A conceptual framework for disaster risk participatory communication for at-risk communities in South African municipalities

T Chagutah

21845468

Thesis submitted for the degree *Doctor Philosophiae* in **Communication Studies** at the Potchefstroom Campus of the North-West University

Promoter: Prof LM Fourie

Co-promoter: Prof D van Niekerk

September 2014

ACKNOWLEDGEMENTS

Praise to the Almighty! I give honour to God for giving me the courage needed to embark on this journey and for covering me with His grace all the way to completion of this thesis.

I want to thank my supervisors, Prof Lynnette Fourie and Prof Dewald van Niekerk for their guidance, encouragement and boundless patience through the years. Thank you to all municipal disaster risk managers and development practitioners who participated in the study. I am eternally indebted to the residents of informal settlements who welcomed me into their humble abodes, into their meeting spaces and gave me privileged access to the narratives of their lived struggles. Recognition is due to Mzi Noji, Tex Dludla, Cingiswa Mtabati, Nondumiso Mbanjana, Sthembile Sibiya, Nothando Shange and Mxolisi Nyuswa for their support in convening and conducting the focus group discussions across the study areas. I also recognise the support provided by the African Centre for Disaster Studies, under the leadership of Prof. van Niekerk, without whose assistance the demands of the field research might have proved prohibitive. I am grateful to Dr Antonie Nord and after her, Ms Layla Al-Zubaidi, successive Directors of the Heinrich Boell Foundation Southern Africa (HBF), Sakhile Koketso and colleagues at HBF for their constant support and encouragement through the years. I also thank Kevin Roussel and colleagues at Oxfam for the support that has seen me finally cross the finishing line. A special word of thanks to my long-time friends Zebron Phiri and Dr Blessing Makwambeni, with whom I spent many long hours discussing various aspects of this work. Your companionship, and support in various forms, through this journey has been invaluable.

Last, but not least, words of gratitude to my family: Baba na Mai Chagutah, thank you for setting me on this path as a young boy, your sacrifices over the years were not in vain. I cannot find all the words to express my gratitude to my wife, Chiedza Kimberley, who has stood by me through the years, picking me up when I was down, picking up the loose ends

at home when I couldn’t be there, staying up at night to provide the tea and moral support and encouraging me to wake up very early in the mornings when it was needed. Without your love and patience this work would not have been possible. To my lovely daughter, Angel Ruvarashe Unathi, from whom I have borrowed many hours over the years, and my young son, Motheo Jude Mufarowashe, who didn’t have me around as much as he should have in his early months, daddy is back!

ABSTRACT

South Africa, like many other developing countries, faces a growing problem of informal settlements which are mushrooming in and around the major urban centres. Living conditions within these settlements are typically poor with residents facing a range of basic livelihoods challenges, exacerbated by poverty, inequality and social exclusion. Unplanned and rapid urbanisation, from which informal settlements originate, and existing conditions in these areas, heighten risk to disaster and provide the conditions that turn natural and man-made events into major livelihoods disruptions. The most devastating of these disruptions are disasters brought on by uncontrolled fires, extreme wet weather and associated flooding. To forestall disaster, minimise livelihoods disruptions and debilitating loss of assets, and safeguard developmental progress, local governments have increasingly adopted risk reduction approaches to their development planning and implementation. Among some of the critical risk reduction measures adopted is the deployment of communication interventions meant to cultivate a culture of risk avoidance among at-risk communities.

While it is largely accepted that developmental losses can be considerably reduced if people are properly educated and well-prepared for a disaster, it is also widely recognised that current tools and guidelines for communication of disaster risk in developing communities have largely proved inadequate. Among leading criticisms is that the communication interventions implemented neither fully cater for the contemporary proactive and pre-emptive (risk minimising) approach to disaster risk management nor the developmental imperatives of the disaster risk reduction paradigm. This study, therefore, sought to propose a conceptual framework for the reorientation of thinking and improvement of the on-the-ground practice of disaster risk communication in South African municipalities, and to ensure, among other things, that the practice of disaster risk communication in South Africa places participation of at-risk communities at the centre of communication interventions for disaster risk reduction.

A literature study was conducted to explore what principles of the participatory approach to development communication could be applicable to a framework for disaster risk communication interventions. Following the literature study, an empirical study into the contemporary disaster risk communication practice in the three study sites of Cape Town, George and uThungulu District was carried out. The field study comprised semi-structured interviews with disaster risk communication managers and other key informants, and focus group discussions with members of informally settled communities in the study areas. Using a hybrid thematic analytic approach, the data gathered empirically were analysed against the salient themes derived from the literature study and those emerging as the empirical study progressed, and from that process a conceptual framework for disaster risk participatory communication for at-risk communities in South African municipalities was developed and proposed. In conclusion, guidance was also given for translation of the conceptual framework into actual practice by disaster risk managers and other disaster risk reduction role-players in South Africa.

Key words: Disaster Risk Communication, Disaster Risk Reduction, Participatory Development Communication, Public Awareness, At-risk Communities, South Africa

UITTREKSEL

Suid-Afrika, soos verskeie ander ontwikkellende lande, word met die probleem gekonfronteer dat informele nedersettings toenemend rondom groot stedelike sentrums ontstaan. Lewenstoestande in hierdie nedersettings is swak en inwoners moet uitdagings vir 'n basiese lewensbestaan in die gesig staar wat deur armoede, ongelykheid en sosiale uitsluiting vererger word. Onbeplande en vinnige verstedeliking, wat tot informele nedersettings lei, asook ander faktore in hierdie gebiede verhoog die risiko vir rampe en lei tot omstandighede wat natuurlike en mensgemaakte gebeure op so wyse beïnvloed dat dit tot 'n groot ontwrigting in die lewensbestaan van hierdie gemeenskappe kan lei. Die mees verwoestende van hierdie ontwrigtings is rampe wat veroorsaak word deur onbeheerde brande, ekstreme nat weersomstandighede en gepaardgaande vloede. Ten einde rampe te voorkom, lewensbestaan-ontwrigting te minimaliseer en die verlies aan bates te verminder, asook die ontwikkelingsproses te beskerm, het plaaslike regerings al meer 'n risiko-verminderingbenadering vir ontwikkelingsbeplanning en implementering aangeneem. Verder is die ontplooiing van kommunikasie-intervensies een van die kritiese risiko-verminderingsmaatreëls wat deur munisipaliteite geïmplementeer word, ten einde 'n kultuur van risiko-vermyding by hoë-risiko gemeenskappe te kweek.

Hoewel grotendeels aanvaar word dat ontwikkelingsverliese aansienlik verminder kan word, indien mense behoorlik vir die voorkoming en hantering van rampe bemagtig word, word ook wyd aangevoer dat huidige kommunikasie-instrumente en --praktyke vir ramprisikobestuur in ontwikkellende lande onvoldoende is. Voorste kritici argumenteer dat kommunikasie-intervensies vir ramp-risikobestuur nie ten volle vir die kontemporêre, proaktiewe en risiko-minimaliseringsbenadering voorsiening maak nie. Die kritiek sluit in dat hierdie intervensies ook nie voorsiening maak vir ontwikkelingsinisiatiewe van die ramprisiko-verminderingsparadigma nie. Hierdie studie beoog dus om 'n konseptuele raamwerk vir ramprisikokommunikasie binne die konteks van die deelnemende benadering daar te stel.

Dit sluit in om die praktyk van ramprisikokommunikasie op grondvlak in Suid Afrikaanse munisipaliteite te verbeter. Verder word gestel dat deelname sentraal staan in die praktiese toepassing van ramprisikokommunikasie intervensies vir hoë-risiko gemeenskappe.

'n Literatuurstudie het ondersoek ingestel na die beginsels van die deelnemende benadering in ontwikkelingskommunikasie wat op die raamwerk van ramprisikokommunikasie intervensies toegepas kan word. Die literatuurstudie is opgevolg met 'n empiriese studie van die praktiese toepassing van kontemporêre ramprisikokommunikasie soos dit in drie studie-areas voorkom, naamlik Kaapstad, George en die uThungulu distrik. Die veldwerk het uit semi-gestruktureerde onderhoude met ramp risikokommunikasiebestuurders asook ander sleutelinformante bestaan. Fokusgroepbesprekings is met lede van informeel gevestigde gemeenskappe binne die studie-areas gevoer. 'n Gemengde tematies-analitiese benadering is gevolg om die empiries-ingesamelde data teen belangrike temas wat uit die literatuurstudie na vore gekom het, asook die temas wat uit die empiriese studie ontluik het, te analiseer. Uit hierdie proses is 'n konseptuele raamwerk vir deelnemende kommunikasie vir ramprisiko vir hoë-risiko gemeenskappe vir Suid Afrikaanse munisipaliteite ontwikkel en voorgestel. Ten slotte is voorstelle gemaak vir die toepassing van die konseptuele raamwerk in die praktyk deur ramp risikobestuurders en ander ramp risikovermindering rolspelers in Suid Afrika.

Sleutelwoorde: Ramprisikokommunikasie; Ramprisikovermindering, Deelnemende ontwikkelingskommunikasie, Openbare bewusmaking, Hoë-risko gemeenskappe, Suid-Afrika

CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1 : ORIENTATION AND PROBLEM STATEMENT

1.1 INTRODUCTION

South Africa is, today, a country of stark contradictions. Within its economically vibrant cities live millions of the poor with little or no access to basic services and facing severe developmental challenges (Misselhorn, 2010:16). South Africa remains a dual economy with one of the highest economic inequality rates in the world, perpetuating other forms of inequality and exclusion. Spatially, an advanced, modern urban economy coexists in sharp contrast with the socioeconomic poverty of disadvantaged townships, informal settlements and rural areas (World Bank, 2013).

With an average of 9% of households in the country living in informal housing, South Africa's major metropolitan areas largely have figures above the national average, with the municipalities of Cape Town, Durban, Johannesburg and Pretoria registering 11%, 25%, 7% and 15% of their households living in informal settlements, respectively (HDA, 2012:23). Whereas the total number of illegal informal or shack settlements in South Africa stood at 300 at the dawn of independence in 1994, this number had shot up to well over 2,600 by 2010 (Bolnick & Bradlow, 2010:35). Misselhorn (2010) argues that officially available data on the number of informal settlements and people living in these sub-standard conditions are in all likelihood very conservative and, in reality, the actual numbers are probably significantly higher. Living conditions within these settlements are typically poor with residents facing a range of basic livelihood challenges, including limited access to basic sanitation and safe water, accumulation of solid waste, recurrent disasters including shack fires and flooding, safety and security risks, and a range of other health hazards (Misselhorn, 2010). This situation is, however, hardly peculiar to South Africa as Napier and Rubin (2002) note that communities living in informal settlements in many parts of the world face acute

developmental challenges and are particularly vulnerable to environmental hazards, whether these are as a result of the nature and location of the settlement itself, or from threats originating outside the settlement. Pelling (2007) notes that disaster risk emanates from developmental imbalances characterised by increasing poverty and inequality, crowded living conditions and the placement of residential areas close to hazardous industry or in places exposed to natural hazards as well as the modification of environments which generates new hazards.

Pelling (2003) emphasises that, while disasters often result in failed development, failures in development planning can lead to increased disaster risk. Developmental trends such as the rapid unplanned urbanisation found in many developing countries are a leading cause of vulnerability to disaster. Poor people in informal urban settlements typically have higher levels of everyday risk, even without considering the impact of natural hazards (UN, 2009:12). Residents in these areas encounter many stresses, including lack of a reliable income, drugs, alcoholism, prostitution, disease, crime, and domestic, physical, and sexual abuse. The interaction of these developmental and social conditions with recurring climate extremes and other environmental hazards presents a constant threat of disaster among the informally settled (DiMP, 2008). To forestall disaster and safeguard developmental progress, local governments have gradually begun to integrate measures geared towards the reduction of risk to disasters in their development planning and delivery. Among these measures is the deployment of communication interventions meant to cultivate a culture of risk avoidance among at-risk communities.

1.2 BACKGROUND

Informally settled residents in the coastal Western Cape and KwaZulu-Natal provinces face an array of threats to their livelihoods. Among the most devastating are the disasters brought on by uncontrolled fires, extreme wet weather and diseases associated with localised

flooding. Unplanned and rapid urbanisation, from which informal settlements originate, provides the conditions that turn natural events into disasters, and also modify the physical environment, generating hazards and risk from flooding and fire (Pelling & Wisner, 2009:6). In the Western Cape, it is usually poor and marginalised households living in informal settlements and low-cost housing that are most vulnerable to fires, severe weather events and seasonal flooding (DiMP, 2008:14). Thousands of households in the province suffer severe losses resulting in significant developmental setbacks (DiMP, 2008:2). In the KwaZulu-Natal province, the impacts of flooding are exacerbated by recurrent outbreaks of diseases such as cholera, malaria, measles and tuberculosis. The majority of cholera patients in KwaZulu-Natal are poor people, mostly living in places with poor sanitation and poor living conditions. Households with well-built homes, toilets and a source of clean water are largely unaffected (Mugero & Hoque, 2001:6). Hazards such as floods and fires interact with prevailing socioeconomic conditions of the poor to result in severe developmental setbacks marked by various typologies of disasters which include widespread, sudden and acute impoverishment through loss of livelihood resources and options, loss of shelter, and disease outbreaks, among others.

Among the worst affected communities in the two provinces are those residing in centres found on the western, southern and eastern coasts of the country. The coastal municipal areas of Cape Town on the west coast, George on the southern coast and uThungulu District on the eastern coast are notable for loss of lives, property and livelihood setbacks occasioned by recurrent informal settlement fires, floods and disease (Benjamin, 2009; DiMP, 2008; uThungulu District Municipality, 2008; City of Cape Town, 2005).

In the City of Cape Town, many residents live in the crowded suburbs that lie on an expansive, low-lying, flat area called the Cape Flats (Solomon, 2011). The topography of this area, coupled with its high water table, makes it particularly susceptible to flooding during the deluges experienced in winter months. Inclement weather, often characterised by heavy

rainfall, strong winds and freezing temperatures, intersects with prevailing poverty and other socioeconomic conditions to result in extreme vulnerability to hazards and disaster (Solomon, 2011; Resource Access, 2004).

In the uThungulu District, backlogs in basic service delivery, combined with acute and continuing exposure to the threat of cyclones, severe storms, hail storms, floods, storm surges, fires and diseases including malaria, measles and tuberculosis, result in precarious living conditions for the poor and informally settled (uThungulu District Municipality, 2008).

The George local municipal area is susceptible to recurrent floods with recent events causing huge economic setbacks and intolerable suffering among the poor and informally settled. Repeated exposure to extreme weather events only serves to heighten the vulnerability of the poor in George, who choose to settle in low-cost, informal settlements because of a lack of alternative options (Benjamin, 2009).

Investigations by many researchers, among them Solomon (2011) in Cape Town, Benjamin (2009) and Tempelhoff, Van Niekerk, Van Eeden, Gouws, Botha and Wurige, (2009) in George, and the uThungulu District Municipality (2008) in uThungulu, show that although informally communities in these areas face severe developmental challenges as a result of extreme vulnerability to disasters brought on by uncontrolled fires, flooding and disease, communication interventions by the mandated authorities are sorely inadequate. Communication interventions implemented by local government in these areas are mainly characterised by expert-driven, unidirectional approaches without adequate allowance for community engagement and involvement of the at-risk communities in planning and implementation. Faling (2011) has identified poor communication and accountability relationships between local government and the urban poor communities in South Africa as some of the issues that remain at the forefront of the government's developmental challenges.

Developmental losses can be prevented, or at least considerably reduced if people are properly educated and well-prepared for a disaster, even though natural hazards cannot be controlled completely (World Bank, 2005). Appropriate development-oriented communication approaches need to be adopted to enable the authorities to communicate with communities at risk to facilitate risk reduction and safeguarding of developmental gains (Elo, Palm & Vrolijks, 1995:10). However, although there have been huge technological advances allowing for extremely accurate monitoring, prediction and forecasting of extreme weather (and fire hazard) conditions in South Africa, studies by Humby (2012), Fourie (2011), Solomon (2011), and Tempelhoff *et al.* (2009), among others, reveal that mechanisms for communicating and raising public awareness of risk and risk reduction options in local communities are very weak in most cases. Even where such systems exist, very often communities do not respond appropriately to early warnings. Buys (2005:8) avers that reasons for inaction include a lack of choice of livelihood options and resources to act on the disaster risk information. Wisner (2003:1) identifies a lack of trust of disaster risk communicators within at-risk communities and perceived threat of the recommended practices to the community's livelihoods as barriers to behaviour change towards risk avoidance. In addition, families who live in informal settlements must juggle many stresses, including lack of a reliable income, poor food security and the combined threats of fire, flooding, poor health and crime (DiMP, 2008:14). Assigning time and resources to a response to the threat posed by fire and extreme weather must compete with these other concerns.

