Three, I attended one of the jungle theatre spirits of fire drama.

How often do you attend community meetings about disaster risk management issues? On, this variable the data show negative results as 28.8% of respondent said never, 8.2% rarely, 46.6% sometimes, 5.5% often, and only 11.0% said always as indicated in (Table, 4.20., & Figure, 4. 8 respectively).

Table 4.20 How often do you attend community meetings about disaster risk management issues?

		Frequency	Percent
Valid	Never	21	28.8
	Rarely	6	8.2
	Sometimes	34	46.6
	Often	4	5.5
	Always	8	11.0
	Total	70	95.9
Total		73	100

Figure 4.8: Community meetings attendance graph



How often do you attend disaster preparedness events? On, this variable the data show unenthusiastic outcome as 38.4% of respondents said never, 9.5% rarely, 30.6% sometimes, 5.5% often, and only 16.0% said always as indicated in (Table, 4.21., & Figure 4.9 respectively).

Table 4.21 How often do you attend disaster preparedness events?

		Frequency	Percent
Valid	Never	28	38.4
	Rarely	7	9.5
	Sometimes	29	30.6
	Often	4	5.5
	Always	5	16
Total		73	100.0

Figure 4.9: Disaster events graph



I attended one of the jungle theatre spirits of fire drama: In this category the question was set in the form of yes or no. Majority of the respondents 79.5% said no and only 20.5% said yes. This is about three quarters of the respondents have never attended these events as presented in (Table. 4.22).

Table 4.22: I attended one of the jungle spirits of fire drama

		Frequency	Percent
Valid	Yes	15	20.5
	No	58	79.5
Total		73	100.0

These results show that very few people are actively participating in the matters of disaster risk management. The reasons for this may be on the one hand, the fact that most people are poor. According to Von Lieres (2007) poverty may hinder citizen to participate in formal structures and on the other, lack of proper community participation strategies on Disaster Risk Management Centre side.

4.5.6 Capacity assessment

This section resolves to assess how materials and pamphlets distributed by the DRMC reach to the people and hence to establish their capacity. In this attempt three variables were tested. These are family disaster preparedness guidelines booklets, general pamphlets, and pamphlets written in Xhosa.

Family disaster preparedness guidelines booklets: In this category empirical data show negative results as 30.1% of respondents said yes and almost 69.8% said no, as indicated in (Table, 4.23).

		Frequency	Percent
Valid	Yes	22	30.2
	No	51	69.8
Total		73	100.0

Table 4.24: I do have pamphlets teach me how to protect myself from floods

		Frequency	Percent
Valid	Yes	16	21.9
	No	57	78.1
Total		73	100.0

General pamphlets: In this category empirical data show negative as 21.9% said yes and 78.1% said no as indicated in Table (4.24) below.

Pamphlets written in Xhosa: In this category empirical data show negative outcomes as 64.4% of respondents disagreed, 13.7 agreed and 21.9% are unsure with the proposition “I often receive pamphlets about disaster management written in Xhosa” as indicated in (Table, 4.25).

Table 4. 25: I often receive pamphlets about disaster management written in Xhosa

		Frequency	Percent
Valid	Strongly Disagree	20	27.4
	Disagree	27	37.0
	Unsure	16	21.9
	Agree	8	11.0
	Strongly Agree	2	2.7
Total		73	100.0

These findings show that people do not have pamphlets and materials necessary to educate them on disaster issues. Additionally, historical, social and cultural factors are not taken into consideration as people do not have pamphlet written their own local languages.

4.6 SUMMARY

Empirical findings show that not all mechanisms directed by Disaster Management Act 57 of 2002 have been implemented and those mechanisms which are implemented under the discretion of DRMC like the use of private consulting companies for participatory risk assessment are not well suited to the objectives of community participation as evidenced by from literature reveals that this way is always irrelevant to the needs of the people on the ground. Other mechanisms such as MDMAFs are not effective as indicated throughout the study. IDP structures and ward committees, forums specifically for Disaster Risk Management are not yet implemented. Volunteer units have been implemented, but their practice is still a challenge. There is a big gap between theory and implementation. Many rules and procedures set by the Disaster Management Act in this regard are not followed. Public awareness initiatives are poorly organized and presented to the community. The study reveals that ward structure officials are not aware of any disaster risk management activities prior to disaster occurrence. Turning to the community, the survey shows that most of the respondents are not aware of the community participation mechanisms available. Furthermore, most people do not have a good relationship with their ward committee members and councillor. Finally, the effectiveness of community participation mechanism is also a challenge. The data show that most of the people are not attending public awareness events and pamphlets and other materials are not reaching the wider population. Most importantly, historically, social cultural factors are not taken into consideration as few people receive materials in local languages (Xhosa). In transposing all the objectives of study one can conclude that community participation mechanisms have not yet been fully implemented and those which are implemented are not as effective as they should.

CHAPTER FIVE: SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS

5.1 INTRODUCTION

This thesis sets out to address community participation and awareness in disaster risk management in accordance with the Disaster Management Act (57 of 2002) with particular emphasis on implementation, practices and its effectiveness. The main motivation for the research was the need to determine and assess current community participation and awareness mechanisms as provided by Disaster Management Act 57 of 2002 in terms of its implementation and effectiveness. Hence it sheds light on the existing body of knowledge with regard to community participation and awareness in disaster risk management. The failure to address new wider paradigm shifts in Disaster Risk Management which emphasis on hazard mitigation, community participation and awareness has been highlighted during the research process.

It is hoped that an attempt to address the research objectives that link community participation and awareness will contribute in both conceptual and practical terms in understanding the dynamics of community participation and awareness in Khayelitsha TR- Section and beyond. These findings reiterate the need for Disaster Risk Management centre to take serious consideration of a new disaster paradigm shift in general and community participation and awareness in particular.

In this concluding chapter, the aim is to summarize and synthesize the findings, based on the main themes. The first section will present a summary of the main findings in an objective analytical order. This is followed by theoretical reflections of the study. The third section brief highlights the challenges identified by both respondent and disaster management and ward structure officials. This is followed by a discussion of further research needs. Lastly, the thesis provides recommendations on what should to be done to improve community participation based on the research findings, literature review and theoretical foundation of the study.

5.2 SUMMARY OF MAIN FINDINGS IN AN OBJECTIVES ANALYTICAL ORDER

5.2.1 Summary of the main findings of objective one

(To review the literature and theories in community participation and awareness in disaster risk management)

A review of literature and theories of community participation and awareness in disaster risk management shows a contemporary paradigm shift from relief and response to hazard mitigation that in turn leads community participation and development planning to be on top of the agenda. In this respect, disaster risk management initiatives should include affected people by increasing their capacity to cope and tackle the roots of their social, economic and political causes of their vulnerabilities. Embedded to this disaster are now managed in a holistic approach that is multidisciplinary and in an integrated manner that involves all stakeholders such as international actors, government, private sector, civil society organizations, NGOs, Community based organizations, communities at risk, research institutions, to name but a few. Most importantly, the focus is on pre-disaster management cycle phases such as mitigation and preparedness. In other words, the focus is on hazard mitigation and preparedness. Essentially, disaster management is no longer a reactive add-on chaotic set of actions during disasters as it used to be.

