EVALUATING THE IMPLEMENTATION OF THE HYOGO FRAMEWORK FOR ACTION IN THE KABOKWENI LOCATION: VIEWS FROM THE FRONTLINE PERSPECTIVE

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DECLARATION

I declare that: "***Evaluating the Implementation of the Hyogo Framework for Action in Kabokweni Location: Views from the Frontline Perspective***" is my own work; that all sources used or quoted have been indicated and acknowledged by means of complete references, and that this mini-dissertation was not previously submitted by me or any other person for degree purposes at this or any another university.

SIGNATURE **DATE**

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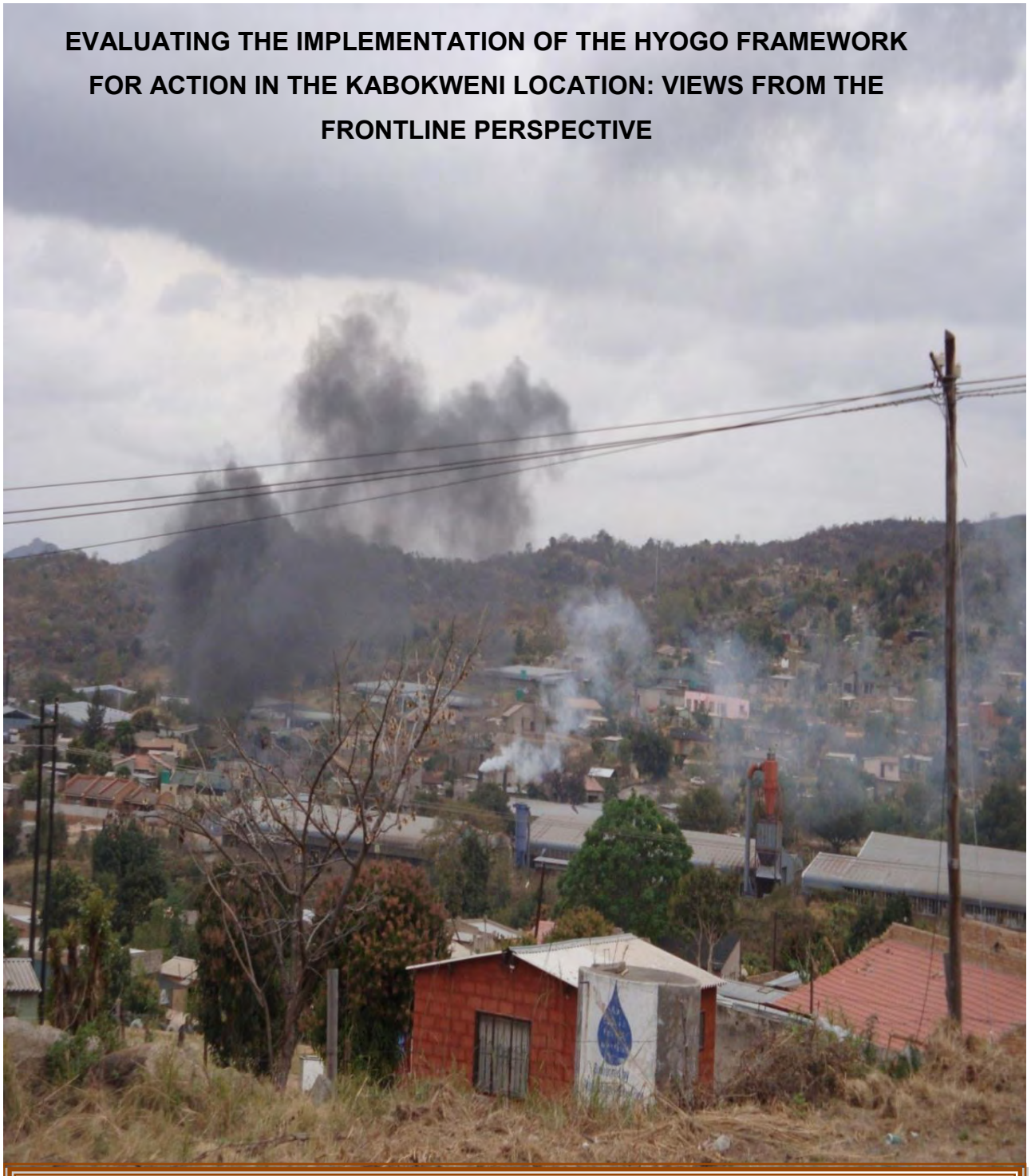

THE SOUTH WESTERN PART OF THE KABOKWENI RESIDENTIAL AREA IS LOCATED WITHIN THE KABOKWENI INDUTRIAL SITE. THIS IS DUE TO POOR OR NO SPATIAL DEVELOPMENT FRAMWORK

ABSTRACT

Although disaster risk reduction is still not considered a priority by many countries and organisations, there is significant progress made towards the reduction of disaster risk. The experience of the International Decade for Natural Disaster Reduction (IDNDR, 1990-1999) prompted a major conceptual shift from disaster response to disaster reduction underscoring the crucial role of human action (UNISDR, 2001:03). This circumstance led to the adoption of an International Strategy for Disaster Risk Reduction (ISDR) in 1999 by the participants of the IDNDR Programme Forum. The adoption gave emphasis to the importance of a global strategy that encourages and facilitates concerted action to reduce risk and vulnerability to natural and related technological and environmental hazards. This research then focuses on the disaster risk reduction phenomenon and major or international initiatives and forums aimed at improving or raising the disaster risk reduction profile. It also focuses on disaster risk management in the South African context.

In recent years, disaster risk reduction has grown in importance on the international agenda. This followed the prevalence of natural hazards such as floods, drought, earthquakes, tsunamis, as well as epidemics, which have had an increasing impact on humans, due to population growth, urbanization, rising poverty and the onset of global environmental changes. Aspects of environmental change include climate change, land degradation and deforestation. Practitioners and researchers widely acknowledge that poor planning, poverty and a range of other underlying factors create conditions of vulnerability that result in insufficient capacity or measures to reduce hazards‘ potentially negative consequences (IISD/UN/ISDR, 2007:01). It is in this light that in 2005 many governments around the world committed themselves to take action to reduce disaster risk, and thereby adopted a guiding document to reduce vulnerabilities to natural hazards, called the Hyogo Framework for Action (HFA).

The HFA was adopted in January 2005 at the World Conference on Disaster Reduction, in Kobe Hyogo, Japan by 168 States. The aim of the HFA is to assist the efforts of nations and communities to become more resilient to, and cope better, with the hazards that threaten their development gains with the overriding

goal of achieving a substantial reduction in global disaster risk. It also emphasizes that disaster risk reduction is a central issue for development policies, in addition to being of interest to various science, humanitarian and environmental fields. To help attain the expected outcome, the HFA identified five specific priorities for action (PFAs) which are: (i) making disaster risk reduction a priority; (ii) improving risk information and early warning; (iii) building a culture of safety and resilience; (iv) reducing the risks in key sectors; and (v) strengthening preparedness for response.

The Global Network of Civil Society Organisation for Disaster Risk Reduction (GNDR) which was launched in 2007 in Geneva, is a major international network of civil society organisations working to influence and implement disaster risk reduction policies and practice around the world. The major programme of the global network is to collect perspective for the local level as to how the HFA is progressing. The Views from the Frontline (VFL) is the first independent assessment project undertaken towards the implementation of the HFA at the local level and is led by the Global Network. The aim of this project is to measure the gap between policy formulation at international level with the realities of policy execution at local level and to deepen the communication and coordination between different stakeholders on disaster risk reduction by involving government organisation and communities at the local level. The VFL perspective is that nationally formulated policies are not generating widespread systematic changes in local practices. There is a concern that the current approach is top-down and engages minimally with affected communities and fails to address their needs and capacities (GNDR, 2008:01).

The main objective of this research was to provide an overview of progress made in the implementation of the HFA at local level particularly in the Kabokweni Location. The approach adopted in this study is called —theViews from the Frontline", and explores the extent of the actual progress made toward the implementation and impact of the HFA priorities at local level, namely the Kabokweni community in the Mbombela Local Municipality (MLM) situated in the Mpumalanga Province of South Africa.

OPSOMMING

Alhoewel ramprisikobestuur tans nie as ‗n prioriteit deur baie organisasies en state beskou word nie, is daar beduidende vordering in die bestuur van ramprisiko. Die ervaring van die *International Decade for Natural Disaster Reduction* (IDNDR, 1990-1999) het gelei tot ‗n kopskuif vanaf reaksie tot rampe na die voorkoming van rampe, met klem wat veral geplaas was op die belangrikheid van menslike optrede (UNISDR, 2001:03). Hierdie gebeurtenis het ook gelei tot die aanvaarding van ‗n Internasionale Strategie vir Ramprisikobestuur (*International Strategy for Disaster Risk Reduction*) 199 deur die deelnemers aan die IDNDR forum. Die aanvaarding het klem geplaas op die noodsaaklikheid van ‗n globale strategie, wat die aktiewe vermindering van ramprisiko aanmoedig en fasiliteer, veral betreffende natuurlike en verbandhoudende tegnologiese en omegwingsrampe. Hierdie navorsing fokus op die ramprisikobestuur fenomeen en belangrike internasionale inisiatiewe en forums, wat daarop gemik is om die profiel van ramprisikobestuur the verhoog en verbeter, veral in die Suid-Afrikaanse konteks.

In die afgelope jare het ramprisikobestuur se belangrikheid op die internasionale agenda wel toegeneem. Dit het grootliks gekom as gevolg van natuurrampe soos vloede, droogtes, aardbewings, tsunamis en ander epidemies, wat ‗n beduidende impak op die mens gehad het as gevolg van faktore soos bevolkingsgroei, verstedeliking, toenemende armoede en globale veranderinge in die natuur. Aspekte van hierdie verandering sluit in klimaatsverandering, grondverwoesting en ontbossing. Praktisyne en navorsers erken dat swak opleiding, armoede, sowel as ‗n reeks onderliggende faktore kwesbare omstandighede veroorsaak, waar onvoldoende kapasiteit en maatreëls die nadelige impak van natuurrampe vererger (IISD/UN/ISDR, 2007:01). In lig hiervan het verskeie regerings regoor die wêreld in 2005 hulself verbind het tot die vermindering van ramprisiko, en ‗n aksieplan aanvaar wat poog om die kwesbaarheid tot rampe te verminder, getiteld die Hyogo Framework for Action (HFA).

Die HFA was in Januarie 2005 deur 168 state aangeneem by die Wêreldkongres vir Ramprisikobestuur in Kobe Hyogo, Japan. Die doel van die HFA is om ondersteuning te verskaf aan state en gemeenskappe, om sodoende

hulle te bemagtig om meer doeltreffend te wees in reaksie tot bedreigings tot ontwikkeling, met terselfdertyd die oorkoepelende doel om globale ramprisiko te verminder. Die HFA plaas ook klem op daarop dat ramprisikobestuur ‗n sentrale kwessie is vir ontwikkelingsbeleid, maar ook ‗n belangrike aspek in wetenskaplike-, humanitêre- en omgewingsvelde. Om die gewenste uitkomste te bereik, het die HFA vyf spesifieke prioriteite vir aksie geïdentifiseer: (i) die prioritisering van ramprisikobestuur; (ii) die verbetering van inligting rondom risiko en vroeë waarskuwings; (die vestiging van ‗n kultuur van veiligheid en veerkragtigheid; (iv) die vermindering van risiko in sleutelsektore; en (v) voorbereiding vir reaksie.

Die *Global Network of Civil Society Organisation for Disaster Risk Reduction (GNDR)* wat in 2007 in Geneva gestig is, is ‗n internasionale netwerk van burgerlike samelewingsorganisasies wat hulself beywer vir die implementering van ramprisikobestuur beleid en praktyke wêreldwyd. Die belangrikste program van die GNDR is die opgaring van terugvoering vanaf plaaslike rolspelers betreffende die implementering en vordering van die HFA. Die *Views from the Frontline (VFL)* is die eerste onafhanklike assesseringsprojek wat onderneem is om die HFA te evalueer op plaaslike vlak, en word deur die GNDR gelei. Die doel van die VFL projek is om die gaping tussen beleidformulering op internasionale vlak en beleidsimplementering op plaaslike vlak, ten einde kommunikasie tussen en koördinasie tussen belanghebbendes van ramprisikobestuur te verbeter. Die VFL uitgangspunt is dat nasionaal-geformuleerde beleid nie wydverspreide, stelselmatige verandering in die plaaslike konteks meebring nie. Daar is kommer dat die huidige benadering ‗n bo-na-onder strategie vergestalt wat weinig met geaffekteerde gemeenskappe skakel, en as gevolg daarin misluk om behoeftes behoorlik aan te spreek (GNDR, 2008:01).

Die hoofdoelwit van die navorsing is om ‗n oorsig te verskaf van die vordering wat gemaak is in die implementering van die HFA op plaaslike vlak, spesifiek in die Kabokweni Lokasie. Die benadering wat hier gebruik word, is dié van ―Views from the Frontline‖, en verken die mate waartoe werklike vordering gemaak is met die implementering en impak van die HFA prioriteitsareas in die Kabokweni gemeenskap in die Mbombela Plaaslike Munisipaliteit (MLM) in die Mpumalanga Provinsie van Suid-Afrika.

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Key words: Disaster Management Act (DMA), Disaster Management Framework (DMF), Disaster Risk Reduction (DRR), Hyogo Framework for Action (HFA), Kabokweni, Mbombela Local Municipality (MLM), Priority for Action (PFA), Views from the Frontline (VFL).

1. ORIENTATION AND CONCEPTUALIZATION OF THE STUDY

1.1 INTRODUCTION

The international community set targets for global sustainable development and poverty reduction under Agenda 21 in the Millennium Development Goals (MDGs). Progress in reducing vulnerabilities to disasters is essential for achieving these MDGs. In turn, attaining the MDGs is crucial for reducing vulnerability to disasters (AU/NEPAD/ADB/UNISDR, 2004:03; Canon, 2007:01).

Disaster risk reduction (DRR) in hazard-prone countries is a complex activity, requiring comprehensive, cross-sectoral and trans-boundary efforts to alert communities, strengthen institutions and operational capacities, and to make disaster risk reduction central to national, regional and local development planning (UN/ISDR, 2004:03). Strong national and local commitment is required to save lives and livelihoods threatened by natural hazards. Natural hazards must be taken into account in public and private sector decision-making processes the same way that environmental and social impact assessment are currently required. Therefore, countries must develop and modify policies, laws, organisational arrangements as well as plans, programmes and projects, to integrate DRR. Sufficient resources to support and maintain them must be allocated (La Trobe & Faleiro, 2007:08).

The Hyogo Framework for Action (HFA) provides a global blueprint for disaster risk reduction efforts that assists nations and communities to become resilient to, and cope better with the hazards that threaten their development (UN/ISDR, 2007:01). The effective implementation of the HFA requires top-down and bottom-up approaches involving multi-stakeholder partnerships. Currently there

seems to be only a top-down approach that engages minimally with affected communities. The decisions shaping what happens locally seem to be remote from the ordinary people and engage minimally with the affected communities and, as a result, these decisions fail to address the community‘s needs and capacities (GNDR, 2008:01). The best way to correct this problem is to strengthen the involvement of vulnerable communities through sharing knowledge and experiences, building consensus and supporting collaborative approaches and joint actions. Community-based organisations (CBOs), non-governmental organisations (NGOs) and churches are better placed and have an important role to play in the decision-making processes of governments and businesses (La Trobe, 2007:05).

The focus area in this study is Kabokweni Location and its community under MLM in the Ehlanzeni District municipal area of the Mpumalanga Province. The aim of the study was to determine whether the Provincial and Local governments, as well as other stakeholders integrate DRR in their development policies, plans, programmes and projects. The study also sought to determine to what extent are community- based organisations and representatives, non-governmental organisations and churches are involved in DRR initiatives.

This study thus evaluates, through the Views from the Frontline survey, the progress made in the implementation of the HFA priorities and cross-cutting issues specifically at the grass-root level by Provincial and Local governments. It further explores the extent of participation by civil society organisations (SCOs) in risk reduction initiatives. The importance of the study is that it should provide a clear picture of the progress and challenges pertaining to the implementation of disaster risk reduction activities as defined within the framework of the HFA priorities.

This chapter will outline the basic concepts used in the study, the background of the study and the research problem. Key research questions and the objectives of the study will also be presented. This will be followed by the theoretical context, statements and research methodology. The subsequent chapters will be indicated and summarised before the conclusion of the chapter is given.

1.2 BACKGROUND OF THE STUDY

In January 2005 the World Conference on Disaster Reduction held in Kobe, Hyogo, Japan, and represented by 168 countries adopted the present Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (here after referred to as the —Hyogo Framework for Action"). The Conference provided a unique opportunity to promote a strategic and systematic approach to reducing vulnerabilities and risks to hazards. It underscored the need for, and identified ways of, building the resilience of nations and communities to disasters (UN/ISDR, 2005:01).

During this conference, the respective governments, including South Africa, committed themselves to take action to reduce disaster risk by adopting guidelines to reduce vulnerabilities to natural hazards through the HFA. The HFA aims to assist the efforts of nations and communities to become more resilient to and cope better with the hazards that threaten their development gains and to save lives, social, economic and environmental assets of communities and countries (UN/ISDR, 2005:03). The HFA offers five areas of priorities for action, guiding principles and practical means for achieving disaster resilience for vulnerable communities in the context of sustainable development (UN/ISDR, 2007:02-04).

The five priorities and their strategic goals are:

- *Making disaster risk reduction a priority*
  Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.

- *Know the risk and take action*
  Identify, assess and monitor disaster risks and enhance early warning system.

- *Build understanding and awareness*
  Use knowledge, innovation and education to build a culture of safety and resilience at all levels.

- *Reduce risk*
  Reduce the underlying risk factors.

- *Be prepared and ready to act*
  Strengthen disaster preparedness for effective response at all levels.

South Africa subscribes to the HFA and DRR principles. In line with the international disaster risk reduction initiatives, the South African government developed legislation, namely the Disaster Management Act (57/2002), to ensure an integrated and coordinated disaster management policy that focuses on preventing or reducing the risk of disasters. In fact, the Act predated the World Conference on Disaster Reduction and the HFA (Pelling & Holloway, 2006:17).

Prior to the DMA was the White Paper on Disaster Management, and its fundamental purpose was to advocate an approach to disaster management that focused on reducing risks – the risk of loss life, economic loss and damage to property, especially to those sections of the population who are most vulnerable. This approach involved a shift away from the perception that disasters are rare occurrences managed by emergency rescue and support services. The policy seeks to integrate this risk reduction strategy into existing and future policies, plans and projects of national, provincial and local government, as well as policies and practices of the private sector as set out in the White paper on Disaster Management (South Africa, 1999:13). The promulgation of the DMA was applauded internationally as a path-breaking example of national legislation that promotes disaster risk reduction (Pelling & Holloway, 2006:04). One of the key requirements of the DMA is for provinces and district municipalities to develop and implement Disaster Management Frameworks (DMF) which are consistent with the provisions of the National Disaster Management Framework (NDMF).

The DMF is a policy aimed at ensuring an integrated and uniform approach to disaster management by all stakeholders and role-players of disaster risk management in all spheres of government (sections 28 & 24 of the Disaster Management Act 57/2002). The NDMF mandates the implementation of four

Key Performance Areas (KPAs) and three enablers, which are in line with the HFA priorities.

1.2.1 The four KPAs, enablers and the strategic objectives:

The four KPAs, their strategic objectives are:

- *KPA 1: Integrated Institutional Capacity for Disaster Risk Management*
  This key performance area aims to establish integrated institutional capacity to enable the effective implementation of disaster risk management policy and legislation.

- *KPA 2: Disaster Risk Assessment*
  The implementation of this KPA aspires to establish a uniform approach to assessing and monitoring disaster risk that will inform disaster risk management planning and disaster risk reduction undertaken by organs of state and other role players.

- *KPA 1: Disaster Risk Reduction*
  The main goal to achieve is to ensure all disaster risk management stakeholders develop and implement integrated disaster risk management plans and risk reduction programmes in accordance with approved frameworks.

- *KPA 4: Response and recovery*
  This KPA points toward ensuring effective and appropriate response and recovery.

The three enablers and their strategic objectives are:

Enabler 1: Information and communication management

Ensure establishment and implementation of:

- An integrated information and communication system at municipal level.
- Disaster management programmes and project management programmes.
- A disaster risk management performance measurement, monitoring and evaluation system.

- *Enabler 2: Education, Training, Public Awareness and Research*

The enabler aims to ensure development and implementation of:

- Design and content of disaster risk management education and training programmes.
- Design public awareness programmes related to risk-avoidance behaviour.
- Encourage registration of disaster risk management education and training institutions and organisations.
- Guidelines for media relations.

Enabler 3: Funding arrangements for disaster risk management

Ensure development and implementation of:

- A composite index containing criteria for identifying low capacity, resource-poor municipalities for the purpose of conditional grant allocations.
- Evaluating applications for additional funding for projects and activities aimed at reducing priority disaster risks.

Furthermore, the Municipal Systems Act (32/2000) obliges municipalities to undertake an integrated development planning process to produce an Integrated Development Plan (IDP) for the municipality. An IDP is a principal strategic planning mechanism, which 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 (e.g. local municipality) to implement its ideals. Section 27 (g) of the Municipal Structures Act (32/2000) obliges municipalities to develop disaster management plans as part of their Integrated Development Plan (IDP). This implies that municipal IDPs must not be declared credible or approved if there are no disaster management plans. However, municipal councils, unfortunately, continue to approve their IDPs even without disaster management plans. This is but one of the reasons why there are instances of development plans that do not incorporate DRR.

To some extent the legislative mandate on its own has contributed adversely to the implementation of the disaster management function, especially in the local sphere of government. The complicating factor for the disaster management programme in municipalities is that according to the Constitution of the Republic of South Africa (Act 108 of 1996), disaster management is a competency of the national and provincial sphere of government and not the local sphere. The Disaster Management Act (57/2002) confines the disaster management function to national, provincial, district and metropolitan municipalities. This state of affairs in respect of the disaster management function for most municipalities has continued to be of a problematic nature, because of its non-mandated dynamic to municipalities in terms of the Constitution and the DMA, it mostly remains unfunded.

As an obligation for the municipalities to engage in IDP to support in building resilience in vulnerable people and at-risk communities, a local community with a high risk profile has been identified to determine the extent to which the IDP and the HFA priorities are implemented in this community. The focus of this study is the Kabokweni Location community, commonly known as —Nodini". The location is a semi-urban area located under the MLM in the Ehlanzeni District of Mpumalanga Province.

In order to measure the progress towards the implementation of the HFA at local level across developing countries and regions, the Global Network of Civil Society Organisation for Disaster Risk Reduction (GNDR) has embarked on a survey research project, namely —The Views from the Frontline" (VFL), which was the main focus of this study. This research project chiefly involved civil society stakeholders and government bodies as it entailed collecting perspectives from local level so as to evaluate the HFA progress.

1.3 PROBLEM STATEMENT

The Kabokweni Location is a community-at-risk (CAR) due to its poor geographical and densely populated nature. The location is situated at the foot of a mountain. Community members are vulnerable to hazards like strong winds, land-slides and flooding. There is also a serious problem of insufficient

water supply as well as sanitation. Another risky factor is that the southern-western part of Kabokweni is an industrial site with a residential area within it. This state of affairs gave a sense that the MLM was not mainstreaming DRR in its development plans.

Since many global, regional, national and local efforts have been made to address disaster risk reduction more systematically (UN/ISDR, 2007:02). So the research problem to be addressed was whether the MLM had made significant efforts in addressing DRR more systematically for its communities, particularly the Kabokweni Location, by mainstreaming DRR in its already existing development plans. In essence _mainstreaming' DRR into development plans does not mean to completely change an organisation's core functions and responsibilities, but instead to view them from a different perspective and to make any necessary modifications/amendments, as appropriate to maximise its positive effects on reducing risk (Wamsler, 2009:12 & 15).

The study also sought to establish whether the municipality's disaster risk management strategic policies were being cascaded and implemented effectively especially at community level. Therefore, this study explored through the use of the VFL approach the extent of the actual implementation level and impact of the HFA priorities at local level.

1.4 RESEARCH QUESTIONS

In order to reach the objectives of the study, the primary research question to be asked is: Is there any progress made in the implementation of the HFA at local level, specifically the community of Kabokweni Location?

In order to address the primary research question the following research questions were asked:

1. Is disaster risk reduction given priority by local municipalities, district municipalities and Provincial departments?
2. Do the Mbombela Municipality and the Kabokweni community know their disaster risks and take action in this regard?

3. Does the municipality build understanding and awareness of the disaster risks in its communities?
4. Do the Mbombela Municipality and Kabokweni community engage or focus on initiatives to reduce risk factors?
5. Are the Municipality and the community prepared and ready to respond to disasters or disaster incidents?

1.5 RESEARCH OBJECTIVES

The main objective of this research is to provide an overview of progress made in the implementation of the HFA at local level in the Kabokweni community.

The specific objectives of the study are:

1. To determine to what extent is disaster risk reduction given priority by local and district municipalities, as well as provincial departments.
2. To determine to what extent the MLM and the Kabokweni community know their risk and take action to address them.
3. To analyse to what extent the MLM build understanding and awareness of the disaster risk activities.
4. To establish to what extent the MLM and the Kabokweni community engage or focus their initiatives on the reduction of risk factors.
5. To determine the level of preparedness and readiness of the MLM to respond to disasters or disaster incidents.

1.6 CENTRAL THEORITICAL STATEMENTS

The following preliminary statements can be made:

- Nationally formulated disaster risk management policies are not generating widespread systematic changes in local practices (GNDR, 2009:v).
- Despite progress at international and national level, the greatest barrier to achieving a substantial reduction in disaster losses by 2015 is the lack of a systematic implementation of disaster risk reduction activities at local level (GNDR, 2008:36).

- Given the explicit cause-and-effect links between disasters and development interventions, development policy should aim at reducing basic societal risks, while attaining sustainable development objectives. Balancing these two goals requires incorporating disaster risk reduction in development policies, strategies and programmes at local, national and sub-regional levels (AU/NEPAD, 2004:13).
- Civil society organizations, with their established relationships and extensive presence amongst poor vulnerable communities in disaster-prone areas, are well positioned to strengthen linkages between policy and practice. They can facilitate local level dialogue, build trust and understanding between affected communities and local governments, foster participation and ownership, mobilize local resources, support partnership approaches and assist in measuring progress (GNDR, 2008:02).
- Achievement of the Hyogo Framework for Action requires greater participation from civil society at all levels, including representatives of female, the vulnerable and high-risk groups. All stakeholders, including government, business and civil society need to work together if goals and targets are to be reached (La Trobe & Faleiro, 2007:12).

1.7 RESEARCH METHODOLOGY

1.7.1 Literature study

Several literature sources with regard to disaster risk reduction and HFA priorities and guidelines were studied. Sources include textbooks, papers, abstracts and reports, journals, theses and dissertations or documents focusing on the topic such as the Hyogo Framework for Action, Views from the Frontline perspective, Global Network of Civil Organisation for Disaster Risk Reduction, United Nations International Strategy for Disaster Reduction, National Disaster Management Framework, Disaster Management Act (57/2002), and Municipal Systems Act (32/2000).

Various databases were consulted to ascertain the availability of study material for the purpose of this research and included Internet searches, EBSCO,

Ferdinard-Postma Library and catalogue of theses and dissertation of South African Universities.

1.7.2 Empirical investigation

This study followed a quantitative approach through the application of a research survey that requires statistical analysis. It also provided descriptive information in the attempt to present a complete and accurate description of a current situation (Struwig & Stead, 2001; De Vos *et al, 1998*). Data was collected at the Kabokweni location during August and September 2010 through a questionnaire. This questionnaire entailed open and closed questions based on indicators derived from the five HFA priorities, cross-cutting issues and their impact at local level as designed by the VFL (Struwig & Stead, 2001:7-8). In addition, after the completion of the questionnaire, personal interviews were held with willing participants to determine what they perceived or thought were the challenges that hindered the implementation of the disaster management programme in their institutions. The interviews further sought to establish how they (the participants) thought these challenges could be addressed.

This research followed the VFL methodological approach, which is based on survey research. Survey research is a research method to collect participant response on facts, opinions and attitudes through questionnaires (GMI, 2010:01). VFL aims to produce knowledge in active partnership with those affected by that knowledge, and for the express purpose of improving their social, educational and material conditions (Terre Blanche & Durrheim, 2002:228). Therefore, the VFL method was designed to not only gather data from participants, but also to motivate the participants to learn from their own experiences. Thus, the survey approach gave an opportunity for self-evaluation by local government officials, civil society organization and local community representatives to assess their perceptions on progress made towards resilience and risk reduction as part of the HFA priorities.