Rapid unplanned urbanisation is a distinct feature of development not only in South Africa, but throughout the developing world. Poor communities on the peripheries of the urban economies face unique developmental challenges characterised by a lack of skills and resources putting their livelihoods at risk (DiMP, 2008). In addition, the majority of cities in developing countries have limited safety nets such as welfare or health care systems, and

many people have informal or illegal residential status and cannot access welfare. Thus, often the urban poor do not take action to reduce their exposure to the risk of disaster and attendant developmental losses, not because of a knowledge deficit, but because they are preoccupied by the immediate demands of survival and avoiding the physical, social and psychological risks associated with poverty (Pelling & Wisner, 2009:5; Barclay *et al*., 2008).

There is need to investigate this lack of action. Issues relating to availability of livelihood choices, apathy in implementing developmental efforts, as well as perceptions of importance of allocating time and other resources to risk reduction against other felt needs are of interest to communication research. The disjunction between knowledge and action or behaviour change has occupied development communication scholars for decades. Sagala (2007), Abarquez and Murshed (2004), and Hornik (1989) posit that knowledge alone is not a sufficient determinant of adoption of desired practices and argue that the relationship/gap between acquired knowledge and resultant behaviour results from an interaction between knowledge and some characteristic of an individual or community.

It is widely recognised that current tools and guidelines for communication of disaster risk in developing communities are inadequate (Humby, 2012; Fourie, 2011; Solomon, 2011; Tempelhoff *et al.*, 2009; Forster & Freeborough, 2006; AU/NEPAD, 2004; O'Neil, 2004; Twigg, 2004; UNISDR, 2004:282). It is against this backdrop that several authors propose participatory communication strategies moored in Development Communication theory for enhancing communication of disaster risk and bringing about the required changes in behaviour that would ensure appropriate proactive and pre-emptive (risk minimising) actions by local communities (see Sagala, 2007; Okada *et al.*, 2005; World Bank, 2005; Abarquez & Murshed, 2004; Cronin *et al*, 2004; Twigg, 2004; and Sedgo & Somé, 2001). The concept of development communication, defined by Moemeka (2000:13) as the application of the principles and practices of exchange of ideas towards the achievement of development objectives, has been discussed extensively since the 1950s (Burger, 1999:89) while public

development communication interventions have been used extensively since the 1960s (Snyder, 2003:168). The principles of development communication demand that the point of departure for any communication intervention for disaster risk reduction must be the community, as it is at the local community level that the problems of living conditions are discussed, and interactions with other communities are elicited (Servaes & Malikhao, 2005).

1.2.1 Disaster risk reduction and development

Locating the role of communication in 'disaster risk reduction' requires an *a priori* understanding of the latter's place in the broader concept of development – which is itself dependent in no small part on communication. Development and disaster risk reduction are closely interlinked and mutually supportive objectives (McEntire, 2004; Twigg, 2004). It is now widely recognised that the most likely solution to disaster problems is the implementation of successful development projects which incorporate vulnerability and risk reduction (Van Niekerk, 2005:64; UNISDR, 2003:3; Comfort *et al.,* 1999). In most cases, development is the cause of disasters as projects are implemented without regard for changes in land use, settlement policies, population distribution, the resultant degrading of habitats and the vulnerability these conditions cause (UNISDR; 2008; Van Niekerk, 2005:65; Comfort *et al*, 1999). That said, disasters triggered by natural hazards are a major threat to life and to development, especially in developing countries (Twigg, 2004:21). In the South African context, rapid urbanisation coupled with slow service delivery and historical inequalities have resulted in the mushrooming of informal settlements wherein shared exposure factors intersect with climate extremes and other environmental hazards to result in disaster (DiMP, 2008; Munnik, 2008; Bahry, 2007).

Increasingly, development scholarship and development blueprints at global (Millennium Development Goals), regional (New Partnership for Africa's Development), national and local (Integrated Development Planning) levels have begun to incorporate disaster risk

reduction as an integral part of development thinking, planning and delivery (Van Niekerk, 2005:73; Jeggle, 2001). Jeggle (2001:321) notes that seminal works emphasising the incorporation of disaster risk reduction into development (Mary B. Anderson and Peter J. Woodrow's *Rising from The Ashes: Development Strategies in Times of Disaster*, 1989; Randolph Kent's *Anatomy of Disaster Relief: The International network in Action*, 1987; and Frederick Cuny's *Disasters and Development*, 1983) emphasise the direct participation of at-risk communities in assessing risks and determining the most suitable risk minimising strategies to incorporate into development projects in their communities. People's awareness and participation in development (and therefore in disaster risk reduction) is enhanced by communication (Fraser & Villet, 1994). Community participation in this disaster risk reduction function, as in all other aspects of development planning and project implementation, is best facilitated through participatory communication methods and strategies (Hughes, White & Cohen, 2007; Cronin *et al*., 2004; Twigg, 2004; UNISDR, 2004; Sedgo & Somé, 2001).

In the South African context the responsibility to plan for and implement disaster risk reduction activities rests with the provincial or local spheres of government. Local governments, through their Integrated Development Planning (IDP) process, are responsible for ensuring the integration of disaster risk management into development planning and for carrying out activities aimed at reducing vulnerability to disasters and creating safe communities (Van Niekerk, 2006:101). Among these activities is the implementation of communication activities aimed at promoting disaster risk reduction within communities.

1.2.2 Development communication

One of the most powerful discourses to emerge after World War II, with enormous social, cultural, and economic consequences, was the discourse of development predicated on the modernist hallmarks of reasoning and rationality. Under this Modernisation paradigm (also

known as the *dominant paradigm* because of its pervasive impact on most aspects of development) “continuing underdevelopment was attributed to traditional ways of thinking and acting of the mass of individuals in the developing nations” (Rogers, 1976:127). Modernisation assumed the causes of underdevelopment to be inherent in the societies of the Third World and the obvious way for the less developed countries to develop was for them to ‘catch up’ and become like the developed countries (Rogers, 2003:7). The route of modernisation was to transform the people and to implant new values and beliefs (Rogers, 1976:127). The transfer of values, information and knowledge was to be achieved through ‘communication’ – development communication.

Although the concept and practice of development communication has been traced back to the 1950s, the term ‘development communication’ was first coined in 1972 by Nora C. Quebral, who defined the field then as:

> *“the art and science of human communication linked to a society's planned transformation from a state of poverty to one of dynamic socio-economic growth that makes for greater equity and the larger unfolding of individual potential,” (Quebral, 2001).*

The role of development communication was to transmit pro-development innovations and skills to an unsuspecting and passive audience mostly through the use of the mass media, but also through extension workers, particularly agriculture and health field-workers. It was essentially a pro-persuasion exercise to win over followers to the new concept of development as enunciated by donor agencies, national governments, scientists and other ‘experts’ (Melkote & Kandath, 2001:190).

From the 1970s, alternative pathways to development were put forward. An important element of these new conceptions of development was democratisation and participation at all levels, and the examination of development from the ‘bottom-up’ with emphasis placed on the self-development of local communities (Servaes & Malikhao, 2005). The evolving

orientation in development practice and fervent participatory research led to the birth of participatory development communication, defined by Bessette (2004:8) as:

> *a planned activity based on the one hand on participatory processes, and on the other hand on media and interpersonal communication, which facilitates a dialogue among different stakeholders, around a common development problem or goal, with the objective of developing and implementing a set of activities to contribute to its solution, or its realisation, and which supports and accompanies this initiative.*

Participatory approaches stress the importance of cultural identity of local communities and of democratisation and full participation at all levels of planning, development and implementation of development communications (Servaes & Malikhao, 2005). Within the participatory approach to development, and communication for development, it is now accepted that community participation needs to be at the centre of development initiatives, development workers have to listen to the people, and that problems and solutions must be identified collectively (Bessette, 2004; Twigg, 2004:166; Melkote & Steeves, 2001; Servaes, 1999). Participation is held as necessary in order to share information, knowledge, trust, commitment, and a right attitude in development planning and implementation. The aim of participatory communication for development is thus to help create the human environment necessary for a development project or programme to succeed (Langenhoven, 2001:65; Agunga, 1990:151).

Steinberg (1996:579) emphasises the inclusion of participatory communication approaches in any large-scale urban development programme from the project formulation stage throughout all its stages. However, he asserts, the practice of urban management in most developing countries has largely shown an exclusion and ignorance of participatory development communication (Steinberg, 1996:567).

The horizontal, people-to-people and democratic principles of the participatory approach to communication for development are integral within current policy frameworks and strategies to reduce communities' vulnerability to environmental hazards. There is a growing appreciation of the need for disaster reduction activities to be based on more attentive participatory approaches involving local communities as much as possible, considering them as proactive stakeholders and not passive targets for intervention (Twigg, 2004; UNISDR, 2004:21). Participatory approaches to risk reduction initiatives are considered likely to be sustainable because they build on local capacity, the participants have 'ownership' of them, and they are more likely to be compatible with long-term development plans (Twigg, 2004:114).

1.2.3 Reducing risk to disaster through communication: The South African policy context

At the core of policy responses to the threat of a wide array of hazards in South Africa is minimising vulnerabilities and disaster risks in communities in order to avoid or to limit the adverse impacts of these hazards, i.e. Disaster Risk Reduction (DRR). However, this policy thrust is fairly recent in South Africa. Until June 1994, South Africa did not have a holistic approach to deal with disasters and issues of risk, instead viewing disasters as rare 'acts of God' that could neither be predicted nor avoided. This approach resulted in a disaster management thrust that was solely reactive and focused only on post-disaster measures designed to deal with the consequences of a disaster (Van Niekerk, 2006:96).

More recently, legislative, programmatic and academic enquiry efforts have resulted in the development of a comprehensive framework for disaster management oriented towards the reduction of risk rather than responding after a disaster has occurred. The South African National Disaster Management Framework (NDMF), which arises out of the Disaster

Management Act 57 of 2002, is divided into four key performance areas (KPAs) and three 'enablers' - aspects that need to be present in all four of the key performance areas in order for them to be implemented successfully (see 2.3.2.3) (South Africa, 2005:2). Enabler 2 within the Framework points towards the use of public awareness communication through public information campaigns for the promotion of "a culture of risk avoidance" within at-risk communities. Various other national, regional and global frameworks for disaster risk management now exist, among them Van Niekerk's Comprehensive Framework for Multi-Sphere Disaster Risk Reduction in South Africa (2005), the SADC Draft Regional Multi-Sectoral Disaster Management Strategy (2001), The Africa Regional Strategy for Disaster Risk Reduction, and The Hyogo Framework for Action – a global blueprint for disaster risk reduction efforts during the decade 2005-2015. All these frameworks identify public awareness-raising through communication strategies as a critical element of disaster risk reduction. Disasters can be reduced substantially if people are well informed about measures they can take to reduce vulnerability (UNISDR, 2005:9). Twigg (2004:176) and UNISDR (2004:282) emphasise that all disaster reduction programmes should include communication and awareness-raising as a central, ongoing element, and should have a clear strategy for doing so.

Within the context of disaster risk reduction, public awareness activities entail development of public awareness policy, programmes and materials, and media involvement in communicating risk and awareness-raising towards changing behaviours so that communities can be more resilient to disasters (UNISDR, 2004). However, notwithstanding the participatory approach that is inherent in the current practice of disaster risk management, as evidenced by the popularity of concepts and practices such as community-based vulnerability and risk assessment, and risk management, the dominant practice in communication interventions for disaster risk reduction has been observed to exhibit a bias towards one-way information dissemination, with little opportunity for participation of at-risk communities. The aim of disaster risk communication goes beyond merely conveying an

understanding about hazards and risks but should motivate communities to become involved in risk-minimising activities (UNISDR, 2004:284). Hazard and risk information should be freely available to communities at risk and presented in ways that allow the communities to make a realistic assessment of existing risk and enhance their capacity to engage in measures that limit risk (Elo *et al.,* 1995:11). Appropriate information communicated through participatory channels is crucial and is often the only form of disaster preparedness that the poorest people can afford (IFRC, 2005:12).

A cursory review of the different national, regional and global frameworks for disaster risk reduction shows that there are many fundamental elements in every disaster reduction strategy. However, the priorities, relative emphasis and specific ways of implementation must take into account practices that are most suited to local conditions, understanding and effectiveness (UNISDR, 2004:14). As a developing state, the South African government is typically financially burdened and hamstrung in delivering adequate risk-minimising, physical infrastructural interventions. Most government departments cannot keep pace with rapidly growing and often unplanned demands for service provision – including the maintenance and expansion of essential public infrastructure (DiMP, 2008:14). Also, low income communities cannot afford insurance and other financial risk transfer tools. Therefore, emphasis on communication interventions on appropriate risk-minimising actions may prove to be the most immediately achievable intervention.

1.3 PROBLEM STATEMENT

In South Africa, those most affected by the destructive impacts of disasters are typically impoverished and often, but not always, the socially and economically marginalised. The most notable hazards that often result in disaster within marginalised communities include flooding, fire and disease (DiMP, 2008). Among the elements (KPAs and Enablers) of the National Disaster Management Framework, the ‘public awareness’ component requires

constant praxis to ensure that information and knowledge about alternative livelihood options and practices that minimise disaster risk are exchanged with the poor. Currently, however, despite huge technological advances in monitoring and forecasting extreme weather and fire danger, among other hazards, local mechanisms for knowledge sharing and promoting a culture of risk-avoidance among communities threatened by these hazards remain underdeveloped. Even in areas where such systems exist, and adequate resources are directed towards communication and social mobilisation, low community participation and slow behaviour change among those affected by various hazards still persist (Buys, 2005; AU/NEPAD, 2004:7; Mugero & Hoque, 2001). In provinces where communication of disaster risk is attempted, often the communication task is reduced to a unidirectional hazard information dissemination exercise with no dialogue and no opportunity for community participation in planning, creation and communication of the hazard messages.

1.4 KEY RESEARCH QUESTIONS

It is against the background presented above that the following general research question is posed:

> *What would be an appropriate framework to guide the conception and implementation of disaster risk communication interventions by municipalities and other role-players working within informally settled communities affected by recurrent flooding, fire and disease outbreaks in South Africa?*

To address the general research question above the following specific questions will be posed:

i. What global, regional, national and local frameworks exist and provide for the implementation of disaster risk public communication activities by municipalities in South Africa?

ii. What principles of the participatory approach to development communication could be applicable to a framework for disaster risk communication interventions?

iii. How do existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions?

iv. What are the perceptions of at-risk communities in the Cape Town, George and uThungulu municipal areas of the disaster risk reduction communication interventions implemented in their locality?

1.5 RESEARCH OBJECTIVES

The research will aim to propose a framework that could serve as a guide for the reorientation of contemporary practice in disaster risk communication activities implemented by municipal authorities in informally settled communities affected by recurrent flooding, fire and disease outbreaks in South Africa. To reach this objective the specific research aims are:

i. To determine what global, regional, national and local frameworks exist and provide for the implementation of disaster risk public communication activities by municipalities in South Africa.

ii. To determine what principles of the participatory approach to development communication could be applicable to a framework for disaster risk communication interventions.

iii. To determine how existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions by means of semi-structured interviews with key informants from municipal departments responsible for implementing disaster risk communication activities, and focus group discussions in informally settled communities in the study areas.

iv. To establish the perceptions of informally settled communities in the Cape Town, George and uThungulu municipalities of the disaster risk communication activities implemented in their locality.

1.6 GUIDING THEORETICAL ARGUMENTS

This study uses an interpretative phenomenological research approach. Groenewald (2004) argues that interpretative phenomenological research is especially suited for gathering perceptions and experiences on the research problem from the perspective of the research participants. The approach has therefore been used in this study as it seeks to evaluate the practice of disaster risk communication in Cape Town, George and uThungulu from the perspective of municipal officials responsible for its implementation and informally settled communities who are the intended participants in the communication interventions, and propose conceptual guidance for remedying existing challenges. Lester (1999:1) has emphasised the applicability of the interpretative phenomenological research approach for practical theory development to inform, support or challenge development policy and action.

Development and disaster risk reduction are closely interlinked and mutually supportive objectives (McEntire, 2004; Twigg, 2004). Increasingly, disaster risk reduction has been integrated into mainstream development thinking and practice (Van Niekerk, 2005:73; Jeggle, 2001). Thus, having been situated in the broader concept of development, disaster risk reduction, as is the case with development itself, is considered to be best achieved when there is direct participation of communities in assessing disaster risks and developmental challenges, and determining the most suitable risk-minimising and development strategies to adopt (Jeggle, 2001; also see seminal works by Anderson & Woodrow, 1989; Kent, 1987; and Cuny, 1983). Participation of communities entails the involvement of local communities as much as possible in all aspects of the development

project and accepting communities as proactive stakeholders and not as passive targets for intervention (Twigg, 2004; UNISDR, 2004:21).