5.2.2 Summary of the main findings of objective two

(To review policy framework and institutional arrangement for community participation and awareness mechanisms in disaster risk management in accordance with the Disaster Management Act (No 57 of 2002)

The Disaster Management Act 57 of 2002 introduced the purpose of corresponding with the international paradigm shift from relief and response to hazard mitigation. The Act is very precise it has been drawn from the best practices in the world. The act advocates a holistic approach to deal with disasters that cut across all three spheres of the government. The Act

focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, preparedness, rapid and effective response to disaster, and post disaster recovery activities. Moreover, the Act provides all the necessary information and guidelines on how to achieve these objectives through its National Disaster Management Framework of (2005). Further, it provides a mechanism for community participation and awareness at the municipal level where Khayelitsha TR-Section belongs. They provided for community participation mechanisms include, Municipal Disaster Management Advisory Forums, IDP structure, ward disaster risk management committees or forums and volunteers. Mechanisms for awareness are imbizo meetings, and the use of media such as radio and television. The use of networks and internet such as user-friendly websites, handouts, posters, DVDs, and pamphlets is also included.

The current institutional arrangements and mechanisms for community participation and awareness are slightly weak since most of them are not implemented and those that are implemented, their practice are not standardized and are effective to harness the benefit.

5.2.3 Summary of the main findings of objective three

(To examine to what extent these mechanisms have been implemented and practiced in Khayelitsha TR Section)

As the previous section outlined the Act provides all the necessary rules and procedures on how to implement community participation and awareness mechanisms. Interviews with disaster risk management officials revealed that in spite of the impressive policy and legislative framework in disaster risk management that stipulates the importance and different ways of implementing community participation and awareness mechanisms with the focus on the most vulnerable communities, its implementation is a big challenge. Community participation mechanisms and awareness, to a large extent, have not yet been implemented and utilized to full recovery potential to harness their benefits. This gives the impression that community participation notion is very rich in rhetoric and poor in its implementation. These research findings collate with that of Majova (2010) who argued that, even though, most of the African countries, including South

Africa, integrate risk reduction initiatives into development plans, there is still a wide gap between the goal of reducing vulnerability and its achievement.

The study assessed the implementation and practice of the current community participation and awareness mechanisms in disaster risk management at Khayelitsha TR-Section. It can be concluded that despite the enabling legislation, policy and resource allocation for community participation and awareness, these have failed to achieve the stated goals and objectives. The failure to implement community participation and awareness mechanisms as prescribed by the Disaster Management Act is evident in the following findings of the study.

- Other mechanisms like IDP structures ward disaster risk management committees or forum and generally volunteer's categories have not yet implemented.
- Ward councillor had a very limited understanding of community participation in disaster risk management processes, include the MDMAF. He has never been involved in any matters concern disaster before the incident. The only thing he knows is to call disaster office only when disaster has occurred.
- The implemented volunteer unit which needs special skills in the matter relating to all the phases of the disaster management cycle are only educated on the reactive side of the disaster management cycle and normally deployed for the purposes of big events and emergencies. In addition, the recruitment process does not give priority to areas most at risk. There are also very few volunteers compared with the needs. Furthermore, volunteers are not given incentives.
- Public awareness strategies currently used by the Disaster Risk Management Centre are not organized according to the community needs. Instead, they are just doing as an obligation to do so. Additionally, they are not presented at the right time as the Act requires 30 days before the beginning of a new season. Generally, the practice is done in

a random fashion. There is no monitoring and evaluation system on the impact or effectiveness, of the strategies.

- Incident reporting is also a challenge since there are no public call boxes in the area.
- Ward committee members confirmed that they work with disaster officials only at a time of emergence, and they are not aware of any disaster risk management initiatives.
- Community Development Workers also confirmed that they are doing very well in during disaster response. However, they have no clue of what to do before disaster. To them disaster management officials are only needed when disaster strikes.
- The Sub-council manager also confirmed that they only work with disaster management officials to clarify the incident that happened in the area.
- Disaster management officials perceive community participation as a cumbersome process and a waste of time, and they always have difficulties to work with communities. For this reason, they have given up on adults in the community. Their focus is now on children at school.

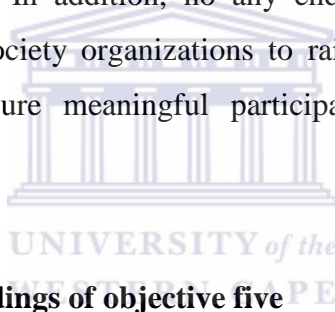
Community participation and awareness mechanisms have not been implemented in fully to utilize their full potential in disaster risk management processes. There are no input and or opinions used in any of the City of Cape Town Disaster Risk management centre in its disaster risk management initiatives. There is also no going project for disaster reduction initiatives. These research findings are consistent with Botha et al (2011) assertion that the institutional arrangement for disaster reduction and community participation and awareness often exists, but there is no inter-disciplinary coordination taking place.

5.2.4 Summary of the main findings of the objective four

(To determine community awareness and understanding of the current community participation mechanisms available)

The study confirms that residents of Khayelitsha TR-Section have a limited understanding of community participation processes and are not actively involved in the process. Most of them are not even aware of what is going on. The understanding of educational materials supplied by disaster risk management centre is also a challenge. The survey shows that most people are not aware of all this.

. These views were supported by ward structure officials during interviews who affirmed that “there is nothing going on in the community in terms of disaster risk management initiatives”. This finding indicates that residents are not well informed about disaster risk management activities going on in their area. In addition, no any endeavor has been made by disaster management officials and civil society organizations to raise awareness levels and build the capacity of communities to ensure meaningful participation of citizens in disaster risk management initiatives.



5.2.5 Summary of the main findings of objective five

(To assess the effectiveness of the current community participation and awareness mechanisms available in disaster risk management)

The study assessed the effectiveness of the implemented community participation and awareness mechanisms. It can be concluded that the current community participation and awareness mechanisms are not effective due to the following main findings:

- Most people do not have good knowledge of mitigation
- People have no knowledge of early warning systems, evacuation procedures, and have no family emergency plan booklets in their houses
- The results show that very few people are attending public meetings and events related to disasters awareness initiatives

- The study further reveals that people are not getting pamphlets to educate themselves in matters related to disasters, most importantly in their own language

Therefore, it became evident that the residents are not actively and effectively participating and informed in disaster risk management initiatives. For that matter, they did not reap any benefits from existing community participation and awareness mechanisms. The disaster risk management centre fails to ensure meaningful community participation. These findings are directly connected to literature which reports that fire and flood incidents are on the increase in informal settlements (DiMP, 2008). This indicates that communities are not involved and educated enough in the process of risk avoidance and hazard control.