This approach was appropriate because the ultimate goal of the VFL is to support the functional implementation of the HFA to build the resilience of vulnerable people and communities at-risk to disasters by improving policy and

practice to reduce disaster losses (GNDR, 2009:03). The VFL methodology also support and complement the UN/ISDR coordinated biennial monitoring and review processes (GNDR, 2008:3).

In order to give the implementation of the HFA greater chance of success, it was important to determine from provincial and local government structures, civil society organization and community organisations that are aware of or active in disaster risk reduction activities, if they are actually applying disaster risk reduction theories, for the benefit of the communities.

The sampling method that was applied is expert sampling that is a sub-case of purposive sampling within the non-probability category of samples. The reason for this choice of sampling method was that the sampling frame needed for this study should include people who are aware of, or are active in disaster risk reduction activities. Thirty respondents, who represented their organisations, participated in the survey and they are:

Civil society organisations: South African National Civic Organisation (SANCO), faith-based organisations (South African Council of Churches (SACC); African National Congress (ANC – Kabokweni Constituency), Lowveld Escarpment Fire Protection Association (LEFPA), Mpumalanga Economic Growth Agency (MEGA), Kruger Mpumalanga International Airport (KMIA).

Local Community Representatives: Moslem Community Association, Kabokweni Taxi Association, Kabokweni Community Police Forum, Community Development Workers, Kabokweni Community Youth Forum, Mpumalanga School Governing Bodies Association, Kabokweni Traders Association, Kabokweni Business Complex/centre, Vukuzenzele Women‘s Association, Maphutha Burial Society.

In accordance with the VFL guidelines, the respondents of the local government were representatives from Mbombela Local Municipality (MLM), Ehlanzeni District Municipality (EDM) and the Mpumalanga Provincial Government departments (MPG), that render services for the area of Kabokweni Location.

The Local governments are: Mbombela Local municipality, Ehlanzeni District Municipality, COGTA - Provincial Disaster Management Centre (PDMC), South African Police Services (SAPS), Department of Social Development – Kabokweni branch, Department of Health, Department of Education, Department of Agriculture, Rural Development and Land Administration, Department of Public Works, Roads and Transport, South African Weather Services, Department of Human Settlement and Eskom Electricity Distributors – Kabokweni Depot.

These units were identified as they had particularly high quality of information regarding disaster risk reduction, policy and programmes that are being implemented within this field of study and they are main drivers of disaster risk reduction initiatives.

The questionnaires were distributed personally to chairpersons or anybody delegated by the chairperson on behalf of the organisations or community representatives. For local government organisations, the head of the institution or the official responsible for disaster risk reduction completed the questionnaire. All questionnaires were collected individually and in person in order to enhance the response rate. In this way a response rate of 100% was achieved.

As this survey included open and closed-ended–questions, it provided data which was analysed both statistically (quantitatively) and through interpretation (qualitatively). Thus, the information gathered through the open-ended questions supplemented the rating questions and yielded to triangulation. Methodological triangulation is important and refers to the use of multiple methods to study a single topic, for example by combining quantitative and qualitative methods in a single study (Padgett, 1998:97). The advantage of using triangulation is that different research methods have got strengths and weaknesses, and by using triangulation the strengths of one procedure can compensate for the weakness of another approach (Patton, 2002:306).

1.8 ETHICAL CONSIDERATIONS

As an obligation of ethical consideration, participants were informed that participation in the research was voluntary, and that they were not obliged to divulge information they would prefer to remain private. They were given a consent form to sign if willing to partake in the research and were also informed that they were at liberty to withdraw from the research any time they felt like doing so. Confidentiality and their anonymity were guaranteed. The research was also conducted where the participants felt comfortable, where the environment was always safe and free from threats or risks.

1.9 BASIC TERMINOLOGY USED IN THE STUDY

In this study there are concepts which have been used according to the UN/ISDR Terminology (UN/ISDR, 2009:4-30). This terminology has been developed in order to promote common understanding and common usage on disaster risk reduction concepts and to assist the disaster risk reduction efforts of authorities, practitioners and the public (UN/ISDR, 2009:10-30). These are:

Adaptation

The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Capacity

A combination of all the strengths, attributes and resources available within a community, society or organization, that can reduce the level of risk or the effects of a disaster.

Capacity building

Efforts to systematically develop the human skills, institutional abilities and facilities within a community or organization needed to reduce the level of risk.

Climate change

The Inter-governmental Panel on Climate Change (IPCC) defines climate change as: —a change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use".

Contingency planning

A management process that analyses specific potential events or emerging situations that might threaten society or the environment and establishes arrangements in advance to enable timely, effective and appropriate responses to such events and situations.

Disaster

A serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources.

Disaster risk

The magnitude of potential disaster losses, in lives, livelihoods and assets, which could occur to a particular community or group, arising from their exposure to possible future hazard events and their vulnerability to these hazards.

Disaster risk management

The systematic process of using administrative decisions, organization, operational skills and capacities to implement strategies, policies and coping capacities of the society and communities to lessen the impact of natural hazards and related environmental and technological disasters.

Disaster risk reduction

Action taken to reduce the risk of disasters and the adverse impacts of natural hazards, through systematic efforts to analyse and manage the causes of disasters, including through avoidance of hazards, reduced social and economic vulnerability to hazards, and improved preparedness for adverse events.

Disaster risk reduction plans

Formal documents that set out authorities' goals for disaster risk reduction together with related sequences of actions to accomplish stated objectives towards these goals.

Public awareness

The extent of common knowledge about disaster risks, the factors that lead to disasters and the actions that can be taken individually and collectively to reduce exposure and vulnerability to hazards.

Preparedness

The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

Resilience

The capacity of a system, community or society potentially exposed to hazards to resist, adapt, and recover from hazard events, and to restore an acceptable level of functioning and structure.

Response

The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Risk

The likelihood of harmful consequences, including losses of lives, livelihoods and property, injuries, disruption of economic activities or environmental damages, arising from the combination of hazards with exposed and vulnerable people and assets.

Risk assessment/analysis

Methodologies to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to exposed people, property, livelihoods and the environment on which they depend.

Sustainable development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Vulnerability

The degree to which a community or an asset is unable to resist hazard-related damage and loss, owing to its specific physical, economic and environmental circumstances.

1.10 ACRONYMS

The following acronyms are used throughout the study. However, these acronyms are explained in full on their first use.

CAR	:	Community At Risk
CBO	:	Community Based Organisation
DMA	:	Disaster Management Act
DMF	:	Disaster Management Framework
DRR	:	Disaster Risk Reduction

EDM	:	Ehlanzeni District Municipality
EDMDMP	:	Ehlanzeni District Municipality Disaster Management Plan
GNDR	:	Global Network of Civil Society Organisation for Disaster Risk Reduction
HFA	:	Hyogo Framework For Action
IDDRMC	:	Interdepartmental Disaster Risk Management Committees
IDNDR	:	International Decade for Natural Disaster Reduction
IDP	:	Integrated Development Plan
IPCC	:	Intergovernmental Panel for Climate Change
KPA	:	Key Performance Area
MDG	:	Millennium Development Goals
NGO	:	Non Governmental Organisation
NEPAD	:	New Partnership For Africa Development
ISDR	:	International Strategy For Disaster Reduction
PFA	:	Priority for Action
PRSP	:	Poverty Reduction Strategy Papers
VCA	:	Vulnerability and Capacity Assessment
VFL	:	View From the Frontline/Lite
WSSD	:	World Summit on Sustainable Development

1.11 CHAPTER LAY-OUT

Chapter 1: Introduction

This chapter gave the premise that the whole research revolves around, which is DRR and HFA priorities implementation, initiatives and measures at local level as perceived by the VFL. It included the background and basic concepts of the study and acronyms were also given. The theoretical orientation, problem statement, research questions and objectives were outlined. The methodology of the investigation was briefly discussed.

Chapter 2: HFA theoretical literature framework and components

This chapter entailed an in-depth literature study of the VFL perspective and the HFA. Policies and mechanisms that shapes disaster risk reduction were discussed in order to put it the context of the study.

Chapter 3: Methodology: Views from the Frontline approach

This chapter discussed the Disaster risk management in the South African Context. It outlined the disaster risk management processes and initiatives embarked upon by the South African Government that are in line with the HFA priorities.

Chapter 4: Empirical findings and analysis

The chapter outlined the empirical research process, which was a survey using the questionnaires of the survey research project; Views from the Frontline. It also entailed the empirical analysis of the data obtained through these questionnaires.

Chapter 5: Conclusions and recommendation

This chapter set out the conclusions of the study based on the data analysis. Recommendations that will assist the municipality in addressing the challenges and issues, which impact on the successful implementation of the HFA were presented.

1.12 CONCLUSION

This chapter introduced the reader to the research topic, conceptualization and orientation of the study. Basic terminology entailed in this study is briefly explained. The key research questions, objectives and central theoretical statements of the study also enjoyed attention. Thereafter the research methodology used for the study was outlined. This included the introduction of the research participants. Lastly, the subsequent chapters of the study were briefly laid out and then the conclusion of this chapter given.

The following chapter will focus on the DRR theoritical framework. It will discuss DRR as a phenomenon and also highlight some of the international disaster risk reduction initiatives that the international risk reduction community have embarked upon to enhance the disaster risk reduction profile. The HFA and the VFL will also enjoy special attention.

CHAPTER TWO

2. THE DISASTER RISK REDUCTION FRAMEWORK

2.1 INTRODUCTION

In broad terms, the DRR framework includes efforts to foster or support national, provincial or local prioritisation and coordination of DRR strategies. It also involves collecting data on natural hazard risks for use in improving early warning systems, education and raising awareness about disaster risk reduction. Furthermore, it includes mitigating the impact of natural hazards, through livelihood diversification like building reinforcement, environmental protection, microfinance, land-use planning and any other activities that increase resilience. Other efforts relate to strengthening disaster preparedness, including contingency planning, emergency response and evacuation plans (UN/ISDR/2008:01; AUSAID, 2009: iii).

In recent years DRR has grown in importance on the international agenda. Natural hazards such as floods, drought, earthquakes, tsunamis, as well as epidemics, have had an increasing impact on the lives of humans. Other aspects that have an influence on the lives of humans are population growth, urbanization, rising poverty and the onset of global environmental changes, including climate change, land-degradation and deforestation (IISD, 2007:01). Practitioners and researchers widely acknowledge that the mentioned underlying factors create conditions of vulnerability that result in insufficient capacity or measures to reduce hazards‘ potentially negative consequences (IISD, 2007:01). Thus, vulnerability contributes as much to the magnitude of the disaster risk as do the natural hazards themselves. Many experts consider that action to reduce risk is now essential to safeguard sustainable development efforts and for achieving the millennium development goals (MDGs) (IISD, 2007; Canon, 2007; DFID, 2004).

Disasters have an enormous impact on development. With every disaster, there is a significant impact on various sectors of development like agriculture, housing, health, education and infrastructure. This results in a serious social

and economic setback to the development and poverty reduction priorities of the developing countries, and poses a threat for achieving the Millennium Development goals (ADPC, 2006:01). To meet with this crisis, the scarce resources that are programmed for development are often diverted for relief and rehabilitation efforts. Thus development activity and DRR representing two sides of the same coin have to be dealt with in unison, with mainstreaming disaster risk management into development policy, planning and implementation (ADPC, 2006; UN/ISDR, 2002; UNDP, 2004).

On the other hand, the process of development, and the kind of development choices made in many countries, itself, creates disaster risks. When DRR considerations are not featured in the project design of the development activities, risks emanate, and thus increase the negative impact of the disasters on the socio economic set up of the country. Disasters damage infrastructure and affect productivity and growth. Rarely do disasters just happen. They often result from failures of development which increase vulnerability. It is, therefore, vitally important that reducing disaster risk is of central concern to human‘s development as well as humanitarian work (DFID, 2006; Canon, 2007; ADPC, 2006; AU/NEPAD/UN/ISDR, 2004; U/NEPAD/UN/ISDR, 2004; AUSAID, 2009).

This chapter focuses on describing the national and international initiatives and protocols or forums that focus on enhancing and raising the DRR profile. It also discusses legislation and protocols that promote the integration of DRR into development policy planning. Furthermore, it discusses in detail the Views from the Frontline (VFL) perspective and the Hyogo Framework for Action priorities which are the two main aspects on which the study is based. Thereafter a conclusion of the study will be presented.

2.2 DISASTER RISK REDUCTION AS A PHENOMENON

DRR has to do with the practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters. These include, reducing of exposure to hazards, lessened vulnerability of people and property, effective management of land and the environment, and improved preparedness for adverse events (UN/ISDR, 2009:10). It aims at building disaster resilient

communities by increasing awareness of the importance of disaster reduction as an integral component of sustainable development, with the goal of reducing human, social, economic and environmental losses due to natural hazards and related technological and environmental disasters (UN/ISDR, 2009; AU/NEPAD, 2004; DFID, 2006).

Governments have a key responsibility to create a conducive environment in which people can be empowered to prevent or reduce natural disaster risks. However, because of the failure or absence of developmental planning activities that can arise, partly from an unfavorable environment, people are highly vulnerable to disaster risks in Africa (AU/NEPAD, 2004:06). For example, key sectoral policies, such as food and agriculture, rural and urban development and enterprise development, do not sufficiently consider how they impact people‘s vulnerability to hazards (AU/NEPAD, 2004:06).

To be effective, DRR must be based on a solid institutional and legal framework which must ensure that all segments of society are involved. Governments must assume primary responsibility for the welfare of their communities by providing the legal and institutional framework for disaster risk management. First and foremost, they need to define clear responsibilities and ensure that the various agencies at national provincial and local levels understand their roles and coordinate their efforts (Briceno, 2006:08). However, DRR is more effective if driven with the assistance or involvement of the communities at local level. Community participation is being encouraged in many areas of development, including disaster management. However, in reality practical guidance and involvement of community remains relatively limited even though the reality is that local people and organisations are the main actors in risk reduction and disaster response (Twigg, 2004:104).

A meaningful link needs to be fostered between the development of national policy and the use of mechanisms that can translate disaster reduction principles into sustained and flexible locally-based activities (UN/ISDR, 2002:189). This can be achieved by ensuring that local government, local communities, civic groups and traditional structures are encouraged and financed, so that they can reduce vulnerability and strengthen local capacities

(UN/ISDR, 2002:189). Existing community-based organizations, including women‘s organizations, should be reinforced. Mechanisms for community participation in information, like the government community participation programme (see DPLG, 2007:06), decision-making and resource management to reduce risk, should thus be strengthened in ways that include all community groups, and both for women and men equally (UN/ISDR, 2002:189).

Although Governments have a key responsibility to create the enabling environment in which people can be empowered to prevent or reduce disaster risks, the communities should be involved in a participatory manner and not only in an informing or directive manner. These sentiments were confirmed by Philippines Programme Representative of the Participatory Community Vulnerability Assessment (PCVA). In the Phillipines PCVA project report, the writer stated:

> ―But the PCVA also found that the people's lack of capacity in preparing for and responding to disasters was also due to the fact that the local government largely ignored them in most stages of the disaster management planning process. People were not informed about the hazards and vulnerabilities in the province and were not aware of their role in disaster management planning. They were left on their own, which further contributed to their fatalistic attitude towards disaster risk activities" (De Dios, 2002: iv).

The Phillipines project is indicated as an example because it demonstrates that PCVA recognises the importance of local knowledge built on people's experience of disasters and of poor people taking the lead in addressing their vulnerabilities (De Dios, 2002: v).

The role of community participation and people‘s general coping capacities are also recognised as key elements in explaining disaster risk. The creative link between the negative conditions with which people live, and the often overlooked positive attributes which they also possess, underline the importance of the socioeconomic dimensions of risk (UN/ISDR, 2004:31). Any system of local or community planning and protection must be integrated into

larger administrative and resource capabilities such as national, provincial and local disaster plans or related risk reduction strategies because communities cannot implement community-based disaster mitigation plans on their own. Viable community-based disaster reduction depends on a favourable political environment that understands, promotes and supports community participation process (UN/ISDR, 2004:178).

As part of risk reduction, institutions at local, provincial or national level should develop contingency plans that will enable them to respond rapidly and effectively to disasters. Contingency planning is a management tool used to analyse the impact of potential hazard events so that adequate and appropriate arrangements are made in advance to responding in a timely, effective and appropriate way to the needs of the affected population(s). Contingency planning is a tool to anticipate, pre-empt, and solve problems that typically arise during a humanitarian response. A well-developed and consistently updated contingency plan is an essential element of an overall national preparedness capability (AU/NEPAD, 2004: 13).

The following section will focus on the discussion of the international protocols and forums that have been established to promote disaster risk reduction.

2.3 DISASTER RISK REDUCTION AT INTERNATIONAL LEVEL

In recent years much has been done to raise the profile of DRR within relief and development processes. However, much still remains to be achieved before it attracts the level of attention and funding needed to reduce avoidable loss of life, livelihoods and property, and to safeguard development progress. Furthermore, as pressures such as population expansion, urbanisation and global climate change make the world increasingly unsafe, it is essential to expand risk reduction measures to avert or reduce the scale of future disasters (La Trobe & Faleiro, 2007:08). In consideration of all these apparent concerns the international community and the United Nations, in particular, have taken significant steps that have come to be recognised as important milestones in addressing ways to reduce the vulnerability of people and the fragility of their livelihoods. The steps seem to have been met with general approval by

countries (Wisner, 2004:323). However, there is an acknowledgement that significant steps have been taken, although much more still remains to be achieved (AUSAID, 2009: iii).

2.3.1 International Decade for Natural Disaster Reduction (IDNDR)

The term "disaster risk reduction" emerged in 1990s during the International Decade for Natural Disaster Reduction (IDNDR) conference at the General Assembly of the United Nations when the Assembly adopted the decade 1990 - 1999 as the decade for Natural Disaster Reduction (IDNDR, Resolution 44/236). The objectives of IDNDR were to decrease the loss of life, decrease property destruction and social economic disruption caused by natural disasters such as earthquakes, tsunamis, floods, landslides, volcanic eruptions, droughts, locust infestations and other disasters of natural origin (IISD, 2007:01).

While the IDNDR followed a strictly techno-centric and scientific approach in the beginning, the Yokohama Conference in 1994 put socio-economic aspects as a component of effective disaster prevention into perspective. One of the main conference outcomes was the Strategy for a Safer World and its Plan of Action (IISD, 2007:1-2). The Yokohama Strategy set guidelines for action on prevention, preparedness and mitigation of disaster risk. These guidelines were based on a set of principles that stressed the importance of risk assessment, disaster prevention, preparedness, the capacity to prevent, reduce and mitigate disasters, and early warning systems (IISD, 2007:1-2). The guidelines that emanated from the Yokohama Conference stemmed from the recognition that preventive measures are most effective when stakeholders at all levels are involved, and that vulnerability can be reduced by applying "proper design" and "patterns of development" focused on target groups. The principles also stated that the international community should share technology to prevent, reduce and mitigate disasters, and demonstrate a strong political determination in the field of disaster reduction (IISD, 2007:1-2).

The risk reduction forums and protocols also recognise that social factors such as cultural tradition, religious values, economic standing, and trust in political accountability are essential in the determination of societal vulnerability. In order

to reduce societal vulnerability, and therewith decrease the consequences of natural disasters, these factors need to be addressed. The ability to address socio-economic factors requires knowledge and understanding of local conditions, which can - in most cases - only be provided by local actors (UN/ISDR, 2004:125,178).

One of the key highlights of the Yokohama conference was that community involvement should be actively encouraged in order to gain greater insights into individual and community perceptions of both development and risks. This knowledge is of utmost importance to determine those aspects that favour and hinder prevention and mitigation, or encourage or limit the preservation of the environment for the development of future generations, in order to find effective and efficient means to reduce the impact of disasters (Wisner *et al*, 2004:323).

The IDNDR programme Forum that was established in Geneva in July 1999 established an important link between poverty reduction and mitigation. The Forum also established an important link between poverty reduction and mitigation. The programme emphasised that people most vulnerable to disasters are the poor, who have limited resources to avoid losses. Environmental degradation resulting from poverty exacerbates disaster impacts. Innovative approaches are needed, and emphasis should be given for programmes that promote community level approaches (Wisner *et al*, 2004:323).

2.3.2 Millennium Development Goals (MDGs)

DRR is a cross-cutting issue in the context of sustainable development, and therefore an important element for the achievement of internationally agreed development goals, including those contained in the Millennium Development Goals (MDGs). The MDGs are the most widely supported comprehensive and focused poverty reduction targets that global society has established. Eight goals were signed by 191 member states of the United Nations and major international development agencies at the Millennium Summit in 2000 (Canon, 2007; Concord/Bond, 2010). According to the MDG, the eight specific goals are to be met by 2015 and they aim to combat extreme poverty (DFID, 2010:01).

However, when the world community signed up to the MDGs in 2000, DRR was not included in strategies for their attainment. The Millennium Declaration did however recognise that disasters can jeopardise development and included a commitment –to intensify our collective efforts to reduce the number and effects of natural and man-made disasters" (Canon, 2007:02).

The links between disasters and poverty are clear and the capacity to cope and reduce disaster risk is much more limited in poor countries. This means that people are more vulnerable than in rich countries (DFID, 2010:01). The poorest are therefore worst affected and suffer the most. Impacts on communities can be severe: disasters increase poverty and malnutrition, and reduce disease resistance. As a result of disasters, families are made poor, hungry or ill and often have to send their children out to work rather than to school, and women and girls are left with poorer health and an increased workload because of the need to take care and provide for the families while men migrate to the cities (DFID, 2005:01).

Disasters affect the economic development of developing countries as they physically damage infrastructure and affect productivity and growth. They also slow down progress towards the MDGs (DFID, 2010:01). Ban-ki Moon, the current UN Secretary General, asserts that, —our cities and coasts grow more vulnerable, these hazards can lead to disasters that are far worse than those we have seen to date. We have a moral, social and economic obligation to build resilience by 2015. Implementing the Hyogo Framework for Action will also help us reach the Millennium Development Goals" (UN/ISDR, 2005:02).

While there have been concerted efforts by governments to achieve the MDGs, much more still needs to be done in the remaining years up to 2015. Countries cannot afford to face the setback to developmental initiatives from either natural disasters or other events, such as self inflicted disasters (UN/ADPC, 2007:02). If the initiative to attain the MDGs is to succeed; it is therefore imperative to mainstream DRR into every component of its strategy (UN/ADPC, 2007 07).

Disasters do not only threaten MDGs concerned with poverty, hunger, health and environmental status, but also those pushing for improved gender equality and wider access to education. Table 1 below provides examples of direct and

indirect negative impacts of disasters on efforts to meet the MDGs (DFID, 2004:20).

MDG	Direct Impact	Indirect Impact
1. Eradicate extreme poverty and hunger	• Damage to housing, service infrastructure, savings, productive assets and human losses reduce livelihood sustainability.	• Negative macroeconomic impacts including severe short-term fiscal impacts and wider, longer-term impacts on growth, development and poverty reduction. • Forced sale of productive assets by vulnerable households pushes many into long-term poverty and increases inequality.
2. Achieve universal primary education	Damage to education infrastructure. • Population displacement interrupts schooling.	• Increased need for child labour for household work, especially for girls. • Reduced household assets make schooling less affordable, girls probably affected most.
3. Promote gender equality and empower women	• As men migrate to seek alternative work, women/girls bear an increased burden of care. • Women often bear the brunt of distress ‗coping' strategies, e.g. by reducing food intake.	• Emergency programmes may reinforce power structures which marginalise women. • Domestic and sexual violence may rise in the wake of a disaster.
4. Reduce child mortality	• Children are often most at risk, e.g. of drowning in floods. • Damage to health and water & sanitation infrastructure. • Injury and illness from disaster weakens children's immune systems.	• Increased numbers of orphaned, abandoned and homeless children. • Household asset depletion makes clean water, food and medicine less affordable.
5. Improve maternal health	• Pregnant woman are often at high risk from death/injury in disasters • Damage to health infrastructure. • Injury and illness from disaster can weaken women's health.	• Increased responsibilities and workloads create stress for surviving mothers. • Household asset depletion makes clean water, food and medicine less affordable.
6. Combat HIV/AIDS, malaria and other diseases	• Poor health & nutrition following disasters weakens immunity. • Damage to health infrastructure. • Increased respiratory diseases associated with damp, dust and air pollution linked to disaster.	• Increased risk from communicative and vector borne diseases, e.g. malaria and diarrhoeal diseases following floods. • Impoverishment and displacement following disaster can increase exposure to disease, including HIV/AIDS, and disrupt health care.
7. Ensure environmental sustainability	• Damage to key environmental resources and exacerbation of soil erosion or deforestation. • Damage to water management and other urban infrastructure. • Slum dwellers/people in temporary settlements often heavily affected.	• Disaster-induced migration to urban areas and damage to urban infrastructure increase the number of slum dwellers without access to basic services and exacerbate poverty.
8. Develop a global partnership for development	• Impacts on programmes for small island developing states from tropical storms, tsunamis etc.	• Impacts on commitment to good governance, development and poverty reduction—nationally and internationally.
ALL MDGS		• Reallocation of resources – including ODA – from development to relief and recovery.

Table 2.1: Example of negative disaster impacts on efforts to meet the MDGs. (Source: DFID, 2004:20)

Although disasters negatively impact, directly or indirectly, on efforts to meet the MDGs, DRR can also contribute positively towards achieving the MDGs. Integrating DRR 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. Gains

include positive direct and indirect impacts for each of the MDGs (DFID, 2004:04). Table 2 indicates some of the risk reduction contributions towards meeting the MDGs:

MDG	Examples of what risk reduction can contribute
1. Eradicate extreme poverty and hunger	• DRR and MDG1 are interdependent. Reducing livelihood vulnerability to natural hazards is key both to eradicating income poverty and improving equity, and to improving food security and reducing hunger. Reducing disaster impacts on the macro-economy will promote growth, fiscal stability and state service provision, with particular benefits for the poor. • DRR and MDG1 share common strategies and tools: this overlap means that giving development more security from natural hazard can be very cost effective.
2. Achieve universal primary education	• In hazard-prone areas, the case for building schools and encouraging attendance becomes much stronger if buildings are safe and students and teachers are trained in emergency preparedness. Promoting safer structures may encourage better maintenance even in non-disaster times. • Reduced vulnerability will allow households to invest in priorities other than mere survival. Education is often a high priority. Girls (as 60% of non-attendees) may benefit disproportionately.
3. Promote gender equality and empower women	• Better risk reduction will help protect women from disproportionate disaster impacts. • Collective action to reduce risk by households and communities provides entry points for women (and other marginalised social groups) to organise for other purposes too, providing a catalyst for economic and social empowerment.
4. Reduce child mortality	• DRR will help protect children from direct deaths and injuries during hazard events (as exemplified in Box 5, p.24), and will lower mortality from diseases related to malnutrition and poor water and sanitation following disasters. • Health infrastructure and personnel in hazard-prone areas will be better protected. This may also promote better maintenance of infrastructure.
5. Improve maternal health	• Disaster-related illness and injury will be reduced. • Improved household livelihood and food security will lower women‘s workloads and improve family nutrition. • Health infrastructure and personnel in hazard-prone areas will be better protected. This may also promote better maintenance of infrastructure.
6. Combat HIV/AIDS, malaria and other diseases	• Public health risks, e.g. from flood waters, will be reduced, and nutrition and health status improved, boosting resistance to epidemic disease. • Fewer disasters will free up social sector budgets for human development. • Livelihood security will reduce the need to resort to work in the sex industry. • Community organisations and networks working in DRR are a resource for family and community health promotion, and visa versa.
7. Ensure environmental sustainability	• Reduced disaster-related migration into urban slums and reduced damage to urban infrastructure will improve urban environments. • An emphasis on governance for risk reduction and more secure livelihoods will help curb rural and urban environmental degradation. • Risk reduction partnerships that include community level actors and concerns will offer more sustainable infrastructure planning, and enable expansion of private sector contributions to reducing disasters. • Housing is a key livelihood asset for the urban poor. DRR programmes that prioritise housing will also help preserve livelihoods.
8. Develop a global partnership for development	• Creating an international governance regime to reduce risk from climate change and other disasters will help overcome disparities in national negotiating weight. • Efforts to build equal global partnerships for risk reduction will have particular relevance for small island developing states and HIPCs. • DRR initiatives could promote better public-private partnerships.
ALL MDGS	• Reducing disaster impacts will free up resources, including ODA, to meet MDGs.