Narayan (1996) and Pretty *et al*. (1995) emphasise that, while participation of the community is indispensable in all the different stages of development programmes, it is especially crucial in decision making processes. Development practice over the years has established that communication is critical for enhancing people's awareness and strengthening their participation in evaluating developmental challenges and making development (and therefore disaster risk reduction) decisions (Fraser & Villet, 1994). Within the participatory approach to development, participatory communication is considered necessary for sharing of information, knowledge, trust and commitment, and therefore for helping create the human environment necessary for development endeavours to succeed (Agunga, 1990:151). Therefore, community participation in disaster risk reduction, as in all other aspects of development planning and implementation, may be considered to be best facilitated through participatory communication methods and strategies (Hughes, White & Cohen, 2007; Cronin et al., 2004; Twigg, 2004; UNISDR, 2004; Sedgo & Somé, 2001).

1.7 METHOD OF INVESTIGATION

A qualitative approach was used in this study. This study, being largely exploratory, was served well by the qualitative research approach as it aims less at measuring and more at understanding the subjects under study and the topic of the research from the perspective of the local population (Lindlof, 1995; Konaté & Sidibé, s.a) The analytical objectives of the qualitative approach allow for description and explanation of variation, relationships, individual experiences and group norms (Mack *et al.*, 2005).

This study sought, through the conduct of three comparative case studies, to propose a conceptual framework for disaster risk participatory communication to guide municipalities

and other role-players in delivering their mandate for reducing existing risk and vulnerability to disaster among informally settled communities in South Africa through communication interventions. In seeking to evaluate real-world communication phenomena and suggest theoretical guidance for improvement of current practice, an interpretative phenomenological research approach was used to gather the perceptions and experiences on the research problem from the perspective of the research participants (Groenewald, 2004). Lester (1999:1) has emphasised the applications of interpretive phenomenological research for practical theory development to inform, support or challenge policy and action.

A two-pronged strategy was used to generate data, comprising a search for literature sources from physical and electronic repositories and the deployment of primary data generation techniques. At this point it is worth noting that I borrow from Banda (2003:22) in his argument that as a researcher, one is rather *generating* data and not simply *collecting* it. As Steyn and Nunes (2001:39) argue, a researcher cannot be perceived as being a completely neutral gatherer of information about the social world. Instead, as indeed is the case on my part, *a priori* knowledge gained on the issue under study through work experience in the field of State of the Environment Reporting and through past discussions in my community of practice meant that I would not have approached this study merely as a blank slate. Instead, as Banda (2003:22) argues, the researcher may be spoken of as *constructing* knowledge about the social world they are investigating according to certain principles.

1.7.1 Literature study

Hocking, Stacks and McDermott (2003:83) state that documents can be used to organise existing knowledge and to establish relationships between topics or concepts of interest. A review and analysis of the body of literature accumulating on the developmental role and theoretical underpinnings of the contemporary practice of disaster risk communication was

thus conducted. The literature study also brought to the fore the global, regional, national and local policy background and frameworks that provide for and set the conceptual and practical parameters on the delivery of disaster risk communication interventions in South Africa.

The literature study consisted of a review of data held in a corpus of books, journal articles, government and international reports and policy documents, conference proceedings and other research papers as could be found in available physical and electronic document repositories. Databases used to gather literature were many, including the North-West University's Accredited Journals Database, a combined database of five databases (Arts & Humanities Citation Index, Science Citation Index Expanded, Social Sciences Citation Index, IBSS List, and SA Approved Journal List, acknowledged Department of Higher Education and Training lists); ProQuest Dissertations & Theses (PQDT) database; Communication & Mass Media Complete; EbscoHost; Emerald Insight Journals, JSTOR, SAePublications; Accredited Open Access Journals - South Africa; Social Science Research Network; SACat; SpringerLINK; Taylor & Francis (Informaworld); Wiley Online Library; The Union catalogue of Theses and Dissertations, The National ETD Portal within the Nexus database of the National Research Foundation; Google Scholar; the Google online search engine; and a collection of literature provided by the African centre for Disaster Studies at North-West University. While most documents were purposefully sought, other, ultimately very useful documents, fortuitously found their way into the body of literature reviewed; arriving by way of mailing list distributions or, in some cases, identified through informal conversations with colleagues.

First and foremost, a review of the body of literature accumulating on disaster risk communication in South Africa and beyond established that there exists a lacuna on the specific area of disaster risk management and the role of participatory development communication therein, particularly in the South African context. Höppner *et al.* (2010:8)

concur, noting that thus far, academic work has focused on the purposes of risk communication from a management perspective, preoccupied with identifying the managerial functions of communication. The 'unmanaged' or 'unofficial' side of risk communication, which focuses on the social and developmental utility of risk communication, has received not nearly as much attention. While research abounds on the role of participatory communication in development in general, the applications of participatory communication theory and techniques to the field of disaster risk management in South Africa remain under-explored. For instance, out of 74 results returned from a search done on the titles and accompanying abstracts of South African theses and dissertation held within the EDT Portal of the Nexus database of the National Research Foundation using the term "disaster", just six remained after a subsequent, more specific, search done within the 74 results using the term "disaster AND communication." Of the six, only two (Solomon, 2011 and Heslop, 2008) were of direct relevance to the applications of communication in disaster risk reduction. However, there are some positive indications in this direction with research at the African Centre for Disaster Studies showing a distinct move towards investigating the applications of participatory approaches to communication interventions for disaster risk reduction (Fourie, 2011; Maartens, 2011).

Heslop's study was focused only on communication of public health information during an emergency. In her findings she notes, however, the inadequacy of the preoccupation with use of electronic mass media to disseminate information about disasters and points to the importance of involving communities together with public health experts in ongoing dialogue with broader stakeholders before, during and after disasters (Heslop, 2008). Solomon (2011), in his study to investigate the feasibility of applying people-centred approaches to flood early warning systems in informal settlements in the City of Cape Town, found that risk communication processes need to involve the community and be centred around the community's expressed needs rather than the predominant practice which is largely informed by unilinear information dissemination communication models. Fourie's (2011)

investigation into the role of participatory communication modes of engagement between the Maquassi Hills Fire Services and the community in the North-West province found that, notwithstanding the enthusiasm by the community to engage with emergency personnel from the local municipality, very little is being done by the authorities to establish dialogical communication with the community they serve. Research by Tempelhoff *et al*. (2009) and analyses by Humby (2012) have identified similar inherent inadequacies in current disaster risk communication practice. However, while these few studies have identified the shortcomings of current top-down, unidirectional disaster risk communication interventions, pointed to the potential utility of more participatory approaches, and have in some cases given practical recommendations for improvement of on-the-ground practice in specific cases, none of them have gone as far as to explore and define a conceptual framework that could result in a reorientation of the contemporary practice.

Notwithstanding the fact that applications of participatory development communication theory have not been widely explored globally and particularly so in South Africa, this study broadens the scope of work which has been done locally and further extends to the local context the work started by others, among them Cronin *et al*. (2004) in South East Asia, and Sagala (2007) in the South Pacific region, who have investigated participatory approaches to communication about disaster risks in their contexts.

The literature study was also critical in the investigation of the socio-political processes that have set the conceptual and operational parameters for the contemporary practice of disaster risk communication in South Africa. According to Lindlof (1995), documents are very important because they are the ‘paper trail’ left by events and processes and they can help the researcher to reconstruct past events or ongoing processes that are not available for direct observation. Similarly, Altheide (1996) emphasises that most human documents are reflexive of the process that has produced them, implying, therefore, that an analysis of documents yields an understanding of the process and system under which they were

produced. Thus, document analysis of the literature on disaster risk management in South Africa enabled the researcher to understand how the existing global, regional, national and local policy context for disaster risk reduction provides for an enabling environment for formulation and implementation of disaster risk communication policy and programmes by municipalities in South Africa, one of the core research objectives of the study. In addition to analysis of secondary data held in several documents, this research was also informed by primary data generated through an empirical study.

1.7.2 Empirical study

Following the literature review, an empirical study comprising semi-structured interviews with key informants and focus group discussions in informally settled communities in the three study sites was carried out. Interviews were conducted with disaster risk managers and staff responsible for delivering the disaster risk communication function at municipal disaster management centres in the three study sites. Focus groups were composed entirely of residents of informally settled communities and conducted within informal settlements. Semi-structured interviews were also conducted with a snowball sample of respondents identified during the focus group discussions and interviews with municipal managers as sources holding key information and knowledge about the subject under study. I expound on the methodological approach of the study and how the actual data generation process unfolded in Chapter 4.

1.8 CONTRIBUTION OF STUDY

In the absence of adequate infrastructural and risk-transfer interventions, appropriate information sharing and knowledge building among at-risk communities may be the most immediately achievable intervention towards protecting threatened communities from further disaster induced impoverishment (IFRC, 2005; Twigg, 2004). However, existing

communication interventions have been shown to be inadequate and in some instances wholly incongruent with the developmental imperative of disaster risk reduction. It is with this realisation that rigorous interrogation of the obtaining policy environment, definitions and conceptions of disaster risk communication in literature and policy, and the attendant dominant practice gains importance. There is an urgent need to strengthen guidelines and the means by which local government and other disaster risk reduction role-players engage with communities and communicate ways and means to limit the risk of disaster among at-risk communities in areas prone to recurrent disasters. By exploring and defining a conceptual framework that could result in the reorientation of the contemporary practice of communication interventions for disaster risk reduction in disaster prone informally settled communities, this study thus seeks to broaden the scope of work which has been done in this area locally. The study also seeks to extend to the local context the work started by other scholars elsewhere who have investigated applications of participatory development theory to the practice of disaster risk communication in their own contexts. Relevant databases thus far consulted have shown a paucity of intellectual work in this domain. Thus, while providing guidance for reorientation of thinking and improvement of the on-the-ground practice of disaster risk communication, this research will also bolster efforts towards filling the research gap that currently exists in this area, particularly in the South African context.

1.9 DEFINITION OF KEY TERMS

This study makes use of a number of key terms found in the literature and practice of communication, development and disaster risk management. This section presents these key terms and indicates what should be understood by their use in this study.

Development communication: The application of the principles and practices of exchange of ideas towards the achievement of development objectives (Moemeka, 2000:13).

Disaster: A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR, 2009:9).

Disaster risk: The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period (UNISDR, 2009:9-10).

Disaster risk communication: A dialogical process in which different stakeholders exchange information and opinions among individuals, groups, and institutions in order to form a common understanding about disaster risks, their acceptability and make decisions about how best to manage risks (Abarquez & Murshed, 2004:97-98).

Disaster risk reduction: The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events (UNISDR, 2009:10-11). *While the term "disaster reduction" is sometimes used, the term "disaster risk reduction" provides a better recognition of the ongoing nature of disaster risks and the ongoing potential to reduce these risks.*

Empowerment: entails a process through which people achieve the capacity to take control of decisions concerning their lives and are able to work towards maximising the quality of their lives (Nikkhah & Redzuan, 2009; Hamelink, 1995).

Participation: a process through which stakeholders influence and share control over development initiatives and decisions and resources which affect them (World Bank, 1996).

More recently, Nikkhah and Redzuan (2009:172) defined participation to mean "... collective efforts by the people concerned to pool their efforts and whatever other resources they decided to pool together to attain objectives they set for themselves".

Participatory Development Communication: Planned communication activities based on the one hand on participatory processes, and on the other hand on media and interpersonal communication, which facilitates a dialogue among different stakeholders, around a common development problem or goal, with the objective of developing and implementing a set of activities to contribute to its solution, or its realisation, and which supports and accompanies this initiative (Bessette, 2004:8). It involves the use of all available structures and means of information sharing and, in addition to mass media, the use of traditional and popular media such as folk theatre, dance, puppet shows, poetry, audiovisual materials, and alternative media incorporating the rural press, locally produced newsletters and fliers, group and inter-personal means of communication that empowers communities to visualise and express their aspirations, express their concerns, discover solutions to their development challenges and participate in the decisions that relate to their development. Decisions on communication processes and strategies utilised are made with full participation of the developing community.

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 (UNISDR, 2009:22-23).

1.10 STRUCTURE OF THE STUDY

This section presents the layout and synopses of the chapters in the study and a schematic illustration of the structure and logic of the study.

1.10.1 Chapter layout

Chapter 1 gives the orientation and problem statement of the thesis. Background data is outlined and serves as the rationale to the study. The link between the theory and practice of participatory development communication and communication for disaster risk reduction is outlined. The chapter locates the role and place of communication within the over-arching policy framework for disaster reduction in South Africa and establishes the need for continued theoretical investigation and development of the practice of disaster risk communication as outlined within the policy framework. The key research questions, objectives of the research, methods used, limitations of the study, structure of the thesis and ultimate contribution of the research are also outlined.

Chapter 2 consists of two main sections. The first sets out to establish whether there exists an enabling policy environment and political will within global, regional and national arenas to provide for the formulation and implementation of disaster risk communication policy and programmes by local authorities in South Africa. In the second section, the chapter discusses the obtaining conceptual and policy-related definitions of what disaster risk communication entails and shows how these definitions translate into contemporary practice. The chapter ends by offering a participatory critique of the dominant definition and practice of disaster risk communication, arguing therefore for a reorientation of the dominant practice of disaster risk communication to one informed by the evolved theory of participatory development communication.

Chapter 3 gives a historical analytical account of the origins of participatory development communication, showing the close relationship between dominant conceptions of development and the role assigned to communication in each era. The chapter lays out the theoretical fundamentals that anchor the practice of participatory communication in its role as a corollary and enabler of development efforts and identifies which of these principles could be applicable to a framework for disaster risk communication interventions.

Chapter 4 outlines the methodological approach employed for the study. The chapter discusses the research approach and design, and presents the physical and socio-economic conditions obtaining in the research sites to situate the research in context. The chapter proceeds to outline the theoretical grounding of the empirical study, community entry, methods used in the data generation process, the process of data generation and challenges faced in the field, and the data analysis procedures employed. Some ethical considerations observed throughout the empirical stage of the investigation, limitations of the analytic procedure and considerations for trustworthiness of the research process and subsequent findings are also discussed.

Chapter 5 presents and analyses the findings from the empirical investigation - comprising semi-structured interviews with disaster risk and disaster risk communication managers, interviews with identified other experts or key role-players, and focus group discussions with members of at-risk communities living in informally settled areas in the study areas - and seeks to determine the extent to which existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions.

Chapter 6 summarises key findings of the study and proposes a conceptual framework for disaster risk participatory communication for at-risk communities in South African municipalities. The chapter concludes the study and offers some recommendations for further research in this under-explored area.

1.10.2 Structure and logic of the study

The schematic representation below outlines the structure of the study and shows the chronological progression of the investigation.

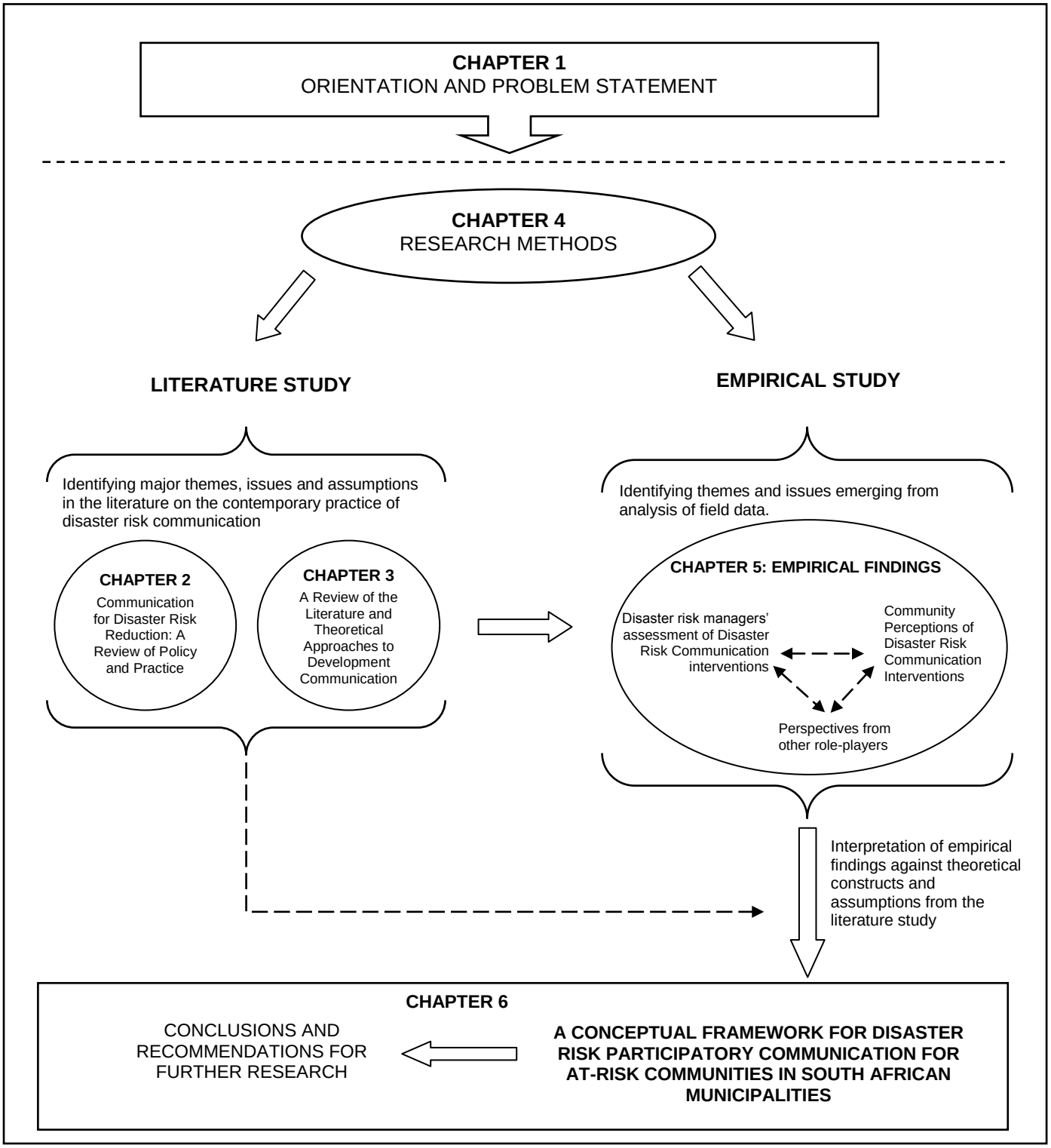


Figure 1.1 Structure and logic of the study

1.11 CONCLUSION

This chapter sought to provide the reader with an understanding of the research problem and processes to be followed in pursuit of the research objectives. The chapter that follows discusses the existing global, regional and national policy frameworks that provide for the implementation of disaster risk communication programmes in South Africa (Research Question 1). The chapter presents the dominant definition of risk communication, showing how it informs contemporary practice and ends by presenting a critique of the dominant practice.