5.3 THEORETICAL REFLECTIONS OF THE STUDY

This section elaborates the findings in relation to the major theoretical themes that underpin the study.

5.3.1 Political ecology of disaster / Paradigm shift

The study adopts a theory which is now common in disasters, study which states that disasters are not only the act of God *per se* rather they are impacted by different interactions between human and other physical factors. Based on these understandings, disaster management paradigms shifted from relief and response to hazard mitigation in which the basic priority in disaster risk reduction measures is to integrate socio – economic, social, cultural, institutional and political factors that cause vulnerabilities of a community. This management approach should also involve the community at risk in all phases of disaster management.

In relation to this theory the research found that the paradigm shift is not well addressed. The focus is still on response and relief. This view is provided due to the fact that there is no disaster risk reduction project currently underway, apart from the relocation program operating in the area. In addition, despite this program, not all people will be relocated at once. Furthermore, not

all of them are in the relocation program. Qualitative data further confirmed that disaster management officials are performing very well during response and relief time. In addition, most of the residents are aware of the relief grant given by the social development department than any other disaster risk management activities operating in the area. The research further confirmed that the community is not empowered. This is because they are not fully involved in all these processes from risk assessment, mitigation planning, capacity building, implementation and monitoring and evaluation stage. These findings indicate that much emphasis is still on relief and response and not on risk or hazard mitigation as the Act suggests. However, the research found that residents are aware of the hazards surrounding them. But due to socioeconomic factors and failure of the housing policy, they have got no choice rather than to stay.

5.3.2 Decentralization

Decentralization system was introduced in order to embrace a bottom up approach in contrast to a centralized system top-down approach. The logic behind was to operate as a vehicle for poverty alleviation policies, efficient administration, increasing responsiveness in implementation of national policies and programs through the mobilization of local resources and increased participation. It was also believed that, it would facilitate social service delivery by lowering costs and enhance smooth implementation. Moreover, it develops a sense of belonging and the integration of communities. This, in turn, enables local people to contribute positively to national development.

Local government sphere was expected to be an effective machinery to enhance and improve service delivery at grass root level. The study found that local government's failure in service delivery is one of the factors that exacerbate vulnerability in Khayelitsha TR-Section. The City council fails to service the area. The infrastructure is ill maintained. As a result drainage systems block and cause floods. The slower house provisions cause overcrowding. The poor electricity system causes intensive fire occurrences. The other health related hazards are caused by poor sanitation and non refuse removal (see Section 3.3.2).

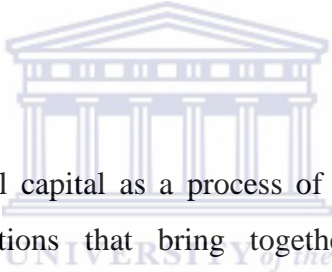
Furthermore, the community is still treated as a victim or receiving of aid. The top – down approach that mostly manages the consequence of disaster and not hazard mitigation and preparedness is still being applied. The community at Khayelitsha TR-Section still depends on

excessive external resources in case of disaster or emergency.

5.3.3 Capacity building

Capacity is generally meant to increase the community's abilities to identify, evaluate, analyze and act on disaster or any other problem deemed to be important to its members. However, Amartya Sen (1999) in his book "*development as freedom*" views "poverty" as the lack of capabilities rather than merely as low income. He further argued that, when you see people being poor, unhealthy and illiterate, these are signs that these people lack certain capabilities to overcome their situation. The study found that there is no proper empowerment program which operates in the area.

5.3.4 Social Capital Theory



Loeffler et al. (2004) define social capital as a process of building trust associations, mutual understanding and collective actions that bring together individuals, communities and organizations. This creates opportunities and /or resources that are recognized through networks, shared norms and social ethics. In short, the presentation involves three main aspects, namely bonding within communities, bridging between and among communities and linking communities through ties with financial and public institutions. The empirical evidence suggests that Khayelitsha TR-Section is lagging behind in terms of organizations and network formation. This was proved by qualitative data which reports that ward committee seats are still vacancies in Khayelitsha TR- Section.

5.3.5 Sustainability theory

Sustainability theory believes that if disaster management efforts are not sustainable at individual and community level, it is difficult to reduce the losses and scale of the tragedy. The main pre-condition of sustainability is community participation. In this regard community involvement from the initial stage of disaster management: mitigation, preparedness, response or relief and

recovery are of paramount importance. In a similar vein, Gopalakrishnan & Okada (2007) suggest that sustainability boosts the community at risk's sense of security and confidence, knowing that all the arrangements regarding disaster management are under their own control. Moreover, the six sets of action suggested by Mileti (1999) work in parallel so as to achieve sustainability in disaster risk management context. These are peoples' quality of life, environmental quality, vibrant local economies, equity and consensus building, local resiliency and responsibility. In relation to this theory, the study found that Khayelitsha TR-Section residents are not involved in any of the awareness projects currently underway in the area. Sustainability theory is very far from being realized.

CHALLENGES ON COMMUNITY PARTICIPATION

During interviews with disaster officials and ward structure officials a range of challenges and obstacles to effective community participation were raised and observed. The following are the main challenges and obstacles highlighted:



5.4.1 Political tension

Disaster officials pointed out that the political tension that exists within the community poses a serious obstacle to community participation. On further probing by the researcher on how this impact community participation, the response was, Khayelitsha TR-Section councillor is representing Alliance National Congress (ANC). For that matter whatever development initiatives come in the area are branded as coming from their political rivals, the Democratic Alliance (DA). Hence the leaders of ANC encourage their people not to participate in any matters so as not to support DA initiatives in the area. These findings signify that people lack education on political parties and the local government system.

5.4.2 Lack of Capacity and political will.

The study reveals that lack of capacity and political will by disaster officials impact the

effectiveness of community participation. Firstly, the disaster, officials have no knowledge or understanding of the Khayelitsha TR-Section challenges and dynamics. Some have never been to Khayelitsha. During interviews one of the respondents mentioned that *“if I were to go to Khayelitsha I need to check on the map”*. This quote indicates lack of political will. Secondly, the study confirmed that most of the officials lack knowledge regarding the national frameworks and policy documents. Thirdly, lack of adequate trained staff presents difficulties in implementing participation mechanisms and running day-to-day functions of Area East office. There are only two staffs that are responsible for the whole of Khayelitsha. Inadequate capacity, resources and knowledge weaken the ability of staff to carry out the necessary day-to-day functions associated with community participation.

Onward structure official's side, ward committee members have no proper knowledge of their roles and what is happening in the local government system. The same applies to the ward councillor. He seems to be more involved in garbage collection than any other issues. These findings indicate that there is no political will or capacity to ensure resident participation.