Table 2.2: How DRR can contribute towards meeting the MDGs. (Source: DFID, 2004:35)

2.3.3 New Partnership for Africa Development (NEPAD) and African Union (AU)

DRR policies and institutional mechanisms do exist in specific African countries, albeit at various degrees of completeness. The effectiveness of the policies is in many instances limited, hence the need for a strategic approach to improving and enhancing their effectiveness and efficiency by emphasising DRR. The African Union (AU) and its New Partnership for Africa's Development (NEPAD) offers the opportunity to promote such a strategic change (AU/NEPAD, 2004:02).

The process for formulating a _continental' DRR strategy started with a NEPAD Workshop on Disaster Management in 2003 in Addis Ababa. The Workshop called for interventions to address issues of food security and disaster management in Africa. The outputs of the workshop were two-fold: (a) the need to develop a regional strategy on DRR; and (b) the need to develop a programme of action on DRR (AU/NEPAD, 2004:03).

The objective of NEPAD was to eradicate poverty and promote sustainable development. This included reducing livelihood and development risks on the continent arising from disasters and other threats. The need to address the issue of disasters comprehensively came to the fore during the process of developing NEPAD's operational programmes by the NEPAD Secretariat. This provided the impetus for the development of the Africa Regional Strategy for DRR. A decision was made to develop the Regional Strategy on DRR in two phases: (i) undertaking a baseline study to establish the status of DRR in Africa; and (ii) drafting the Regional Strategy on DRR. The Africa Regional Strategy for DRR will build on existing DRR institutions and programmes available in African countries and in the Regional Executive Communities (RECs), and aims to mainstream them into development so that they can better contribute to DRR (AU/NEPAD, 2004:04).

The AU/NEPAD and UN/ISDR approach of ensuring that DRR becomes an integral part of sustainable development on the continent aims to reduce the need for costly and short term humanitarian interventions. It, therefore, fosters

long-term food and livelihood security and human safety. The strategy will provide guiding principles on the linkages between DRR in all facets of development planning, including poverty reduction, environmental protection, water resources management, land use planning, infrastructure, gender issues, HIV/AIDS and other health issues, climate change adaptation and governance (NEPAD, 2004:01).

2.3.4 World Summit on Sustainable Development (WSSD)

The World Summit on Sustainable Development (WSSD) was held in Johannesburg, South Africa, in August- September 2002, 10 years after the UN Conference on Environment and Development, also known as the Rio Earth Summit. This summit provided a timely reminder to the international community that faulty development and inappropriate use of resources contribute to natural disasters (UN/ISDR, 2002:64).

The political statement adopted by the Heads of States clearly stated that natural disasters are a global challenge as they are more frequent and more devastating and developing countries are more vulnerable. Natural disasters were also recognized as posing a severe threat to sustainable development and therefore needed priority attention (UN/ISDR, 2002:64).

In the build up to the WSSD, a valuable paper was produced. This was an official Background paper No 5, ―Natural Disasters and Sustainable Development: understanding the links between development, environment and natural disasters", and was presented to the preparation committee in January 2002. It was compiled by the ISDR Secretariat in collaboration with experts, practitioners and many UN agencies, among them UNDP, UNEP, UN/Habitat, WMO, UN/DESA and UN/OCHA (UN/ISDR, 2002:02). This paper focused on risk assessment, education, community action and early warning and developed further ideas on the recommendations for the course of action, implementation and future commitments (UN/ISDR, 2002:02). However, the final document that emerged from the WSSD summit contained minimal reference to the cause, effect and reduction of vulnerability to disaster (Wisner *et al*, 2004:327).

2.3.5 ISDR Global Platform for DRR

In 2006, John Holmes, the UN Under-Secretary-General for Humanitarian Affairs, launched a consultative process to consider practical ways of strengthening the ISDR system to support governments in meeting their HFA implementation commitments. As outlined in the Secretary-General‘s reports on the implementation of the ISDR (60/180 and 61/229 respectively) the main aims were to extend participation of governments and organizations, raise the profile of disaster reduction, and construct a more coherent international effort to support national disaster reduction activities. A result of the consultations was the proposal to convene the Global Platform for DRR as an expanded and reformed successor to the Inter-Agency Task Force on DRR (IATF/DR). The Global Platform would serve as the primary multi-stakeholder forum for all parties involved in DRR in order to raise awareness on reducing disaster risk, share experience and guide the ISDR system (IISD, 2007:02).

The first session of the Global Platform for DRR (Global Platform) was held at the Centre International de Conférences de Genève, in Geneva, Switzerland on 5 – 7 June 2007. The conference was attended by representatives from over 120 governments, 64 UN specialized agencies and observer organizations, and 54 non-governmental organizations (NGOs). The meeting represented the primary multi-stakeholder forum for all parties involved in DRR and aimed to raise awareness on reducing disaster risk, share experience, and guide the ISDR system (UN/ISDR, 2007: 01).

2.3.6. International Strategy for Disaster Reduction (ISDR)

Although the aim of the International Decade for Natural Disaster Reduction (IDNDR) was to make significant reductions in the losses of life and material damage caused by disasters by the end of the decade, the statistics showed that despite the decline in the loss of lives, the number of disasters and related economic losses was in fact increasing. In many cases, such losses were due to a lack of coherent disaster reduction strategies by international and regional organisations, governments and decision makers and the development of

culture of prevention among the public at large (UN/ISDR, 2002:ix). The ISDR was established in 2000 to substitute the IDNDR structure.

The ISDR was adopted by United Nations Member States in 2000 and is owned by local, national, regional and international organisations. It is a system of partnerships with the overall objective to generate and support a global DRR movement to implement HFA, which was endorsed by the World Conference on Disaster Reduction in 2004 and by UN General Assembly and serves as the overall framework for implementing DRR (UN/ISDR, 2005:01).

The ISDR aimed at building disaster resilient communities by promoting increased awareness of the importance of disaster reduction as an integral component of sustainable development, with the goal of reducing human, social, economic and environmental losses due to natural hazards and related technological and environmental disasters (UN/ISDR, 2001:06). Recognising that natural hazards can threaten any person, the ISDR builds on partnerships and takes a global approach to disaster reduction, seeking to involve every individual and every community towards the goals of reducing the loss of lives, the socio-economic setbacks and the environmental damages caused by natural hazards (UN/ISDR, 2001:06).

The ISDR is the global platform for DRR and the main global forum for continued and concerted emphasis on disaster reduction. Open to all States and the complement of ISDR stakeholders, it serves primarily to assist and assess progress made in the implementation of the HFA. It also enhances awareness of DRR, share experiences, learn from good practice, identifying remaining gaps and necessary actions to accelerate national and local implementation (UN/ISDR, 2005:03).

The next section will discuss the VFL project and the HFA which are two main elements of the study.

2.4. VIEWS FROM THE FRONTLINE (VFL)

The Views from the Frontline (VFL) project was the first attempt to involve local stakeholders from government and civil society to measure progress towards implementing disaster prevention measures in countries. The project is implemented in several countries at the global level (VFL, 2008:01). The survey is based on the HFA priorities which were agreed upon by more than 168 countries around the world, including South Africa. VFL provides valuable opportunity by involving key stakeholders at the local level to participate in a global debate. By participating in this study, local stakeholders provide a different, yet alternative and complementary perspective, to the UN-ISDR coordinated monitoring process which will review progress on the HFA, primarily at the national level and from a top-down approach (VFL, 2008:01).

The VFL objectives are to provide an overview of progress within participating countries at the local level, strengthening public accountability for DRR policy execution by establishing a local level monitoring system and relevant baselines. Also to enhance civil society monitoring, research, analytical and advocacy capabilities by increasing dialogue and understanding between different groups responsible for reducing risk (GNDR, 2008:02).

VFL further serves to connect policy formulation at international and national level with the realities of policy execution at local levels. The results from this initiative should help establish a clear picture of progress and guide policy discussions to identify critical gaps and actions that will accelerate progress at the national and local levels (GNDR, 2008:02). The VFL perception is that at national level there has been investment in institutional framework, science and technology, and new policies and legislation for DRR. However, for people at the frontline trying to handle the practical consequences of vulnerability to disaster, national policy has not yet yielded the fruits of these investments on the ground. Likewise, this study should give a clear picture of whether the National, Provincial and Municipal policies and legislation like the Disaster Management Act (DMA), Disaster Management Framework (DMF), Disaster Management Plans (DMPs) and Integrated Development Plans (IDPs) are

actually yielding results of these investments in the Kabokweni Community. The VFL perspective is that the impact of the HFA must be on the ground where people at risk live, eat and work. There is a need to establish a clear picture of progress at local government or affected communities interface (GNDR, 2008:13).

Another major perspective is that resources are scarce and considered one of the main constraints to progress, but there are also resources at local level which remain untapped. The key to unlocking these resources is through adopting participatory approaches that build partnerships between local actors and place-at-risk people at the centre of the process of decision-making and action. Civil society, particularly grass-roots women's groups, can play a critical role in facilitating this community engagement (GDNR, 2008:04; Lunga, 2008:13).

Development and disaster reduction agendas promote civil society participation with equal vigour. Civil society participation in development and disaster reduction can come in two ways. First, it takes the form of democratic priority setting and monitoring of implementation at the national scale. However, there is a second important manifestation of civil society participation. This takes the form of decentralized "community based' or "citizen based' natural resource management, hazard mitigation and planning, and livelihood enhancement activities (Wisner, 2003:05).

Civil society participation is surely a centre-piece of both development and risk reduction thinking, but the question that constantly has to be asked by authorities is, "how much is actually being implemented?", and "how effective in shifting government policies are citizen-based lobbies?" (Wisner, 2003:4-5).

The importance of undertaking hazard mapping and risk assessment with the involvement of the community is critical to help raise awareness and knowledge, maintain momentum on DRR, and to improve relationships between local and national organizations (UN/ISDR, 2006:05).

There is a clear consensus by the risk reduction community that a multi-hazard approach to early warning systems is the best way to move forward, while recognising that different hazards often require individual preparedness and response strategies. The need for involvement and empowerment of local communities, or a ‗bottom-up approach' consistently emerges. Utilising existing community structures and systems is stressed, along with the need for active involvement of people most likely to be exposed to hazards in all aspects of the early warning chain (UN/ISDR, 2006:15).

Local civil society groups (including the local churches), have the right to engage in political debate in order to influence policy on behalf of the poorest members of the community. Good government policies are based on experience and knowledge of the activities that are successful and those that are not. Community Based Organisations (CBOs) and Non-Governmental Organisations (NGOs) have a wealth of experience of project implementation and working with communities that should be shared (La Trobe & Faleiro, 2007:12).

Achievement of the HFA requires greater participation from civil society at all levels, including representatives of female, vulnerable and high-risk groups. All stakeholders, including government, business and civil society, need to work together if goals and targets are to be reached. CBOs and NGOs can enable the voices of poor people to be heard by those in power. Grass roots leaders who have developed effective risk reduction approaches should participate in local and national dialogues about policy. CBOs and NGOs are also in a good position to raise awareness amongst communities of the importance of DRR (La Trobe & Faleiro, 2007:12).

The above discussion has been focused on some of the international conventions and structures that promote DRR and the importance of integrating DRR into development planning and the VFL's objectives and perspectives. The following discussion will give an explanation of the HFA and also elaborate on objective and the priority guidelines which are the main focus of the study. The purpose of this discussion is to make policy makers, institutions and specialist involved in the implementation of both the HFA priorities and development to be fully aware of the need to integrate DRR strategies especially at local level.

2.5 HYOGO FRAMEWORK FOR ACTION

One of the primary purposes of the ISDR is to assess progress made in the implementation of the HFA. The HFA declaration came about in January 2005, when168 Governments adopted a 10 year plan to make the world safer from natural hazards. This took place at the World Conference on Disaster Reduction, held in Kobe, Japan. At this conference the governments committed themselves to take action to reduce disaster risks and adopted guidelines to reduce vulnerabilities to natural hazards called the Hyogo Framework for Action 2005-2015. This conference also provided a unique opportunity to promote a strategic and systematic approach to reducing vulnerabilities and risks to hazards. The conference also underscored the need for, and identified ways of, building the resilience of nations and communities to disasters (UN/ISDR, 2005:01).

The HFA provides a foundation upon which DRR initiatives should be built. It takes into account the complexity of action in DRR and the large variety of actors whose inputs are required in the pursuit of this objective. It provides the basic concepts and prescribes an expected outcome; details three strategic goals for DRR and a set of priorities for action; and assigns tasks to stakeholders at different operational levels to reach the expected outcome (UN/ISDR, 2005:3-4). The three strategic goals are:

- More effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction;
- The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards;
- The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Drawing on the conclusions of the review of the Yokohama Strategy and on the basis of deliberations at the World Conference on Disaster Reduction and especially the agreed expected outcome and strategic goals, the World Conference on Disaster Reduction adopted five HFA priorities for action. These priorities will be discussed next in order to present the HFA priority guidelines in the context of DRR Framework.

2.5.1 Priority 1: Make Disaster Risk Reduction a Priority

Ensure that DRR is a national and local priority with a strong institutional basis for implementation (UN/ISDR, 2007:07).

Implementing and achievement of priority one requires fostering political commitment and community participation in DRR, and developing or strengthening the institutional, legislative and operational mechanisms for DRR. It involves integrating DRR into development planning and decentralizing responsibilities where necessary. It also calls for assessing human and financial needs, and allocating the necessary resources (UN/ISDR, 2007:07).

DRR legislation is fundamental for the enhancement of human security. It is the first step in mainstreaming DRR into development. Legislation provides the framework from which risk reduction activities can be incorporated into development and reconstruction activities. Legislation can be used to provide penalties and incentives by enforcing standards in construction, land use, tenant‘s rights and by defining people‘s rights during relief and reconstruction (Pelling & Holloway, 2006:07). Legislation can also empower agencies with new responsibilities for risk reduction or establish new bodies to advise or undertake risk reduction work. Budget lines as well as policy remits can be set by legislative acts. The legislative process should be a constructive period for generating informed support for DRR among the policy community and those who will be entrusted with implementation (Pelling & Holloway, 2006:07).

Since the late 1990s, there has been increasing recognition of the need to ‗mainstream‘ DRR into development. Generally, as already mentioned in the problems statement the term ‗mainstreaming‘ signifies the modification of a

specific type of core work of an organisation (e.g. modification of the social housing activities of a specialised development organisations) in order to take into account a new aspect (e.g. of DRR) and to act indirectly upon it. For instance modifying the houses to better quality and standard or retrofitting them will denote mainstreaming DRR into the housing project. „Mainstreaming" does not mean to completely change an organisation's core functions and responsibilities, but instead to view them from a different perspective and to make any necessary modifications/amendments, as appropriate (Wamsler, 2009:62). The aim of mainstreaming in programme activities, is adapting core work in order to ensure that it is relevant to the challenges presented by natural disasters, by firstly, not increasing risk as a result of programme activities and, secondly, if possible, maximise its positive effects on reducing risk (Wamsler, 2009:15).

Countries that develop policy, legislative and institutional frameworks for DRR and that are able to develop and track progress through specific and measurable indicators have greater capacity to manage risks and to achieve widespread consensus for engagement in, and compliance with, DRR measures across all sectors of society (UN/ISDR, 2005:06).

The active commitment and leadership of a local government is important for the implementation of any local DRR measures to deal with different stakeholders and multiple layers of government. In many cases, a comprehensive DRR measure takes a long time to be fully implemented, and the leadership of the local government is particularly crucial to ensure the political momentum and support among external stakeholders throughout the process (UN/ISDR/ITC/UNDP, 2010:ix). The implementation of national risk reduction legislation takes place at the local level. For this reason, it is important that local government is given budgetary and human skills support as well as taking responsibility for risk reduction. Good practice in this regard is reported from Finland, New Zealand, the Philippines and Russia (Pelling & Holloway, 2006:09).

The implementation of DRR measures requires political support, financial underpinning and the engagement of all actors involved like civil defence, emergency services, local government, private sector and civil society. Turkey, Iran and China are examples of countries with, for instance, excellent building codes, but barriers to implementation mean that many buildings remain at risk, including those recently constructed (Pelling & Holloway, 2006:14). Implementation can be made more achievable by connecting risk reduction aims to existing policy concerns such as those related to the MDGs and Poverty Reduction Strategy Papers (PRSPs). PRSP describe a country's macroeconomic, structural and social policies and programs to promote growth and reduce poverty, as well as associated external financing needs. PRSPs are prepared by governments through a participatory process that involves civil society and development partners, including the World Bank and the International Monetary Fund (IMF). There are five core principles underpinning the development of poverty reduction strategies, namely: (i) Country driven - involving broad-based participation by civil society and the private sector in all operational steps; (ii) Results oriented - focusing on outcomes that would benefit the poor; (iii) Comprehensive in recognizing the multidimensional nature of poverty; (iv) Partnership oriented - involving coordinated participation of development partners (bilateral, multilateral, and nongovernmental); (v) Based on a long-term perspective for poverty reduction (BWP, 2003:04). It is advisable also as mainstreaming principle that PRSPs should build on existing national plans when possible, because for example Uganda and Mozambique have succeeded in re-presenting their existing plans as a PRSP, however, these have often been overlooked in the new process (BWP, 2003:04). So PRSPs offer a potential mechanism for raising the profile of DRR policy to reinforce implementation (Pelling & Holloway, 2006:14).

2.5.2. Priority 2: Know the Risks and Take Action.

Identify, assess and monitor disaster risks and enhance early warnings (UN/ISDR, 2007:32).

Public awareness and the creation of widespread understanding about disaster reduction have always been crucial elements in risk management strategies (UN/ISDR, 2004:282). Local governments often lack sufficient knowledge about disaster risks and vulnerabilities of their communities as well as appropriate DRR measures. Knowledgeable partners, such as academic institutions, can help local governments understand reduction measures, in order to better plan and manage local disaster risks (UN/ISDR/ITC/UNDP, 2010:x).

It is of utmost importance that public awareness programmes are designed and implemented with a clear understanding of local perspectives on knowing risks and taking action to address them. National, provincial and local institutions should target all sections of society, including decision-makers, educators, professionals, members of the public and individuals living in threatened communities. Different types of messages, locations and delivery systems are necessary to identify risks and to reach the various target audiences (ISDR, 2004:282).

Risk assessment and the analysis of hazards, vulnerabilities and capacity of communities are crucial in order to determine the nature and extent of risk. Risk assessments must recognise the importance of local knowledge built on people's experience of disasters and of vulnerable people taking the lead in addressing their vulnerabilities. This helps in ensuring that people's rights are upheld despite the circumstances brought on by disasters (IFRC, 2007:06).

Risk assessment and mapping will help to set priorities among early warning system needs and to guide preparations for response and disaster prevention activities. Risk assessment could be based on historic experience and human, social, economic and environmental vulnerabilities. A sound scientific basis for predicting potentially catastrophic events is required. Constant monitoring of

possible disaster precursors is necessary to generate accurate warnings on time (De Leon *et al*, 2006:24).

Clear understandable warnings regarding risk situations must reach those at risk in time. For people to understand the warnings they must contain clear and, useful information that enables proper responses. National, regional, and community level communication channels must be identified in advance and one authoritative voice established (De Leon *et al*, 2006:24).

It is essential that communities understand their risks, respect the warning service and know how to react in times of crises. Establishing a prepared community requires the participation of the community, and also formal and informal education sectors, in addressing the broader concept of risk and vulnerability (De Leon *et al*, 2006:24).

However, it is unfortunate that many developing countries, in particular the least developed among them, have limited capacities for effective early warning systems, and in some cases such systems are virtually non-existent (De Leon *et al*, 2006:25). Key requirements are the development of national integrated risk reduction and risk management capabilities, improved technical equipment and training. By considering hazards and vulnerabilities with a view to reducing risk, it should be possible to increase the effectiveness within institutions and the efficiency of outgoing actions, and public preparedness for early warning systems (De Leon *et al*, 2006:25).

Even with the developed countries, where systems are able to issue warnings for a number of natural hazards are in place, the frequent problem, however, is the weak linkage between the technical capacity to issue the warning and the public‘s capacity to respond effectively to the warning. This is the capacity of the warning to trigger the appropriate response by emergency management agencies, community-based organizations and the public at large (UN/ISDR, 2006:24).

Effective early warning systems require strong technical understanding and good knowledge of the risks. They must be highly people-centered; with clear

messages. Dissemination systems should be able to reach communities at risk and knowledgeable responses must be practised by risk managers and the public. Public awareness and education are critical; and as many as possible public and private sectors must be involved in these processes. Effective early warning systems must be established in an understandable manner and must be relevant to the communities which they serve (De Leon *et al*, 2006:25).

The power of knowledge was demonstrated at a tourist resort near Phuket, Thailand, where a young British school girl recognised that the turbulent sea and loud noise of the waves meant a tsunami was coming. She alerted her parents and other people present of the danger, which possibly resulted in saving hundreds of lives (Briceno, 2006:09*).* The girl was able to recognise the signs because she had recently learned about tsunamis in classes at her school. Education, whether formal or informal, empowers people by providing a sound basis for understanding, and action to read warning signs of coming disasters timorously (De Leon *et al*, 2006:25).

A complete and effective ~~p~~people-centered" early warning system should consist of four inter-related elements (See figure 2.3), spanning knowledge of hazards and vulnerabilities through to preparedness and capacity to respond. A weakness or failure in any one of these elements could result in the failure of the whole warning system. Best practice early warning systems also have strong inter-linkages between all elements in the chain. The objective of people-centred early warning systems is to empower individuals and communities threatened by hazards to act in sufficient time and in an appropriate manner to reduce the possibility of personal injury, loss of life and damage to property and the environment (UN/ISDR, 2006:02).

Figure 2.3 indicates the summary of the four elements of an early warning: risk knowledge; technical monitoring and warning service; communication and dissemination of warnings; and community response capability. It also briefly gives reasons why each element is important.

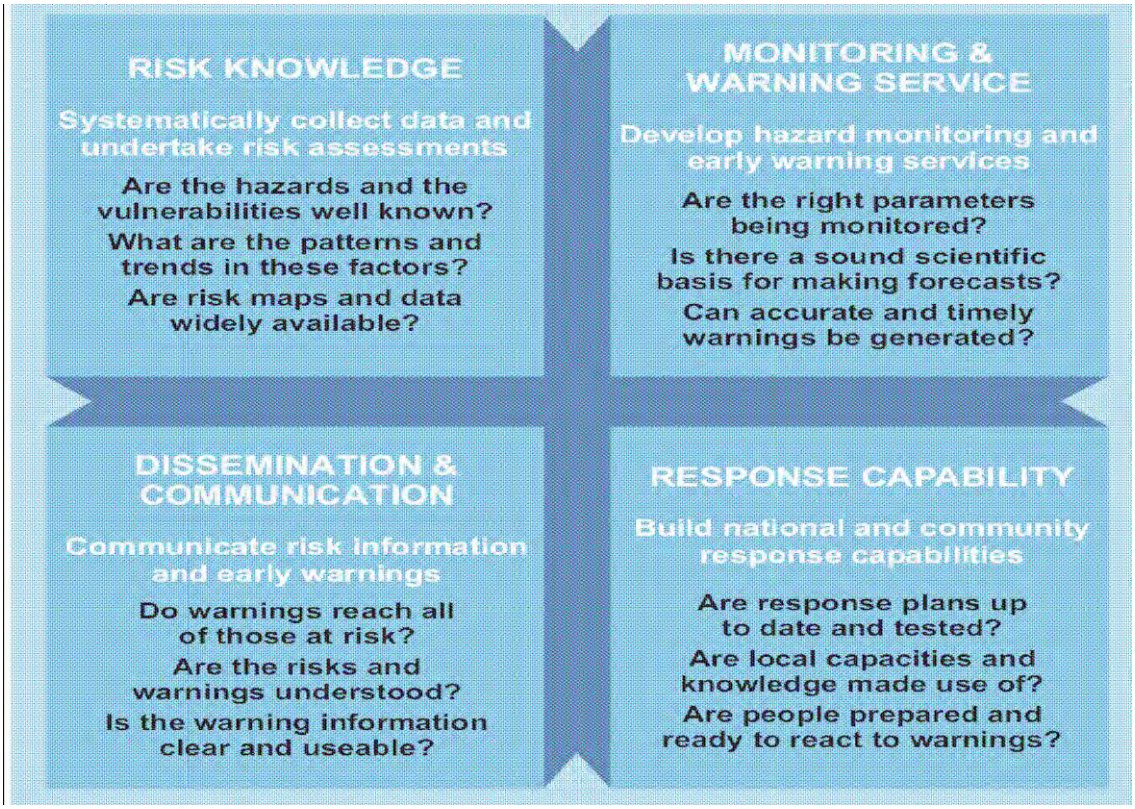

FIGURE 2.3: FOUR ELEMENTS OF PEOPLE CENTRED EARLY WARNING SYSTEM. (SOURCE: UN/ISDR, 2006:02)

Good early warning systems must have strong linkages between these four elements. The role players concerned with the different elements will have to meet regularly to ensure that they understand all of the other components and what other parties need from them. Risk scenarios are also constructed and reviewed. Specific responsibilities throughout the chain are agreed and implemented. Past events are studied and improvements are made to the early warning system. Manuals and procedures are agreed and published. Communities are consulted and information is disseminated. Operational procedures, such as evacuations are practised and tested. Behind all of these activities there should be a solid base of political support, laws and regulations, institutional responsibility, and trained communities (UN/ISDR, 2007:01).

2.5.3. Build Understanding and Awareness

Use knowledge, innovation and education to build a culture of safety and resilience at all levels (UN/ISDR, 2007:57).

Public awareness should be followed by informed action as a key requisite to reduce vulnerability and to develop resilient households, localities and communities. Public awareness is needed to the point where individuals will be prepared to take action to promote safety, which may not always be in their own interests (Wisner *et al*, 2004:330).

The first risk reduction objective theory is understanding and communicating the nature of hazards, vulnerabilities and capacities (Wisner *et al*, 2004: 330). This aspect entails the acquisition of knowledge concerning these elements. When these elements are understood, the next step should be to build capacities that allow patterns in daily life to change in ways that increase personal and social protection (Wisner *et al*, 2004:331).

Levels of risk awareness depend largely on the quantity and quality of available information and on the difference in people‘s perceptions of risk. People are more vulnerable when they are not aware of the hazards that pose a threat to their lives and property. Risk awareness varies among individuals, communities and governments, according to their particular perceptions. These can be influenced by the knowledge of hazards and vulnerabilities, as well as by the availability of accurate and timely information about them (ISDR, 2004:36).

Disasters can be reduced substantially if people are well informed about measures they can take to reduce vulnerability - and if they are motivated to act positively (UN/ISDR, 2007:03). Key activities to increase awareness of disaster prevention, include (i) providing relevant information on disaster risks and means of protection, especially for citizens in high-risk areas, (ii) strengthening networks promoting dialogue and cooperation among disaster experts, technical and scientific specialists, planners and other stakeholders, and (iii) including DRR subject matter in formal and informal education and training activities will also improve societies level of awareness. One of the important activities is

developing or strengthening community-based disaster risk management programmes; and working with the media in DRR awareness activities (UN/ISDR, 2007:03).

As the first line public service provider and communicator (interface) with citizens, local governments are naturally situated in the best position to raise citizens‘ awareness of disaster risks and to listen to their concerns. Even the most sophisticated national DRR measures (such as early warning systems) may fail, if communities are not properly informed and engaged in disaster reduction activities. Local governments should therefore play a central role in community education and training (UN/ISDR/ITC/UNDP, 2010:x).

2.5.4. Priority 4: Reduce Risk

Reduce the underlying risk factors (UN/ISDR, 2007: 81).

Risk reduction strategies should focus on removing the root causes of the vulnerability, rather than curing the symptoms. The Pressure and Release Model (PAR) is based on the theory that a disaster is the intersection of two opposing forces. This implies that these two processes are different sides of a coin and they generate vulnerability on one side and the natural hazard on the other (Wisner *et al*, 2004:50). This model should be used when planning for risk reduction, since it addresses or concentrates on reducing or eliminating the root causes or underlying factors that lead to the vulnerabilities and not only concentrate on removing the vulnerability symptoms generated by the root causes.

In most instances, unsafe buildings and a lack of enforcement of building codes often cause more deaths than natural hazards themselves. Nevertheless, this can be prevented or mitigated by applying building standards to protect critical infrastructure such as schools, hospitals and homes. Vulnerable buildings must be retrofitted to a higher degree of safety (UN/ISDR, 2007:04).