Chapter 2 : COMMUNICATION FOR DISASTER RISK REDUCTION: A REVIEW OF POLICY AND PRACTICE

"It is possible to imagine a community or a nation that lived with a regard for nature, despite its hazards, with a coherent disaster risk reduction strategy in place… Elected or traditional leaders would have regular ***dialogue*** *not just with local officials and citizens but also with government agencies and scientists. Village councils would have ensured structures that serve as safe shelters in a cyclone and safe ground for livestock in the event of flood. Schools would teach children what to do when the river rises or when the earth begins to shake. Farmers would have granaries or fodder stores safe from storm and above any likely flood level. Health facilities would be safe and health centres would work with communities to reduce risk from disaster. Householders would have small but secure savings to help them through disruption caused by storm or inundation.* ***These communities would accept that information and communication were the most important elements of all****."*[1]

(UNISDR, 2004:xii)

2.1 INTRODUCTION

As stated in Chapter 1, disaster risk communication, often simplistically referred to as 'public awareness' (O'Neil, 2004), is one among a number of significant elements in current global, regional, national and local policy frameworks for disaster risk reduction. Within this element, communication is identified as a vital enabler for the cultivation of a broad-based culture of risk avoidance among at-risk communities. This chapter consists of three main arguments.

[1] Emphasis added

The first sets out to establish whether an enabling policy environment and political will exists within global, regional and national arenas to provide for the formulation and implementation of disaster risk communication policy and programmes by local authorities in South Africa (Research Question 1). Secondly, the chapter discusses the obtaining conceptual and policy-related definitions of what disaster risk communication entails and shows how these definitions translate into contemporary practice. The chapter ends by offering a participatory critique of the dominant definition and practice of disaster risk communication, arguing therefore that successful disaster risk communications would be those that make use of risk communication strategies that are moored in participatory development communication theory.

2.2 COMMUNICATION FOR DISASTER RISK REDUCTION

Communication is essential for the effective management of disaster risks at the community level where disaster managers from local government are expected to exchange knowledge and opinions with community members (World Bank, 2005). Communication with vulnerable communities about the hazards and risks they face and the measures they can take to mitigate and prepare for potential disasters is central to risk management. Without such knowledge, communities cannot easily mobilise to protect themselves (Twigg, 2004:165). Elo *et al.* (1995) have emphasised the need for appropriate modes and channels of communication between authorities and the people at risk for the facilitation of risk reduction. As the focus of disaster management has moved from being reactive to proactive with measures being taken to prepare for disaster and mitigate losses before disaster happens, disaster risk communication or disaster risk management through communication has begun to command significant attention (Okada *et al.*, 2005). However, it is widely recognised that current tools and guidelines for communication of disaster risk are inadequate (see Humby, 2012; Fourie, 2011; Solomon, 2011; Forster & Freeborough, 2006; AU/NEPAD, 2004; O'Neil, 2004; Twigg, 2004:165-167; UNISDR, 2004:282).

2.3 THE POLICY CONTEXT

As discussed in Chapter 1 (paragraph 1.2.1), disaster risk reduction has increasingly been incorporated into mainstream development thinking, planning and implementation globally. In the South African context, there is an increasing thrust to integrate and mainstream reduction of disaster risks as an integral part of development, beginning with planning at the local level through the Integrated Development Planning (IDP) process (Chagutah, 2009). Disaster management as an activity must be incorporated into each and every phase of the IDP (PIMMS, 2003, and South Africa, 2002; 2000, cited in Van Niekerk, 2006). In seeking to establish whether there exists an enabling policy environment for the implementation of disaster risk management through public communication activities, this section first discusses the overall communication for development policy context in South Africa and then proceeds to chart the role assigned to communication within the global, regional and national disaster risk reduction policy frameworks.

2.3.1 Communication for development in South Africa: The policy background

Since the first democratic elections in 1994, South Africa has experienced a “new approach to communication” which perceives communication as the critical enabler that links the continuing processes of social, human and political development (Barker, 2001:4). This reorientation in the role of communication has been characterised by a gradual shift from a hierarchical, top-down view of communication to a two-way process that is interactive, participatory and aimed at the needs of the developing community (Barker, 2001:4). The current approach is informed by the need felt at the beginning of the new political dispensation to respond to particular historical, social and economic inequalities which characterised the pre-1994 political regime (South Africa GCIS, 2000a). Furthermore, the constitution of post-apartheid South Africa bestows the responsibility to stimulate community

development and democracy, and therefore the duty to maintain communication between government and the community on local government (Burger, 1998:143-144).

The current policy context circumscribing the role of communication in development can be traced back to the final COMTASK Report, Communications 2000 (1996), which created the framework for the South African Government's Communications and Information Service (GCIS), and was launched in May 1998 (Burton, 1998:92). At its launch, the main thrust of the GCIS was to ensure coordination of communication and information structures of the government and, ultimately, the successful delivery of development-related communication, particularly between the government and the poor and marginalised majority (South Africa GCIS, 2000a; Burton, 1998:92). The GCIS states its commitment to a democratic, participatory and responsive public information programme where people are the most important ingredient, and affirms that government communication is driven by the needs of people. Its 2012/2013 Annual Report gives its goal as the need to achieve integrated, coordinated and clear communications between government and South African citizens to enable public involvement in the country's transformation (South Africa GCIS, 2013). In the 2012/2013 annual report, the GCIS reports to have closed the social distance between citizens and the executive through a public participation programme that put more than 23 million South Africans in direct contact with leaders in more than 3 000 public participation events.

At its formation, the GCIS adopted *development communication* as an approach to maintaining *dialogue* between government departments and its citizens GCIS (2000b). According to the GCIS (2000b), development communication is about the content of what is communicated as well as the context within which the message is relayed to the receiver, and can be seen as a thread linking a number of national development initiatives aimed at eradicating socio-economic drawbacks. In adopting development communication as the

approach to implement its policy for communicating with communities, the GCIS emphasises the following strengths of the strategy:

- It is responsive to the needs of the people and enables their participation in planning and development processes, rather than being a mechanism to persuade communities once unpalatable decisions have been made.
- It is not a one-way process, but involves dialogue mechanisms which enable feedback about the information which was transferred. It is also fundamentally about consultative processes being managed at the community level.
- It values community participation. A primary emphasis of this approach is to plan with communities, create structures which offer communities and developers equal power, and use communication methods which are fundamentally participatory in nature.
- Message creation is innovative, ensuring that the message is not dull and boring but shows clearly how the information transmitted will make a difference in the life of the recipient. Messages must not instil doubt or disbelief, but trust and confidence. Message creation must also be informed by the norms and prevailing values of the community.
- Emphasis is put on the use of simple and relevant language where concepts are packaged in the experiences of communities, in their own language, and where communities themselves have played a major role in the development of material for development communication programmes.
- Independent validation: The approach is not about 'government speak' but builds participatory mechanisms and functional networks involving non-governmental organisations, community based organisations and traditional leadership structures, while also encouraging links with networks from across the country which can either prove or disprove the validity of the information transmitted.
- It ensures sustainability and continuity and is not about dumping information in a community and never going back for months.

- It is about establishing common ground with communities who are to be the recipients of the information/message and places importance on the standards, norms, values and habits of the community. It is not about 'experts' seeking to 'educate and uplift' communities.

In 2013 the GCIS reported to have carried out 3004 development communication projects through mediated and unmediated channels, aimed at creating and providing platforms for citizens to interact with government and access information nationally in the year 1 April 2010 to 31 March 2011 (GCIS, 2013:12).

Thus, from the above it is clear that, in principle, in adopting these principles the government committed to maintaining a communication approach that is responsive to the needs of citizens, fully democratic and participatory, dialogical, anchored in context, accessible to communities and that enables the renegotiation of power between government officials and communities to ensure that citizens can also make decisions, lead the development process and thus empower themselves. The government, it can be said therefore, adopted a participatory development communication approach (paragraphs 1.2.2 and 3.3.1 to 3.3.6).

The government's development communication approach has been further expressed and enhanced by the following broad development policy goals in South Africa:

- *Universal Access*: popularising access to information and communication technologies (ICTs);
- *Alternative Service Delivery*: efforts by government to deliver services in a more innovative, effective and efficient way;
- *Batho Pele (People first)*: an approach aimed at developing user-friendly public services by focussing on the needs of the people who will receive the services; and

- *Participative and developmental local governance*: a commitment to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives.

Other important policy discussion and direction documents that emphasised the pre-eminent role of communication in enabling national development, particularly in marginalised communities, include the Poverty and Inequality Report (1998) and the Rural Development Strategy discussion paper (1995), both of which, for instance, called for the establishment of multi-purpose community centres with equipment and resources for empowering marginalised communities, particularly in gathering, analysis and sharing of development-related information (Burton, 1998:92-93). Above all, the post-apartheid Constitution of South Africa makes provision for participative democracy and governance, and consensus exists between the South African government and the South African populace that the people shall govern (CASE, 2012; Kabane, 2012). The Constitution (Section 152) provides for inclusive governance at local levels, and outlines the following objectives for local government:

- providing democratic and accountable government for local communities
- ensuring the provision of services to communities in a sustainable manner
- promoting social and economic development
- promoting a safe and healthy environment
- encouraging the involvement of communities and community organisations in the matters of local government

In addition, the commitment to democracy, deliberative and participative governance of sustainable development is anchored in legislation that guides the engagement of government and communities at the local level. For instance, the Municipal Systems Act (32 of 2000) commits to an inclusive approach marked by enhanced community participation in local government and outlines specific processes, such as integrated development planning,

to facilitate broad-based participation in development. The White Paper on Local Government (1998:23) places communities squarely at the centre of development by committing to "working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives."

Fourie (2012) and Kabane (2012) have, however, argued that in practice, the participatory governance approach adopted by government has not always achieved full participation of citizens in local level decision-making on development. According to Kabane (2012), although South Africa has a very advanced and progressive system of community participation through a system of ward committees, integrated development planning forums, participatory budgeting and other forums in local government, the model of community participation is not working. Fourie (2012) notes that, world-wide, the effectiveness of participatory governance has been questioned, emphasising that among other criticisms, in South African municipalities this approach has, in fact, resulted in the exclusion of certain citizens, shown a disregard of local context, and has been characterised by a lack of empowerment and power imbalances between government officials and community members (Fourie, 2012; Kabane, 2012). Fourie recommends recourse to participatory communication approaches, characterised by Freirean dialogue (see paragraphs 3.3.1 to 3.3.3) as a means to eliminating power imbalances, achieving empowerment of citizens, affording communities a voice in their own development, and encouraging inclusivity and a respect for differences.

2.3.2 Communication for disaster risk reduction: Policy frameworks

There are various international, regional and national policy frameworks and strategies for disaster risk management which explicitly spell out a role for communication in disaster risk reduction. Most important among these frameworks, and within the scope of this discussion,

are The Hyogo Framework for Action – a global blueprint for disaster risk reduction efforts during the decade 2005-2015; The Africa Regional Strategy for Disaster Risk Reduction; and the South African Disaster Management Act (57 of 2002) and its corollary South African National Disaster Management Framework (NDMF).

2.3.2.1 The global context

The seminal Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and its Plan of Action ("Yokohama Strategy"), adopted in 1994, emphasised the critical role of communication in reducing exposure to risk in vulnerable communities, albeit through what were largely considered *public awareness* activities (UNISDR, 2004:282). In 2005, the World Conference on Disaster Risk Reduction (WCDR) held in Kobe, Japan, represented a landmark in worldwide commitment to implementing a disaster reduction agenda. The 168 States attending the Conference adopted The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA) to expand and strengthen actions at all levels to reduce disaster risks and build the resilience of nations and communities to disasters. The Hyogo Framework for Action, a global blueprint for disaster risk reduction efforts during the decade 2005-2015, identifies the following priorities for action to guide states, organisations, and other actors at all levels in designing their approach to disaster risk reduction:

1. Ensure that disaster risk reduction is a national and local priority.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

The Hyogo Framework for Action identifies key activities disaster risk reduction role-players should take into consideration for each of the five priority areas. Communication of appropriate disaster risk information to at-risk communities is a major activity identified in order to meet the demands of priority 3. Specifically, the Framework calls for:

- "provision of easily understandable information on disaster risks and protection options, especially to citizens in high-risk areas, to enable people to take action to reduce risks and build resilience," and
- "promotion of engagement of the media in order to stimulate a culture of disaster resilience and strong community involvement in sustained public education campaigns and public consultation at all levels." (UNISDR, 2005)

2.3.2.2 The regional context

At the regional level, an Africa Regional Strategy for Disaster Risk Reduction and Guidelines for Mainstreaming Disaster Risk Assessment in Development were developed in 2004 by the Africa Working Group for Disaster Risk Reduction established in 2003 under the joint leadership of the Commission of the African Union (AUC) and the Secretariat of the New Partnership for Africa's Development (NEPAD) (AUC, 2009:1). The Strategy was adopted at the tenth session of the African Ministerial Conference on the Environment (AMCEN-10), held from 26-30 June 2004 in Sirte, Libya, and endorsed at the Third Ordinary Session of the AU Assembly held in Addis Ababa, Ethiopia, from 6-8 July 2004 (IISD, 2009). The Africa Regional Strategy for Disaster Risk Reduction sets out its objectives as to:

- Increase political commitment to disaster risk reduction;
- Improve identification and assessment of disaster risks;
- Enhance knowledge management for disaster risk reduction;
- Increase public awareness of disaster risk reduction;
- Improve governance of disaster risk reduction institutions; and
- Integrate disaster risk reduction into emergency response management.

Regarding communication of disaster risks, the strategy recognises that, although there has been some progress in applying information and communications technologies in disaster management in Africa, the human dimension of communications has received relatively less attention. Consequently, public awareness of disaster risks and risk reduction options is generally limited (AU/NEPAD, 2004:7). Further, the Strategy emphasises the power of the media to create awareness among the public and political authorities about hazards, risks and risk reduction interventions and responsibilities but notes the inadequacy of current efforts at communicating risk and risk reduction options. The inadequacy of mass-mediated approaches to development-related communication efforts is well documented in participatory communication literature, with emphasis given to communication approaches that enhance interpersonal and group communication, and foster collaboration between development workers and communities (see Tesfaye, 2011; Burger, 1999; Servaes, 1995). It states that, currently, the utility of media reportage in promoting effective public awareness of disaster risk reduction is hampered by their use of technical and non-local languages and presentation, coverage of semi-intellectual topics with little relevance to the everyday risk situations of the majority of the people, and limited distribution (AU/NEPAD, 2004:7).

The Strategy puts forward strategic directions to ensure the strengthening of disaster risk communication and increased public awareness among at-risk communities on the continent, viz:

- Risk reduction information must be provided in good time, precise, prompt, reliable and actionable.
- In addition to receiving advance information on hazards and vulnerability, the target population must also understand the content of the message, accept it, believe it and know how to use it to guide their response actions.

- Disaster risk communication should be a continuous process to ensure effective public education and risk awareness strengthening.
- Public awareness needs to be undertaken through all means of communications, interaction between disaster risk reduction authorities and the public, and at all levels.
- Communities tackle disasters at local levels, often utilizing traditional coping mechanisms based on local knowledge. It is therefore important that disaster risk communication efforts incorporate interventions that strengthen the role of traditional authorities, knowledge, experience and coping strategies.
- Effort must be made to increase public participation in planning and implementing disaster risk reduction interventions.