5.4.3 Lack of resources for community participation

A respondent from disaster officials stated that lack of resources is a big challenge to enhance a meaningful participation, since the national government and treasury do not give enough money to deal with every issue. The allocated funding fails to cover all the costs and expenditures. Unfortunately, training/capacity building, public awareness, workshops, and risk reduction project implementation have been placed at the bottom of the list, as other respondents affirmed. Adequate funds are allocated for the purposes of emergency relief supplies. Lack of resources hinders them from hiring more staffs. It also prevents them from buying enough vehicles and to conduct training to the large number of volunteers.

5.4.4 Communication Facilities

Communication strategies are of paramount importance in disaster risk management. These include communication system and networks that connect various relevant role players, who among others include Disaster Risk management officials, ward structure officials and the community. Research data revealed that there is a lack of communication system facilities amongst these stakeholders. Even public call boxes are missing. Moreover, language is a big

barrier. Most of the disaster, officials speak first and second languages of the country and very few, if not none speak a third language. This poses a serious communication problem in the area.

5.4.5 Legislative challenge

Another challenge identified by disaster officials is that they do not have a mandate to stop people from building in lowland areas. Sometimes they are discouraged by the environment department. This finding indicates that there is no proper coordination amongst stakeholders that can influence positive disaster reduction measures. In this regard, there is a need to revisit the policy to give Disaster Risk Management Centre power to decide on the areas that people should build and stay.

5.4.6 Crime

Another challenge identified by respondents is high levels of crime in the area. Gangsterism and substance abuse jeopardize safety in the area and subsequently community participation.

5.4.7 Socio –economic problems

Poverty and related issues impacted negatively on resident's participation. Most of the people perceive community involvement as useless and not their priority. This is due to the fact that most residents are preoccupied with their day –to –day struggle for survival.

5.5 RECOMMENDATIONS

Based on the research findings, literature reviews and theoretical foundation of the study, it is possible to draw out a series of recommendations for future improved community participation in Khayelitsha TR-Section and beyond. It is therefore highly recommended that Disaster Risk Management officials and policy makers implement the following:

1. Enhance Integration of disaster risk reduction plan with the IDP and with the whole of municipality development programs and projects, with concrete guidelines and framework on how the community should be involved. Implementation of a ward structure forum for disaster risk management activities that promote a pro-active approach should be done. In other words, there must be a paradigm shift. The establishment of general volunteer category is of paramount importance to facilitate community participation.
2. Participation should not be taken as a product or a time delimited project, or government obligation. Rather, it needs to be taken as a matter of significance, continuous, sustainable and locally grounded.
3. Strengthen the Municipal Disaster Management Advisory Forum to conduct its duties according to the Act. That is to say to recommend, advise, plan, and coordinate. Councillor participation and contribution should be promoted and encouraged mostly in those representing high risk areas.
4. Volunteer unit settings criteria should consider the degree of vulnerability and frequency of occurrence of the incident and not geographical location. There is also need to increase the number of trained volunteers in a pro-active approach. Special emphasis should be made to train community trainers. Volunteers must also be given incentives and transport allowance. Volunteers must orientate about the whole work place environment before they start working and feel welcome in the workplace. Special efforts should be made to educate volunteers in the core and ethics of volunteerism notably, altruism, commitment, free will, psychological benefits, sacrifice and the absence of financial remuneration before being registered as volunteers. Communities must be educated on volunteer roles and volunteerism culture in general in their area.
5. Community awareness messages should include the annual mortality rate connected to hazards. The messages must be simple, clear and easy to understand from the community.

Cultural and social aspects should also be taken into consideration among other things. This includes the languages of the vulnerable communities. The community must be involved in the process of designing and developing public education materials from the scratch to ensure community buy-in. However, the materials should contain the knowledge messages compiled from all phases of the disaster management cycle, such as mitigation, preparedness, response/ relief and recovery. In addition, proper planning of events should be done with community consultation.

6. Introduction of incentives, competition, and recognition schemes should be done to enhance awareness and participation in risk reduction.
8. Disaster management officials should choose relevant methods to disseminate information depending on the nature of the area. The methods should consider special need people like elderly, young children, the disabled, and the illiterate. Most importantly, continuous monitoring and evaluation systems should be in place to evaluate the impact of the strategies in daily basis.
8. Enhancement of communication systems among role players such as disaster management officials, ward structure officials and communities at large, if the possible formation of Community Based Disaster Risk Management projects should be done. Public call boxes must be installed with special security measures in place to avoid vandalism.
9. There is a need for well organized Radio and Television programs regarding disaster risk hazards awareness and mitigation throughout the year
10. Employment of more trained staff in disaster risk management field concentrating on the community most at risk is of paramount importance especially those who speak a third language.

11. It is recommended that strong emphasis be placed on Ward Committees as a key component of community participation. Ward Committees are closest to the people. Therefore, they are best placed to incorporate the needs and priorities of communities into the broader planning of disaster risk management. Residents need to be made aware of the Ward Committees, their functions, powers, roles and responsibilities and how residents can interact with the Ward Committee members. The sub-council and the Ward Councillor need to be motivated to speed up the process towards filling the vacant portfolios of the Ward Committee for Ward 90.
12. Furthermore the capacity building program should also encompass technical skills and knowledge required for public participation and awareness. Special attention should be placed on Ward Committees as a key component of public participation, ensuring residents' voices in the affairs of local government and mechanisms for accountability of the Ward Committee, Councillors and other local government institutions. Civil society organizations should play a more active role in strengthening the local communities' ability to effectively participate in the affairs of disaster risk management. It is recommended that CSOs should introduce capacity building programs for residents around the importance of lobbying and advocacy. Programs should be developed to build lobbying, advocacy and monitoring and evaluation skills for community participation events. This would help in building their capacity and social capital.
13. NGOs registered with DRMC such as Red Cross, Mustadafin, South Africa Zukhah Fund, Salvations Army and Historically Disadvantaged Individual should be given more responsibilities, not just relief and response.
14. It is recommended that DRMC office should put monitoring and evaluation mechanisms in place. The assessment should focus on levels of participation from the community, the awareness of community participation mechanisms and Integrated Development Planning amongst residents, integration mechanisms for inputs from communities, capacity requirements to ensure meaningful participation. Monitoring and evaluation of the outcomes of public participation processes and strategies should also be done.

- 15 Encourage good governance, follow through and follow up by legislative bodies at the national and state levels, as well as by autonomous commissions, to make every party do its work effectively, including DRMC officials.
- 16 Skills inspection should be conducted amongst disaster management officials and ward structure officials. The purpose of the skills assessment should be to assess the levels of understanding, knowledge and competence of officials with regards to community participation and awareness. DRMC should train or recruit staff knowledgeable in disaster management and community dynamics to work alongside the ward structure officials. Training must be provided on both sides in regard to the importance and significance of community participation in disaster risk management and what the Act says about this.
- 17 A good communication process must be established between the various sectors involved in disaster management and the beneficiaries or populations at risk. A higher degree of interaction and integration of disaster affected communities with formal and informal institutions and organizations at the local, national and international levels should be encouraged.