Countries can build resilience to disasters by investing in simple, well-known measures to reduce risk and vulnerability. Disaster can be reduced by

strengthening relevant and existing programmes such as the sustainable use and management of ecosystems, land use and natural resources, integrating DRR strategies and climate change. It calls for promoting food security for resilience, integrating DRR planning into the health sector and promoting safe hospitals. Protecting critical public facilities and implementing recovery schemes and social safety nets is also necessary. In addition, it also involves promoting income diversification options, promoting financial risk-sharing mechanisms and establishing public-private partnerships. Finally, it requires integrating disaster risk considerations in land-use planning and building codes, and incorporating disaster risk assessment in rural development plans (UN/ISDR, 2007:81).

Another more critical initiative of reducing underlying risk factors is to collaborate four distinct research and policy communities that are all trying to achieve one goal, which is reducing the socio-economic vulnerabilities and building resilient communities. These international strategies are: (i) disaster reduction, (ii) climate change adaptation, (iii) environmental management and (iv) poverty reduction. These communities have largely developed and operated independently from each other. Calls for better collaboration are increasing and there is an emerging perceived need to learn from one another and to identify opportunities to develop a joint agenda (Thomalla *et al*, 2006: 39).

The Intergovernmental Panel on Climate Change (IPCC) defines climate change adaptation as: ‚An adjustment in natural or human systems in response to actual or expected climate stimuli or their effects, which moderates harm or exploits benefit opportunities" (IPCC, 2000:01). The IPCC studies predict that climate change – contributed to by human activities will increase and intensify the extension of natural events and exacerbate the underlying risk many developing countries are already facing (UNESCO, 2009:01).

Adaptation and DRR have very similar aims in terms of seeking to build resilience in the face of hazards. They both focus on reducing people‘s vulnerability to hazards by improving methods to anticipate, resist, cope with and recover from their impact. In so doing, climate change adaptation clearly focuses on climate-related hazards, such as floods, droughts and storms. Importantly, both adaptation and DRR seek to build resilience to hazards in the

context of sustainable development. Climate change adaptation requires the re-shaping and re-designing of development, social and economic practices to respond effectively to new or anticipated environmental changes. Likewise DRR seeks to influence development decision-making and protect development aspirations from environment-related risks (Venton & La Trobe, 2008:04).

The effectiveness of both adaptation and DRR are limited if they are not viewed within the broader context of sustainable development. In seeking to increase poor people‘s resilience to climate change and disasters, enabling local communities to participate in adaptation and DRR decision-making is crucial. Such an approach has long underpinned community-based disaster risk management. This approach must also underpin adaptation efforts, if adaptation is to be effective at the local level where impacts are most acutely felt (Venton & La Trobe, 2008:04).

Addressing underlying risk factors is critical for effective poverty and vulnerability reduction. Underlying risk relates to the interaction of a range of factors, including globalisation processes, demographic trends, economic development and trade patterns, urbanisation, discrimination and limited local and national government capacity. These have an impact on exposure and vulnerability to hazards. In this context, all local and global issues that change risk patterns and increase vulnerabilities are relevant to adaptation and DRR. In principle, both adaptation and DRR aim to address such macro-level influences. However, in practice, perspectives on underlying risk do not yet go deep enough into the social, economic and political realms where risk is generated for the poor and most vulnerable. As such, a shared challenge for the climate change and disaster risk management communities is to ensure that adaptation and DRR commonly address root causes of risk, not merely symptoms (Venton & La Trobe, 2008: 05).

States can undertake a number of tasks to implement this priority. They can implement some of the following strategies (UN/ISDR, 2008:81): *Environment*; incorporate DRR in environmental and natural resources management. *Social needs*; establish mechanisms for increasing the resilience of the poor and most vulnerable. *Physical planning*; establish measures to incorporate DRR in urban

and land-use planning. *Structures*; strengthen mechanisms for improved building safety and protection of critical facilities. Stimulate DRR activities in production and service sectors. *Financial/economic instruments*; create opportunities for private-sector involvement in DRR. *Disaster recovery*; develop a recovery planning process that incorporates DRR.

These are some examples of mainstreaming DRM that could be implemented by key government sectors (ADPC, 2006:14):

Agriculture

- Promoting programmes of contingency crop planning; crop diversification;
- Supplementary income generation from off-farm and non-farm activities;
- Effective insurance and credit schemes to compensate for crop damage and loss to livelihood;

Environment

Environmental protection, natural resource management and climate change policies include DRR elements.

Urban Planning and Infrastructure

- Introducing Disaster Risk Impact Assessments into the construction of new roads and bridges;
- Promoting the use of hazard risk information in land-use planning and zoning programmes;

Housing

- Promoting the increased use of hazard-resilient designs in rural housing in hazard-prone areas;
- Utilization of national building codes; and the compliance and enforcement of local building laws in urban and hazard prone areas;

Financial Services

- Incorporating flexible repayment schedules into micro finance schemes;
- Encouraging financial services and local capital markets to finance DRM measures;

Education

- Introducing DRM modules into the school curriculum;
- Promoting hazard resilient construction of new schools;
- Introducing features into schools for their use as emergency shelters;

Response and recovery

Develop a disaster response and recovery planning process in which the underlying causes of disasters in the recovery and reconstruction effort are addressed, in order to build resilience and avoid the reconstruction of risks after disaster events (UN/ISDR, 2007:116).

2.5.5. Priority 5: Be prepared and ready to Act

Strengthen disaster preparedness for effective response at all levels (UN/ISDR, 2007:121).

No matter how well we plan to prevent disasters there is always a chance that disasters will occur. Natural hazards cannot be prevented, but it is possible to reduce their impacts by reducing the vulnerability of people and their livelihoods (UN/ISDR, 2007:04). However, effective preparedness plans and organization also help to cope with the many small and medium-sized disasters that repeatedly occur in so many communities. At times of disaster, impacts and losses can be substantially reduced if authorities, individuals and communities in hazard-prone areas are well prepared and ready to act and are equipped with the knowledge and capacities for effective disaster management (UN/ISDR, 2007:121).

A disaster preparedness plan and programme should cover the assessment and strengthening of existing policy as well as the technical and institutional capacities. The plan should comprise the strengthening of management and coordination structures (including agreements with other countries); mechanisms for the coordination and exchange of information and early warnings. As an element of the plan, contingency planning and response readiness, such as evacuation and standby arrangements for the provision of essential services and supplies and the periodic review, rehearsal and

modification of the plan with the active participation and ownership of relevant stakeholders, including communities at risk are essential (UN/ISDR, 2007:121). Furthermore, the plan should also include the promotion of the establishment of emergency funds, where and as appropriate, to support response, recovery and preparedness measures. It should also develop specific mechanisms to engage the active participation and ownership of relevant stakeholders, including communities, involved with DRR, in particular building on the spirit of volunteerism (UN/ISDR, 2005:16). Regular disaster preparedness exercises, including evacuation drills, are also key to ensuring rapid and effective disaster response (UN/ISDR, 2007:04).

The discussion in this chapter focused mainly on the DRR theory, and briefly discussed the international conventions and protocols that have been developed to contribute to DRR including the HFA priorities. In the next chapter the focus will be on the risk reduction initiatives in South Africa. It will concentrate on discussing the NDMF which mandates the four disaster risk management key performance areas and the enablers that are in line with HFA priorities.

2.6 CONCLUSION

This chapter demonstrated DRR as a phenomenon and is increasingly recognised globally that it should be an integral component of development planning. DRR is discussed in the context of sustainable development as an element of achieving development goals like those contained in the MDGs. It further demonstrated that disasters risk reduction can have a positive impact, whereas disasters will naturally have a negative impact on the MDGs.

It pointed out how NEPAD offers an opportunity to promote DRR strategies. The WSSD in Johannesburg in 2002 provided a timely reminder that faulty developments and inappropriate use of natural resources contributes to natural disasters. The Global Platform for DRR which presented an opportunity for participation by governments and organisation to raise the DRR profile was also discussed. It further elaborated on the ISDR adoption by the United Nations Members States and its vision and mission. The ISDR also gives support to the effective implementation of the HFA priorities.

The VFL perspective which is the focus of the study is discussed. This project involves local government, civil and community organisation in measuring progress made in the implementation of the HFA priorities at local level.

Lastly the chapter discussed the HFA which aims at assisting nations in their efforts and endeavours in building resilient cities and enabling communities to cope with hazards that threaten their development gains. The HFA was endorsed by the General Assembly and committed governments to five priorities for action, which were to: (i) ensure that DRR is a national and a local priority with a strong institutional basis for implementation; (ii) identify, assess and monitor disaster risks and enhance early warning; (iii) use knowledge, innovation and education to build a culture of safety and resilience at all levels; (iv) reduce the underlying risk factors; and (v) strengthen disaster preparedness for effective response at all levels.

The following chapter will focus on the Disaster Risk Management (DRM) in the South African Context. It will outline the disaster risk management policies, processes and initiatives embarked upon by the South African Government that are in line with the HFA priorities.

Chapter 3

3 SOUTH AFRICAN DRR INITIATIVES IN LINE WITH HFA PRIORITIES

3.1 INTRODUCTION

This chapter focuses on the South African DRR initiatives, and briefly outlines the requirements and mandates of the DRR legislation and policies. It also gives a detailed discussion of the key performance areas (KPAs) and enablers as mandated by the NDMF policy which should be implemented in accordance with the HFA priorities. The KPAs discussed are: integrated institutional arrangement; disaster risk assessment; DRR; response and recovery and the enabler relevant to HFA priorities is education, training public awareness and research.

Since 1994 the South African government‘s approach to dealing with disasters has changed significantly (Van Niekerk, 2006:95-96; Pelling & Holloway, 2006:04). The change in apartheid legislation governing disasters was driven by several factors. One of the key factors that contributed to the repealing of the Civil Protection Act (67/1977) was the need to bring the law into the modern era so that it would be in line with international best practice in the field of disaster risk management (Pelling & Holloway, 2006:04). In addition, the government intended to systematically mainstream DRR into developmental initiatives at national, provincial and municipal levels (ISDR, 2004:102).

The reform process was initiated shortly after South Africa‘s first democratic election in 1994. The Disaster Management Act (57/2002) was finally promulgated on the 1st January 2002. It became operational from the 1st April 2004 for provincial departments and 1st July 2004 for municipalities (ISDR, 2004:102; Pelling & Holloway, 2006:04; Van Niekerk, 2005 & 2006).

The adoption of the HFA spurred the design and implementation of myriad DRR activities worldwide. Several governments, UN agencies and regional organisations have already embarked on redefining national plans and strategies and setting up promotional campaigns and institutional plans for further action (UN/ISDR, 2005:03). The South African government is no

exception, and it has developed legislation and policies that aimed for an integrated approach in reducing risks.

The South African government also intended to systematically mainstream DRR into developmental initiatives at national, provincial and municipal levels. Therefore, the new legislation is aligned with the overriding principle of the HFA, which is for DRR (DRR) policies and programmes to be cascaded and implemented at local level across developing countries and regions (VFL, 2009:01). The benchmark legislation on disaster risk management in South Africa is the Disaster Management Act (57/2002), which aims to achieve an integrated and co-ordinated approach to disaster management by focusing on the prevention or reduction of disaster risks. Since the DMA became operational, national, provincial and municipal governments are obliged to ensure that the requirements of the DMA are achieved. The key requirements of the DMA are:

i) The development of Disaster Management Frameworks
ii) The establishment of Disaster Management Centres
iii) The establishment of Disaster Management Forums
iv) The development of Disaster Management Plans

3.2 THE NATIONAL DISASTER MANAGEMENT FRAMEWORK

For the purpose of this Chapter, the focus will be on the DMF because it is the policy that mandates the implementation of the four KPAs and three enablers which are in line with the five HFA priorities. The NDMF outlines appropriate policy on disaster management for the Republic of South Africa. This framework keeps in mind the types of disasters and hazards that can occur in the whole of Southern Africa, as well as the severity thereof. It also guides the development and implementation of the concept of disaster management (Van Niekerk, 2006:103).

Section 42 of the DMA requires that each municipality establish and implement a municipal DMF aimed at ensuring an integrated and uniform approach to disaster management in the municipality by all municipal organs of state, municipal statutory functionaries, non-governmental organisations and the

private sector involved in disaster management. The municipal DMF must be consistent with the provisions of the DMA and the National and Provincial DMFs.

As stated earlier, the NDMF comprises four KPAs and three enablers. The first KPA deals with issues relating to integrated institutional capacity for disaster risk management, the second one addresses the issues of conducting disaster risk assessment that produces risk profiles, while the third deals with the issue of addressing or reduction of the risks identified and indicated by the risk profile. The last KPA deals with recovery and response, which issues would be the response rendered in trying to mitigate the impacts of a disaster.

The three enablers which are drivers or accomplishers to the KPAs are; first, information and communication management, while the second enabler focuses on education, training, public awareness and research. The last enabler is the funding arrangement for disaster risk management. Figure 3.1 below illustrates the relationship between the four KPAs and the three enablers as outlined by the NDMF. The enablers are actually the tools used to achieve the key performance areas; and these KPAs actually constitute the whole disaster risk management programme in South Africa. Without these enablers disaster risk management programme would not be achieved.

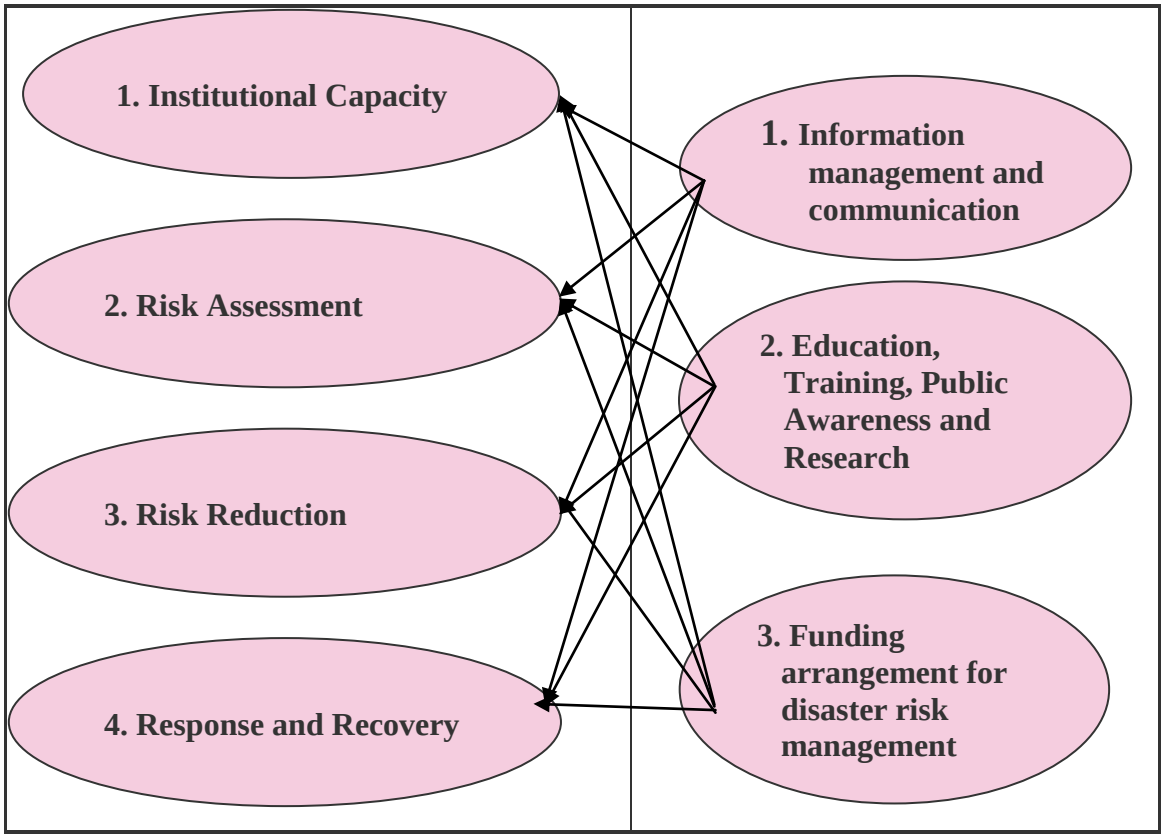

Figure 3.1: Relationship between the four KPAs and the three enablers*. *Source: Disaster Management Solutions (DMS), 2006

The NDMF indicates that a municipal disaster management framework must have four key performance areas and three enablers. For the purpose of this study only the four KPAs and enabler two; that is specifically in line with the HFA priorities, will be discussed. The other enablers are encompassed within the other priorities.

3.2.1 KPA 1: Integrated Institutional Capacity for Disaster Risk Management

The objective of KPA 1 is the establishment of an integrated institutional capacity to enable the effective implementation of disaster risk management policy and legislation. This involves the establishment of institutional arrangements that will ensure an integrated and co-ordinated implementation of disaster risk management policies and legislation by applying the principles of cooperative governance. An emphasis is placed on the establishment of arrangements that will ensure the involvement of all the stakeholders in disaster risk management in order to strengthen all organs of the state (DMS, 2006).

In this instance capacity building involves the process and means through which national, provincial, local governments and local communities develop the necessary skills and expertise to manage their environment and natural resources in a sustainable manner. Institutions and communities, which execute policy decisions, must be educated and trained on how to locally optimize disaster reduction measures in order to handle such risks (UNESCO, 2009: 01).

Since the risks communities face are so diverse and complex, there is a need for all three spheres of government to establish structures that will give them the capacity to deal with the risks they face. These structures will give the communities the capacity to deal with the risk faced and serve as vehicles whereby political will for disaster management and integration thereof into development projects can be promoted. Good governance of the development process is a requisite condition for effective governance of DRR programmes (AU/NEPAD/UN/ISDR, 2004:13). Therefore, governments should demonstrate their commitment by improving governance structures and processes (AU/NEPAD/UN/ISDR, 2004:09).

According to the South African Disaster Risk Management Handbook Series, KPA 1 can be achieved by putting in place all institutional arrangements that will enable the implementation of all the other key performance areas and enablers. This involves the establishment of a Disaster Management Centre (DMC) where all disaster management centre programmes and activities should be co-ordinated from, with special emphasis on prevention and mitigation of disaster.

Another requirement of the DMA is establishing arrangement for the development and adoption of an integrated disaster risk management policy (Disaster Management Framework: 2005) and establishing integrated direction and implementation of disaster risk management policy Disaster Management Act (57/2002). Another prerequisite is the development of a disaster risk management plan. A disaster risk management plan is a detailed document indicating how the disaster management programme will be implemented or executed by the organ of state. It specifies the way in which the concept and principles of disaster risk management are to be applied in its functional area Disaster Management Act (57/2002). Furthermore, there should be an

establishment of stakeholder participation forum for primary and secondary disaster risk management planning where responsibilities are to be assigned to each stakeholder in terms of planning and execution, and for the engagement of technical advice in disaster risk management operations.

An Intergovernmental Committee on disaster management should be established in all three spheres of government, preferably in accordance with the provision of Section 21 of the Inter Governmental Relations Framework Act (13/2005). This is a political structure. It is essential in the South African context because it gives the implementation of the disaster risk management programme a fair chance of success if driven from a political level. For any programme or initiative to succeed, firstly political support must be gained. Political circumstances shape and direct which new legislation reforms succeed or fail (Pelling & Holloway, 2006:09). Successful legislation reform requires the collaborative action of a range of political actors (Pelling & Holloway, 2006:11).

Over and above the Intergovernmental Commitee, it is advisable or recommended that an Interdepartmental Disaster Risk Management Committee (IDRMC) should be established. This committee should consist of key personnel who have technical and other relevant expertise and are part of the disaster risk management stakeholders (SA & Reid, 2008). The main mandate of this committee would be to establish a mechanism for developing and applying integrated risk management policy, planning and practice among municipal organs of state (SA & Reid, 2008). Furthermore, a disaster management advisory forum should also be established. The Advisory Forum is a body where all spheres of government and external role players consult and coordinate their actions. It also plays an advisory role to the Executives of National, Provincial and Local Councils according to sections 6, 28 and 42 of the Disaster Management Act (57/2002).

Table 3.4 indicates the relationship between the DMF, DMP, DMC and involvement of all role-players.

INPUTS AND CO-PLANNING BY: ORGANS OF STATE ADVISORY FORUMS IDRMC VOLUNTEER UNITS THE PRIVATE SECTOR NGOS/CBOS THE COMMUNITIES	**STRATEGIC MANGEMENT**
	Disaster Management Framework (Strategy and policy for handling disasters)
	TACTICAL MANAGEMENT
	Disaster Risk Management Plan (Tactical plan to execute the prevention, mitigation and handling of disasters)
	OPERATIONAL MANAGEMENT
	Disaster Management Centre (Implementing the mitigation, prevention and handling disasters through people, structures and systems)

***Table 3.4**: The relationship between Disaster Management Framework, Disaster Management Plan and the Disaster Management Centre. Source: Disaster Management Solutions, 2006*

DRR can be greatly facilitated when leadership is provided by policy champions with high political or administrative office. For example, Madagascar‘s programme for DRR has high-level political support: the President is involved in the design of hurricane-resistant buildings. The programme has also had some success in implementation with training for district-level officials. To be most effective in the multi-sectoral environment of risk reduction legislation and policy-making, champions must be respected by a broad range of existing policy actors (Pelling & Holloway, 2006:12). Where political will exists, results can be impressive.

Unfortunately, in South Africa political support for DRR is very limited and for this reason the implementation of the DRR policy and legislation is still a challenge, maybe due to misunderstanding or no knowledge of the function. If supported by leadership, implementation can be made more achievable by connecting risk reduction aims to existing policy concerns, such as those related to the millennium development goals (MDGs) and PRSPs (Pelling & Holloway, 2006:12).

Another negative aspect is where the Disaster Management Act (2002) stipulates that disaster management is primarily the function of National,

Provincial, District and Metropolitan government and, as a consequence, local municipalities are often excluded or ignored by the higher tiers of government. This has created challenges and confusion to most municipalities and has made it very difficult for disaster risk management officials to argue their case for budget allocation and political buy-in for the execution of risk reduction obligation because, according to municipalities, this is an un-mandated function. Over and above the DMA, Schedule 4 of the Constitution of the Republic of South Africa (1996) designates disaster management as an area of concurrent national and provincial competency, and not a municipal competency.

This decision was taken as an appreciation in the early 1990s that it was premature to require the municipal sphere to take on functions such as disaster management when the nascent municipal structures were very weak (Pelling & Holloway, 2006:20). However, the problem with this decision was and still is, that a local municipality is always the first responder when a disaster strikes, and their exclusion from performing this function is impractical. Another major problem is that disaster management still continues to be an —unfunded mandate‘.

Section 26 (g) of the Municipal Systems Act (2000) states that each municipal entity indicated in the national or relevant provincial or municipal framework must prepare a disaster management plan. It also indicates that a disaster management plan should form part of the Municipal Integrated Development Plans and that an IDP is not credible and should not be approved without a disaster management plan. However, this still continues to be a challenge to most municipalities and they continue to approve and adopt their IDPs even without the disaster management plans.

Although the disaster risk management reform process in the country has progressed and developed a great deal, the mainstreaming of disaster risk management into all organs of state across national, provincial and municipal spheres has not significantly progressed, even though it is required by the Disaster Management Act (Pelling & Holloway, 2006:27). Contributing to this is the non-existence of a funding framework. This absence and subsequent

weaknesses can mostly be ascribed to a lack of consultation with national stakeholders (Pelling & Holloway, 2006:27).

Although the function of Disaster Risk Management cuts across all line function departments, the function still falls under the jurisdiction of the Department of Cooperative Governance and Traditional Affairs and not in the highest office like the President or Premier‘s Office as required by the Disaster Management Act. Unfortunately, other departments are not accountable to the Department of Cooperative Governance but only to the President or Premier‘s Office. The Head or MEC for Department for Cooperative Governance does not have authority over any department liable for non-compliance of the DMA and DMF. The limited authority and status associated with this location has significantly constrained cross-sectoral integration (Pelling & Holloway, 2006:27).

Currently DRR is treated as a separate process or entity by sector departments and other organs of state and stakeholders. DRR policies and programmes are not integrated into planning cycles, which implies that there is no mainstreaming of DRR into the existing programmes and projects. This has led to DRR policies and its implementation being perceived to be costly and in competition of resources.

Although there are now established platforms such as Advisory Forums and Inter-Departmental Committees, unfortunately most of these structures are not effective in promoting DRR. If effective, these DRR platforms can play a key role in liaising or coordinating with other line function departments and stakeholders in shaping DRR policies. Structures like PRSPs are currently not used to raise the profile of DRR and assist with mainstreaming DRR into development (Pelling & Holloway, 2006:27). The production of national PRSPs is part of the process set in motion both to reduce foreign debt in the most Highly Indebted, Poor Countries (HIPC countries), while ensuring that debt reduction and restructuring of governance and public spending results in sustainable poverty reduction (Wisner, 2003:16).

National, Provincial and municipal structures such as IDRMCs should be constituted by disaster risk management stakeholders. The primary role of these

committees is to establish a mechanism for developing and applying integrated risk management policy, planning and practice among municipal organs of state (NDMC & Reid, 2008). To date the majority of these committees in the areas where they exist have not shown their effectiveness in delivering on their mandate, and furthermore not shown evidence or tangible results of mainstreaming DRR in an integrated manner with other departments or role-players. However, exceptions have been identified and some departments are moving towards integration and mainstreaming DRR in their programmes. For instance, the Department of Agriculture and Land Administration recognises the importance of DRR in their programmes and have consequently appointed DRR managers for their Rural Development Programme in the different provinces.

To aid implementation, the UN-ISDR recommends that legislation should include, or be supported by, benchmarks such as the ISDR or HFA strategies. Unfortunately South African legislation do not have benchmarks for action or a procedure for evaluating DRR actions, joint-planning to assist the coordination of activities across geographical or sectoral areas of responsibility and a feedback system to monitor risk reduction activities and their outcomes.

With the involvement of all stakeholders, documentation relating to co-operative governance mechanisms should be developed and enforced. No organisation should work alone in this field. Government departments should therefore be linked to other role players and relevant coordinating or networking bodies should share information, expertise and resources as required (Twigg, 2004:26).

With institutional arrangement in place the second KPA, disaster risk assessment can then be initiated. The second KPA is discussed in the next section.

3.2.2. KPA 2: Disaster Risk Assessment

This KPA addresses the need for conducting ongoing disaster risk assessments and monitoring to inform disaster risk management planning and priority setting, guide DRR efforts and monitor effectiveness of such efforts. It also outlines the requirements for implementing disaster risk assessment and monitoring by organs of State within all the spheres of government (DMS, 2006).

People face threats to their lives and livelihoods, and societies are confronted with various risks in their pursuit of development. These threats arise from many sources, including disasters induced by natural and related hazards, development policy failure, breakdown of social order, and armed conflicts. The effects of any of these can be harmful to livelihood and ecological resilience but disasters are of the utmost importance because their effects are often devastating and widespread. They often have the potential to cause or exacerbate the other risks (AU/NEPAD, 2004:06).

Risk assessment involves problem definition, research analysis and decision-making. In this regard, problem definition is identified as the process of determining what is to be assessed and planning to undertake that assessment. Research and analysis involve generating information on aspects of risk, such as occurrence, probabilities and effects. Decision-making is the process of ranking risks or outcomes on the basis of specific criteria and then assessing options that can address the chosen risks (NEPAD, 2004:06).

Managers and other stakeholders involved in development need to make decisions on how to identify and then address disaster risks. To do this effectively, they have to understand the actual harm of past disasters and the potential threats posed by imminent hazards. This is done through risk assessment. Disaster risk assessment is the process of collecting and analysing information about the nature, likelihood and severity of disaster risks (NEPAD/UN/ISDR, 2004:10; Wisner *et al*, 2004:339). The process includes making decisions on the need to prevent or reduce disaster risks, what risks to address, and the optimal approach to tackling those risks found to be unacceptable to the target groups and communities. Disaster risk assessment emphasises proactive management of disaster risks through reduction of both prospective and accumulated risks (NEPAD/UN/ISDR, 2004:10). It covers assessment of risks from future hazards as well as those that have already occurred. It is important to note that risk assessment is the first step in effective disaster risk management. It is thus best undertaken as part of a comprehensive risk management strategy (NEPAD/UN/ISDR, 2004:10).

Risk reduction begins with risk identification and assessment, including early warning. However, the practice of risk identification is limited in both South Africa and the African continent as a whole. Sub-regional early warning systems covering food security, drought and climatic factors exist in parts of Africa but desertification monitoring systems are only now being developed. Though some countries are improving their data coverage of hazards, land use capacity maps do not indicate hazard risk (AU/NEPAD/UN/ISDR, 2004:06).