2.3.2.3 South African context

Development of the disaster risk management policy frameworks of South Africa has been undoubtedly shaped by the inclusion of South Africa in the regional and international disaster reduction arena (particularly through the International Decade for Natural Disaster Reduction, 1990-1999) and related developments on the global scene (Vogel, 1998). However, the country's Disaster Management Act (57 of 2002) predated both the 2005 World Conference on Disaster Reduction and the subsequent Hyogo Framework for Action and thus generated particular interest as an example of international best practice (South Africa, 2007:33).

The Act is the major policy tool that promotes proactive disaster management through risk-reduction programmes in South Africa. The Act places emphasis on measures that reduce the vulnerability of disaster-prone communities and infrastructure and facilitates disaster management capacity building, training and education (Mtshali, 2007:2). Section 7(2) of the Act states that the NDMF "must... place emphasis on measures that reduce the vulnerability

of disaster-prone areas, communities and households..." The South African National Disaster Management Framework is the legal instrument specified by the Act to address such needs for consistency across multiple interest groups, by providing a coherent, transparent and inclusive policy on disaster management appropriate for the Republic as a whole (South Africa, 2005:1). The NDMF is divided into four key performance areas (KPAs) and three 'enablers' - aspects that need to be present in all four of the key performance areas in order for them to be implemented successfully (South Africa, 2005:2). The key performance areas and enablers are:

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

Government authorities have a basic responsibility to inform the public about hazards and the changing conditions of risk (UNISDR, 2004:282) and the NDMF addresses requirements to promote and support a broad-based culture of risk avoidance through strengthened public awareness activities at all levels of government. Enabler 2 within the Framework states as its objective the promotion of "a culture of risk avoidance among stakeholders by capacitating all role players through integrated education, training and public awareness supported by scientific research." The NDMF (South Africa, 2005:83) cites the implementation of public communication campaigns and other communication avenues through the media as being critical success factors in order to inculcate risk-avoidance behaviour by all stakeholders and to operationalise Enabler 2 of the Framework. The NDMF suggests that communication and public awareness activities could include: organised and planned awareness programmes

using media, posters, videos, publications and any other innovative means; awareness campaigns conducted at least 30 days before a change of season or climate; annual recognition and celebration of World Disaster Risk Reduction Day; rewards, incentives, competitions and recognition schemes to enhance awareness of and participation in risk reduction activities; and dissemination of information to role-players, especially those at risk, through the use of communication links and early warning systems (Humby, 2012).

The importance of a clearly formulated and successfully implemented disaster risk communication strategy within the broader disaster risk reduction framework in South Africa cannot be overstated. The NDMF Policy document (2005:83) calls for the development of "an integrated public awareness strategy [that] must be implemented nationally to encourage risk-avoidance behaviour by all role-players, including all departments in the three spheres of government, and especially in schools and in communities known to be at risk."

2.3.2.4 The conception of disaster risk communication in policy

The preceding argument has shown that there exists an adequate policy architecture to provide for the provision of disaster risk communication interventions within communities at risk of disaster. However, policy informs practice, and it is therefore important at this juncture to draw attention to the conception of communication and the role ascribed to it within the South African policy framework for disaster risk reduction. In doing so, the parallels between the South African policy framework and the policy instruments at global and regional levels should be noted. Particularly so as the conception of- and role assigned to communication in promoting a culture of risk avoidance within society is largely the same within policy frameworks guiding practice at all three levels as illustrated above.

The role of communication in enhancing community resilience to disaster and promoting a culture of risk avoidance is captured in policy as being that of *public awareness*. Abarquez

and Murshed (2004:97-98), however, argue that public awareness and disaster risk communication are not the same, with the former being a very minimalist abstraction of the latter. Humby (2012) points to the bias towards a narrow, unidirectional and information dissemination, public awareness oriented conception of disaster risk communication in policy and practice in South Africa. She notes that, although institutional mandates for disaster risk communication activities and the provision of guidance to local authorities for implementing communication interventions are explicit in policy (§ 6.5.1, NDMF), there is very little guidance on strategies for community education at local level while those communication initiatives that are being instituted are still more focused on information dissemination in emergency response than ongoing communication interventions geared towards disaster risk reduction (Humby, 2012). Further, there is a bias in policy towards the use of mass media, with print, television and radio being uncritically attributed with the ability to inculcate risk-avoidance behaviour among at-risk communities. Against this background, the section that follows seeks to define disaster risk communication and discusses how the dominant information transmission model for disaster risk communication has led to an inadequate, expert-led, technocratic and unidirectional practice in communication for disaster risk reduction interventions.

2.4 DEFINING DISASTER RISK COMMUNICATION

A reading of the literature reveals two parallel definitions and conceptions of what disaster risk communication entails (Grabill & Simmons, 1998). On the one hand are predominantly expert-driven, *public awareness oriented*, one-way, information dissemination conceptions and on the other hand more participatory definitions emerge. Definitions such as Rohrmann's (2000a) and Dixit's (2003) place a heavy emphasis on *delivery* of information to a threatened community with the intention of *influencing* their risk management behaviour. In this conception, disaster risk communication is frequently defined in terms of *transfer of knowledge* to those who need it and use of this knowledge by them (Dixit, 2003), with most

disaster managers working from the assumption that people neither fully understand the risks they face, nor how to deal with them (Wisner *et al.*, 2004). Indeed, this traditional 'public awareness' approach is increasingly being questioned, with more participatory approaches and definitions emerging (Höppner *et al*., 2010; O'Niel, 2004). More recently, perspectives have emerged that seek to define risk communication as an interactive *exchange* rather than a one-way transfer of information, knowledge and opinions among and/or between those responsible for managing risks and those who may be affected by hazard events (Höppner *et al*., 2010). Among these, Abarquez and Murshed (2004) have defined disaster risk communication as a reciprocal process in which different stakeholders listen to each other and form a common understanding about risks, their acceptability, and actions needed to reduce risk. Parallels are evident between the emerging participatory conceptions of disaster risk communication and the established practice of participatory communication in aid of development as outlined in paragraphs 3.3.1 to 3.3.8.

Notwithstanding the emergence of these participatory conceptions, the dominant practice of disaster risk communications retains a lingering legacy of classical, top-down, hierarchical, and expert-led communication models (Humby, 2012; Fourie, 2011; Solomon, 2011; Höppner *et al*., 2010; O'Neil, 2004; Grabill & Simmons, 1998) as discussed below.

2.5 THE DOMINANT PRACTICE

The driving aim behind any disaster risk communication programme is to create a 'culture of safety' where awareness of risk and adoption of risk reducing measures are part of the daily life of vulnerable communities (Twigg, 2004:168). People exposed to hazards need to be optimally informed about risk characteristics, preventative measures, appropriate behaviours, and they must understand and accept their own responsibility (Rohrmann, 2000b).

Communicating disaster risk is vital before, during and in the aftermath of a disaster (Höppner *et al*., 2010; Okada *et al.*, 2005). The outer ring in Fig. 2.1 identifies these applications of disaster risk communication in the disaster management cycle. Before a disaster, the role of communication is to enable mitigation and preparedness. Once a disaster begins to unfold, early warning will play a major role. After a disaster, lessons learned from the disaster are identified and communicated through various methods for disaster education within at-risk communities (Okada *et al.,* 2005).

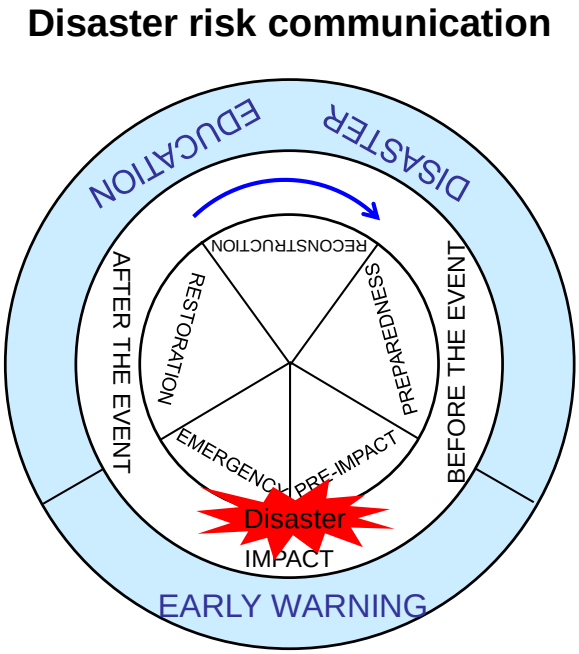


Figure 2.1 Applications of disaster risk communication in the disaster management cycle

SOURCE: Okada *et al.*, 2005

Humby (2012), however, notes a dereliction of risk communication responsibilities outside the emergency phase of the disaster management cycle in South Africa. Authorities are seen to focus their communication activities mainly in the early warning stage and during the emergency, with communities expected to react to the warnings. O'Neil (2004) elaborates that risk communication in emergencies has been undertaken by way of authorities

distributing prepared material which emphasises actions residents can take to protect themselves and their property. O'Neil identifies inadequacies in this approach, noting that this dominant practice suffers from the absence of a model which incorporates the vulnerable community's willingness to be involved as active agents in the risk communication intervention rather than being cast as passive recipients of appropriate messages. In so doing, the dominant practice fails to account for the fact that disaster risk reduction as a discipline is situated within the broad concept of development, which as practice over several decades has shown, is best achieved when people are seen as active participants in the development endeavour, as argued in paragraph 1.2.1 above. While people may readily pay attention to disaster risk communications during times of disaster, their exclusion from participating in coming up with disaster risk communication intervention makes it difficult to sustain their interest during times of calm (UNISDR, 2004:284).

As Höppner *et al*., (2010) have argued, risk communication enquiry and thus practice has focused more on what functions communication can achieve for managers of risk, such as the need to raise awareness; encourage protective behaviour; inform to build up knowledge on hazards and risks; inform to promote acceptance of risks and management measures; and inform on how to behave during events, with little concern for the social or – from the perspective of the communicating entity – function. The dominant practice has thus been driven by the classical *communication process approach* in which risk managers pay attention to the single components of the risk communication process: sender, message, receiver, and their mutual relationships. As a consequence, a largely ineffective practice has been fostered that is closely connected to outdated models of communication (Grabill & Simmons, 1998). These models of risk communication are largely influenced by classical communication studies and are best illustrated by Laswell's (1948) simple Model of Communication, comprising: Source/Communicator; Message; Receiver/Audience; Channel/Medium; and Destination/ Impact (Croft, 2004), see Fig. 2.4.

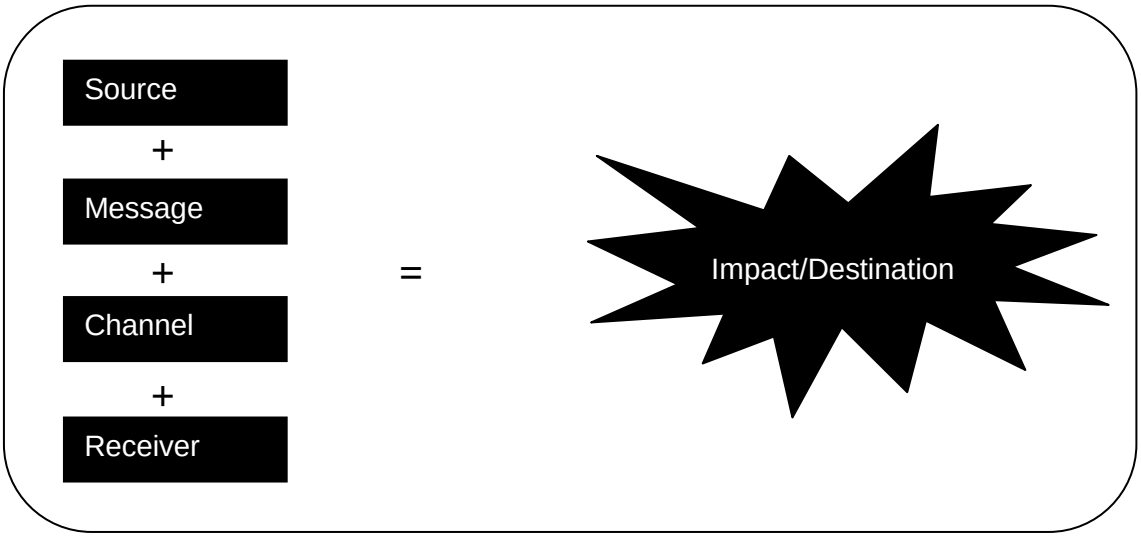


Figure 2.2 Components of the classical disaster risk communication process
Adapted from Croft (2004).

In these models, communication is depicted as a linear, one-way process with no allowance for feedback, communication barriers and negotiation of meaning that is typical of most forms of human communication. This approach to risk communication is extremely unidirectional and presupposes that all communication will produce an effect or impact on a targeted audience. Many scholars (among them Humby, 2012; Solomon, 2011; Tempelhoff *et al*., 2009; Okada *et al.,*2005; World Bank, 2005; Abarquez & Murshed, 2004:96; Twigg, 2004 and Rohrmann, 2000;), however, note that communicating about risks is more likely to succeed when treated as a two-way process. The dominant conception of the disaster risk communication process is therefore a minimalist abstraction of the reality. In reality, most information sources and receivers act simultaneously as both a source and receiver with meaning being co-created and exchanged by co-equal actors in the communicative relationship (Foulger, 2004:2).

2.5.1 Disaster risk communication in South Africa

Disaster risk, risk-minimising community response options and alternative policy responses can be communicated quickly to a broad range of audiences through mass media as news

stories, advertisements, entertainment, public service messages, or informational features. In addition to communication through mass media, Hughes *et al.* (2007), Okada *et al.* (2005), World Bank (2005), Abarquez and Murshed (2004), Cronin *et al*. (2004), Twigg (2004), UNISDR (2004) and Sedgo and Somé (2001) propose dialogic participatory communication approaches for bringing about the required changes in behaviour that would ensure appropriate proactive and pre-emptive risk minimising actions by communities at risk of environmental hazards. However, a review of disaster risk communication activities carried out in recent times in South Africa shows that the practice has largely been informed by the dominant unidirectional and expert-led conception. In addition to evidence from Humby (2012), outlined in paragraph 2.3.2.4 and section 2.5 above, it is reported that in the years 2006 and 2007, the seven provincial disaster management centres of Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, and Western Cape undertook some form of "public awareness" activities (South Africa, 2007:126). In KwaZulu-Natal the South African Weather Services and the KwaZulu-Natal Fire Protection Association, working with the Provincial Disaster Management Centre and the District Disaster Management Centres ensured *dissemination* of early warning of impending severe weather and fire danger indexes to the local municipalities and local radio stations where broadcasts were made at news times throughout the day. There were plans in many of the district centres to extend information dissemination to include the *Amakhosi* and tribal leaders in the rural areas (South Africa, 2007:119). At the community level, the organisation Working on Fire conducted basic training on fire prevention in some of the districts at schools and community venues (South Africa, 2007:125).

In the Western Cape, electronic and print media, as well as a bulk SMS system were used to communicate weather warnings (South Africa, 2007:119). Community level engagement was undertaken through the *Training, Education, Awareness and Marketing* (TEAM) Project, jointly funded by the Department of Local Government and Housing of the Western Cape Provincial Government and the Development Bank of Southern Africa. Awareness activities

were undertaken in schools, at community venues as well as by making presentations to politicians (South Africa, 2007:126). The TEAM programme (November 2005-April 2007) aimed at enhancing the resilience of residents in the most vulnerable areas in the Western Cape through the provision of training, education and marketing interventions. These interventions were tailored to specific disaster hazards and risks found in vulnerable communities, including flooding, fire and disease (DiMP, 2008:iv).

In their study into the December 2004-January 2005 floods in the Garden Route region of the Southern Cape, Tempelhoff *et al*. (2009) report that the channels used for communication of flood risk consisted of mostly faxes and SMSs, with little direct contact between role-players. Communication of warning to communities was by a loudspeaker system in the Bitou Local Municipality, whereas the Knysna and George Local Municipalities did not have any communication channels in place. Thus, where there was any attempt at communicating risk, the approach utilised was unidirectional with no attempt reported to engage communities in the communication process (Humby, 2012). Solomon (2011) found that flood warnings issued by the City of Cape Town are similarly unidirectional. Although flood warnings are issued by both local government and the media, this is done with limited or no engagement with at-risk communities. A preoccupation with the use of mass media with no direct engagement with at-risk communities has been reported by Heslop (2008) in her study on the efficacy of communication with communities on health outcomes of a flooding disaster in the Taung area of the North West Province. Thus, from this brief survey of existing risk communication initiatives, it is worth noting that the majority of activities reported were *unidirectional information dissemination* exercises, with no mention made of the role and involvement of communities in the communication process, except to serve as audiences targeted by the information from authorities. In one of the worst cases, Fourie (2011) reports that in the Maquassi Hills in the North West province, fire services personnel did not communicate in any way with the community and also did not use any means of communicating necessary safety information. Instead, Fourie charges, fire services

personnel expected members of the community to come to them to raise their opinions about issues concerning fire and seek information which they would be ready to provide, which defies the logic of the proactive thrust adopted to disaster risk management issues in South Africa.