5.6 AREAS OF FURTHER RESEARCH

The Act advocates the active participation of all stakeholders, namely, private sector, NGOs, technical experts, communities, traditional leaders and volunteers, effectively in matters of disaster risk management planning and operations. The study examined how the community at risk like Khayelitsha TR-Section is involved in all processes of disaster management. In this area further research is needed to identify and determine how other stakeholders are coordinated and involved to contribute on meaningfully to disaster reduction and control.

However the study also found that disaster management officials have given up on parents. The focus now is on children at schools for public awareness programs. Further research in this area is needed to determine the extent to which this will impact on the parents.

Finally the research found that the disaster Risk Management Centre involved Private consultants, companies like (Eurocon) for the purpose of risk assessment and community participation. Further research is needed in this area to explore the effectiveness of their use.

5.7 CONCLUSION

Definition of participation used in this study is that of Jennings (2001) which state that participation is involved by a local population and, if necessary, additional stakeholders in the creation and conduct of a program or policy designed to change their lives. Built on a belief that citizens can be trusted to shape their own future, participatory development uses local decision making and capacities to steer and define the nature of an intervention. The findings of the study confirmed that local decision making and capacities to steer and define the nature of an intervention is missing. It is further evident that local residents are not actively and effectively involved in disaster risk management issues. The study further confirmed that community participation and awareness mechanisms are not effectively implemented and practiced as directed by the Disaster Management Act No 57 of 2002. These findings go parallel with the research assumptions which assert that the current community participation and awareness mechanisms are not effectively implemented to achieve meaningful participation. Most importantly, the disaster paradigm shift from relief and response to prevention and mitigation which brought about the Act and community participation and awareness respectively is not addressed and managed accordingly. The study found that disasters are still managed in a crisis manner. As such, they are usually not being managed in a comprehensive holistic manner.

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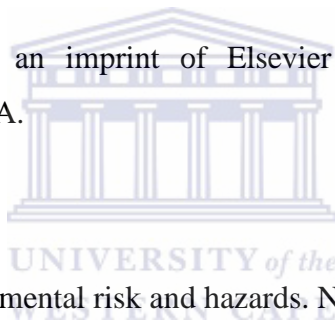
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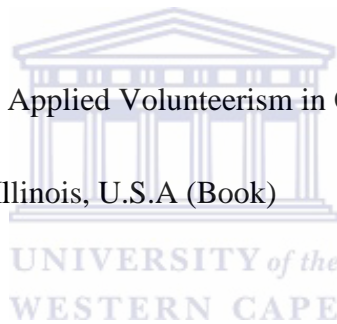
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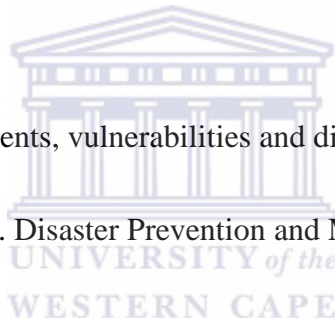
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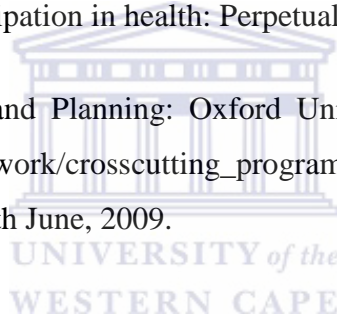
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APPENDIX 1

Questions for disaster risk management officials

1. What are the mechanisms currently in place for community awareness and participation in disaster risk management?
2. How do you plan your events?
3. Do you consult the community about the design of community awareness programs?
4. Are you giving out plans to communities before hand, of what to be done during the years?
5. Are you involving volunteers in designing community awareness programs?
6. What are communities of your priority?
7. Do you have any disaster risk management committees or forum in Khayelitsha TR-Section wards? 'Ward structure for disaster how does it look like?
8. Which pieces of legislation and policy which inform on how to go about implementing community participation processes?
9. Are you a member of Municipal Disaster Advisory Forum? Who else is the member of that forum?
10. Do you have any representative from Khayelitsha?
11. How many times per year you conduct your awareness programs?
12. What type of training do you provide to people?
13. What is the attendance performance of the community?



14. Do you have an attendance register of the people attending?
15. Are people keen to learn about risk avoidance issues?
16. How does your directorate/department allocate resources for community awareness and participation processes?
17. Do you have IDP structure specifically for disaster risk management issues?
18. What are public awareness strategies are you currently applying?
19. What strategies do you have in place for community participation and awareness?
20. How do you determine the suitability of the strategy?
21. Have you done any competitions and recognition scheme to enhance awareness and participation in risk reduction?
22. Do you have a full time personnel liaison with media, radio and information updates of your web site?
23. How do you measure the impact of community awareness and participation processes?
24. Which indicators are used to measure community awareness and participation processes?
25. Have you conducted any survey to check if communities are really aware and understanding of what they are taught?
26. What challenges did you face in community awareness and participation process?

APPENDIX 2

Questions for councillors

1. Where do you serve?
2. Which ward do you fall under?
3. Are you aware that the City of Cape Disaster Management Centre arranges events/activities to encourage your input into on how to manage and to prepare for disasters?
4. What is your understanding of community awareness and participation in disaster risk management?
5. How do you interact with Disaster Risk Management Centre?
6. Have you ever invited to the Disaster Management Advisory Forum Meetings?
7. How do you transfer message to the communities which mechanisms are in place?
8. I know you are councillors of the area what is your general responsibilities in regard with community participation in disaster risk management?
9. What's the meaning of Sub council does it apply in your area?
10. Have you attended any of this sub – councils meeting arranged by the City of Cape Town disaster center?
11. Do you have any community Based organization in your area?

12. Do you have volunteers for disasters in your areas?
13. Are you aware of the different types of Community awareness and participation processes?
14. What challenges are you facing when it come to community participation
15. What are the major disaster issues, you are experiencing in your area?
16. How did you get to know about these meetings or events?
17. How do you report incidents to the Disaster Risk Management Centre?
18. Are you aware of the Integrated Development Planning Process (IDP?) for disaster risk management?
19. Any other comments



APPENDIX 3

Questions from Ward Committees Members

- 1 Do you know anyone in your community dealing with disaster risk management?
- 2 Have you ever been called for a meeting discussing the matters regarding with disaster risk Management?
- 3 Have attended any one event of public awareness which teaches about risk avoidance behaviors or anything?
- 4 Have you heard of the Jungle theatre drama?
- 5 Have you heard of any warning systems in terms of disaster risk management in your area?
- 6 Do you know any radio which talks about disaster issues?
- 7 Do you know any newspaper which writes on disaster risk management issues?
- 8 Have you had met for disaster issues with your councillors?
- 9 Do you know any volunteers for disaster risk management in your area?
- 10 Do you know that there are opportunities of being volunteering in disaster risk management?
- 11 When disaster occurs, what happens after that?
- 12 How many times disaster strikes per year?