The continued focus on emergency response in Africa results in greater emphasis on post-disaster loss assessment than on anticipatory risk assessment. Most risk mappings undertaken are top-down processes with little participation by people or subjective risk estimation (AU/NEPAD/UN/ISDR, 2004:06). Vulnerable communities should always be involved in risk assessments because when considering how people perceive risk and understand vulnerability, it is also important to remember that ordinary people already have knowledge and experience (Wisner *et al*, 2004:332). One such risk assessment model is the Vulnerability and Capacity Assessment (VCA) which is a participatory and investigative process designed to assess the risks that people face in their locality, their vulnerability to those risks, and the capacities they possess to cope with a hazard and how to recover from it when it strikes (IFRC, 2007:06). This VCA model is very useful in the sense that through VCA, different role-players like local governments, organisations and societies can work with vulnerable communities to identify the risks and take steps to reduce them by drawing on their own skills, knowledge and initiative. VCA helps people to prepare for hazards, to prevent them from turning into disasters and to mitigate the effects (IFRC, 2007:06). It is also vital in obtaining data that can be analysed for the purpose of planning programmes and projects designed to reduce risk and vulnerability (IFRC, 2007:06).

3.2.3 KPA 3: Disaster Risk Reduction

The objective of KPA 3 is to ensure that all risk management stakeholders develop and implement integrated disaster risk management plans and risk reduction programmes in accordance with approved Disaster Risk Management frameworks (DMS, 2006).

Disaster prevention refers to actions that provide —outright avoidance" of the adverse impact of hazards and related environmental, technological and biological disasters (UN/ISDR, 2009:22). All disaster risk management plans must give explicit priority to the core principles of disaster prevention and mitigation. DRR plans should be guided, considered and coordinated within relevant development plans, resource allocations and programme activities (UN/ISDR, 2009:12).

States have the primary responsibility for implementing measures to reduce disaster risk. DRR needs to be an essential part of a state's investment in sustainable development (UNISDR, 2007:04). They have the power as well as the responsibility to protect their citizens and their national assets by reducing the risk of losses from disasters. States, however, cannot do the job alone because effective DRR relies on the efforts of many different stakeholders, which include regional and international organizations, civil society including volunteers, the private sector, the media and the scientific community (UN/ISDR, 2007:04).

According to the NDMF, the following are some of the requirements that must be applied and documented by the national, provincial and local governments when planning for DRR initiatives in South Africa (EDMP, 2008:96-97):

- First and foremost, planning efforts must be informed by a reliable disaster risk assessment. The risk assessment findings should form the basis of the risk reduction initiatives and programmes.
- DRR planning must be multi-disciplinary and should draw on appropriate expertise since disaster risk management requires both technical expertise in hazard process as well as the understanding of the complex social and economic conditions that drive disaster-risk vulnerable communities. An

informed multidisciplinary team with required skills and capacity should be established to address these risks, and there should be an identification of primary entity to facilitate the initiative.

- Communities and groups at risk must be involved from the initial phase of the initiatives. All initiatives must involve constructive consultation between at-risk groups and/or communities and external service providers. Risk reduction initiatives are more effective when they are discussed and implemented collaboratively with those affected, as this allows for the inclusion of local knowledge and expertise.
- Vulnerabilities should be addressed by improving socio-economic conditions and building community cohesion, ensuring the continuity of protective environmental services increasing resilience and/or continuity of public services, and infrastructure to better respond to expected external shocks.
- DRR plans should take into consideration changing risk conditions and uncertainty, including the effects of climate variability, disaster risk is extremely dynamic and is driven by many rapidly changing environmental, atmospheric and socio-economic conditions. Existing plans and projects are not sufficiently adaptive to minimize the impact of unexpected events or processes.
- Precautionary principle to avoid inadvertently increasing disaster risk should be applied. Effective DRR planning efforts must apply the precautionary principle of —dono harm". There should be avoidance of unintended consequences that undermine risk-avoidance behaviour and ownership of disaster risk.
- DRR planning processes must anticipate and manage unintended consequences that increase disaster risk. Well-intended DRR programmes that deliver external services to at-risk areas, communities and households can inadvertently reward risk-promotive behaviour and undermine existing capabilities.
- Clear goals and targets for DRR initiatives should be established and must be linked to a monitoring and evaluation criteria. DRR plans must define clear monitoring and evaluation criteria for measuring their effectiveness. These must be linked to initial assessment findings to demonstrate the

effectiveness of the specific intervention. They should also be used to highlight learning points for future projects and programmes.

- Provincial and municipal disaster management centres must include documented accounts of the DRR projects, programmes and initiatives planned and implemented.

Currently, the three spheres of government and donor agencies in South Africa focus more energy on emergency relief measures than DRR. This creates a culture of dependency amongst vulnerable people, preventing them from escaping the poverty trap (La Trobe & Faleiro, 2007:07). They operate in contrary to the fact that governments and local authorities must put more emphasis on strengthening people's capacity to anticipate, cope with and recover from disasters, as an integral part of relief and development programmes. This can reduce the impact of disasters or even prevent them from happening. The most effective way to reduce the risk of disaster is to work with local people to identify and analyse their vulnerabilities and capacities, and to develop and implement an action plan that will be effective and sustainable in their context (La Trobe & Faleiro, 2007:07; UN/ISDR, 2004:177-178; EUCOM, 2009:08).

Governments and other risk reduction role-players must also put more emphasis on addressing the underlying causes of disasters, such as poverty, unplanned urbanisation and environmental degradation. Unfortunately, DRR is not an immediately visible outcome activity, especially in the short-term. Most of the time politicians are normally in favour of visible and practical programmes which people see and appreciate because it works in their favour by bringing in more votes (DFID, 2004:36). Even if development or rehabilitation projects make the communities more vulnerable, this is usually not a factor taken into consideration. An example of this can be seen with the low cost or RDP houses the South African government is providing to communities. In many instances, these houses make communities more vulnerable due to poor workmanship and corrupt activities. This state of affairs continues to be a challenge. The issue here is that even though the government is aware of the potential adverse effects that communities are most of the time exposed to, due to the perilous

houses provided for them, provision of houses is one of the visible outcome for government to be seen to be delivering, hence it is one way of raking in votes.

In an attempt to develop communities and eradicate poverty, the South African government identified ten 10 priority areas to concentrate much effort on from now up to 2014 (SA, 2009:02). These priority areas are to:

- speed up economic growth and transform the economy to create decent work and sustainable livelihoods,
- introduce a massive programme to build economic and social infrastructure,
- develop and implement a comprehensive rural development strategy linked to land and agrarian reform, and food security,
- strengthen the skills and human resource base,
- improve the health profile of all South Africans,
- intensify the fight against crime and corruption,
- build cohesive, caring and sustainable communities,
- pursue African advancement and enhanced international cooperation,
- ensure sustainable resource management, and
- build a developmental state, improve public services and strengthen democratic institutions.

Although these government priorities are excellent parameters for strengthening development and poverty alleviation in the country, coupled with the fact that they are aligned towards achieving the MDGs makes them more appropriate. However, there are no clear indications that DRR or risk avoidance was taken into consideration in attempting to achieve these goals. For example, the National Spatial Development Perspective (NSDP), a document formulated in 2003 and updated in 2006, took the logic of support to capital to the extreme. The framework (NSDP) identified nodes of economic potential across the country and directed government to focus resources on these nodes with the belief that economic growth in these areas will reduce poverty.

Envisaged was that government welfare and training will be provided to the rural, small towns and peri-urban poor to enable them to migrate to these

economic centres (Greenbag, 2009:01). This was because in the post apartheid era, major achievements were made in the urban centres, and the countryside was not given similar or substantively equal attention. As a result, mass urbanisation - as people looked for better socio-economic opportunities for themselves, was a logical and natural consequence. Infrastructure and service delivery in the urban centres began to be compromised under the heavy burden of over-urbanisation (Phaahla, 2009:01). One of the worst risk drivers worldwide is urbanisation. In as much as urbanisation increases economic prospects, it has also got the same potential of exacerbating urban risk. It is likely to spark humanity‘s most difficult run of disasters in Africa and the world (Holloway, 2010:08). Due to this government initiative, expected number of people to flock to urban areas is expected to multiply extensively. By 2030 two billion of the world‘s urban dwellers are expected to be living in informal settlements and slums, more than double the 924 million in 2001. Most of these informal settlements will be in Africa. Today there are already about 220 informal settlements in Cape Town alone (Holloway, 2010:08). There is no doubt that the cost of urban infrastructure will rise as more demands will be placed on the roads, public transport, bridges, schools and health care facilities, sewerage and water facilities and the electricity grid (Holloway, 2010:08).

Resource management must take into consideration the issue of environmental management because of the risk brought by severe climate conditions that are caused by global warming. Climate change adaptation should be one major issue that government should focus on. Both climate change and disaster risk management communities recognise and accept that the poor are disproportionately affected by hazards (Venton & La Trobe, 2008:06). This is due to a lack of access to the means by which they can improve their resilience, whether this is in economic, social, physical, or environmental terms (Venton & La Trobe, 2008:06). Adaptation and DRR, poverty reduction and sustainable natural resource management are essential components of reducing vulnerability to hazards and climate change (Venton & La Trobe, 2008:06).

It is increasingly recognised in the DRR community that adaptation and DRR must be integral components of development planning and implementation, to increase sustainability (Venton & La Trobe, 2008:06). In other words, these

issues need to be mainstreamed into national development plans, poverty reduction strategies, sectoral policies and other development tools and techniques. At the World Conference on Disaster Reduction in 2005, governments agreed to adopt a mainstreamed approach to DRR (Venton & La Trobe, 2008:06). As already illustrated, this process of integration has, however, been very slow in South Africa.

The private sector and government are both responsible for reducing disaster risks. Generally in South Africa private sector institutions like industries in most instances do not avoid creating hazards and consequently local people are more vulnerable to disasters. This concerns their business environment, including the communities in which they are based, as well as their supply and distribution networks (La Trobe & Faleiro, 2007:11). In line with the VFL perspective, successful reduction of disaster risks will require the involvement and commitment of both public and private sector institutions. NGOs can work with businesses to help them to better protect their operations and ensure that their operations do not add to the vulnerability of the local community. The evolving idea of Corporate Social Responsibility (CSR) provides a good basis from which to encourage business participation in DRR. CSR is the contribution that businesses make to a country‘s sustainable development goals. They take account of their economic, social and environmental impacts as they operate, and seek to increase the positive impacts and reduce the negative impacts (La Trobe & Faleiro, 2007:11).

As mentioned earlier, a key challenge is that in South Africa, authorities still perceive DRR to be an isolated process or activities that always require special funding apart from normal development programmes. Disaster risk management, therefore, needs to become an integral part of the development planning process in order to be successful. Even though the MSA mandates that disaster risk management plans should form part of the IDPs of each and every municipality, this is not adhered to by most municipalities.

In some municipalities there are steps taken towards conformity, for example, the Ehlanzeni District Municipality Disaster Management Plan ensures that DRR strategies are included in accordance with ISDR DRR application (ISDR,

2004:297). Their strategies are applicable to preventive intervention (EDMDMP, 2008). These applications are part of their IDP (EDMIDP, 2007/08), and they include: effective land-use planning, basic public works, effective municipal services that factor in the frequency and severity of natural or other hazards as well as human actions and ensuring Environmental Impact Assessment (EIA) prior to implementing any developmental projects (EDMDMP, 2008). In general, it is of importance to note that although in most instances good polices are in place, the challenge remains with the execution thereof. As in this case, the EDM plan is good only on paper, however, the execution thereof in as far as Kabokweni is concerned demands serious intervention.

According to EDM, these are developmental programmes that already exist within the municipality, which merely require extra finance. In essence DRR should not be seen as in competition for, or duplication of, resources. DRR is often perceived as a threat or as duplicating existing policy and budgets (Pelling & Holloway, 2006:30). The reason for this state of affairs might be that DRR is still considered a fairly new policy area and those that need to implement it still lack knowledge and understanding of the subject within development sectors or programmes. There is also a lack of ownership of the DRR programme by disaster risk management or development workforce and is still considered to be in competition with other pressing development agendas such as HIV/AIDS and the need to deliver basic services (La Trobe, 2005:02).

3.2.4 KPA 4: Response and recovery

The objective of this KPA is to ensure effective and appropriate disaster response and recovery by implementing a uniform approach to the dissemination of early warning systems (DMS, 2006). It also involves averting or reducing or mitigating the potential impact of disasters in respect of personal injury, health, loss of life, property, infrastructure, environment and government services. Furthermore, it involves implementing immediate integrated and appropriate response and relief measures when significant events or disasters occur or are threatening to occur by implementing all rehabilitation reconstruction strategies following a disaster in an integrated and developmental manner (DMS, 2006).

Rehabilitation and reconstruction begins soon after the emergency phase has ended and should be based on pre-existing strategies and policies that facilitate clear institutional responsibilities for recovery action and enable public participation. Recovery programmes, coupled with the heightened public awareness and engagement after a disaster, afford a valuable opportunity to develop and implement DRR measures and to apply —the build back better principle" (UNISDR, 2009:23).

Emergency assistance, together with post-disaster rehabilitation and reconstruction, is necessary but it is not sufficient for DRR. Unfortunately, this KPA is still given more attention within the South African context than risk reduction. In most instances, in most instances the reason for this is, it gives an opportunity for politicians to prove to the masses that they care for their well-being and that has a potential of automatically increasing votes from the vulnerable people who when the relief support is being phased out, are still left very vulnerable to the same hazards that brought them to this situation (DFID, 2009:36). For politicians in hazard-prone countries, being associated with disaster response, for example the distribution of food aid or the reconstruction of schools and hospitals, yields quick political returns (DFID, 2009:36).

It is essential, though, that the response programmes be complemented by development actions that do not result in the accumulation of risks. This is particularly important in post-disaster situations when the opportunity exist to reduce prospective risk through development interventions (AU/NEPAD, 2006:13). As the emergency response amounts of money increase, more attention has to be turned to building —sustainable disaster reduction" into the recovery process so that the lenders and donors will not have to bear the burden of repetition of donations and lending of funds (Wisner *et al*, 2004:354).

Experience with some major disasters has shown that timely and comprehensive recovery, comprising relief, rehabilitation and reconstruction interventions, can reduce vulnerability and promote development. An example in this regard is the 2000 floods in Mpumalanga. The National Flood Reconstruction Fund that was allocated to provinces for rehabilitation enabled the provinces to reduce vulnerability of the communities since massive new and

better houses, bridges, schools and roads were either constructed or rehabilitated, and that reduced the vulnerability of the communities (MPG, 2002:03). Also, the introduction of the Emergency Housing Programme instituted in terms of Section 3(4)g of the Housing Act (107/1997) significantly contributed in reducing the vulnerability of communities.

In principle, recovery should address economic, political and social needs and not just rebuilding infrastructure and housing, but opening the way for more resilient livelihoods (Wisner *et al*, 2004:354). In practice, implementation of recovery along these lines requires reversing or at least palliating the dynamic pressure and root causes that have contributed to the disaster in the first place (Wisner *et al*, 2004:354).

3.2.5 Enabler 2: Education, Training, Public Awareness and Research

Transforming disaster management practices towards a DRR approach will not materialise if knowledge of disaster risks and risk reduction options is not generated and disseminated effectively to all stakeholders. It is therefore necessary to strengthen national statistical systems to improve the collection and analysis of data to generate adequate risk information. Given the focus on the strategy of integrating DRR in development, governments need to expand the scope of national information systems to enable them to be used for both day-to-day development planning and for DRR planning during times of crises. To help enhance access to information and to expand information dissemination, there is the need to strengthen DRR information services and public communications mechanisms, including space technology and geographical information systems (AU/NEPAD, 2004:11). It is necessary to encourage and facilitate public-private partnerships that increase the availability of, and accessibility to, these means of disaster risk information and communications (AU/NEPAD, 2004:11).

Given the dynamic nature of development knowledge and information, it is necessary to adopt a continuous learning approach to promoting disaster risk management. This involves facilitating the identification and strengthening of outstanding academic institutions to spearhead training and research in DRR. Fortunately, there are academic institutions in South Africa that are

spearheading training and research in DRR. These include the University of the Free State (UFS), University of the North-West (NWU), University of Cape Town (UCT), University of South Africa (UNISA) and Southern Business School (SBS). Furthermore, the National Disaster Management Centre (NDMC) has established a directorate for Education, Training and Research which focuses on disaster risk education, training and reduction research. There is also a discussion going on between scholars and government which is meant to integrate DRR into school curricula. Lobbying governments, identifying resourcing mechanisms and providing guidance and information to countries on the process can facilitate the integration of disaster education in school curricula (AU/NEPAD, 2004:11).

Increasing public awareness of disaster risks and risk reduction options is central to the empowerment of people to protect their livelihoods against disaster risks (AU/NEPAD, 2004:11). This depends on the effective development of information services that can increase generation, availability and communication of information on DRR, promote wider and increased understanding of DRR practices, and provide information to monitor progress in DRR at all spheres of government. At the local level, there is a need for the capacity to undertake clearing-house functions in DRR information identification, compilation and dissemination (AU/NEPAD, 2004:11).

For DRR communications systems to empower communities threatened by impending disasters, risk reduction information should be precise, prompt, reliable, and provided in good time. Effective DRR communication requires that the target population not only receive advance information on hazards and vulnerability changes, but also that they understand the content of the message, accept it, believe it and know how to use it to guide their response actions (AU/NEPAD, 2004:11). Public education and awareness-strengthening processes about potential risks and the role of risk information in DRR need to be continuous in order to promote this process. Public awareness needs to be undertaken through all means of communications, interaction between DRR authorities and the public and at large (AU/NEPAD, 2004:11).

3.3 CONCLUSION

This chapter focused on the DRR initiatives in the South African context. It introduced the DRR reform process and initiatives that the South African democratic government embarked upon which resulted in the proclamation of the Disaster Management Act (57/2002).

It mentions the requirements of the DMA for the National, Provincial and Local Government. These are: (i) the development of the disaster management framework, (ii) establishment of disaster management centres and forums and (iii) the development of disaster management plans by all the organs of state.

The DMF is then discussed in detail because it constitutes the focus of the study. It is the policy document that mandates the implementation of disaster risk management in line with the HFA priorities. The DMF is a strategic policy document that mandates all the organs of state to have integrated institutional capacity for DRR; which deals with all the institutional arrangement that should be put in place for the effective implementation of the disaster risk management programme.

Disaster Risk Assessment outlines the importance of first identifying all the risks, hazards and vulnerabilities of the community, including their coping capacities, which will give direction as to decision of the prioritising and implementation of the DRR strategies. The DRR process can only be effective and appropriate if the risks have been identified and the reduction strategies are addressing the identified risks. No matter how much we can do to prevent and avoid risk from happening, disasters are bound to happen. It is therefore important for organisations and communities to be prepared to respond to any disaster, which might strike unexpectedly, and even more important for the communities to be able to immediately recover from post disasters by becoming resilient.

The enabler that directly talks to the HFA priorities is ~~"I~~nformation, Communication and Awareness". This enabler specifies the importance of information receiving and dissemination to the right people at the right time.

Communities should be made aware of their hazard and vulnerabilities and also how they can prevent the hazards and risks from becoming disasters.

In short, DRR stakeholders should provide for effective coordination mechanisms, such as appropriate institutional arrangements for disaster management, risk identification, preparedness, emergency response and early warning, as well as the incorporation of disaster reduction concerns in national, provincial and local planning processes (UN/ISDR, 2007:5).

The following chapter will focus on the empirical research, findings and analysis of the study. It will discuss the research methodology, data collection process and analysis. The data collected will be analysed quantitatively and qualitatively because the study includes both statistical and descriptive data.

CHAPTER FOUR

4 EMPIRICAL RESEARCH, FINDINGS AND ANALYSIS

4.1 INTRODUCTION

This chapter outlines the methods employed in ascertaining the extent of progress made towards the implementation of the five HFA priorities in the Kabokweni Location. The first section discusses the empirical research, participants as respondents and further gives the background of the area of study (Kabokweni Location). The methodology used in undertaking the empirical research adopted the VFL Lite approach. The process entailed using survey questionnaires developed by the VFL. The chapter also focuses on the data collection process, specifically the use of the questionnaires as research tools. In this context, the reason behind the selection of the specific methodology is given attention. The discussion entails the reasons why the questionnaire was considered to be the right tool for validity and reliability purposes. Attention is given as to how the study adheres to the reliability and validity principles.

The second section of the Chapter focuses on the empirical findings and analysis of the study. It presents the actual results of the data collected, and these results are presented as the overall picture of the extent or progress level of the HFA implementation. These overall results are compared to the results of a similar type (VFL) of study done in 2009 for the whole country. For present purposes, the said study will be called the VFL study. The results are further presented as per individual Priority for Action (PFA) implementation by the three respondent categories.

Unanswered questions or the so-called –don‘t know” answers are also analysed and a possible reason for this is mentioned. As previously mentioned, the results will be analysed both quantitatively and qualitatively because there were open-ended questions in the questionnaire, coupled with the fact that personal interview were held after completion of the questionnaires with willing

participants. All these results were analysed as per the priority for action and cross-cutting issues based on the questionnaire format.

4.2 RESEARCH PARTICIPANTS

A total of 30 respondents participated in the survey, all of which were either residing or providing services in the Kabokweni Location. The services include government departments providing their line function services such as housing, social services, education, health, basic services like water and electricity provision and the development of the area. Businesses such as the Kabokweni business complex, industries, financing, taxi services and associations of community churches are included. The respondents thus cover the whole spectrum of stakeholders relevant to the location. The 30 respondents consisted of 6 civil society organisations, 11 local community representatives and 13 local government representatives. The questionnaires were distributed in person to chairpersons or delegates of chairpersons on behalf of the organisations or community representatives. These participants responded on behalf of their organisations. For local government organisations, the head of the institution or the official responsible for DRR completed the questionnaire. All questionnaires were personally collected in order to enhance the response rate. Consequently, the response rate was 100%.

To be able to measure the level of HFA implementation and impact, the 30 respondents were chosen from the area of local government, civil society organisations and local community representatives. These were also respondent groups used in the VFL project constituting the VFL study of 2009. The respondents were either situated in Kabokweni Location or in the surrounding area. All the participating respondents were representatives from their respective departments, organisations or communities, all of which were involved in various activities in the Kabokweni Location. The units identified for the sampling involving the 30 respondents were:

Civil society organisations: South African National Civic Organisation (SANCO), South African Council of Churches (SACC); African National Congress (ANC – Kabokweni Constituency), Lowveld Escarpment Fire

Protection Association (LEFPA), Mpumalanga Economic Growth Agency (MEGA), Kruger Mpumalanga International Airport (KMIA).

Local Community Representatives: Moslem Community Association, Kabokweni Taxi Association, Kabokweni Community Police Forum, Community Development Workers, Kabokweni Community Youth Forum, Mpumalanga School Governing Bodies Association, Kabokweni Traders Association, Kabokweni Business Complex/centre, Vukuzenzele Women Association, Maphutha Burial Society.

According to the guidelines of the VFL Lite method, local government can be a government within the local municipality, district municipality, or provincial government (GNDR, 2009:02). In accordance with the guidelines, the respondents of the local government were representatives from Mbombela local municipality (MLM), the Ehlanzeni District Municipality (EDM) and the Mpumalanga Provincial Government departments (MPG), that render services for the area of Kabokweni.

The Local governments are: Mbombela Local Municipality (MLM), Ehlanzeni District Municipality (EDM), COGTA -Provincial Disaster Management Centre (PDMC), South African Police Services (SAPS), Department of Social Development – Kabokweni branch, Department of Health, Department of Education, Department of Agriculture, Rural Development and Land Administration, Department of Public Works, Roads and Transport, South African Weather Services, Department of Human Settlement and Eskom Electricity Distributors – Kabokweni Depot.

These units were identified because of their high profile involvement in the community. They also provided particularly high quality of information because they are perceived to be the main drivers of DRR initiatives. The importance of these CSOs was that their established relationships and extensive presence amongst poor vulnerable communities in disaster-prone areas positioned them well to strengthen linkages between policy and practice. They can facilitate local level dialogues, build trust and understanding between affected communities and local governments, foster participation and ownership, mobilise local

resources, support partnership approaches and assist in measuring progress (GNRD, 2008:02).

Willing respondents were interviewed after completing the questionnaire. Only 10 of the total of 30 respondents took part in the personal interviews, which 9 were from local government and 1 from a CSO, were willing to be interviewed. None of the local community representatives respondent was willing to be interviewed. The reason for the personal interviews was to gather more information for the analysis of the results. The two main questions asked during the interviews were:

1. What difficulties do you face in implementing disaster management in the work and activities of your department/organisation/ community?
2. What would you like to see improved in order to increase the level of implementation of disaster management in the work and activities of your department/organisation/community?

As this survey included open and closed-rating or Likert-scale questions, the data was analysed both statistically and through interpretation. Thus, the information gathered through the open-ended questions supplemented the rating questions to yield triangulation. Methodological triangulation is important as it involves the use of multiple methods to study a single topic; for example, by combining quantitative and qualitative methods in a single study (Padgett, 1998:97). The advantage of using triangulation is that different research methods have got strengths and weaknesses, and by using triangulation the strengths of one procedure can compensate for the weakness of another approach (Patton, 2002:306).

Once the field study was completed the results from the survey were compiled and analysed. As already mentioned, the results were to some extent compared to the full VFL survey that was done in South Africa in 2009 (see figure 4.2). The 2009 survey thus acted as a benchmark for the study. In the following section, the background of the area of study will be briefly discussed, thereafter the findings will be analysed and discussed.

4.3 FOCUS OF THE STUDY

The focus of the study was Kabokweni Location, in the jurisdiction of MLM, Ehlanzeni District in the Mpumalanga Province. Kabokweni is a semi-urban area in the Nsikazi region of the municipality. The field study was undertaken as part of the empirical study during August-September 2010.

The Kabokweni Location qualified as a Community at Risk (CAR) area because of its poor geographical and densely populated nature. Kabokweni depicts the true meaning of –Mbombela", which means a large number of people cramped in a small area. It is situated at a mountain foot, which makes it vulnerable to inter alia, flooding as severe rainfall causes a strong flow of water from the mountains. Even though this location is not very big, it is densely populated and many settlements have mushroomed around it. Settlements emerge up to the mountain-top. This makes the dwellers more vulnerable to hazards like strong winds, landslides and flooding.

Kabokweni does not have sufficient water supply and relies heavily on water from Kanyamazane, which is approximately twenty kilometres from kabokweni location. Therefore, the community does not have a permanent water supply or proper sanitation. Water is rationed proportionally, maybe on a one or two hourly basis, once or twice a day, depending on availability. Furthermore, due to lack of water pressure, water is unable to reach the mountains; hence those staying in the mountains do not have sufficient water and functioning sanitation.

One of the major hospital and nursing colleges in the Province, namely the Themba Hospital and Nursing College is located in Kabokweni. There is also the Kabokweni Stadium, which was officially launched as one of the Public Viewing Areas (PVA) for the 2010 FIFA World Cup in Ehlanzeni District and MLM as a hosting municipality. However, due to the facility not being ready it was never utilized as a PVA.

The location has more than one shopping complex within its densely populated space. A large shopping mall has recently been built next to the Kabokweni Stadium along the main district road. This road carries heavy traffic and runs through the location, thus increasing risk of accidents, congestion and

evacuation space. In close proximity to the new shopping mall there is the municipal clinic, provincial government offices housing the Department of Social Development. The Home Affairs Offices, District Magistrate Court and another smaller complex are also not far from these facilities. The area is not spacious enough to provide sufficient infrastructure for these entities. No fire station exists, and only a small satellite municipal office serves the whole community. The nearest fire station is in White River, which itself does not have the necessary capacity. It is about fifteen kilometres from Kabokweni.

Adding to the risk profile of the community, a residential site in the south-western part of Kabokweni is situated right in the middle of the Kabokweni industrial site. The hazardous chemicals generated by the industries make the community more vulnerable to hazards such as air and water pollution. The residential stands surround the Eskom electricity power station which is also situated within the industrial area. The homesteads are separated from the transformer by a fence. The cemetery is in the middle of the residential area. Torrential rains have caused the washing away of topsoil in the graves a couple of times in the past. There is a Community Service Centre or Police Station, which has challenges with the increasing crime levels in the area. The Provincial Airport, Kruger Mpumalanga International Airport (KMIA), is less than ten kilometres away from the location.