In response to the failings of existing disaster risk communication interventions in South Africa, some well-meaning investigations have, however, fallen short of an outright rebuttal of the dominant, technocratic, unidirectional model for disaster risk communication. For instance, Tempelhoff *et al.* (2009) recommend the implementation of public communication campaigns to heighten the risk perception of at-risk communities, and in doing so, also *instill* risk-avoiding behaviour. They argue that such awareness campaigns will "provide the communities with adequate knowledge" as to the appropriate response once a warning is issued. The assumption, it can be argued hence, is that disaster managers hold the knowledge and there is need to transmit and instill it into the masses. Similarly, in her analysis of legislation relating to disaster risk reduction in South Africa, Humby (2012) vacillates between arguing the case for active community involvement in disaster risk communication interventions and displaying a blind-spot for the perpetuation of the technocentric, unidirectional approach. For instance, in her summation of existing challenges to enhancing community resilience to disasters, she bemoans the inability to integrate disaster risk reduction learning objectives into the school curriculum and argues that doing so could play a very significant role in terms of "disseminating a risk reduction mindset into society." Here too, the assumption is of a privileged expert community within whom resides the power to change the mindsets of the at-risk population towards a culture of risk reduction. A participatory critique has, however, arisen in response to the dominant conception and practice of disaster risk communication, arguing against the artificial dichotomy between an all-knowing disaster risk reduction expert community and the imagined passive, disempowered and at-risk community.

2.6 THE PARTICIPATORY CRITIQUE

Many scholars (Okada *et al.*, 2005; World Bank, 2005; Abarquez & Murshed, 2004; Twigg, 2004; Grabill & Simmons, 1998; and in the South African context Humby, 2012; Fourie, 2011; Solomon, 2011; Tempelhoff *et al*., 2009 and Heslop, 2008) emphasise that the conception of a one-way transfer of knowledge in risk communication interventions is inadequate, and instead argue for a mutual exchange of knowledge between experts and communities through participatory methods of communication. These scholars argue against the dichotomy establishing 'message sending experts' and 'message receiving communities' in the 'one-way transfer of knowledge' conception of disaster risk communication and instead call for recognition of the role played by communities in bringing local experience to the development of knowledge on community disaster preparedness. Experience from the implementation of disaster risk communication programs (Forster & Freeborough, 2006; Dixit, 2003:130) shows that programme success is directly related to the involvement and participation, and thus level of ownership of the programme, by stakeholders. It is argued that participatory methods result in risk reduction strategies that are informed by communities' experience and perception of risk and therefore ensure community ownership and increased chances that at-risk communities will engage in risk reduction interventions (Okada *et al.*, 2005; World Bank, 2005; Abarquez & Murshed, 2004:96; Twigg, 2004:166). By drawing on local experience, communities are able to identify locally appropriate measures to advance their participation and utilise their capabilities in the management of risks (UNISDR, 2004:284). Designing the campaign in a participatory manner allows the disaster risk message to be informed by the ideas, constraints and opportunities of the at-risk community, thereby making the communications locally appropriate (UNISDR, 2004:283). Further, effective disaster risk communication addresses the socio-economic causes and consequences of people's exposure to hazards rather than simply discussing the hazards themselves or only seeking to direct people towards certain behaviours (Barclay

et al, 2008:170). Programmes need to present people with options about how they can deal with the risk in ways appropriate to their particular socio-economic situation (Rhodes, 2003).

Further, Barclay *et al. (*2008), Catto and Parewick (2008), Heslop (2008), Petterson *et al.* (2008) and Okada *et al.* (2005) have emphasised the need for continued and ongoing involvement of community members at all levels of disaster risk communication as they are often the most affected by disaster. Belsten's (1996) theory of "community collaboration" considers anyone affected by a given risk as a stakeholder and requires them to be involved very early in any risk communication process.

Participation in disaster risk reduction enables the people themselves to address their causes of vulnerabilities in the context of development and to explore different priorities, which allows the risks to be defined correctly, and the response measures to be designed and suitably implemented (Alexander *et al.*, 2010). Implementing participatory approaches in the practice of disaster risk reduction is, however, quite challenging which has resulted in inadequate application of the concept in development practice as most professionals have their own, and widely varying, understandings of what participation entails and how it should be applied in practice (Wilkins, 2009). A number of scholars [including Tufte & Mefalopulos (2009); Pretty, *et al*. (1995); Arnstein (1969)] have devised typologies to characterise the various purposes and degrees to which the participatory approach has been applied.

Arnstein (1969) provided the benchmark of participation with her 'Ladder of Citizen Participation' (see Fig 2.3). The ladder depicts eight levels of participation reflecting higher degrees of participation, influence, and value of the participation process as you move up the rungs. The bottom two rungs (manipulation and therapy) represent *non-participation*. Here citizens receive information about a development initiative but have no influence on its implementation and remain simple recipients of the service (Rawson & Hooper, 2012). The next three rungs (informing, consultation and placation) represent *tokenism* whereby citizens

are informed and can give their opinions but remain with no real influence or power to participate in decision-making. The top three rungs (partnership, delegated power and citizen power) incrementally depict the highest levels of participation and represent *citizen power* where citizens have real power and influence over final decisions in development initiatives.

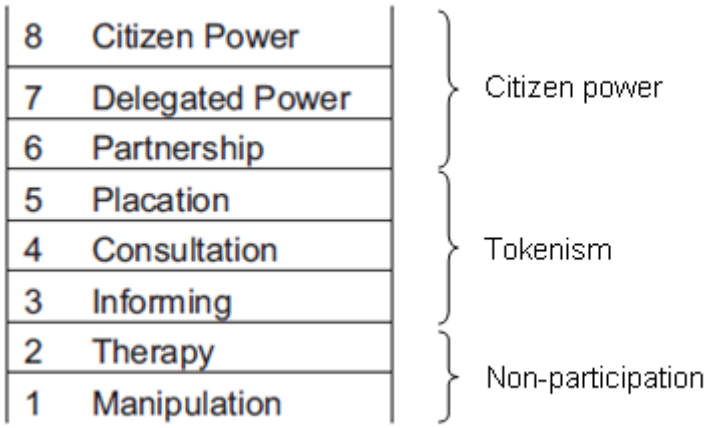


Figure 2.3 Arnstein's ladder of citizen participation

SOURCE: Arnstein (1969:217)

O'Neil (2004) has applied Arnstein's ladder of citizen participation (1969:217) to risk communication, to illustrate how different approaches to disaster risk communication engender different levels of community participation, ranging from *non-participation,* wherein the community is least involved in the risk communication intervention, to *empowerment,* whereby the community participates in such a manner that it is empowered and works within disaster risk communication interventions towards its own self-reliance (see Table 2-1).

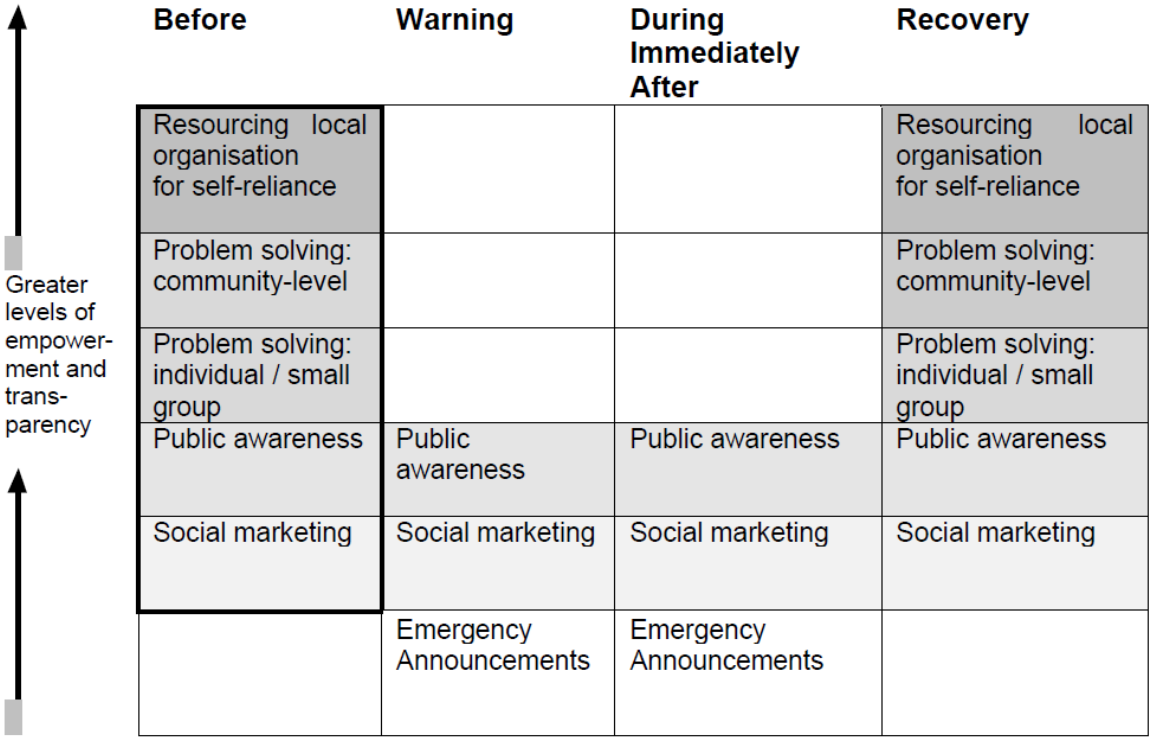
Table 2-1 Arnstein's ladder of citizen participation applied to disaster risk communication

Level	Example	Risk Communication Approaches
Empowerment	*Community development*: Resourcing and facilitating local communities for self-reliance	Resourcing community organisations during recovery phase (e.g. Community Fire Units, Community Fire Guard)
Collaboration	*Community education*: Problem solving at a community-level (two-way) e.g. participation in planning	Reconstruction advisory committees, Collaborative disaster planning Committees (e.g. Public Communication Coordination Group)
Consultation	Community education: Problem solving individual or small group (two-way) e.g. face-to-face learning	Workshops, stalls demonstrations, small public meetings, training
Information	Public awareness (one-way)	Info lines, newsletters, leaflet drops, media stories, public meetings, exercises and drills
Manipulation/ therapy	Social marketing (one-way persuasion)	Advertising campaigns
Non-participation	Emergency announcements (one-way, mandatory)	Warnings (e.g. Storm warnings); What to do / not to do; Evacuation announcements (e.g. floods)

SOURCE: O'Neil (2004)

O'Neil (2004) has put forward that different levels of participation are applicable to risk communication approaches in the different phases of the disaster management cycle.

According to O'Neil, approaches that are geared towards greater levels of empowerment are more appropriate and achievable before and in the aftermath of a disaster, while during an emergency mere announcements, social-marketing and public awareness oriented approaches may be most appropriate. While also questioning the practicability of fully democratic, two-way, participatory and dialogical communication in an emergency situation, Höppner *et al.* (2010) maintain that there remains an ethical question to consider: can 'manipulation' of opinions (such as those defining public awareness and social marketing oriented approaches) be reconciled with normative (the right to be involved on grounds such as democratic emancipation, equity, inclusion, fairness) and substantive rationales (to contribute values, perspective and knowledge to ideally influence the outcome) for any exercise in public communication? They emphasise that the practice of disaster risk communication still remains without adequate guidance on which situations communication can be limited to a one-way mode, and in which situations throughout the risk cycle risk managing bodies should encourage participatory processes. Be that as it may, this quandary in the context of the disaster risk reduction approach may prove a moot point. The point of departure of disaster risk reduction, and therefore disaster risk communication, being that of a proactive approach to dealing with those aspects that make people vulnerable to hazards, precludes argument about what should happen in an emergency situation. The proactive approach that defines disaster risk reduction locates communication interventions for disaster risk reduction squarely in the phases before the event and after the event, during which times there is ample scope for the involvement of communities throughout the intervention as outlined by O'Neil's (2004) schematic on risk communication approaches for the different phases of the disaster cycle in Fig. 2.4.



Before	Warning	During Immediately After	Recovery
Resourcing local organisation for self-reliance			Resourcing local organisation for self-reliance
Problem solving: community-level			Problem solving: community-level
Problem solving: individual / small group			Problem solving: individual / small group
Public awareness	Public awareness	Public awareness	Public awareness
Social marketing	Social marketing	Social marketing	Social marketing
	Emergency Announcements	Emergency Announcements	

Figure 2.4 Risk communication approaches for the different phases of the disaster cycle

SOURCE: O'Neil (2004)

Be that as it may, disaster risk managers are faced with the task of delivering their communication and community engagement mandate throughout the disaster management cycle, and as Fig 2.3 shows, the participatory manner of their interventions will vary along a continuum from minimal participation to fully participatory engagements depending on context. In the varying extents to which participation is implemented it may be understood to assume an instrumental value, in which it is employed in so far as it is a means to achieving specific aims (such as in warning and during the actual disaster in Fig 2.3 above) or it may be thought of as an end in itself and thus assume a transformative value, in which it empowers at-risk communities to influence decisions in the disaster risk management intervention (see paragraph 3.2.2).

2.7 CONCLUSION

This chapter has outlined the policy background and policy frameworks that provide for the delivery of disaster risk communications globally, in the region and within South Africa, thereby answering Research Question 1, and showing in the process that there exists an adequate policy architecture for the provision of disaster risk communication interventions within communities living under constant threat of disaster.

Specifically and most importantly, several policy frameworks exist that provide for the planning and implementation of disaster risk communication activities at the various levels in South Africa. Most notable is the Disaster Management Act 57 of 2002 and its corollary the National Disaster Management Framework (NDMF), which establish a risk reduction orientation to the national approach to disaster management in South Africa. Within the NDMF, communication activities are identified in Enabler 2 (Education, training, public awareness and research) as being critical to the adoption of risk-avoidance behaviour by all stakeholders. The Act establishes structures for planning of disaster risk reduction activities and apportions institutional mandates for ensuring delivery of disaster risk responses, including communication interventions, at the national, provincial and local levels. At the local level, planning for disaster risk reduction activities has been integrated into mainstream development planning through the Integrated Development Planning (IDP) process. The IDP process is provided for in the Municipal Systems Act (32 of 2000), which itself commits to inclusive development planning marked by enhanced community participation at local levels.

In addition to these policy frameworks that explicitly provide for planning and implementation of interventions for disaster risk reduction, the Government of South Africa has adopted an approach to participatory development that perceives communication as the critical enabler of all processes that aim to achieve sustainable development in the country. The commitment to development communication as an enabler of development is abetted by

other broad policy goals such as *Batho Pele* and universal access to information and communication technologies, and not least by the Constitution of South Africa, which provides for participatory governance of development at local levels, and mandates local government with the responsibility to implement all necessary interventions to ensure provision of a safe and healthy environment for all.

As a global citizen, South Africa has also committed to regional, continental and global frameworks that give guidance for the provision of disaster risk communication interventions among at-risk communities. Among others these are the SADC Draft Regional Multi-Sectoral Disaster Management Strategy (2001), The Africa Regional Strategy for Disaster Risk Reduction, and The Hyogo Framework for Action – a global blueprint for disaster risk reduction efforts during the decade 2005-2015, all of which identify communication strategies as a critical element of national and local level disaster risk reduction responses.

The chapter also defined what disaster risk communication entails, discussed the contemporary practice of communication for disaster risk reduction and presented a participatory critique showing in the process that the contemporary dominant practice is inadequate and incongruent with the developmental imperatives of disaster risk reduction and the communication function therein.

In Chapter 1 it was shown how disaster risk reduction has emerged as an integral part of the broader concept of development. Consequently, Chapter 2 has concluded its argument by positing that successful disaster risk communications would thus be those that make use of risk communication strategies that are moored in participatory development communication theory. In order to be able to determine what principles of the participatory approach to development communication could be applicable to a framework for disaster risk communication interventions, and subsequently evaluate how far existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare

against salient theoretical and empirically validated theory for the practice of participatory development communication interventions (Research Questions 2 & 3) the next chapter presents a review of the literature and theoretical approaches to participatory development communication.