APPENDIX 4

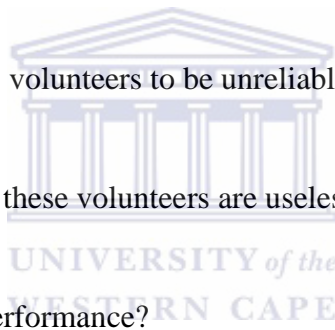
Questions for Disaster Risk Management Volunteer Management official

1. How are the current structures of volunteers operate in disaster risk management?
2. How many volunteers you currently have for the Khayelitsha TR section?
3. Is there any special consideration for most vulnerable area like Khayelitsha TR-Section?
4. What may be the reason for not having enough volunteers?
5. What a qualification does one need to be a volunteer?
6. What are the roles of volunteers?
7. What type of training are volunteers provided?
8. Are you training community trainers?
9. How many community trainers do you have?
10. And how do they conduct their training?
11. How effectively have reliable volunteers been?
12. What time did you feel like these volunteers are useless?
13. Are you happy with their performance?
14. What challenge are you facing in training volunteers?
15. How do people get to know that there is an opportunity to in volunteer in disaster issue?
16. Are volunteers given protective clothing, travel expenses, insurance and incentives?

APPENDIX 5

Questions for Volunteers coordinator

1. What are your roles as volunteer coordinator?
2. How many volunteers you currently have for Khayelitsha TR-Section
3. What may be the reason for not having enough volunteers?
4. What type of training are you given?
5. What are the reasons makes volunteers to be unreliable and inefficient
6. What time did you feel like these volunteers are useless?
7. Are you happy with their performance?
8. Are you happy with the training you are provided
9. Are you given protective clothing, travel expenses, insurance and incentives?
10. In your views what challenges are you currently facing as volunteers?



APPENDIX 6

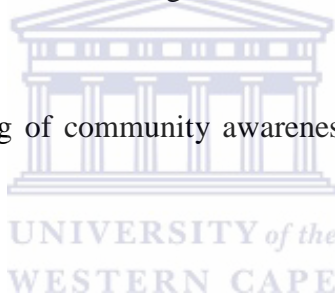
Questions for Community Development Workers

1. How do you assist people during disaster time as a community development worker?
2. Whom do you talk to in this regards during time of disaster?
3. How do you see the situation?
4. What are the difficulties you get or challenge during a disaster?
5. Do you know anyone in your community dealing with disaster risk management?
6. Have ever been called for a meeting discussing the matters regarding disaster risk in your area? Planning or anything?
7. Have you attended any event of public awareness which teaches about risk avoidance behaviors or anything?
8. Do you know any radio which talks about disaster issues?
9. Do you know any newspaper which writes on disaster issues?
10. Have you had met for disaster issues with your councillors
11. Do you know anyone is volunteering for disaster risk management in your area?
12. Who gives you relief aid in your area?
13. What are relief aids given to the people aftermath of disaster?
14. Any other comments?

APPENDIX 7

Questions for Sub Council Manager.

1. Where do you serve?
2. Which council do you fall under?
3. What are your roles in regard to community awareness and participation in disaster risk management in your area?
4. Are involved with City of Cape Disaster Risk Management Centre to arrange events or meetings in regards to disaster risk management issues?
5. What is your understanding of community awareness and participation in disaster risk management?
6. How do you interact with Disaster Risk Management Centre?
7. Do you have any community Based organization in your area?
8. Do you have volunteers for disasters in your areas?
9. Are you aware of the different types of Community awareness and participation strategies operate in your area?
10. What challenges are you facing when it comes to community participation?



11. What are the major disaster issues, you are experiencing in your area?
12. How did you get to know about these meetings or events?
13. How do you report incidents to the Disaster Risk Management Centre?
14. Are you aware of the Integrated Development Planning Process (IDP?) for disaster risk management?
15. Any other comments



APPENDIX 8

Community participation and awareness in Disaster Risk Management: The case of Khayelitsha TR-Section.

Questionnaire

I TanoMwera student from UWC, for the purpose of my study I would like to investigate Community Participation in Disaster Risk Management: The Case of Khayelitsha TR Section. Participation does voluntarily; you agree to take part? Yes or No

Section A

Please tick appropriate block



A1. Gender

1. Male 2. Female

A2. What is your age group?

1. 15 – 24 2. 25 – 34 3. 35 – 44 4. 45 – 54 5. 55 – 64 6. 65+

A3. What is your marital status?

1. Single 2. Married 3. Widow 4. Divorced 5. Living together with partner

A4. Please indicate the household head

1. Child 2. Mother 3. Father 4. Both Parents 5. other

A5. Please indicate the status of your employment

1. Not employed 2. Informal 3. Formal 4. Contract worker 5. Seasonal worker 6. Other

A6. Please indicate your monthly income

1. 1401 – 2000 2. 2001- 3000 3. 4001-5000

A7. What type of social grant do you receive?

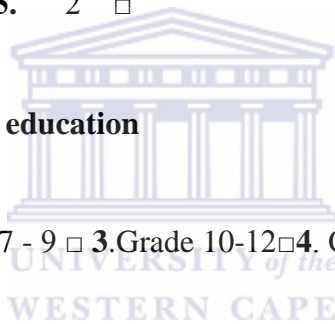
1. Child Support 2. Disability 3. Old Age 4. Pension 5. Unemployed

A8. Which Sub - Council do you belong

1. 3 2.5 3.7 4.9 5. 2

A9. Indicate your highest level of education

1. Never went to school 2. Grade 7 - 9 3. Grade 10-12 4. College 5. University



Section B

Please indicate to what extent you agree or disagree with the statements below. Circle the appropriate option

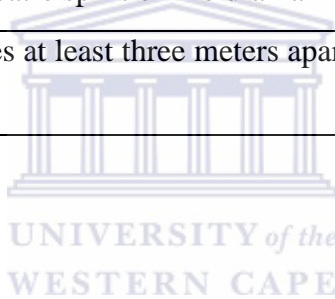
	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
B1. Fire is the most hazardous event that might cause a disaster in my area	1	2	3	4	5
B2. Floods is the most hazardous event that might cause a disaster in my	1	2	3	4	5

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
area					
B3. The Khayelitsha TR Section is most frequently affected by floods during winter time	1	2	3	4	5
B4. Sub council manager performance is excellent during emergency or disaster	1	2	3	4	5
B5. Councillor performance is not good during emergency/disaster	1	2	3	4	5
B6. Development Worker Performance is excellent during emergency or disaster	1	2	3	4	5
B7. Ward Committees members are not working togetherwith community during emergency or disaster	1	2	3	4	5
B8. City of Cape Town Disaster Risk Management is responsible for disaster management within the municipality	1	2	3	4	5
B9. I have been asked to raise my floor above ground level	1	2	3	4	5
B10. I have been advised on building material to use to build my house.	1	2	3	4	5
B11. I have been taught about early warning systems of disaster risks	1	2	3	4	5
B12. I often receive pamphlets about disaster management written in Xhosa	1	2	3	4	5
B13. I have been educated about how early warnings, will sound, like what they mean, and the possible actions that will be taken.	1	2	3	4	5
B14. I know about the evacuation procedure	1	2	3	4	5
B15. I have a family emergency plan	1	2	3	4	5

Section C.