Although Kabokweni is economically active, its main revenue is generated through the municipality by way of cross-subsidation (Brown, quoted by Calfucoy *et al,* 2009:43). MLM has been able to rely on revenue from high-paying areas such as Nelspruit, and relies less on areas like the town of Kabokweni where cost recovery rate is below 15%. The funds recovered by MLM are inadequate to cover all the cost of Kabokweni, so with less recovery rate in Kabokweni, there are not enough funds to address all of the community‘s needs and vulnerabilities. This then implies that the inhabitants of Kabokweni community will remain vulnerable.

These are some of the reasons that this Location was identified as a Community at Risk (CAR) area. Kabokweni fits the profile of an ―intensive" urban hotspot where people and economic activities are concentrated (VFL, 2008:03), and qualifies it as a suitable area of study.

4.4 RESEARCH METHODOLOGY: VIEWS FROM THE FRONTLINE APROACH

The research methodology in this study was based on the VFL Lite. Lite is but a special project of the VFL. The VFL Lite method is based on a survey developed by the *Global Network of Civil Society Organisations for Disaster Reduction* and this survey was used in the collection of disaster reduction data. As earlier mentioned in the introductory chapter, the VFL method was appropriate because it was designed to not only gather data from participants, but also to motivate the participants to learn from their own experiences. This approach also presented an opportunity for self-evaluation by local government officials, civil society organization and local community representatives to assess their perceptions on progress made towards resilience and risk reduction. Normally, the survey needs access to the Internet, but in this study questionnaires were printed out and distributed to the research participants. The positive feature of the questionnaire was that it was not complicated at all and less time consuming. However, even though the concept was by and large good; a challenge was that some questions were quite specific to certain participants to the point that numerous respondents did not have answers to these questions. For example in PFA 3 (education, training and awareness needs) most of the questions in this PFA were concerning school curricula and teachers which are quite narrow subjects. This issue placed respondents in a position of either not knowing what to answer and most probably felt irrelevant to the questionnaire or to answer incorrectly because of misconception or lack of ambition. Fortunately enough there were —don‘t know” answers to chose from. It should be acknowledged that it is undoubtedly quite difficult to make a general questionnaire for such a diversified group of respondents.

Before participating in the survey, the respondents had to sign a consent form in respect of the survey conditions and their willingness to participate (see appendix 1). The results from the questionnaires were then analysed by the researcher.

Data was collected through questionnaire designed by the VFL Lite project. The questions formulated in the questionnaire were derived from the five HFA priorities as well as other cross-cutting issues identified from local level by the Global Network. Surveys were used to gather data or statistics at a certain point in time to describe the existing conditions (Struwig & Stead, 2001:7-8; De Vos *et al*, 1998:166).This study presented the status quo or general overview of the HFA priorities implementation or practices in the Kabokweni community.

The research followed the VFL methodological approach, which was, as mentioned, based on survey research. Survey research is a research method used to collect participant response on facts, opinions and attitudes through questionnaires (GMI, 2010:01). Since the VFL aims to produce knowledge in active partnership with those affected by that knowledge, and for the express purpose of improving their social, educational and material conditions (Terre Blanche & Durrheim, 2002:228). The VFL method was designed not only to gather data from participants, but also to motivate the participants to learn from their own experiences. Thus, the survey approach gave an opportunity for self-evaluations by local government officials, civil society organisation and local community representatives to assess their perceptions on progress made towards resilience and risk reduction as part of the HFA priorities.

This approach was appropriate because the ultimate goal of the VFL is to support the functional implementation of the HFA to build the resilience of vulnerable people and communities at-risk to disasters by improving policy and practice to reduce disaster losses (GNDR. 2009:03).The VFL methodology also supports and complements the UNISDR coordinated biennial monitoring and review processes (GNDR, 2008:03).

4.4.1 Survey research questionnaire

The VFL survey research questionnaire has already been applied in different countries to measure if the HFA principles and guidelines are in effect applied at grass roots level. Thus, the research instrument can be considered as reliable, as it was able to reproduce this kind of study under a similar methodology and environment (Golafshani, 2003:598).

Reliability was attained, because the study, to a certain extent, compared the overall results for South Africa (2009) with this study in Kabokweni (2010). Even though the sample sizes were different, the target group was the same. Since validity determines whether the research truly measures that which it was intended to measure, the study did adhere to validity as the questionnaire was the right measuring tool (Golafshani, 2003:599) because it was structured to measure the extent of implementation of the national policies at local or community level.

The questionnaire posed Likert-scale type of questions in which the participant had to indicate what best described his or her perceptions or feelings, starting from least to highest rating (Struwig & Stead, 2001:94). At the end of each HFA priority rating questions there were open ended questions that enabled participants to express their perceptions, comments or articulation in their own words without restrictions (Terre Blanche & Durrheim, 2002:295).

4.4.2 The questionnaire content

The VFL Lite questionnaire consisted of 29 Likert scale questions, demarcated into the five "priorities for action" and the cross-cutting issues. Likert scale questions consist of statements or questions, followed by a rating scale where respondents indicated the degree to which they agreed or disagreed with the item. Scaled questions are useful for measuring attitudes and personality as they capture subtle gradations of opinions or perceptions (Terre Blanche & Durrheim, 2002: 296).

The questionnaire gave an opportunity for participants to give a measure to the variable. A variable is anything that can take on different values (Trochim, 2006:12). The variable in this instance was made up of sub-variables that were the PFAs which are aspects that make up the overall HFA priorities implementation, of which was the main variable in this case. Thus, in this instance, the participants gave an attribute which is a specific value on a variable (Trochim, 2006:12) to the sub-variables. The main variable measured in this study was the extent of the HFA priorities implementation in Kabokweni

Location as a local level case, using the questionnaire as the measuring tool. An open-ended comment section followed each question; thus gave the participant an opportunity to present any information about the implementation of disaster risk management aspects in their department or organisation or community that was linked to the PFA. That was proper because it could be that the variables were not exhaustive which means there was a possibility that not all possible responses were included in the questionnaire in order to be able to get the accurate measure of the variable.

VFL Lite questionnaire utilised Likert scale questions of a five-point scale item; and the scale system can also be described as attributes. As mentioned earlier, the attributes in this instance gave the measurement of the sub-variables that made up the main variable. The rating options or attributes used in the questionnaire were as follows (See Appendix 2):

1. No, not at all.
2. To a very limited extent.
3. Some activity but significant scope for improvements.
4. Yes, but with some limitations in capacities and resources.
5. Yes, with satisfactory, sustainable and effective measures in place.

A –don‘t know” option was also available to respondents, but no point was assigned to it because if respondents replied that they –don't know”, it would not necessarily mean there is no progress in that certain area or PFA towards the achievement of the HFA. It might just be that the particular participant was not in a position to be fully aware of the actual progress in regard to a particular PFA.

4.5 EMPIRICAL FINDINGS

This section contains the results from the survey. This study followed both a qualitative and a quantitative approach through the application of a research survey that required statistical analysis. At the same time, in an attempt to present a complete and accurate description of the current situation information was also provided descriptively (Struwig & Stead, 2001:8; De Vos *et al*, 1998:166), and that information was qualitatively analysed.

The results were presented both as an overall average for all the five PFAs and as averages for the three respondent groups: local government, civil society organisations and local community representatives (see figures 4.1 and 4.3). In addition, comments from the survey were presented as well as results from the interviews. By using the VFL Lite methodology (See section 4.4 above), this generated results that gave an insight on the level of implementation of the HFA at local level, specifically in the community of Kabokweni location. For more details on the results see Appendix 3.

4.5.1 Empirical findings and analysis

The data formulated was based on the scores between 1- 5 as provided by the respondents. See paragraph three of section 4.4.2 for the explanation of the scores.

Figure 4.2 indicates the compared overall results of the Kabokweni 2010 and South Africa 2009 surveys. As mentioned section 4.4.1 above, the Kabokweni results, to a certain extent, were compared with the South African 2009 results to ascertain their validity. The results proved to be valid because they were similar to each other. Another reason for this comparative exercise was to further determine if there was a significant improvement in the overall implementation of the HFA since 2009. The results indicate for each survey the average level of progress made in the implementation per PFA and cross-cutting issues by all three respondent categories (i.e. local governments, civil society organisations and community representatives). It gave the overall picture of the level of implementation of the HFA, and the overall results indicated that there was no significant progress made.

The following figures indicate the average level of progress made in the HFA implementation per PFA and cross-cutting issues (fig. 4.1), comparisons of overall results for Kabokweni 2010 and South Africa 2009 (fig.4.2), and (fig. 4.3) indicates the level of progress in implementation per priority by each respondent category.

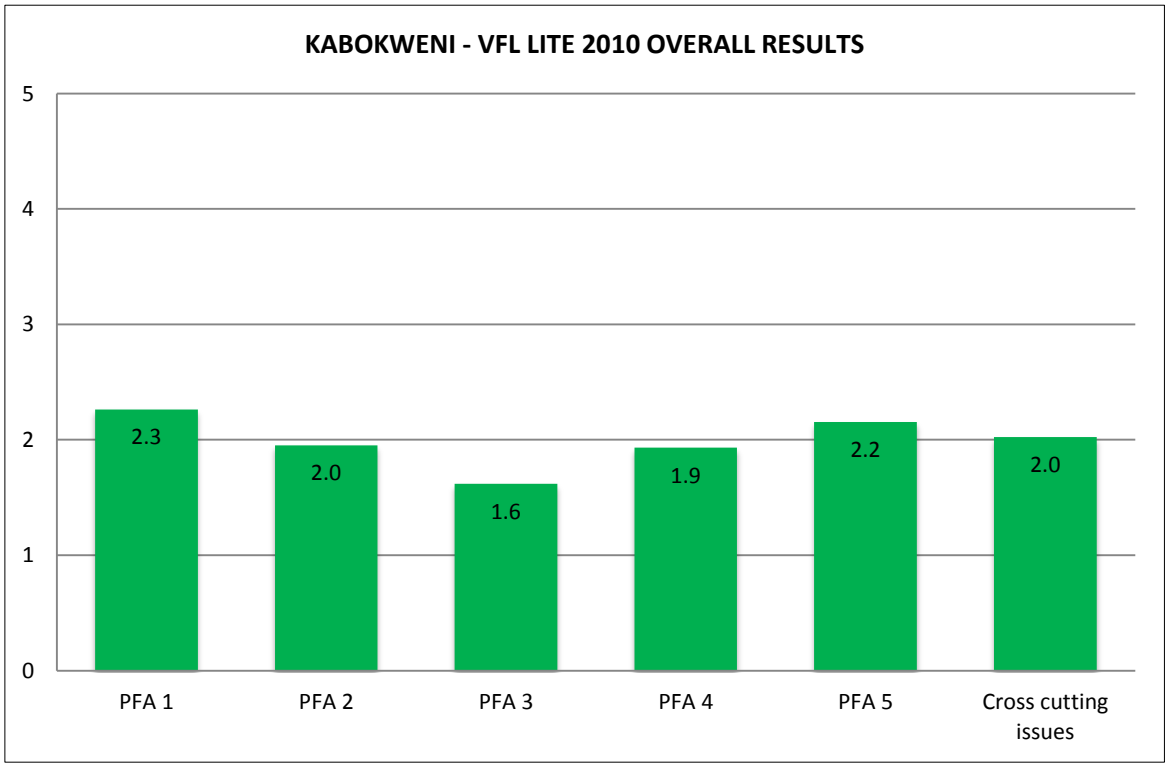

FIGURE 4.1: KABOKWENI (2010) OVERALL RESULTS

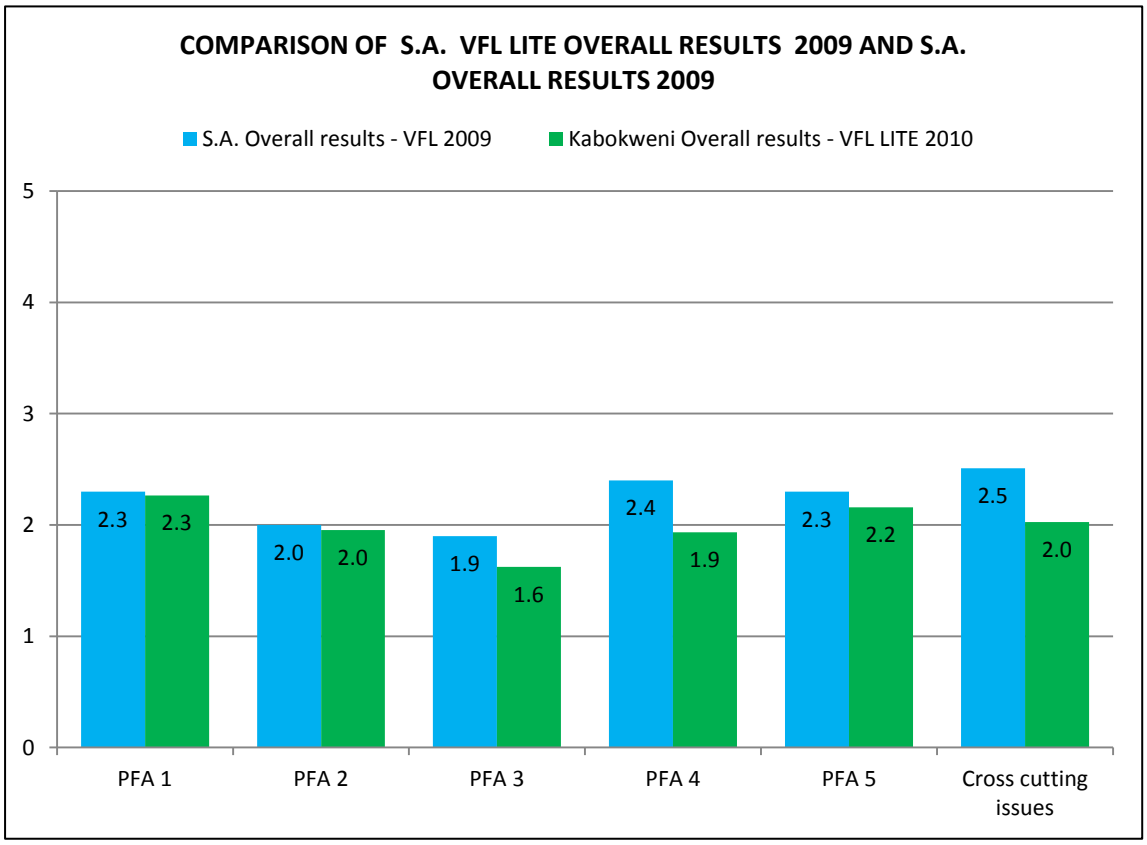

FIGURE 4.2: KABOKWENI (2010) OVERALL RESULTS COMPARED WITH SOUTH AFRICA 2009 RESULTS

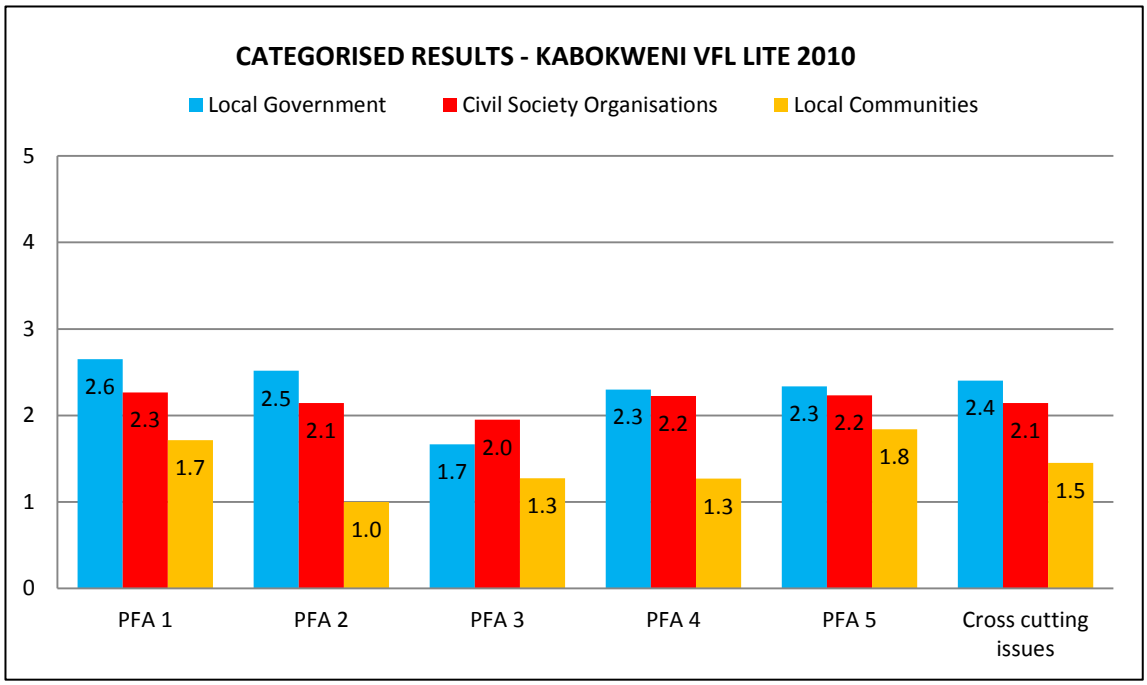

FIGURE 4.3: KABOKWENI 2010 PRIORITY FOR ACTION RESULTS AS PER RESPONDENTS CATEGORIES

4.5.2 Unanswered/don't know questions

In 19.9% of the survey Likert scale type questions, there was either no answer or the respondent had ticked —don't know". The following table indicates the percentages of ~~-u~~nanswered/don't know questions" for each priority for action and cross cutting issues. Also indicated is an overall average for the unanswered/don't know question for the whole survey.

PFA	UNANSWERED/DON'T KNOW QUESTION (%)
PFA 1	14.7
PFA 2	13.3
PFA 3	25.0
PFA 4	22.4
PFA 5	21.7
Cross-cutting issues	20.0
OVERALL AVERAGE	**19.9**

Table 4.4: Percentages of unanswered/don't know questions

An explanation for the unanswered/don‘t know questions could be that the questions were either irrelevant, not understandable or the information was unknown to the individual participant. These results apply to all respondent categories. See Table 4.5 below for response percentages per category.

4.5.3. Unanswered/don’t know questions: categories results

The following table indicates the percentages of unanswered/don‘t know questions according to the respondent categories:

CATEGORY	UNANSWERED/DON’T KNOW QUESTIONS (%)
Local Government	12.8
Civil Society Organisation	15.8
Local Community representative	13.2

***Table 4.5**: Unanswered/don’t know questions according as per category*

An explanation for the ~~u~~nanswered/don‘t know” questions per category was the same reason as individual participants, which could be that questions were either irrelevant, not understandable or information was unknown to certain categories of participants.

4.6 QUANTITATVE RESULTS ANALYSIS

As mentioned earlier, the results were analysed quantitatively and qualitatively (see section 4.5 above). The following section will discuss the quantitative analysis of the overall results (see figure 4.1 for the overall quantitative results).

4.6.1 Overview: Overall progress of the HFA implementation

The results for the Kabokweni study indicated that the overall HFA implementation was below average (i.e. below 2.5), and this confirmed the VFL perspective that even though at national and provincial government levels there was progress made with regard to polices and legislation formulation; these policies often did not generate wide-spread systematic changes in local practices (GNDR, 2009:04). It is now mid-way through the adoption of the HFA plan which means progress in the HFA implementation should be at least

average or halfway mark or just above average because many global, regional, national and local efforts have addressed DRR more systematically (UNISDR, 2007:02). The Kabokweni overall survey results confirmed that there was still a huge gap between the policy (and legislation) and its implementation; especially at grassroots level. Even though local governments did have excellent legislation and to some extent structures in support of decentralised ways of working – there were still huge gaps in implementation and working culture (GNDR, 2009:iv).

The overall results for this survey (figure 4.1), compared with the overall South African 2009 (figure 4.2) results, the picture confirmed that the level and pace of implementation was on the same trend countrywide, which indicates below-average progress had been made. However, it should also be highlighted that even the global trend is more or less on the same level and the results were also below average for all the PFAs except cross-cutting issues which was slightly above average at 2.6 (GNDR, 2009:12).

The following is still part of the quantitative analysis of the overall progress of the HFA implementation results discussed per PFA (see figures 4.1, 4.2 and 4.3 for the actual quantitative results discussed).

4.6.1.1 Priority for Action 1: Make DRR a priority (governance)

PFA 1 obtained the (score of 2.3), a highest of the five PFAs. The explanation for this was that at national and provincial levels, there have been investments in institutional frameworks, science and technology, and new policies and legislation for DRR. However, for the people at local or grassroots level, trying to handle the practical consequences of vulnerability to disaster, these policies have not yielded the fruits of these investments on the ground (GNDR, 2009:11). The category results indicated that there was a difference between local government perception and community perception in as far as governance issues are concerned. According to local government and community organisation representatives, they were doing a fairly good job, but on the other hand, the communities had a different view.

4.6.1.2 Priority for Action 2: Know the risks and take action

Local government and civil society organisations seem to indicate progress in this PFA although it was still very much below average (thus below the average of 2.5). This KPA level of progress was at 2.0 score. The global progress for this PFA according to the Global Network report (GNDR, 2009:12) was also below average but at 2.4 which was still low but better than the Kabokweni and South Africa (2009) progress level which were both at 2.0. The community representatives seem to have no information or knowledge of the risk they were vulnerable to. This was because the local government and organisations that have the information did not cascade the information down to community level. The information did not reach the communities. Institutions may have, or are conducting, assessments but the results indicated that the community was not involved or aware of such assessments and early warning systems. According to the communities, the feeling was that there is nothing happening in this PFA (see fig. 4.3) since a 1.0 score meant nothing at all was happening (see paragraph 3 of section 4.3.2 for the explanation of the results).

4.6.1.3 Priority for Action 3: Build understanding and awareness

PFA 3 had the lowest score of 1.6 for all the PFA addressed (see figure 4.1). This was also the case with the South African survey 2009 who, although better than Kabokweni, indicated the lowest with PFA 4. This meant that there was a lack of education and understanding of the DRR concept. Communities did not have a clear understanding or any knowledge of risks and vulnerabilities. The provincial, district and local government departments and relevant institutions or agencies with the much needed information and knowledge did not disseminate the information to the vulnerable communities. Knowledge is power and without knowledge communities always remain vulnerable to all sorts of hazards. Even the most sophisticated national DRR measures (such as early warning systems) may fail, if communities are not properly informed and engaged (ISDR/ITC/UNDP, 2010: ix).

4.6.1.4 Priority for Action 4: Reduce risk factors

This PFA indicated the second lowest at 1.9 for the overall score. However, on the categories, the local governments and organisations, indicated that significant progress had been made at 2.3 and 2.2 respectively whereas with community representatives it indicated that very limited progress had been made at only 1.3. The risk profile and aerial view of Kabokweni indicated that there was no risk reduction or consideration of underlying risk factors where development planning was concerned. The background information of Kabokweni depicted a picture of no risk reduction consideration in development planning.

4.6.1.5 Priority for Action 5: Be prepared and ready to act

PFA 5 scored the second highest of the PFA‘s at 2.2. Even in the results per categories, the communities scored the highest in this PFA with 1.8 score when compared to the other KPAs. Even though the community score was still below the local governments and organisations, the score of this PFA was second highest to PFA 1. The explanation for this would be that generally local government, civil society organisations and communities tend to focus more on response rather than prevention or risk reduction strategies. Politicians, local government, community organisations and communities all tend to focus most of their energy on responding to disasters rather than on DRR. The communities were in a better understanding of how to respond to disasters or major incidents not by choice but by virtue of their being in a vulnerable area and having been affected by disaster many times. Since they had been forced to respond to disaster or emergency situations many times, they have somehow gained experienced in that regard. However, even their preparedness and response understanding did not have an indication that both local government and communities were in a position to handle large-scale incidents or disasters.

4.6.1.6 Cross-cutting Issues

Cross-cutting issues are issues such as DRR programmes that take into consideration issues of vulnerable groups such as women, children, senior citizens and the disabled. Also of importance in this PFA was the involvement

of, or interactions with, traditional leadership and taking into account cultural and indigenous knowledge or practices in DRR initiatives. The overall picture showed a score of 2.0, which is the third highest, and that means it scored average when compared with all the PFAs. With the category results, local governments and organisations as institutions felt they had progressed significantly, whilst communities thought or felt otherwise. Local government and institutions in the categories results believed they had progressed in the region of 2.4 and 2.1 respectively. However, communities believed this PFA was lacking far less behind with only a score of 1.5. The explanation for this would be that local governments and civil society organisations have to a very large extent implemented programmes that deal directly with all the above mentioned issues, or categories in their functional area of work. However, these programmes did not necessarily address DRR, hence that was the reason why local governments and civil society organisation perceive themselves to have moved significantly in this PFA. On the other hand, because the communities are the ones who are at the receiving end of these services, they know that these cross-cutting issues programmes did not address their needs in as far as DRR is concerned.

4.7 QUALITATIVE RESULTS ANALYSIS

Below is an analysis of the comments made by the respondents in the open-ended questions at the end of each PFA questions. The information was presented according to the five PFAs and contains the main topics that were addressed. These comments were part of overall results details (see Appendix 3). It has already been mentioned that the open-ended comments gave an opportunity for the participants to discuss issues or perceptions they felt were not addressed by the rating questions.

4.7.1 Results of the open-ended questions

The following discussion was an analysis of the open-ended questions per priority area as asked in the questionnaire. The results were presented as per the comments by the participants. The perceptions by the respondents were presented as mentioned by the respondents, hence in some instances the

comments were not relevant to the actual PFA discussed. If the respondents discussed it under that particular PFA, it was presented and discussed under that particular PFA. Also to take note of is that in all the PFAs the percentage adds up to more that 100% and the reason for that was, even though respondents were required to give one comment per PFA, some respondents gave more than one comment per PFA.

4.7.1.1 Priority for Action 1: Make DRR a priority (governance)

A total 83% of respondents commented on this PFA. The most common comments mentioned in this PFA were lack of financial resources in order to make disaster reduction a priority and the respondents need more information, training and community involvement. 32% of the respondents asked for more information and community involvement in DRR for the local community and 16 % asked for more training within the area of disaster risk management. The lack of financial resources as an obstacle for effective DRR was mentioned by 24% of the respondents. 44% mentioned different aspects individually like poor land-use planning, housing shortages and the lack of establishment of relevant disaster management structures.

4.7.1.2 Priority for Action 2: Know the risks and take action

A total of 77% respondents commented on this PFA. The most comments also mentioned in this PFA were the need for community involvement and training in DRR issues. There were no early warning systems in place to warn the vulnerable communities of pending disasters beforehand and during disasters. The issue of resources also came out in this PFA. 26% mentioned lack of community involvement and participation. 22% alluded to the issue of early warning systems needed, and to the fact that whatever early warning systems were in place, there were no measures to see if it was effective and responsive to the community‘s needs. 17% alluded to the issues of training, workshops, and awareness which were needed by the community. The need for financial and human resources was mentioned by 22% of the respondents. The rest, which was 17%, mentioned different individual comments such as the need to

install GIS, communities ignoring early warning systems, and the need to build better infrastructure.

4.7.1.3 Priority for Action 3: Build understanding and awareness

80% of respondents commented on this PFA. The need of DRR education to be taught in schools, community involvement, lack of information and training for the community and the lack of budget allocation for DRR still came out in this PFA. 33% of the participants indicated that they supported the idea of DRR being taught at school and be a part of the school curricula in order to facilitate a better understanding and awareness of disasters within the community. 54% indicated the need for (or lack of) community information, training and awareness especially in communities at risk. 8% commented on the need for involvement of local communities. Lack of financial resources was indicated by 8% of the respondents. The remaining 8% of respondents commented on issues such as planning and maintenance of infrastructure and equipment, capacity building for DRM officials and lack of traditional leadership involvement in DRR issues.

4.7.1.4 Priority for Action 4: Reduce risk factors

A total of 40% respondents commented on this PFA. Most comments were from local governments and civil organisations. Only a few community representatives commented on this PFA. This confirmed that communities lacked information where reducing risk is concerned. Three main issues came out for this PFA. The comments made by the respondents were the lack of, or poor, infrastructure in the location being a risk itself, a need for training for both the community and disaster risk management officials in DRR and the lack or non-existent DRR practices at local level.