Chapter 3 : A REVIEW OF THE LITERATURE AND THEORETICAL APPROACHES TO PARTICIPATORY DEVELOPMENT COMMUNICATION

3.1 INTRODUCTION

An investigation into the participatory nature of disaster risk communication interventions necessitates that we first lay out the theoretical fundamentals that anchor the practice of participatory communication in its role as a corollary and enabler of development efforts. It has been argued earlier (paragraph 1.2.1) that any efforts towards disaster reduction need to be based on more attentive participatory approaches in which the involvement of local communities as proactive stakeholders, and not passive targets for intervention, is integral (UNISDR, 2004:21). It is therefore against the theoretical tenets of participatory development communication that the practice of disaster risk communication, as a central component of disaster reduction efforts in South Africa in general (see paragraph 2.3.2.3), and the study areas of Cape Town Metro, uThungulu District and George Local municipalities specifically, must be held against and evaluated. This chapter lays out the theoretical fundamentals of participatory development communication, and in so doing attempts to determine which of these could be applicable to a framework for disaster risk communication interventions. It is also these identified principles that will comprise the schema against which it will be possible to evaluate the application of salient theoretical principles of participatory development communication in disaster risk communication interventions in the selected South African municipalities in the analysis of findings from the study (Chapter 5).

3.2 DEVELOPMENT COMMUNICATION AND THE TURN TO THE PARTICIPATORY PARADIGM

Through the last several decades, the role of communication in development has been extensively explored, emphasised and analysed by communication scholars and adopted in development policies by many nations. Since the beginning of the post-World War II (WWII) period, the role of communication in development has been conceptualised within three major development paradigms: the modernisation paradigm, the dependency theory and the participatory paradigm (Hamdy, 2004).

3.2.1 Modernisation, dependency and the role of communication

Historically, the theoretical approaches to development communication have to some extent been corollaries to the paradigms of development theory and politics of a given era (Hemer & Tufte, 2005:13). It has been established in paragraph 1.2.1 that the participatory turn to development communication arose out of a sustained critique of the Modernisation era. Under *modernisation* the dominant thinking was that, for the underdeveloped world to register developmental progress, its people needed to be transformed, and new values and beliefs implanted in them (Rogers, 1976:127). The task of transforming the people of what was then regarded the underdeveloped world, to implant new values and beliefs, and transfer information and knowledge was to be achieved through the technology and content of communication - development communication (Mansell, 1982). Under modernisation the path to successful development was thought to lie in the adoption and diffusion of those values and approaches that had ensured the success of the Western way of life (Rogers, 1976:2-3). Development was considered a unidirectional, linear, cumulative, progressive and evolutionary process (Servaes & Malikhao, 2005:92; Servaes, 1995).

Communication in this paradigm was conceived as a one-way process of passing messages from one point to many others, usually in a vertical, top-down fashion (Mefalopulos, 2003:22). Communication, primarily through broadcast media, was attributed with the ability to achieve, maintain and strengthen modernity. Mass media was seen as a leading agent and a multiplier in promoting diffusion of new ideas (Switzer, 1987). Prominent post-war scholars, among them Schramm (1964), Rogers (1962) and Lerner (1958), took a special interest to the role of communication in national development and became the foremost proponents of the core beliefs of the dominant paradigm. Building on Lerner's and Schramm's studies, communication researchers drew conclusions that introduction of media and diffusion of developmental information into a social system through certain channels, could transform individuals and society from being traditional to modern (Servaes & Malikhao, 2005:92). However, critics of the diffusionist, one-way, linear, information flow models in which a sender passes messages to a receiver, usually a mass audience, argued crucially that, although mass media are important in spreading awareness of new possibilities and practices, at the stage where decisions are made about whether or not to adopt innovations, personal communication was far more likely to be influential (see Servaes, 1995).

The dominant paradigm of development underwent far-reaching interrogation and criticism in the 1970s by scholars and practitioners across disciplines, and from around the globe, and alternative pathways to development were put forward (Huesca, 2002). Leading critics included the Dependency theorists, emerging mostly from Latin America where scholars deconstructed and rejected the premises, objectives, and methods of modernisation and its attendant communication approaches (Huesca, 2002:140). Leading dependency theorists included Baran (1957) and Frank (1966), whose critique focused on the structural imbalances in information flow, and disagreed with the celebrated dominant paradigm's premises, objectives, methods and its attendant preoccupation with the developmental value of mass media. They argued, instead, that global structures of domination meant that

imbalances in technology and information flow resulted, not in development of the underdeveloped world, but in media and cultural imperialism, and perpetuation of global structures of domination (Huesca, 2002:140).

However, although the proponents of dependency theory vigorously supported a rethink of the communication agenda along the lines of a more balanced flow of communication, they concentrated only on debunking vertical global structural imbalances in information flow. In doing so they often neglected the horizontal component of communication within countries, and thus did not consider the value of community and other forms of media that offered the opportunity for ordinary people to participate in shaping the communication agenda (Mefalopulos, 2008:50). Suffice to say, therefore, that though in opposition to the deployment of media by modernisation theorists, dependency theorists remained rooted in the classic unidirectional flow and media-centric concept of communication and retained a similar preoccupation as the modernists with mass media as the primary agents of spreading development-related messages in society.

3.2.2 The turn to participation

Criticism of both the modernisation and dependency paradigms gave impetus to the birth of new perspectives on development whose common starting point was the examination of development from 'bottom-up', from the self-development of the local community (Servaes & Malikhao, 2005:93). While the roots of this 'participatory approach' in development can be found in the early years of the 1970s, when many people in the development community began to question the top-down approach of the dominant paradigm tradition, the approach gained momentum in the 1980s and 1990s (Chitnis, 2005b:234; Huesca, 2002).

Whereas modernisation and dependency thinking situated development within the national and global contexts, respectively, participatory approaches emphasise the role of

communities as a central venue for collective action (Wilkins, 2009). Participation's defining feature is the attempt to transform people from being passive recipients into active agents in their own development (Mefalopulos, 2008:50; 2003:30). Participation, therefore, advocates for an endogenous vision of development i.e. the empowerment of communities in defining the form and content of their desired development as dictated by their context, lived experience and felt needs. It stresses the involvement of communities at all levels of planning, development and implementation to ensure development efforts respond to lived realities. The participatory critique of the dominant contemporary practice in disaster risk communication presented earlier (see section 2.6) emphasises this point, stating that experience from successful disaster risk interventions shows that the success of interventions is dependent on the involvement and participation, and thus level of ownership and empowerment of the at-risk communities (Forster & Freeborough, 2006; Dixit, 2003:130). Participation in disaster risk reduction can bind communities to work together and build confidence, skills, capacity to cooperate, awareness and critical appraisal, thereby increasing the people's potential for reducing vulnerability and enabling them to tackle challenges, individually and collectively (Bowen, 2007). In establishing oneness, and empowering local communities through fostering collective inquisition of local disaster risks and cooperation in defining and implementing solutions, participation may therefore be considered a normatively desirable end.

Having put forward, in section 2.6, a critique for a turn to participatory thinking and practice in contemporary efforts towards disaster risk reduction[2] and, similarly, in communication interventions for disaster risk reduction[3] the next section looks at the theoretical fundamentals of participation in development and participatory development communication

[2] As argued by Alexander *et al.* (2010), Bowen (2007), Okada *et al.* (2005), World Bank (2005), Twigg (2004), Abarquez and Murshed (2004), UNISDR (2004) and Jeggle (2001), among others.
[3] As argued by Dixit (2003), Forster and Freeborough (2006), Cronin et al. (2004), Okada *et al.* (2005), World Bank (2005), Abarquez and Murshed (2004), Twigg (2004), Grabill and Simmons (1998), and in the South African context Humby (2012), Fourie (2011), Solomon (2011), Tempelhoff *et al*. (2009) and Heslop (2008).

in order to determine how they could be applicable to a framework for disaster risk communication interventions.

3.3 THEORETICAL FUNDAMENTALS OF THE PARTICIPATORY APPROACH

3.3.1 Empowerment

In the normative, the definitional features of the participatory approach require that the ordinary people, as leading participants in their own development, must have the power to make decisions to direct the developmental process. Participation without the power to make decisions throughout all stages of a development initiative would be futile and without meaning, especially if power can be conceived of as the ability to shape social context (Mefalopulos, 2003:44). In development practice, imposition of power can be seen in how individuals or groups impose their will on others in making decisions on development priorities, methodological biases and decisions on field implementation approaches.

In contrast, empowerment is largely of internal origin and entails a process through which people achieve the capacity to take control of decisions concerning their lives and are able to work towards maximising the quality of their lives (Nikkhah & Redzuan, 2009; Hamelink, 1995). Participatory approaches to development which include, as a central, ongoing, feature the involvement of the poor in the making of all decisions, are crucial to the achievement of an empowered community. The possibility of empowerment of the people in development initiatives requires that power can change, implying therefore, a necessary disempowerment of development professionals and experts who must relinquish control of the power to impose decisions. If power cannot change, if it is inherent in positions or people, then empowerment is not possible, nor is empowerment conceivable in any meaningful way (Nikkhah & Redzuan, 2009:173).

Similarly, as argued in section 2.6, evidence from the practice of disaster risk communication points towards the rebuttal of the 'all-powerful message sending disaster risk expert' versus the 'passive message receiving at-risk community' dichotomy if communication interventions are to result in a community that takes ownership of the intervention and is empowered to interrogate the challenges they face and define solutions towards risk reduction. The successful disaster risk communication enterprise is one in which there is mutual exchange and sharing of knowledge, decision-making power and leadership of the process between experts and communities. The ability to achieve this within the context of disaster risk interventions requires on-going renegotiation of power-holding between the disaster risk expert and the community to ensure that those at risk have the means to make decisions that influence the process and outcomes of the intervention.

Authentic participation directly addresses the locus of power and its distribution in society and may not find favour with those who prefer the status quo and may therefore resist a reorientation of power towards the people (Servaes & Malikhao, 2002:122; Servaes, 1996:76). This is a crucial aspect that disaster risk managers should heed if interventions are to be truly participatory and empowering for at-risk and marginalised communities. Often disaster risk managers are privileged by way of the technical knowledge they possess and socio-economically distanced from the communities they serve, so much that such a renegotiation of power is difficult to achieve in their interaction with the people. Servaes and Malikhao (2005:95) note that this implied disempowerment of development professionals is a common hindrance to adoption of participatory practices as it threatens existing hierarchies. They clarify, however, that adoption of participatory practice does not mean an end to the role of development professionals. Instead, as Fourie (2012) has emphasised, the role of the development professional is not to solve the community's problem, but to enable the community to solve their own issues. Thus, even where a renegotiation of power in decision-making is ultimately achieved, the disaster risk experts begin from a position of power

(Singh, 2008:705) from which they can act as a catalyst (Freire, 1970) to initiate the dialogue that ultimately results in the community appropriating the power to steer the interventions in ways that build their collective capacity to negotiate risks and respond to their most relevant needs.

Mefalopulos' (2003:48) treatment of current literature reveals three levels of empowerment: The *personal* dimension, concerned with personal growth, self-esteem and believing in one's self; The *interpersonal*, concerned with relations with others, setting limits in giving, asserting themselves and acquiring critical thinking; and *community* empowerment, which entails taking an active part in the social and political decision-making process of the community. It is the latter, also identified by Melkote (2000) that is of most immediate relevance to development. However, community empowerment can only be achieved by a community whose constituents are highly empowered both at the individual and interpersonal levels. This is particularly crucial in disaster risk reduction, a field which is often characterised by specialised language and in which community engagement is often delivered by municipal officers who may not be communication experts who have the ability to relate with communities at their level of communicative competence. If the community lacks the capacity, or self-confidence, to engage with disaster risk experts in specialised language, the risk communication exercise ceases to be genuinely participatory and will not result in an empowered community. For instance, Fourie (2012) has noted that the lack of capacity within communities has been identified as one of the main reasons why communities fail to engage meaningfully with the IDP process, through which South African municipalities are mandated by law to ensure public participation in development and disaster risk reduction planning (Van Niekerk, 2006:101). In this regard, and of particular relevance to this study, it is worth noting that social profiles of residents of informal settlements, in Cape Town for instance, are often characterised by very low levels of formal education (see paragraph 4.4.1).

3.3.2 A liberating pedagogy

According to Freire (1970), freedom and empowerment are the ultimate aim of knowledge sharing and the processes of learning that are inherent in any development endeavour. The consciousness model developed by Freire (1973) identified communication as a process that is inseparable from the social and political processes necessary for empowerment and development and still exerts wide-spread influence on participatory development communication practices today.

According to Freire, mere transfer of knowledge by a powerful source to a passive receiver (as espoused within the modernisation paradigm and its corollary communication models) was inadequate and did not promote any learning, knowledge sharing and growth in receivers towards being independent individuals with a critical conscience and capable of influencing and changing society. Chitnis (2005b) theorises that, where within modernisation the role of communication was to inform and promote dominant ideologies, thereby reproducing existing oppressive social order, and where under dependency communication was intended to promote existing inequalities in information flow, its role under participation is to ensure sharing of knowledge that empowers people, promotes social activism through discursive practices and ensures that they achieve freedom from constraints in their lived realities.

Freire (1970) has argued that, through pedagogy and praxis, a process of learning, action and reflection, people as knowing subjects, and not passive recipients, achieve a deepening awareness of both the socio-cultural reality which shapes their lives and of their capacity to transform that reality and free themselves from the shackles of their lived experience (Chitnis, 2005a:83-84). Applying the liberating pedagogy thesis to disaster risk communication, it can therefore be argued that, along with enabling risk awareness through exchange of knowledge, genuinely participatory disaster risk communication interventions

are those that also enable communities to develop a commitment to act on learned knowledge in order to transform their lives and limit risks they face in everyday experience.

In his *Pedagogy of the oppressed*, Freire (1970), emphasised that dialogue is a critical enabler of the pedagogy-praxis process. Cadiz (2005) has noted that, through dialogue, the development facilitators are able not only to share their knowledge with the community, but also to draw from the people's stock knowledge, experiences, and insights rather than merely presenting prescriptive solutions to development problems.

3.3.3 Dialogue

Mefalopulos (2007) divides the approaches and applications of development communication into two modes: Monologic – associated with the diffusion thread of communication approaches and characterised by mostly linear, one-way models; and Dialogic – associated with the participatory thread and based on two-way horizontal models. According to Tufte and Mefalopulos (2009:11) dialogue is core to participatory communication and prevents exclusion of the people from their own development. As Fourie (2012) and Tufte and Mefalopulos (2009) point out, dialogue affords the voiceless a voice and enables the shift of power that is necessary and consistent with the requirement for empowerment of the community through participation in development as described above. Dialogical communication in community development interventions is best achieved in small-group, face-to-face communication contexts (Mannell & Chowdhury, 2005; Burger, 1999). According to Burger (1999) communication in such intimate contexts gives communities the opportunity to enter into a dialogue with the development facilitator as equals, resulting in a co-ownership of development. Communication models associated with dialogical communication emphasise the interchange of sender-receiver roles, and horizontal flow of information within democratised and deinstitutionalised spaces (Hamdy, 2004).

3.3.4 Democratic, egalitarian and inclusive process

Fourie (2012) and Gadotti (2001) have argued cogently for a conception of participatory development which is based on democratic process, and which places the development facilitator and the community as equals who co-determine the development agenda, objectives of their interaction and content of the development project. Gadotti (2001) advances Freirean thinking and emphasises that the interaction between the development practitioner and the community is not so much a question of knowledge-holding experts transmitting content to recipient communities (see also paragraph 3.3.2), but as much a knowledge sharing process which enables the educator (in this case the disaster risk communication practitioner) to learn from the person being educated (the community) in the same way the latter learns from the educator. This conception therefore places the development practitioner side by side and as equals with the learners (community), with the critical task of orienting and guiding the learning process (Gadotti, 2001). Freire's constructivism emphasises that not only can everyone learn, but that everyone knows something (Gadotti, 2001). Thus, as Gadotti emphasises, unlike conservative forms of learning, Freire's pedagogy establishes equality between the development actors and crucially also gives dignity to the learner (community) in ways that enable the community to derive empowerment and freedom from fully democratic learning processes. In practice, this calls for a reduction in the social distance between disaster risk experts (teacher) and the community (learners), a process which, according to Freire, can be achieved through dialogical communication. Within the context of disaster risk communication, this implies that inasmuch as the disaster risk experts bring with them crucial knowledge on risks and ways of averting them, risk reduction communication interventions must equally be built on the knowledge, capacities and experience of how the communities perceive and respond to hazards (Alexander *et al.*, 2010).