Please indicate your answer Yes or No according to the statement below. Please tick the appropriate answer

	Yes	No
C1. I am part of a relocation program		
C2. I have 2 buckets of sand and water ready in case of fire		
C3. I have attended at least one of the public awareness events		
C4. I do have family disaster preparedness guidelines booklets		
C5. I do have pamphlets teach me how to protect myself from floods		
C6. I do have pamphlets teach me how to protect myself from the fire		
C7. I attended one of the jungle theatre spirit of fire drama		
C8. I have been told to build homes at least three meters apart to prevent fires from spreading		



Section D

Volunteering

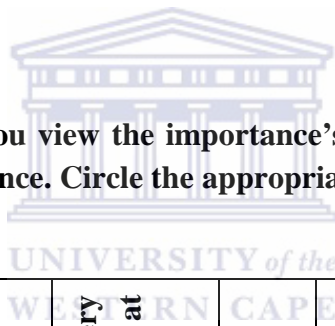
D1. Do you know about volunteering in disaster risk management? Yes No

If yes, indicate to what extent the following list of media and officials were important to you, in providing you information about volunteerism. Circle the appropriate option

	Not very important at all	Not important	Neutral	Important	Very important
D2. Radio	1	2	3	4	5
D3. Newspapers	1	2	3	4	5
D4. Television	1	2	3	4	5
D5. Ward councillor	1	2	3	4	5
D6. Ward Committees	1	2	3	4	5
D7. Community development worker	1	2	3	4	5

E. Resident

Please indicate to what extent you view the importance's of each of the following entities when reporting disaster / emergence. Circle the appropriate option



	Not very important at all	Not important	Neutral	Important	Very important
E1. Councillor	1	2	3	4	5
E2. Ward committee members	1	2	3	4	5
E3. Sub council manager	1	2	3	4	5

F. Disaster information and Media

Indicate to what extent these kinds of media are important for you in getting information about disaster risk awareness events and any other information related to disaster. Circle the appropriate option

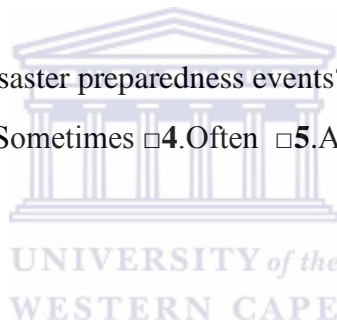
	Never	Sometimes	Often	Frequently	Always
F1. Radio Zibonele	1	2	3	4	5
F2. City Vision	1	2	3	4	5
F3. Vukani	1	2	3	4	5

G7. How often do you attend community meetings about disaster risk management issues?

1. Never 2. Rarely 3. Sometimes 4. Often 5. Always

G8. How often do you attend disaster preparedness events?

1. Never 2. Rarely 3. Sometimes 4. Often 5. Always



APPENDIX 9

SCHEDULE OF INTERVIEWS CONDUCTED

DATE	DEPARTMENT/ORGANISATION/ INSTITUTION	NAME	POSITION
11 October 2012	Cape Town – Disaster Risk Management	Greg J Pillay	Head of The Disaster Centre
17 October 2012	Cape Town – Disaster Risk Management	Elizabeth Adonis	Head of Area East
17 October 2012	Cape Town – Disaster Risk Management	Ismail Baker	Disaster Management Officer
17 October 2012	Cape Town – Disaster Risk Management	Owen Sibeko	Disaster Management Officer
18 October 2012	Cape Town – Disaster Risk Management	EnockKopele	Head of Area Central
19 October 2012	CouncillorKhayelitsha TR Section	Luvago Anderson Hebe	Councillor
24 October 2012	Governance & Interface: Sub councils	VathiswaNjaba	Acting Sub councils Manager – Sub council 9
30 October 2012	Ward Committee Member – Khayelitsha TR Section	Nezisa Monica Dyantyi	Ward Committee Member
30 October 2012	Ward Committee Member – Khayelitsha TR Section	TabangMtwebana	Ward Committee member – Safety & Security.
30 October 2012	Ward Committee Member – Khayelitsha TR Section	Veronica NobathembuDyasi	Ward Committee Member
30 October 2012	Provincial Local Government	BukelwaZono	Community Development Worker
31 October 2012	Cape Town – Disaster Risk Management	John Bayly Brown	Head; Training & Capacity Building Community & Volunteer Management.

09 November 2012	Cape Town – Disaster Risk Management	Charlotte Powell	Head: Public Awareness & Preparedness
19 December 2012	Cape Town – Disaster Risk Management	LuzukoSibeko	Volunteers coordinator - Khayelitsha
09 November 2011	Cape Town – Disaster Risk Management	John Konings	Head: Corporate Planning & IDP



APPENDIX 10

UNIVERSITY OF THE WESTERN CAPE
Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-99 2277, Fax: 27 21-9592845

E - Mail:

Information Sheet

Study title

Community awareness and participation in disaster risk management: The Case of Khayelitsha TR- Section



Invitation paragraph

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully

What is the purpose of the study?

This study seeks to examine mechanisms and practice of community participation and awareness in disaster risk management planning and operations in accordance with the Disaster Management Act, No. 57 of 2002, taking Khayelitsha TR-Section as a case study. And will provide recommendations of what to be done to improve community participation based on the research findings and theoretical foundation of the study.

Why have been invited to participate

Participants have been selected in collaboration with University of The Western Cape based on the research scope. Research scope includes, City Of Cape Town Disaster Management Centre Officials, Khayelitsha TR-Section ward structure officials and residents and Disaster management volunteers based in Khayelitsha TR-Section.

Do I have to take part?

Participation is voluntary; you may decide whether or not to take part.

What will happen to me if I take part?

The study consists of semi – structured interviews between the participants, the researcher and, when needed, the translator. The participants will be asked questions related to the topic of the study. Each interview should take no more than 2 hours. Participating in the study bears no costs to the participants, the participants are only asked to dedicate about 1 hour of their time to the study.