By poor infrastructure they meant buildings, houses, roads, water and sanitation facilties. 41.5% alluded to the poor infrastructure being a risk, 17% commented on the need to train both the community and disaster risk management officials in order to improve the understanding and implementation of DRR, especially at local level. 17% indicated that there was no DRR planning, projects or programmes in this locality. The remaining 41.5% alluded to issues like

introduction and support of poverty alleviation projects, poor land-use planning, shortage of land, and to the fact that DRR was not treated as a priority. All the aspects mentioned here, if addressed, could go a long way in reducing risk as they were underlying risk factors. Underlying risk factors are for the most part still only addressed on a national level and not realised in the same extent at local level. Instead, there is a lot of talk but no action.

4.7.1.5 Priority for Action 5: Be prepared and ready to act

A total of 50% respondents commented on this PFA. There were several comments that reflected the lack of disaster preparedness, that the government was reactive rather than proactive. There were also comments about the need of allocation of financial resources for disaster preparedness. Another problem highlighted in the comments of the respondents was that even when government is responding to disasters, preparedness level is low, due to lack of financial and human resources. This can consequently leave devastated communities unattended. 20% commented that government was still reactive rather than proactive, 27% still commented on the lack of community involvement during, before and after disasters. The need for human and financial resources was indicated by 20% of the respondents. 13% indicated the need to have disaster risk management offices in every locality to deal with pre, during and post disasters. 13% of the respondents indicated the need for training and drills to prepare communities for disasters. The rest of the 27% respondents mentioned different issues like tendering processes for emergency were very long and bureaucratic, response time being sometimes long due dire circumstances like bad roads.

4.7.1.6 Cross-cutting issues:

A total of 63% respondents commented on this PFA. Comments that stood out for this PFA was the non- involvement of all stakeholders, including the community to share information. No DRR and no visible IDP at the local level, but only visible at high and strategic level. 37% of the respondents alluded to the lack of involvement by all stakeholders, including the community and sharing of information. 21% commented on the non-visibility or DRR practices

and IDP at local level. The rest, which counted for 47%, indicated a lot of individual different aspects such as the challenge in changing the culture in communities that have been practising the same specific actions for years. There was a feeling that there was no guarantee that behaviour will change only because of additional information.

There were also comments about the challenge in making information understandable and acceptable to all community groups, including those who are illiterate. One comment brought up was the difficulty in making people want to volunteer in South Africa, because of poverty constraints. One respondent was of opinion that the government organs, private sector and all stakeholders needed to pull their resources together when approaching DRR. Another opinion was that government needed to come to ground level to address the real issues of the community and to develop and assist programmes that were being run by the communities. One noteworthy comment by the Kabokweni Community Youth Forum which evidently concurred with the perspective of this study was *"THE YOUTH IS READY",* however government was not coming down to meet them on the ground level.

4.7.2 PERSONAL INTERVIEWS

Below is the summary and analysis of the observations from personal interviews as discussed in the methodology (qualitative) section that some respondents who agreed shared. These were based on the following two questions (A total of 10 respondents who constitutes 33% of the total participants respond to these questions):

1. What difficulties do you face in implementing disaster management in the work and activities of your department/organisation/ community?
2. What would you like to see improved in order to increase the level of implementation of disaster management in the work and activities of your department/organisation/community?

These questions were formulated by the researcher and the reason for the personal interviews, as mentioned earlier, was to gather more information for the analysis of the results. These questions provided valuable information

because the participants were the ones who were better placed to give information on what really are the obstacles or challenges faced in implementing disaster risk management. They were also in a better position to give inputs and suggestions on how they perceived these obstacles could be addressed in order to attain full implementation of the HFA priorities, which in actual fact constitute the whole disaster risk management programme.

For consistency, this analysis will also be presented as per PFA.

4.7.2.1 Priority for Action 1– Make DRR a priority

i) Budget allocation for the disaster management function

The first priority for action (PFA) was the topic mostly discussed by the respondents. A total of seven respondents commented on the issue. This seemed to be the biggest concern of all the challenges discussed by the respondents.

Several problems seemed to be present in the apparent lack of budgeting for disaster management at local level because this deterd the implementation of DRR since they did not get any operational budgets.

Another problem concerning budgeting was the bureaucratic processes that hamper the acquisition of resources for different disaster management actions. These bureaucratic processes create a long process leading to inefficient disaster management.

At local level, the budget was limited and other "more urgent" matters were therefore prioritised rather than disaster management. The attitude towards disaster management was that "disasters might not happen". The local municipalities were the most critical sphere of disaster management. Budgeting for DRR must primarily be situated at the local level of government, but the local municipalities ignored this. The respondents thought that although budgeting was not made for events that "might not happen", seasonal disasters were rather predictable and should be budgeted for in some way.

ii) Prioritising of the disaster management function

Another topic discussed within PFA 1 was the low prioritising and dedication to disaster management. (A total of five respondents commented on this aspect). Some of the respondents interviewed felt that more human resources were needed in the departments for disaster management. However, since disasters occured infrequently, disaster management was not seen as a full time function. There were no designated disaster management officials in most of the organisation. In some institutions people working with disaster management were given other or added-on functions. This then aggravated their ability to fully engage in disaster management.

Since the function is often seen as an emergency function it is always placed within the emergency or public safety units instead of being placed in the heads of institution office because it is a cross-cutting issue. One participant suggested that it should be placed within the IDP section.

Another problem discussed within the disaster management units was staff turnover. As soon as employees were educated and trained they lost interest in working at local level anymore; and they went to look for jobs in the higher levels of government. Human resources were limited and the constant changing of disaster management employees was an institutional risk factor since it results in a —braindrain" as knowledge and experience was lost when it is was most needed.

iii) Political and management attitude

There seemed to be no political will or support from the authorities in as far as DRR was concerned. This was either due to poor understanding or a lack of political and management will. (Only one respondent discussed this issue). This may be due to fear of victimization. Respondents decided not to discuss this issue in a direct manner. It came out from this respondent that politicians and management still regarded disaster risk management as an emergency response function. They viewed disaster management as an event and not a process. In the municipalities where there was a budget allocation for disaster

risk management, funds were allocated for emergency relief only. However, at the provincial and district levels there was significant improvement because there was human resource and a budget allocation for disaster risk management. The non-support by those in power has led to many disastrous situations, because some incidents could have been prevented if DRR was given attention. Furthermore, DRR or prevention was never taken into consideration or integrated into IDPs, especially in the initial development planning phase.

iv) Disaster management as local responsibility

There was legislation conflict (this was discussed by the MLM and the EDM). These respondents stated that there was a conflict of interest caused by legislation mandates. According to the Disaster Management Act (57/2002), district municipalities were responsible for disaster management at local level and must initiate disaster management activities in local municipalities. Furthermore, the Constitution of the Republic of South Africa (1996) states that disaster management is the competency of the National and Provincial governments, as well as District municipalities. The local municipalities seem to recognise that they did not have an obligatory or mandatory responsibility to perform disaster risk management. Although the Municipal Systems Act (32/2000) does mandate local municipalities to develop an IDP, and that disaster management plans should be part of the municipal IDP, some municipalities do not even comply with this provision of the Act and cite the mandates of DMA and the Constitution as an excuse.

Departments and institutions did not communicate with each other; instead they worked in silos. (Seven respondents alluded to this fact). There was no integrated development planning or integration of development programmes. Stakeholders did not seem to consult each other especially in the initial phases of development where it was most critical. For example, there were residential stands which were allocated exactly where electricity cables or poles are installed. This means Eskom and the MLM did not ‗consult one another' when this developments were initiated.

4.7.2.2 Priority for action 2 – know the risk and take action

The issue of lack of early warning systems, programmes for climate change and prevention in disaster management was highlighted by two respondents.

There seems to be a limited focus on knowing the risks faced by the community. For example, the South African Police Services (S.A.P.S) indicated that disaster prevention was not their function, they were solely active when a disaster had occurred, and mainly for response actions.

4.7.2.3 Priority for action 3–build understanding and awareness

One respondent indicated that there was a gap between the people that were always affected by disasters (community) and the ones who knew and had the information (institutions). Between these two groups there were no disaster prevention initiatives or awareness programmes implemented. Information was not used or exchanged and the two groups were kept separate or not consulting one another. The gap between these two groups was very wide, and no improvement in communication seems forthcoming in order to bridge the knowledge gap between those who knew and have the information (institutions) and those who did not know but needed the information (communities). All respondents also said that education in DRR matters was crucial. For example, people build in flood-line areas and were never informed of the high risk of flooding. There was also a need for survival knowledge in society, such as swimming and fire fighting skills.

4.7.2.4. Priority for action 4–reduce risk factors

According to the respondents, the biggest problem within this PFA was land-use planning / spatial development framework. (Seven respondents) brought up the matter of the need for support from the local municipality regarding the control of settlements and land-use planning. People were exposed to high-risk levels because of lack of knowledge or ignorance. Improved support on land-use planning and environmental management could reduce the society‘s vulnerability to disasters. By-laws were not enforced in this location. Though it is a general tendency in the country, to turn a blind eye on bad practices because

of the past history of the people in the locations and Kabokweni is no different. Unfortunately there were no corrective or control measures in place for the settlements in the risky areas. For example, the houses and shacks built in sloppy mountain areas, industrial areas, next to the electricity transformer, on the flood-line and in some instances practically on dumping sites. There are also RDP houses built in such risk areas, which means government is condoning and contributing to the risk and vulnerability of the communities.

4.7.2.5 Priority for action 5–be prepared and ready to act

The attitude problem mentioned in PFA 1 was also present in PFA 5. (Three respondents alluded to this point). The big focus was on relief and response, rather than on prevention and preparedness. The preparation for disasters was not about prevention or mitigating the large impact of disasters; instead, it was about getting enough financial resources for relief material like tents, blankets and food during disaster incidents. Even in this instance, the long procurement processes made it difficult to respond timeously. There was no central storage of appropriate relief material by either province, district or local government that was readily available and accessible during disaster incidents. There were but rare instances where you could get some relief material readily available.

One respondent commented that there was no training like evacuation drills that has ever been introduced for the community by the government departments.

4.7.2.6 Cross-cutting issues

When discussing the cross-cutting issues, (two respondents) said that because of the many languages, cultures and educational levels, disaster management systems, like early warning systems, made it sometimes difficult to interpret and disseminate information to everyone at the same time. So, a blanket approach would usually be taken, for example disseminating information over radio or on print media in one or two languages. Unfortunately, that would not cover everybody because not everyone listens to the radio, and not everybody reads newspapers and information notices.

No respondent commented on the cross-cutting issues such as involvement of vulnerable groups like women, children, senior citizens or the disabled. The issue of volunteers, involvement of traditional leadership and the utilisation of indigenous knowledge for DRR programmes and initiatives was never discussed by any respondent.

4.8 CONCLUSION

This chapter concentrated on the empirical research, findings and analysis of the extent of progress of the HFA priorities implementation in the Kabokweni location. The first section of the chapter concentrated on the discussion of research participants or sample unit and size, including the reason for choosing the sample unit. A brief background of the area of study was also presented. Thereafter, the research methodology was discussed. The questionnaire as the research tool and its context also received attention.

The second section of the chapter focused on the findings and analysis of the data collected in Kabokweni for the purpose of the study. The figures indicating results were presented in three categories. That is, one with the Kabokweni overall results, one with comparison results of Kabokweni 2010 and South Arica 2009 survey and lastly the results were presented as per priority for action by each respondent‘s categories. The number of unanswered/don‘t know questions were also briefly discussed and presented in tables.

The overall Kabokweni results figures were firstly analaysed quantitatively; thereafter open-ended and personal interviews results were discussed qualitatively. The results were all presented as per priority for action and cross cutting issues as presented by the questionnaire. Lastly, is the conclusion of this chapter, and that is this section.

The following chapter will focus on the conclusion of the study and determine if the objective of the study was accomplished. Recommendations on how to improve the HFA implementation progress level in MLM including Kabokweni Location and its community will also be presented.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter gives a conclusion of the study, which is based on evaluating the level of progress made in the implementation of the HFA priorities in the Kabokweni community. A summary of the findings which have been elaborately discussed in the previous chapter will be given. Thereafter, recommendations that will assist in addressing the challenges or issues which impede progress in the implementation of the HFA priorities are also discussed. The recommendations will extend to giving advice on how local government and all other relevant disaster risk management stakeholders can improve the level of DRR implementation in order to make the MLM, including the Kabokweni community, safe and resilient to disasters. The conclusion of the study including the empirical findings will be given attention and recommendations will be discussed as per each priority for action.

5.2 CENTRAL THEORITICAL STATEMENTS

For the purpose of the study the following preliminary central theoretical statements were made in concurrence with the VFL perspective:

- Nationally formulated policies are not generating widespread systematic changes in local practices (GNDR, 2009:v).
- Despite progress at international and national policy level, the greatest barrier to achieving a substantial reduction in disaster losses by 2015 is the lack of a systematic implementation of DRR activity at local level (GNDR, 2008:36).
- Given the explicit cause-and-effect links between disasters and development interventions, development policy should aim at reducing basic societal risks while attaining sustainable development objectives. Balancing these two goals requires incorporating DRR in development policies, strategies and programmes at local, national and sub-regional levels (AU/NEPAD, 2004:13).

- Civil society organizations, with their established relationships and extensive presence amongst poor vulnerable communities in disaster-prone areas, are well-positioned to strengthen linkages between policy and practice. They can facilitate local level dialogue, build trust and understanding between affected communities and local governments, foster participation and ownership, mobilize local resources, support partnership approaches and assist in measuring progress (GNDR, 2008:02).
- Achievement of the Hyogo Framework for Action requires greater participation from civil society at all levels, including representatives of female, vulnerable and high-risk groups. All stakeholders, including government, business and civil society need to work together if goals and targets are to be reached (La Trobe & Faleiro, 2007:12)

The study established that the nationally formulated policies such as the DMA, NDMF, as perceived by the VFL, were indeed not generating widespread systematic changes in local practices (GNDR, 2009:v). The overall results of progress made in the implementation of all the priorities for action and cross-cutting actions indicated that since 2005 there was less than average progress made in the implementation of the HFA priorities. Although there was significant improvement in the development of these policies, they were not translated into plans and programmes implemented at community level. The Kabokweni community did not reap the fruits or outcomes of those policies as yet. There was no systematic implementation of disaster risk activities in Kabokweni, the community still remained vulnerable to different kinds of risk, which meant the very limited progress impacted them in a negative way.

Although there was visible development intervention taking place, the Kabokweni community remained more vulnerable after the implementation of the development interventions because these interventions and activities did not incorporate DRR. It was also necessary to assess the impact of planned development programmes and projects on disaster risk by ensuring, when preparing and implementing development programmes, that they did not increase disaster risk by increasing people‘s vulnerability to hazards (UN/ISDR, 2006:02). For example, there was an increase in the number of households

supplied with electricity by Eskom, which indicated improvement in development, yet at the same time in some residential stands as previously alluded to electricity poles and cables were installed right in the middle of these stands. This then increased the community‘s vulnerability to the dangerous electricity cables. There was no confirmation of compliance to IDP requirement as mandated by the Municipal Systems Act (32/2000). This also proved that DRR is not mainstreamed into existing development plans and projects.

The results also confirmed that there was no involvement of the community in DRR information, awareness, and initiatives or activities even though the community was willing and ready to partake in them. With no information there was not much communities could do since there was absolutely no involvement or any interaction between local governments and the community. Even the most vulnerable groups like women, youth, the elderly and children were not informed of their vulnerabilities or taken into consideration when DRR strategies and plans were formulated. Seemingly, the local government implements their development projects without the inputs and understanding of the community. Unfortunately, this has the potential of making the community not to take any ownership of the development projects. The Kabokweni community still remains vulnerable because the term DRR remains a very foreign concept to most of them; which implies that there was no major progress towards achieving the objectives of the HFA. With this state of affairs it seems it would still take a long time before an acceptable level of progress is reached for the Kabokweni Location.

5.3 CONCLUSION ON THE STUDY

The main objective of this research was to provide an overview of progress made in the implementation of the HFA priorities at local level in the Kabokweni community.

In order to reach the objectives of the study, the primary research question asked was: Is there any progress made in the implementation of the HFA at local in the Kabokweni Location and its community?

In order to address the primary research question the following research questions were asked:

1. Is DRR given priority by local municipalities, district municipalities and Provincial departments?
2. Do the Mbombela Municipality and the Kabokweni community know their disaster risks and take action in this regard?
3. Does the municipality build understanding and awareness of the disaster risks in its communities?
4. Do the Mbombela Municipality and Kabokweni community engage or focus on initiatives to reduce risk factors?
5. Is the Municipality and community prepared and ready to respond to disasters or disaster incidents?

The specific objectives of the study were:

1. To determine to what extent is DRR given priority by local, district municipalities and Provincial departments.
2. To determine to what extent the Municipality and the Kabokweni community know their risk and take action to address them.
3. To analyse to what extent Municipality build understanding and awareness of the disaster risk activities.
4. To establish to what extent does the municipality and Kabokweni community engage or focus their initiatives on the reduction of risk factors.
5. To determine the level of preparedness and readiness of the Kabokweni Municipality to respond to disasters or disaster incidents.

These objectives of the study were reached, and this will be discussed in the following sections.

5.3.1 The findings of the study revealed that:

According to the VFL Kabokweni 2010 overall results, DRR was not given priority by either the local government and/or other stakeholders like the private sector. Although government has a responsibility to play a leading role in DRR,

there was significant progress on policy and legislation, especially at District and Provincial levels, but the challenge still remained in implementation of these policies and plans at local level. The outcome of the overall results using a 1 - 5 point scale indicated that the level of progress is less than 2.5. That was the average or the halfway mark towards reaching 5 points.

It has already been indicated that government, especially at local municipality level, is the leading role player in DRR because of the nature of its placement within the communities. However, since local government does not regard DRR as a priority, this has led to the municipality not having conducted any risk assessment for the Kabokweni community. Apparently, the district was in the process of conducting a detailed risk and vulnerability assessment for all municipalities in its area of jurisdiction; however, there was no indication as to when the risk assessment will be executed. The PDMC in 2006/7 conducted a risk and vulnerability assessment without the involvement of the community and the risk profile was never made available to the municipality or the community. With this state of affairs, there was nothing much that government institutions or the community could do because neither of them was aware, or know what were the risk and vulnerabilities of the Kabokweni community. Furthermore, there were no early warning systems in place. Early warnings were disseminated when there was a disaster in the area through radio and newspapers. Those who cannot read and understand English and have no access to radio at that particular time (which might be due to electricity cut-off as a result of the disaster) will never get to know of the early warnings, and also because in the evenings people watch television in preferance to the radio.

There was little or no involvement or informing of the community by the municipality or any government department that have information in as far as DRR and awareness is concerned. In fact this was the lowest rated PFA compared to the others. The greatest problem with this scenario was that without information the community will continue being vulnerable to all sorts of hazards, and eventually suffer the consequences, especially in the face of potential risk caused by climate change resulting from global warming.

The aerial view of the Kabokweni location is very perturbing. Although there were signs and efforts of urban development, the urban risks that usually come with urban development are inevitable. The poor land-use planning, environmental degradation and the absence of mainstreaming of DRR into integrated development programmes and planning by all stakeholders was a worrying factor for the Kabokweni community. This was evident in the cracking houses and schools as a sign of no enforcement of South African Bureau of Standards (SABS) or National Housing Building and Registration Council (NHBRC) standards. Two different groups of participants unknowingly alluded to one school (Mhlume School) which was disintegrating and posing a risk for the students. Apparently this school was built not so long ago.

There was noticeable progress with the response priority because disasters do occur, to a large extent, in Kabokweni. So, the community was aware of the fact that they must respond to unexpected incidents whenever they occur. In fact, they had responded to major incidents and disasters many a time~~s~~. The response and preparedness PFA scored the second highest rating in the overall results. In addition, government focused much of its effort in this priority especially when there is a disaster even though they respond on *ad hoc* basis. Politicians provide particular attention and immediately release relief resources when there is a disaster or major incident because provision of relief material indicates concern by government for the well-being of communities and it produces visible results and usually brings in more votes.

Joint Operation Committees (JOC) were apparently usually activated because the province did have some sort of structures in place for response, especially in EDM. However, with preparedness there was no indication that all stakeholders, including the community, were in a position to handle a disaster of a very big magnitude. Even though there was a budget for relief in MLM, the amount was too little to even attend a disaster of a medium magnitude. The province and district did not have funds readily available for relief apparently because the PFMA did not allow for budgeting of contingencies. Even for the immediate relief, material was not readily available. Stocks like tents were unavailable, whilst both District and Province had an excess of blankets. This

unavailability of stock does not apply for relief material only. There were also no stocks of medication for in case of a disease outbreak of any kind.

Apparently medication could only be sourced from other areas or procured only during an incident. There was not even any arrangement or memorandum of understanding as to where the people could go for accommodation in places like schools or churches in case their houses were damaged. There were no permanent emergency procurement procedures in place for emergency situations. Participants alluded to the long procurement procedures and red tape followed even during disasters situations. One organisation mentioned that it would be better if there was a common store-room for the province where all stock will be kept and would be accessible immediately during emergency situations. However, the common store-room is not always the best idea because should in case it was also affected by a disaster, there will be no relief material at all. Although there was significant attention given to this priority, however, it is only done on *ad hoc* basis and there was no permanent system for preparedness or response in place.

Although the issue of cross-cutting issues was not indicated as an objective for the research, it is an objective for VFL. There was little consideration or involvement of all the different and vulnerable groups in the community in as far as DRR is concerned. A lot of different organisations indicated their willingness to be involved and partake in DRR issues and initiatives; unfortunately the government was not coming down to meet them on the ground.

5.4 RECOMMENDATIONS

The following recommendations can assist in improving the HFA priorities as discussed in this study. These priorities for action are basically the specific HFA priorities. These recommendations will be discussed as per priority for action.

5.4.1 Priority for Action 1 - Make DRR a priority (governance)

Even though the results per categories indicated that local governments were ahead with regard to governance issues, such as the establishment of policies

and legislation, there was an urgent need to now focus on the implementation (action) of such policies and legislation (GNDR, 2009:13). MLM has the primary responsibility for implementing measures to reduce disaster risk. DRR needs to be an essential part of government‘s investment in sustainable development. The Provincial, District and Local governments have the power as well as the responsibility to protect Mpumalanga citizens and their assets by reducing the risk of losses from disasters.

Government, however, cannot do the task alone (UN/ISDR, 2007:04). Effective DRR in the Province, District and Local government will be achieved through the efforts of many different stakeholders, including regional and international organisations, civil society including volunteers, the private sector, the media and the scientific community (UN/ISDR, 2007:21). The DRR policies and plans will be said to be effective if the policies and practices of all sectors incorporate risk-reducing elements. Political support and will should be improved and exercised visibly especially in the development and provision for DRR expenditures and regulations. The agencies and people responsible for disaster risk management implementation should know and understand what is expected of them, and also be willing to act (UN/ISDR, 2007:04).

Local government must ensure that DRR is a priority in their policies by developing legislation on DRR issues. The development of these policies must ensure the participation by people at all levels of society and promote disaster risk management as the responsibility of many different sectors. The municipality, sector departments and other institutions should allocate sufficient human and financial resources for DRR. The resources and decision making powers should be decentralised (La Trobe & Faleiro, 2007:09). The use of DRR principles and practices at all levels should be encouraged. The existing disaster risk management structures must facilitate the participation of civil society and the private sector in issues related to DRR. Lastly the municipality, sector departments and disaster risk management stakeholders should ensure that DRR is made a priority by mainstreaming DRR into development. This can be achieved by considering and addressing risks emanating from natural hazards in medium-term strategic frameworks. It can also be achieved by the development of institutional structures, municipal, sectoral strategies and

policies, design of individual projects addressing hazard-prone areas in Kabokweni community. Mainstreaming requires analysis of both how potential hazard events could affect the performance of policies, programmes and projects, and of the impact of those policies, programmes and projects, in turn, on vulnerability to natural hazards. This analysis should lead on to the adoption of related measures to reduce vulnerability in Kabokweni, where necessary, treating risk reduction as an integral part of the development process rather than as an end in itself (Benson & Twigg, 2007:01).

5.4.2 Priority for Action 2 - Know the risk and take action

The MLM and other sector departments can achieve this priority by institutionalising disaster risk assessment programmes. Institutionalizing disaster risk assessment has many advantages and benefits because the efforts involved would still be important development management tools for the municipality and the institutions (IFRCRCS, 2007:06). The risk assessment or research should be carried out in order to obtain data that can be analysed for the purpose of planning programmes and projects designed to reduce risk and vulnerability (IFRCRCS, 2007:06). As with any research, the information the researcher hopes to obtain is directly linked to the objectives of the research, they look for information that allows concerned parties to make better decisions and plan according to objectives

For the MLM and Kabokweni community to carry out the assessment effectively, they have to understand the actual harm of past disasters and the potential threats posed by imminent hazards. This process should include collecting and analysing information about the nature, likelihood and severity of disaster risks. The risk assessment in which result will be the municipality risk profile must be used in making decisions on the need to prevent or reduce disaster risks, what risks to address, and the optimal approach to tackling those risks found to be unacceptable to the target groups and communities. Disaster risk assessment is useful for several purposes, including: (a) making risk-responsive physical and economic policy, (b) developing a regulatory framework for development, (c) promoting participatory development through public education and awareness, (d) developing private sector and business

decision-making processes, (e) sharing risk and transfer interventions (AU/NEPAD/UN/ISDR, 2004:12). It is important to note that risk assessment is the first step in effective disaster risk management. Hence, it is best undertaken as part of a comprehensive risk management strategy (AU/NEPAD/UN/ISDR, 2004:10).

The basic issues to address in undertaking hazard and vulnerability assessments include the following checklist: major hazards that affect the target group or sector, how they occur and their frequencies; extent of losses, damage and injuries arising from the hazard; communities most vulnerable to the negative effects of the hazard; extent to which communities are vulnerable to hazards and the major factors that underlie or condition this vulnerability; how those communities affected cope with disasters (AU/NEPAD/UN/ISDR, 2004:11). Irrespective of the method of disaster risk assessment the municipality or other organisations may wish to adopt, the assessment process must involve an optimal mix of objective risk determination (based on quantitative methods).

The method should be a subjective risk perception of people in affected communities and all stakeholders of the disaster risk management process. Risk perception emphasises individual and subjective factors of intuition, awareness and experience (AU/NEPAD/UN/ISDR, 2004:12). Furthermore, to avoid increasing vulnerabilities it is necessary to identify capacities of the Kabokweni community in order to know what strengths exist within that society, even among disaster victims on which future development can be built. Acknowledging the capacities of the affected population is essential for designing and implementing disaster responses that have development impact (Anderson & Woodrow, 2009:02).

This priority for action also emphasises the need for –identifying, assessing and monitoring disaster risk and enhancing early warnings" as pre-conditions for natural DRR. For the early warning systems to be effective they must have strong political commitment from the government, supported by DRR plans, legislation and coordination mechanisms (WMO/METEO FRANCE, 2009:02). There should also be coordination among the municipal services for sharing of

information, data, and issuing of warnings that will take vulnerabilities and exposure of elements into account.

The municipality must take cognisance that people-centred early warning systems rely on the direct participation of those most likely to be exposed to hazards. Without the involvement of the local municipality and communities at risk, departments and other institutions' interventions and responses to hazard events are likely to be inadequate. A local, „bottom-up' approach to early warning, with the active participation of local communities, enables a multi-dimensional response to problems and needs. In this way, local communities, civic groups and traditional structures can contribute to the reduction of vulnerability and to the strengthening of local capacities (UN/ISDR, 2006:03).

The municipality and other municipal disaster risk management agents that issue early warning should ensure that warning alerts and messages are tailor made to the specific needs of the Kabokweni community. For example, these may be tailor-made for diverse cultural, social, gender, linguistic and educational backgrounds and studies should be undertaken to determine how the public accesses and interprets early warning messages (WMO/METEO FRANCE, 2009:09). It should also be determined what mechanisms can be used to widely disseminate hazard warnings to remote households and communities in Kabokweni (WMO/METEO FRANCE, 2009:09), the utilisation of ward committee members and volunteers can prove to be effective, although it has been highlighted that because of poverty constraints in South Africa it is difficult to get the services of volunteers. Monitoring measures should include putting feedback mechanisms between municipality, sector departments, municipal service agents rendering early warnings and the community, to facilitate evaluation and improvement of the warning system (WMO/METEO FRANCE, 2009:09).

5.4.3 Priority for Action 3 - Build understanding and awareness

The MLM, sector departments and other organisations should play a central role in community education and training (ISDR, 2010, ix). The results showed that no education exist for DRR, so priority emphasis must be given to

education as an essential part of disaster reduction strategies. Education is a crucial means within local communities around the world to communicate, to motivate, and to engage, as much as it is to teach. Awareness about risks and dangers needs to start in early education before abilities to address them can become part of growing civic and professional responsibilities as people mature (ISDR, 2004:236). Incorporating risk-related topics in school curricula can enable children to protect themselves and others in times of crisis.