What are the possible benefits of taking part?

Direct benefits of taking part in the study for the participants, includes a clear understanding of the topic and participants given opportunity to explain their experience within the area of the study and give recommendations of what to be done to improve the situation, in turn, will benefit the entire communities as a whole, given that, the study will lay out a foundation for future interventions.

Will what I say in this study be kept confidential?

All the information collected is treated as confidential, privacy and anonymity will be ensured throughout the study. All data generated by the study will be retained in accordance with the University's policy on Academic Integrity and will be kept securely in electronic form for a period of ten years after completion of the research project.

What will happen to the results of the research study?

The study (interviews with the study participants') will be used for the purposes of Master thesis. The Master thesis will be available online at the University of Western Cape webpage after its completion.



Who is organizing and funding the research?

The researcher is conducting the study as a Master Student at the University Of The Western Cape. All study related costs are covered by the researcher

Who has reviewed the study?

The study has been approved by the University Of The Western Cape Higher Degrees Committees.

Contact for Further Information

TanoMwera

tanomwera@gmail.com

CyriaqueHakizimana (Mentor at the University of Western Cape)

chakizimana@plaas.org.za

Dr Leon Pretorius (Supervisor at the University of the Western Cape)

lpretorius@uwc.ac.za

If the participants have any concerns about the way which the study has been conducted they should contact the Chair of the University research Ethics Committee on rchristie@uwc.ac.za

Thank you for your participation



Date

Tano S. Mwera

Researcher

University of the Western Cape, Cape Town, South Africa

APPENDIX 11

Consent Form

1. Name of Official: _____

2. Directorate/Department:.....

3. Position in the department or directorate:

I -----

I agree to take part in the study



Signature

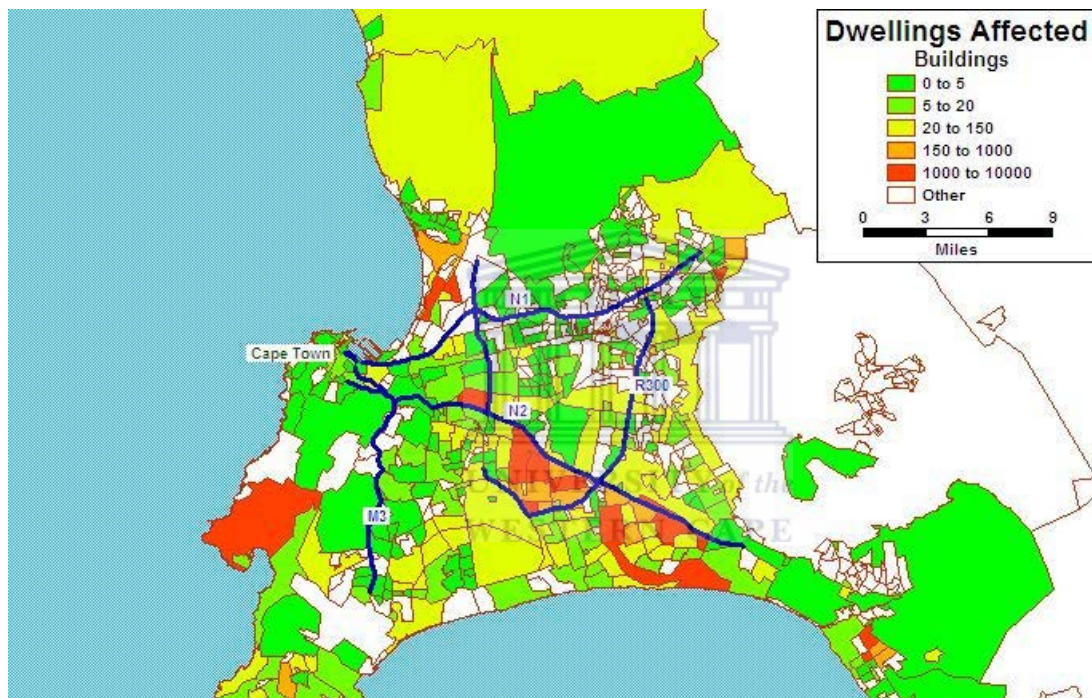
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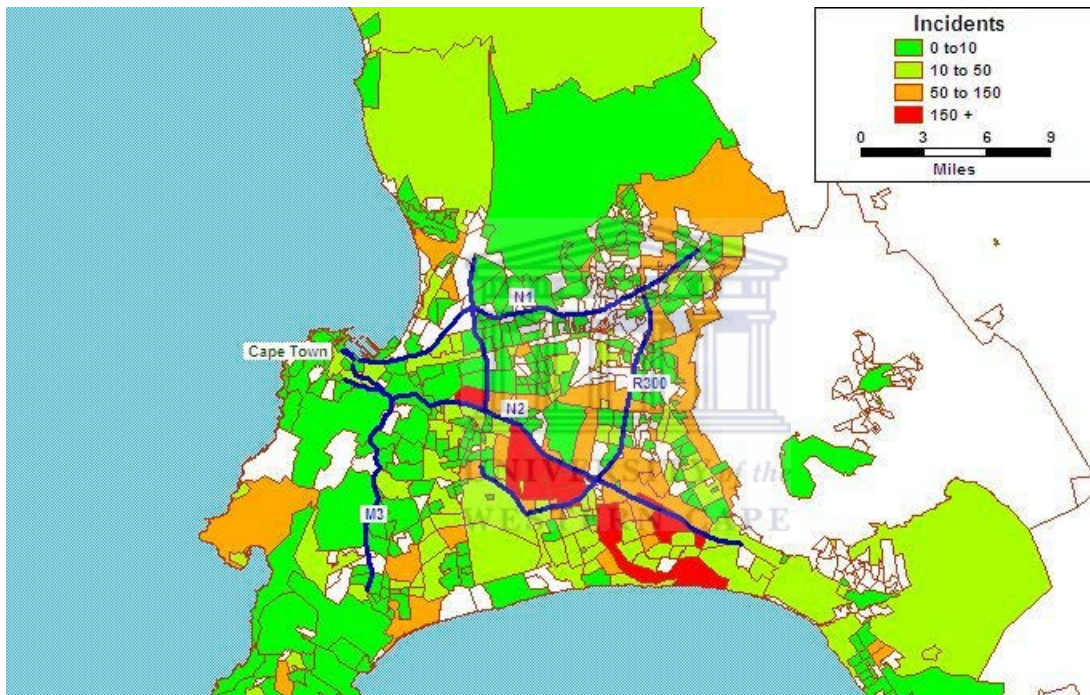
APPENDIX 12

The total number of informal dwellings affected by fire in the City of Cape Town from 1990 to 2004 (Dimp, 2005).



APPENDIX 13

The number of informal dwelling fire incidents in the City of Cape Town from 1990 to 2004 (Dimp, 2005).





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WESTERN CAPE