Public awareness campaigns can be conducted in schools, through the media and official, public, professional and commercial channels. There is a responsibility for the municipality, sector departments and other municipal agents to promote public awareness of natural hazards and risk on a continuous basis. In order to create a culture of prevention, there needs to be a great degree of public participation and popular understanding (ISDR, 2004:282). The information should incorporate relevant traditional and indigenous knowledge and cultural heritage and be tailored to different target audiences, taking into account cultural and social factors. The HFA considers that both communities and local authorities should be empowered to manage and reduce disaster risk by having access to the necessary information, resources and authority to implement actions (UN/ISDR, 2010 2010:vii).

In December 2003 an earthquake struck south-eastern Iran, killing more than 43,000 people, leaving 60,000 homeless and destroying much of the city of Bam. Shortly thereafter, the government revised its national strategy for earthquake risk reduction, focusing on promoting a culture of prevention through an awareness campaign. The campaign promoted preparedness and safety in easily understood popular formats using all media; including posters, billboards and materials dedicated to children's education. These educational materials included colourful and age-appropriate information on earthquakes and earthquake safety in booklets, posters, writing and painting exhibitions. The campaign also established an annual drill for schools and organized a public rally. Special efforts were made to include women in the process. Campaign organizers identified indicators to measure their progress in increasing public understanding. Panels of community members of different ages and gender responded to questions that could display their knowledge and plans for action

on earthquake safety. Progress was measured by tracking their replies. The results showed improved awareness, concern and preparedness among the local people (UN/ISDR, 2007:61).

5.4.4 Priority for Action 4 - Reduce risk factors

This priority can be achieved through building collaboration between stakeholders in order to reduce the impact of the natural disasters by mainstreaming DRR into development policies (Mitchell, 2003:01). Progress towards meeting millennium development goals (MDGs) is also affected by disasters but can also be strengthened by integrating risk reduction into development (DFID, 2004:53). In practical and operational terms, there are opportunities to accelerate MDG implementation in the course of risk reduction investments. In other words, the institutions should not take risk reduction only as an insurance policy taken out to protect investments in development but a vehicle for achieving development in the first place (Wisner & Walker, 2005:09).

The Kabokweni picture indicated that there was very limited or no effort of mainstreaming DRR into development. The responsibility for reducing the impact of disaster lies with policy-makers, communities, non-governmental organisations and the private sector (Mitchell, 2003:01) and all these actors should work in collaboration with each other in order to achieve this priority. As far as possible, DRR should be incorporated into existing government planning cycles and procedures for implementation and monitoring. Pre existing sectoral policies and activities relevant to DRR must be taken into account in any reform and agenda. This would avoid DRR being perceived as a costly exercise and reduces the likelihood of competition of resources (Pelling & Holloway, 2006:30).

As we begin the second decade of a new century, the municipality must take into cognisance that more than half of the world‘s population lives in cities and urban centres (UN/ISDR, 2010 2010:v). Urban settlements are now the lifelines of today‘s society. They serve as nations‘ economic engines, centres of technology and innovation, and as living examples of our cultural heritage. Unfortunately, inherent in the important roles they play in society are the

consequences of their success; and that is, cities can also generate new risks. The risks, as in the case of Kabokweni, include the increasing number of informal settlements, social inequality and environmental degradation (ISDR, 2010 2010:v). Urban risk, city planning and the role of local governments in dealing with risk reduction have been recognized as key factors to build resilient communities and nations since the beginning of the ISDR (UN/ISDR, 2010 2010:vii). Poor urban governance, informal settlements on unsafe land, declining ecosystems and vulnerable rural livelihoods are the main underlying risk drivers, which need to be addressed to build safer cities (UN/ISDR, 2010 2010:v).

Mainstreaming should be implemented in programmes such as Agriculture, Urban Planning and Infrastructure, Housing, Finance, Education, Health, Environmental Management, which includes climate-change, adaptation, and / or, Poverty Reduction Strategy Papers (PSRPs). Sufficient ownership, skills and knowledge and financial resources will be crucial if organisations are to be successful in mainstreaming DRR into development programmes (La Trobe & Davies, 2005:06). Some of the finances required to support the mainstreaming process could be raised by the municipality, sector departments and other agencies allocating a percentage of their relief fund budget (and / or development budget) to DRR, including the process of mainstreaming (La Trobe & Davies, 2005:06). Furthermore, the municipality‘s and province‘s resilience to disasters can be built by investing in simple, well-known measures to reduce risk and vulnerabilities. For example, applying relevant building standards to protect critical infrastructure such as schools, hospitals and homes, unsafe buildings, because non-enforcement of building codes often causes more deaths than natural hazards themselves.

In his introduction to Secretary-General‘s Annual report on the Work of the Organisation of the United Nations, Anan (1990) raised this fact:

> ~~I~~More effective prevention strategies would save not only tens of billions of dollars, but save tens of thousands of lives. Funds currently spent on intervention and relief could be devoted to enhancing equitable and sustainable development instead, which would further reduce the risk for

war and disaster. Building a culture of prevention is not easy. While the costs of prevention have to be paid in the present, its benefits lie in a distant future. Moreover, the benefits are not tangible; they are the disasters that did NOT happen.

Another opportunity for reducing risk is post-disaster reconstruction projects that present a real opportunity for the introduction of hazard-proof measures in construction and land use planning (Benson & Twigg, 2007:148). It is understandable that social needs, land availability and economic constraints in Kabokweni mean that it is not always possible to secure land that is safe from all hazards in post-disaster reconstruction. However, it is still possible to reduce future losses from disasters through appropriate construction and planning measures (Benson & Twigg, 2007:148).

5.4.5 Priority for Action 5 - Be prepared and ready to act

The municipality concentrates more focus and energy on prevention and DRR more than response. DRR should be included in development strategies and emergency response management at local, district and provincial levels. The municipality and other organs of state should strengthen contingency planning and emergency response towards DRR. They should also advocate the adoption of multi-hazard approach to DRR in sustainable development strategies, taking into account prevalent hazards such as environmental and human-induced phenomena (AU, 2006:9-10).

The municipality and all organs of state should aim at establishing standing capacity to respond to a range of different situations that may affect the province by putting in place a broad set of preparedness measures. This includes, for example, early warning systems, ongoing risk and vulnerability assessment, capacity building, the creation and maintenance of stand-by capacities and the stockpiling of humanitarian supplies. Undertaking a contingency planning process will be a key component in developing an analysis of what needs to be done in this process, and will help in the designing, testing and implementation of response actions. In order for a plan to be effective, it is essential that all participating actors are meaningfully involved in

its development (UN/ISDR, 2008:18). The municipality should engage in stakeholder participation including the community. The preparedness plans should acknowledge that the first response to a disaster occurs within the affected communities themselves because community-led responses are particularly important and effective.

A process which is built around participation will lead to increased ownership by all those involved and will contribute to the smooth implementation of plans during times of disaster. Coordinated participation will help to work out problems of who is responsible for what when a disaster occurs. It also allows for effective scaling up during disasters; thereby ensuring the required goods and services get to the most affected and vulnerable populations (UN/ISDR, 2008:18).

It is important that the institutional arrangements necessary for preparedness are also reflected in local and provincial legislation. This law or policy will guide which activities can be implemented under what conditions and establish who has overall responsibility in a disaster. Such legislation should specify the role of key provincial departments, national and international organisations and civil society actors in preparedness and response to avoid confusion in the early days of a response. It should also clearly establish decentralised mechanisms and encourage community participation. Also critical in the legislation or policy is the identification of the source of funding and other resources required for preparedness. Ideally, it should establish a specific line item, or funding source, and the overall local and provincial budget for building preparedness capabilities prior to disasters. It has to be mentioned that the Public Finance Management Act (1/1999) and Municipal Finance Management Act (56/2003), do outline how additional emergency disaster funds might be allocated in the face of a major disaster (UN/ISDR, 2008, 11), which is a certain percentage of revenue of the annual budget of the organs of state. However, when disaster strikes there seems to be confusion as to where emergency funds would be sourced from.

5.4.6 Cross-cutting issues

The achievement of this priority for action requires greater participation from civil society at all levels, including representatives of female, vulnerable and high-risk groups. All stakeholders, including government, business and civil society and even traditional leadership need to work together if goals and targets are to be reached (La Trobe & Faleiro, 2007:12). Although this includes a wide spectrum of activities and may place a heavy burden to disaster management officials, so another way to avoid over-burdening staff is to clarify and strengthen the links between DRR and other cross-cutting issues to be mainstreamed. Furthermore, DRR tools and methodologies should be made directly relevant to and, where possible, integrated with existing structures, procedures and activities rather than developed as separate processes that place a heavy burden on already overworked staff (La Trobe & Davis, 2005:07).

5.5 CONCLUSION

The first chapter of the study gave the background and purpose of the study which also outlined the problem statement. The chapter gave the premise that the whole research revolves around DRR and HFA priorities implementation initiatives. It included the theoretical orientation, and outlined the research questions and objectives. A brief overview of the subsequent chapters was also introduced in this chapter.

The second chapter introduced the DRR theoretical framework, and entailed an in-depth literature study of the DRR phenomenon which entailed the policies and mechanisms that shaped DRR in order to put it in the context of the study. This included some of the international risk reduction protocols and forums that contribute and give support to DRR initiatives globally. Furthermore, the VFL perspective and the HFA on which this study is based were also discussed.

The third chapter further discussed the DRR phenomenon in the South African context to give an understanding of the South African paradigm, because the study is based in a South African community.

Chapter four outlined the methodological process used for this study. It entailed a survey, using the questionnaires of the survey research project**:** VFL perspective. The empirical findings and the analysis of the data obtained through the questionnaires were extensively discussed. The data analysis and findings were presented quantitatively in the form of charts, tables, observations and descriptions. The study is also in part based on a qualitative method of study because some results were obtained from open ended questions in the questionnaire and personal interviews with respondents.

The last chapter, which is this chapter sets out the conclusions based on the study and the central theoretical statements. It also presented recommendations that will assist the MLM in addressing the challenges and issues, which hinders the successful implementation of the HFA and was discussed per PFA.

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"APPENDIX 1"

PARTICIPANT CONSENT FORM

Research Title: **EVALUATION OF THE IMPLEMENTATION OF THE HYOGO FRAMEWORK FOR ACTION IN THE KABOKWENI LOCATION: VIEWS FROM THE FRONTLIME PERSPECTIVE**

Project Leader: Surname_____ **First Name**:_____

Address:_____

Telephone number: _____

We appreciate your willingness to partake in this research project. The project leader will contact you to arrange a time for the interview to take place.

- Your involvement in this study is voluntary, you are not obliged to divulge information you would prefer to remain private, and you may withdraw from the study at any time.
- The project team will treat the information you will provide as confidential. If you wish, you will not be identified in any document, including the interview transcripts and the research report, by your surname, first name, or by any other information. You will be referred to in the document under a code name. No one, other the project team will be informed that you participated in this research.
- Although no risks are anticipated in this project, every effort will be made to minimized possible risks.
- The research findings will be made available to you should you request them.
- Should you have any queries about the research, now or in the future, you are welcome to contact the project leader at the above address.
- We appreciate your willingness to be involved in the project.

I understand the contents of this document and agree to participate in this research.

_____ _____

SIGNATURE **DATE**

_____

NAME

“APPENDIX 2

VFTFLite

Created: February 09 2009, 9:46 AM
Last Modified: February 09 2009, 9:46 AM
Design Theme: Global Blue
Language: English
Button Options: Labels
Disable Browser “Back” Button: False

Views from the Frontline Lite

Page 1 - Question 1 - Choice - Multiple Answers (Bullets) [Mandatory]

Please give us some information about you. This information will be treated in confidence. Select the 'role' which most accurately describes you.

- ❑ Local /District/Provincial Government
- ❑ Member of Civil Society Organisation
- ❑ Member of a local community

Page 1 - Question 2 - Open Ended - One Line [Mandatory]

Please tell us which country and which region of the country you come from

Page 2 - Question 3 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 1 Governance:
Structure: Does local and regional government provide organisation for disaster risk reduction at the local level?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 2 - Question 4 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 1 Governance:

Planning: Do local sectoral and development plans incorporate disaster risk reduction (i.e. agriculture, housing, environment, etc)?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 2 - Question 5 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 1 Governance:

Participation: Do representatives of local communities and community-based organisations participate in the development of local level planning and policy development?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 2 - Question 6 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 1 Governance:

Financial resources: Are adequate financial resources dedicated to local government and other local institutions for Disaster Risk Reduction?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 2 - Question 7 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 1 Governance:

Human Resources: Does the government provide training in Disaster Risk Reduction to local officials and local „civil society organisations / community leaders?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 2 - Question 8 - Open Ended - Comments Box

Governance
Do you have any other comments you would like to make about Governance and Disaster Risk Reduction in your situation?

Page 3 - Question 9 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 2 Assessment, Monitoring and Warning
Risk assessment: Are regular hazard/risk assessments held with the participation of representatives of all sections of the local communities (including women and the most vulnerable groups)?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 3 - Question 10 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 2 Assessment, Monitoring and Warning
Early warning: Are there effective early warning systems in place, reaching local populations and taking local conditions into account?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 3 - Question 11 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 2 Assessment, Monitoring and Warning
Systems: Are systems in place to monitor key hazards and vulnerabilities and share such information with at-risk communities?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 3 - Question 12 - Open Ended - Comments Box

Assessment, Monitoring and Warning
Do you have any other comments you would like to make about Assessment, Monitoring and Warning in your situation?

Page 4 - Question 13 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 3 Knowledge and Education
Formal education: is Disaster Risk Reduction taught as part of the local school curricula?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 4 - Question 14 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 3 Knowledge and Education
Training: Are teachers trained on Disaster Risk Reduction and provided with educational material?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 4 - Question 15 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 3 Knowledge and Education
Training(2): Are community leaders (including women) trained in Disaster Risk Reduction?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 4 - Question 16 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 3 Knowledge and Education
Public Awareness: Are there public awareness initiatives informing communities about disaster risk?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 4 - Question 17 - Open Ended - Comments Box

Knowledge and Education
Do you have any other comments you would like to make about Knowledge and Education in your situation?

Page 5 - Question 18 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Natural resource management: Are there policies at the local level to support the sustainable management of natural resources?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 19 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Climate Adaptation: Do local government and organisations support communities to adapt to actual or expected climate change?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 20 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Livelihood Security: Do local government and organisations communities to strengthen their livelihoods in flood or drought-prone areas?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 21 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Poverty Alleviation; Do local government and organisations include Disaster Risk Reduction as an aspect of poverty reduction plans?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 22 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Land use: Is Disaster Risk Reduction incorporated into land use plans for informal settlements in your locale?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 23 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Building codes: Are new building codes applicable to construction practices for informal or unregulated human settlements?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 24 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 4 Underlying risk factors
Protection of public facilities: Are key public facilities (such as schools and hospitals) re-built or strengthened to project against the threat of major hazards, especially in areas of high risk?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 5 - Question 25 - Open Ended - Comments Box

Underlying Risk Factors
Do you have any other comments you would like to make about the Underlying Risk Factors in your situation?

Page 6 - Question 26 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 5 Preparedness and Response
Disaster preparedness planning: Are there disaster preparedness plans in place at the local and community level?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 6 - Question 27 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 5 Preparedness and Response
Training and Rehearsals: Are regular training drills and evacuation rehearsals done with at-risk communities and local „civil society" organisations?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 6 - Question 28 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 5 Preparedness and Response
Financial reserves: Do the local authorities have financial reserves / emergency funds that cam be made available quickly to support effective response to disasters?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 6 - Question 29 - Rating Scale - One Answer (Horizontal) [Mandatory]

PFA 5 Preparedness and Response
Disaster recovery: Are disaster recovery programmes designed to reduce the risk of future disasters?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 6 - Question 30 - Open Ended - Comments Box

Preparedness and Response
Do you have any other comments you would like to make about the levels of Preparedness and Response in your situation?

Page 7 - Question 31 - Rating Scale - One Answer (Horizontal) [Mandatory]

'Cross-cutting' issues
Participation ; Are communities and vulnerable groups involved in Disaster Risk Reduction planning and decision-making with local authorities and local „civil society" organisations?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 7 - Question 32 - Rating Scale - One Answer (Horizontal) [Mandatory]

'Cross-cutting' issues
Volunteers; Are there activities to support and encourage the voluntary participation of communities in reducing disaster risk?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 7 - Question 33 - Rating Scale - One Answer (Horizontal) [Mandatory]

'Cross-cutting' issues
Gender: Are local women able to participate and have specific roles in decision-making and planning/ implementation of Disaster Risk Reduction activities?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 7 - Question 34 - Rating Scale - One Answer (Horizontal) [Mandatory]

'Cross-cutting' issues
Cultural sensitivity; Do Disaster Risk Reduction activities take into account the views and needs of different vulnerable groups with communities (young, old, disabled, ethnic minorities, etc)?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 7 - Question 35 - Rating Scale - One Answer (Horizontal) [Mandatory]

'Cross-cutting' issues
Culture: Are traditional knowledge and cultural practices of communities taken into account in Disaster Risk Reduction activities?

Not at all	To a very limited extent	Some activity but significant scope for improvement	Yes, but with some limitations in capacity	Yes, with satisfactory, sustainable and effective measures in place	Don't know
❍	❍	❍	❍	❍	❍

Page 7 - Question 36 - Open Ended - Comments Box

'Cross Cutting' issues
Do you have any other comments you would like to make about 'Cross cutting' issues (issues such as social engagement, gender, and cultural aspects) in your situation?

Thank you

Detailed Results from the VFLFLite survey

		Respondent nr	**1**
Type of question	Question nr		
Information	1		CSO
Open ended	2		SA, MP
PFA 1 Governance	3		1
	4		1
	5		2
	6		1
	7		1
Open ended	8		Yes, the DF
PFA 2 Assessment, Monitoring and Warning	9		3
	10		1
	11		1
Open ended	12		to the communities first to give the
PFA 3 Knowledge and understanding	13		1
	14		1
	15		1
	16		1
Open ended	17		m training and skills, again to assist t
PFA 4 Underlying risk factors	18		2
	19		1
	20		2
	21		1
	22		1
	23		2
	24		1
Open ended	25		no
PFA 5 Preparedness and response	26		1
	27		1
	28		4
	29		DK
Open ended	30		st include the organisation and the c
Cross cutting' issues	31		2
	32		1
	33		2
	34		1
	35		2
Open ended	36		no

1

2	3	4	5	6	7	8	9	10
CSO Sa, Mp	CSO Sa, MP	CSO SA, MP	CSO SA, MP	CSO SA, MP	LCR SA, MP	LCR sa mp	LCR SA, Mp	LCR SA, Mp
4	2	3	3	4	3	2	1	5
3	DK	3	3	DK	2	DK	2	5
3	1	2	2	2	2	1	2	DK
3	2	2	2	DK	DK	1	1	DK
4	1	2	3	1	DK	1	1	5
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2	DK	3	2	1	1	DK	1	DK
3	1	2	2	1	1	1	1	4
3	1	4	3	2	1	2	2	DK
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3	DK	4	3	DK	DK	DK	1	4
4	DK	2	3	DK	1	1	1	1
3	DK	3	3	1	XX	1	1	1
5	2	2	2	DK	1	DK	1	DK
2	2	2	2	1	1	DK	1	DK
2	DK	1	2	1	1	1	1	DK
2	DK	2	3	DK	1	1	1	1
n service de	No	d areas) mu	no	No	No	NO	No	It should b
3	DK	4	3	3	1	1	1	1
2	DK	3	2	4	1	1	1	1
XX	2	2	3	1	DK	DK	1	4
2	DK	1	XX	1	DK	DK	1	DK
alities bud	No	No	no	no	No	NO	No	Disaster te
2	1	3	XX	2	1	1	1	DK
3	1	2	XX	2	1	1	1	2
3	1	4	XX	DK	1	1	1	2
2	1	3	XX	DK	1	1	1	DK
3	DK	3	XX	DK	1	1	1	3
ognised in t	all cruss c	33: Yes, W	no	work becau	No	volve in su	No	We need t
1	13	0	6	10	7	8	0	14
			tot	31				
			questions	196				

% DK/XX	15.81633

11	12	13	14	15	16	17	18	19
LCR SA, MP	LCR SA, MP	LCR sa mp	LCR SA, MP	LCR SA, MP	LCR Sa, Mp	LCR sa mp	LG SA, Mp	LG LG
2	2	4	1	1	1	DK	3	4
1	1	4	1	1	1	4	3	2
1	1	DK	1	1	2	DK	2	2
DK	2	1	1	1	1	1	4	2
DK	1	DK	DK	1	1	DK	4	2
The goverr	Would pre	No	The Local (	No	We would	No	The local a	Sector dep
1	1	1	1	1	1	DK	2	2
1	1	DK	1	1	1	1	2	1
1	1	DK	XX	1	1	DK	3	1
The local n	The proces	NO	No	No	No	No	The munici	Local Muni
2	1	DK	1	1	DK	DK	DK	1
1	DK	2	DK	1	DK	DK	DK	1
1	1	2	DK	1	1	DK	DK	1
1	1	DK	1	1	1	DK	2	2
They must	As above, i	We wish to	I would rec	No	No	We wish to	Knowledge	I support tl
1	DK	2	DK	1	1	2	2	2
1	DK	DK	1	1	1	2	2	2
1	DK	2	DK	1	1	DK	2	2
1	1	DK	1	1	1	2	3	1
DK	1	DK	DK	1	1	DK	4	1
DK	2	2	DK	1	1	DK	2	1
1	1	4	2	1	DK	2	2	1
Most of th	DM must b	No	No	No	No	NO	No	No
1	DK	2	1	1	1	DK	2	2
1	1	DK	1	1	1	DK	2	1
DK	DK	5	DK	DK	DK	1	2	2
1	DK	4	DK	DK	DK	4	2	2
there must	The comm	No	No	no	It does nor	No	Municipali	No
1	1	2	DK	1	1	2	2	2
1	1	DK	DK	1	1	DK	3	2
1	1	4	DK	1	1	DK	2	2
1	DK	4	DK	DK	1	2	3	2
DK	DK	4	1	1	1	4	2	3
There's no	Re-empha	yes but the	No	No	No involve	No	Mbombela	No
6	9	11	14	3	5	16	3	0
					tot	93		
					questions	308		

% DK/XX 30.19481

20	21	22	23	24	25	26	27	28
LG SA, MP	LG SA, MP	LG SA, Mp	LG SA,MP	LG SA,MP	LG Sa, Mp	LG SA, MP	LG Sa, MP	LG sa mp
1	4	3	3	3	2	4	4	5
1	DK	3	4	3	4	3	4	DK
DK	3	1	2	2	2	3	4	DK
1	2	2	3	1	5	3	2	DK
1	DK	1	3	1	4	4	1	5
The fact th	Very good	No	The high tu	Human set	We need t	A cocerted	Employees	i think that
2	3	2	DK	1	4	4	1	5
2	2	1	3	1	5	4	1	5
4	3	1	4	2	XX	4	2	4
Lack of hur	Warning sy	There shou	As departn	Any availat	There is nc	Authorities	Ward com	imformatic
1	DK	1	4	1	1	2	1	DK
1	DK	1	2	1	2	2	1	DK
1	1	2	DK	1	1	2	1	DK
4	2	3	4	1	XX	2	2	DK
Governme	No	There is pu	Involveme	Disaster iss	Modules o	Education	The munici	IT IS VERY
1	DK	3	2	4	5	3	2	DK
DK	1	3	2	3	4	3	DK	DK
2	DK	3	3	1	4	2	4	DK
1	DK	3	2	1	4	2	1	DK
1	2	1	5	1	3	2	3	DK
DK	1	1	4	3	2	2	3	DK
DK	1	5	3	4	4	2	2	DK
the proces	No	No	Many infor	*The Masil	Risk disast	Buildings r	No	Education
2	1	2	4	2	1	2	3	4
1	1	1	2	1	5	1	3	1
2	DK	3	2	1	1	1	4	DK
1	2	3	2	1	4	2	5	4
Province tc	No	There are	FIFA 2010	Local auth	The financi	The depart	In some m	No
1	1	1	DK	1	2	2	1	4
1	DK	1	2	1	2	2	2	DK
1	DK	1	DK	1	2	1	3	5
1	DK	1	2	1	5	1	5	5
1	DK	1	4	1	5	1	4	DK
The compl	No	Local com	Different c	My view is	We need t	The cruss c	Communit	No
4	12	0	4	0	2	0	1	17
								tot questions

% DK/XX

29	30	RESULTS		
LG SA, MP	LG sa mp			
		Average for each question		
4	1		2.75862069	
3	1		2.52	
3	1		1.92	
3	2		1.96	
3	1		2.166666667	
Lack of unc	Governanc	PFA 1 Average:		2.265057
3	1		2	
3	1		1.821428571	
3	1		2.041666667	
challenge i	sometimes	PFA 2 Average:		1.954365
3	1		1.6	
2	1		1.45	
2	1		1.44	
3	1		2	
province a	as I have m	PFA 3 Average:		1.6225
2	1		2.318181818	
2	1		1.791666667	
2	1		2	
2	4		1.875	
2	1		1.782608696	
1	1		1.652173913	
1	5		2.12	
this for the	munic nee	PFA 4 Average:		1.934233
4	5		2.148148148	
2	2		1.62962963	
2	5		2.4	
2	5		2.45	
still reactiv	only trainir	PFA 5 Average:		2.156944
3	5		1.769230769	
3	5		1.75	
3	5		2.041666667	
2	5		2.217391304	
2	5		2.347826087	
once again	excellent!	Cross-cutting issues average:		2.025223
0	0			
43				
336				

TOT amour
TOT amour
Procent un

12.79762

Amount of XX or DK:	
	1
	5
	5
	5
	6
TOT	22
% unanswered	14.66667
	4
	2
	6
TOT	12
% unanswered	13.33333
	10
	10
	5
	5
TOT	30
% unanswered	25
	8
	7
	7
	6
	7
	7
	5
TOT	47
% unanswered	22.38095
	3
	3
	10
	10
TOT	26
% unanswered	21.66667
	4
	6
	6
	7
	7
TOT	30
% unanswered	20
ıt of XX or DK:	167
ıt of questions asked:	840
answered questions:	19.88095

PFA 1
PFA 2
PFA 3
PFA 4
PFA 5
Cross cutting issues
Total
Local Government
Civil Society Organisations
Local Communities

% unanswered
14.7
13.3
25.0
22.4
21.7
20.0
19.9
12.8
15.8
30.2

KABOKWENI PICTURE PROFILE (RISK)

ELECTRICITY POLES AND LINES INSTALLED INSIDE A RESIDENTIAL STAND DUE TO ROLEPLAYERS NOT TALKING TO EACH OTHER IN THE INITIAL STAGES OF DEVELOPMENT. NO INTERGRATED DEVELOPMENT PLANNING APPROACH

A FACTORY AND HOUSE SEPERATED BY A FENCE IN THE KABOKWENI INDUSTRIAL SITE – POOR LAND USE PLANNING AND ENVIRONEMNTAL HEALTH HAZARD

RESIDENTIAL AREA ALONG FLOOD LINE TURNED INTO DUMPING AREA MAKING COMMUNITY VULNERABLE TO FLOOD, ENVIRONMENTAL AND HEALTH HAZARDS

RESIDENCES SEPERATED BY A FENCE WITH THE KABOKWENI ELECTRICITY POWER STATION (TRANSFORMER)

HOUSES BUILD ALONG FLOOD LINE DUE POOR LAND USE PLANNING: COMMUNITIES ARE NOW AT MORE RISK

HOUSE BUILT ON THE FLOOD LINE PUTTING COMMUNITIES MORE AT RISK OF FLOODING

THE KABOKWENI SHOPPING CENTRE AND THE SOUTHERN PART OF THE STADIUM BUILD WITHIN THE FLOOD LINE. IN THE PICTURE CONSTRUCTION WORKERS ARE COVERING THE DITCH WITH CONCRETE TO AVOID FURTHER DAMAGE

THE SOUTH WESTERN PART OF THE KABOKWENI RESIDENTIAL AREA IS LOCATED WITHIN THE KABOKWENI INDUTRIAL SITE DUE TO POOR LAND-USE PLANNING

THE VICINITY OF THE KABOKWENI SHOPPING CENTRE, STADIUM, GUEST HOUSE (STILL UNDER CONSTRUCTION) AND RESIDENCES ALL BUILT WITHIN THE FLOOD LINE