Ongoing analysis of responses from the empirical study revealed that inclusivity is valued by communities, particularly minorities, and must be considered an essential corollary to the principles of democratic and egalitarian practice in participatory development initiatives. Marginalised communities, often categorised as such by virtue of some demographic aspect, are often excluded from participating in local development initiatives, either as a result of limited rights or because of their own perception that their participation is not valued. Evidence from a wide-ranging study of local governance in South Africa revealed that foreigners generally do not take part in legislated participation and consultation processes for local development, through which engagement on disaster risk reduction issues are also implemented, out of fear and the largely held perception that their voices will not be heard (CASE, 2012). Fourie (2012) has emphasised the utility of genuinely participatory practice in communication in so far as it accounts for differences in communities and fosters inclusivity. Dialogue, which is a central tenet of participatory practice in development communication, does not necessarily aim to achieve universal consensus (Ganesh & Zoller, 2012) but rather allows for exploration of new ideas and identification of common solutions, thus encouraging *otherness* (as opposed to *othering*) and open-mindedness (Hammond *et al*. 2003; Cissna & Anderson 1994). This line of argument derives from Freirian thinking, which demands respect for otherness and asserts that all people, including marginalised and subjugated peoples, must be treated as fully human subjects in any political process (Servaes and Malikhao, 2005). Genuine participatory development communication therefore is sensitive to differences among the actors (Huesca, 2002). Similarly, within disaster risk management, various segments of the community will exhibit different vulnerability profiles due to differences in demographic and other factors. Bessette (2004) and Mefalopulos (2003:88) argue against the common conception of a community as a homogenous group, culturally, politically or socio-economically, that is inherent in many participatory endeavours. They argue that each community is a complex system differentiated in terms of age, gender, and other socio-economic and cultural factors. As such, communication interventions must account for these differences that present themselves in communities in terms of

demography, temporally or geographically. The value of genuinely participatory disaster risk communication, therefore, derives from its being a vehicle for ensuring inclusivity and sharing ideas, perceptions, experiences and knowledge in a community of varied actors. In this way, disaster risk participatory communication thereby allows for acceptance and respect for differences and the ability of different segments of stakeholders, and particularly marginalised communities, to play an active role in decision-making processes and shaping disaster risk responses in their localities.

3.3.5 Context

Beyond the differences in theoretical thrust and methodological approaches (see 3.4.1 and 3.4.3 below), experience from the development field has progressively demonstrated the importance of anchoring community-oriented development communication endeavours in everyday community processes (Bessette, 1996). In this approach, communication is understood to be a process that is embedded in local context, fosters empowerment and establishes social trust (Servaes, 1996:77) through a two-way, interactive, and co-equal process of sharing and seeking knowledge. Cadiz (2005) emphasises that lessons from the practice of development communication interventions point to the crucial need to heed contextual issues. Local politics, religion and other contextual determinants can contradict and forestall communication efforts toward people empowerment. Differing political affiliations can be detrimental to development initiatives, and differences in political and religious persuasions are common sources of division or different prioritisation of development needs in a community (Cadiz, 2005).

Unlike in the preceding development paradigms that were characterised by top-down communication models and preoccupied with the value of mass media in development, participation theorists propose models of communication characterised by interpersonal, face-to-face, dialogical and context-situated horizontal flow of information. Where

communication is mediated, the participatory approach emphasises a complementary mix of modern and traditional communication channels that derive from people's everyday social and cultural interaction such as street theatre, folk-songs, speech, and group activities as effective channels for sharing information and knowledge horizontally (Yoon, 1996). According to Morris (2005:125), although participatory communication is often defined in contrast to the more traditional 'top-down' diffusion model, the two are not polar opposites, and have routinely been used together. For instance, in his more recent work, Rogers (2007) argues that mass media diffusion and ready access to information are needed to raise awareness of an issue, while participatory communication is needed to mobilise action towards a development objective. A combination of broadcast and participatory communication approaches can lead to a "critical mass" in the diffusion of an innovation or a "tipping point" where change in a small sample of the community triggers a more widespread adoption of recommended behaviour (Rogers, 2007:183). This approach is one that, if implemented in disaster risk communication, might yield better results than has been currently observed. While the mass media and other wide dissemination approaches such as bulk SMS have been utilised in current disaster risk communication strategies in South Africa (see paragraph 2.5.1) very few attempts have been made to ensure that once messages are received from mass media, context specific, participatory and interpersonal methods of communication are implemented and moored within everyday community practices to enhance sharing of the gained knowledge (see paragraph 5.3.4). This is notwithstanding the fact that globally - as Tesfaye (2011) reports in a study on how the Ethiopian traditional coffee ceremony has been used as a forum for participatory communication interventions to resolve child exploitation and other social problems in Addis Ababa, Ethiopia - there has been a growing tendency towards promoting development communication strategies which are embedded in context and societies' pre-existing social practices and structures.

3.3.6 Participation as a *mean* or an *end*

In a bid to understand which type and model of participation leads to empowerment, several researchers have classified participation into two types: Participation as a *mean* and participation as an *end* (De Campos Guimaraes, 2009; Nikkhah & Redzuan, 2009; Oakley, 1991). The authors argue that, within the participation as a *mean* category, participation is considered the means by which a set of predetermined goals are achieved. Participation in this form is considered *instrumental* and becomes a way of using the economic and social resources of people in the community to achieve quantifiable, predetermined, targets. The attainment of these predetermined targets is considered more important than the actual act of participation. This form of participation is essentially a static, passive and ultimately controllable form of participation, prone, however, to manipulation and the coercion of the community (De Campos Guimaraes, 2009; Nikkhah & Redzuan, 2009; Oakley, 1991). According to Parfitt (2004), participation as a means derives its utility from the fact that any development project sets out to achieve certain outputs. Within the context of communication for disaster risk reduction interventions, this form of participation may be seen to characterise those communication interventions often implemented by disaster risk managers in the period immediately before-, during and immediately after a disaster event (see Fig 2.4). According to O'Neil (2004), disaster risk managers often give little regard to full participation of community members during these times and implement only the minimum level of participation required to ensure that communities' exposure to hazards and losses in imminent disaster events are minimised. Höppner *et al.* (2010:8) have also noted that disaster risk communication interventions are often conceived with the sole aim of achieving the managerial goals of reducing disaster losses within their municipal jurisdiction, with little attention given to the social and developmental utility of the intervention. Christoplos (2008) notes that local actors and institutions are often seen to provide the 'last mile' of linkages necessary to achieve the aims of scientists and disaster risk managers, and are expected to 'apply' the technological advances advocated by scientists. In such cases, therefore,

participation of the community is implemented only in so far as it aids the achievement of set goals for disaster risk managers.

Participation as an *end* is an organic and *transformative* form, created and shaped by participants (Nikkhah & Redzuan, 2009). Emphasis is laid on participation as a process in which confidence and solidarity among the community people are built up. It is a dynamic and active form of participation, responding to local needs and changing circumstance. More generally, participation as an end in itself presupposes the building-up of influence or involvement from the bottom upwards. This model focuses on participation as a process in which people are directly involved in shaping, deciding, and taking part in the development process from the bottom-up perspective. Attainment of the development goal is of secondary importance compared to the process which brings about the result. Participation becomes a process of achieving greater individual fulfilment, personal development, and self and collective-awareness. Within this conception, participation as a process is a dynamic, unquantifiable and essentially unpredictable element (De Campos Guimaraes, 2009; Nikkhah & Redzuan, 2009; Oakley, 1991). Thus, from their analysis, Nikkhah and Redzuan (2009) conclude that, whereas within participation as a mean people are passive, do not have any control over their lives, and cannot take power, in participation as an end people are directly involved in the development process, are able to get power and control over decisions that affect their lives, and therefore it is the latter that is more desirable and leads to empowerment. However, it must be noted that in practice, notwithstanding the normative good that participation as an end brings, within the disaster risk management cycle the context often determines the level of participation implemented, with varying combinations of both participation as a *mean* and as an *end* essential for the effectiveness of disaster risk reduction interventions (see Figs 2.1 and 2.4).

3.4 CRITIQUE OF THE PARTICIPATORY PARADIGM

Participation should not be considered a panacea to every development problem (Bessette, 2004; Mefalopulos, 2003:88). Participatory approaches have faced many criticisms, ironically, among them that they are hardly separable from a paradigm which they have ostensibly risen in response and opposition to – modernisation (Mefalopulos, 2003:32). Huesca (2002) and Wilkins (2009) argue that participation has been incorporated into modernisation practices, thus sanitising and legitimising practices steeped in the dominant paradigm tradition as observed in the implementation of public awareness oriented disaster risk communication interventions and in predominantly unidirectional communication interventions implemented by disaster managers in the times immediately before and after a disaster (see sections 2.4 - 2.6).

3.4.1 Theoretical weaknesses

Freire's model, the leading influence on participatory development communication theory, has been criticised for its limited application to amplifying media such as radio or television, particularly where these mass media can be utilised to raise the level of knowledge among communities. Servaes and Malikhao (2005) note that Freire's theory is based on group dialogue rather than mass media and also gives little attention to the language or form of communication, emphasising mostly the intentions of communication actions. In identifying principles of development participatory communication that could be applicable to a framework for disaster risk communication interventions it is important to be aware of this blind spot to other forms and contexts of communication besides group contexts. This is particularly so as the practice of disaster risk communication in South Africa is often characterised by use of mass media and other broadcast channels such as radio and SMS (see paragraph 2.5.1). The ultimate utility of these broadcast methods, when used in conjunction with participatory methods, will therefore be determined from empirical evidence and communities' perceptions on what forms of communication have served them best in

enabling them to acquire relevant disaster risk knowledge and build their capacities to act on that knowledge.

Another important criticism, according to Chitnis (2005b:244), is that, historically participation was characterised by a gamut of theoretical approaches which, although all well-intentioned and seeking the same normative good presented by participation, were not always consistent with each other. These include: the Multiplicity paradigm (Servaes, 1991); Autonomous Development (Carmen, 1996); Another Development (Melkote, 1991) – derived from Former UN Secretary General's Dag Hammarskjold's (1975) conception; the Empowerment approach (Friedmann, 1992); the Dialogue paradigm (Guba, 1990); and the Liberation approach (Freire, 1998).

The nebulous and multi-dimensional nature of the participation concept has therefore resulted in inadequate application of the concept due to the varied understandings of what participation entails in both theory and practice (Wilkins, 2009). Thus, in some instances participation is only partially integrated at different stages of a development programme in various degrees and for different end purposes. Besette (1996) contends that 'development communication' is, in fact, more an approach to the use of communication in bringing about development than a scientific discipline. He argues that the term simply refers to the planned use of strategies and processes of communication with the aim of achieving development. It is therefore only at the level of the strategy employed to achieve this development that divergences emerge associated with differences in approaches utilised there within.

Nonetheless, Servaes *et al.* (1996) view the ambiguity of the concept as desirable because, they state, theoretical rigidity is not only improbable but undesirable. They claim that the strength of participation derives from its flexibility, which allows it to be adapted to the demands of each situation. In direct opposition, this lack of theoretical rigour is viewed by other scholars (see Wilkins, 2009 and Huesca, 2002) as a major weakness of participatory

approaches which renders them vulnerable to opportunistic adaptation in ways that are not always consistent with the ethos of the participatory paradigm. In the practice of disaster risk reduction and associated communication interventions it becomes necessary, therefore, to critically appraise the motivations and purposes (means or ends) towards which disaster risk managers involve communities in disaster risk initiatives. Similarly, it is also critical to assess the levels and quality of participation, as well as at what stages and with how much influence communities are involved in risk reduction initiatives.

3.4.2 Power-holding

Power issues also provide difficulties for participatory approaches. For instance, the normative good of true community participation may be undone by the usurping of power by dominant groups or individuals within the community (De Campos Guimaraes, 2009). Whereas participation involves equality in deliberation and decision-making there exists in many communities hierarchies that prevent people from expressing divergent opinions in the presence of local community or traditional leaders (Bessette, 2004). This was found to be particularly significant in spaces, such as ward committees meetings, within which engagement developmental issues, including disaster risk reduction planning often happens in the study areas.

Rogers (2007:184) has emphasised the importance of access to participatory communication space if communication interventions in aid of development (and by extension disaster risk reduction) are to succeed. Disaster risk managers and managers of communication interventions for disaster risk reduction, specifically, use various spaces and structures to engage with communities. Chief among these are community and stakeholder consultation meetings convened under the legislated requirements for community participation within the Integrated Development Planning processes in each municipality. In addition, processes and structures such as ward committees in place to promote

developmental and participatory local government provide a number of opportunities for engagement between the community and disaster risk managers. Ward committees are considered a critical site for dialogue within the community on needs, preferences and problems faced by the community. They were established under provisions set out in the Municipal Structures Act (117 of 1998) to form the bridge between local municipalities and communities by facilitating proper communication (Kabane, 2012). They are, therefore, tasked with the role of facilitating dialogue between the community and local government through articulating the system of local government to the majority of the people and conversely the interests of the community to government (CASE, 2012; Kabane, 2012).

However, political hierarchies and the domination of these spaces by community leaders affiliated to political elites have led to a glaring lack of effectiveness in participation in these spaces and the community dialogues they seek to promote. Kabane (2012) notes that a major concern has to do with the way representation on ward committees is constituted, in particular the oft cited allegation that the elected ward councillors direct the selection of lay ward committee members in line with their political affiliations. According to Kabane, ward committees are therefore often merely extensions of political party structures and do not encompass the full range of interests within communities. The practice of having politically elected ward councillors as chairpersons of the committees also means deliberations and decisions in these structures of citizen participation are often manipulated to reflect the mandate of the chairperson's political party, rather than the real needs and aspirations of the community (Kabane, 2012).

Cornwall (2004) describes spaces such as the IDP engagements and ward committee meetings where disaster risk issues are discussed in the context of the study sites as "invited spaces" due to the fact that community members are "invited" by disaster risk management officials from local government to participate in these spaces. Building on work by Cornwall (2004) and Gaventa (2004), Fourie (2012) has argued that whoever controls the

space of engagement retains power and effectively controls participation. Fourie (2012) argues that the mere fact that local government officials, in this case disaster risk managers, create these spaces implies that power lies with them and it is disaster risk managers who determine who participates. Kabane (2012:11) has called these spaces "created spaces." She questions whether ward committees, given their vulnerability to political capture by local elites, can serve as effective conduits for community involvement in local governance, and whether given their artificiality, they are inherently capable of playing the critical role expected of them and creating opportunities for real power-sharing between municipalities and citizens. Additionally, where power is vested in traditional leaders for instance, it may prove very difficult to encourage and achieve an atmosphere of openness in a group composed of individuals holding different levels of power. According to Wiesental (2006:25), empowerment of the community and a politically effective citizenry are only achievable where democratic structures and transparent decision making processes that ensure that a system can function without politically installed functionaries exists.

Power-holding constraints to genuine participation also crop up where development professionals are reluctant to relinquish real power and influence over decision-making in the field, and instead resort to manipulative practices to coerce people into tokenistic participation (Arnstein, 1969) in processes in which they hold no real power to influence the development project (see section 2.6). Often, professionals may feel that they possess better knowledge on how to deal with development challenges. It should, however, be noted that all sources of knowledge, indigenous and academic as well as people's perceptions are equally important in informing decision making in participatory practice (Mefalopulos, 2003; Freire, 1998).

Whereas the bulk of the literature on participatory development readily identifies the need for shared power-holding between the development practitioner and the community in development (see paragraph 3.3.1), the locus of power within the community itself (see

discussion on community entry in section 4.6) is a critical determinant of the outcomes of participatory initiatives in disaster risk reduction. The study areas in this investigation being informal settlements, are areas that are often characterised by political contestation which manifests in various parallel units of social and political organising and associated multiple centres of power (Roth & Becker, 2011; Oldfield, 2007; Pithouse, 2006). There exist in these communities various grassroots social and political structures such as the formalised ward committees, semi-formal ones such as street committees and other informal and self-selecting structures, which are often led by locally powerful individuals and within which community engagement follows set power contours. Secondly, ward committees within which community engagement on disaster risk interventions often occurs are composed of, and headed by politically elected individuals whose exercise of the power they hold is not always based on democratic practice (Kabane, 2012). Thirdly, municipal officials with whom the mandate to deliver disaster risk communication interventions resides, are often experts and practitioners, who by virtue of their specialized knowledge and the public offices they occupy are politically privileged and socially distant from the communities they serve. It becomes increasingly apparent therefore, that while the concept of power-sharing is implied in the emergence of an empowered community as outlined in paragraph 3.3.1 above, subsuming power-holding, which Kabane (2012), Roth & Becker (2011), Oldfield (2007) and Pithouse (2006) show to be an overwhelmingly significant aspect in the study areas, within the principle of empowerment underemphasises the issue and does not adequately bring out the various dimensions along which renegotiation of power-holding must occur if disaster risk communication practice is to be fully participatory in the study areas. Thus, it was decided that “empowerment” being a principle that is mainly considered as being of internal origin (Nikkhah & Redzuan, 2009; Hamelink, 1995) did not adequately communicate the salience of the power-holding negotiations that must occur in the contexts in which disaster risk communication interventions are implemented in the study areas. For purposes of this study, therefore, and to emphasise the external nature of power-holding negotiations required to enable communities to assume the power to lead the disaster risk

communication interventions, the “empowerment” principle would be broadened to “shared power-holding and empowerment”.

Lastly, Carmen (1996) criticises the way the concept of participation has been defined and applied, arguing that participation has often been used in ways that implicitly render the poor effectively powerless and responsible for their own development challenges. In this way, all blame for lack of progress is put on internal aspects and in so doing neglecting historical, economic and political factors beyond the influence of the poor. According to Carmen the participatory dogma of “putting people first” is paternalistic and in genuine participation people should be working autonomously, rather than being put first by somebody else with the power to do so.

3.4.3 Methodological problems

Participatory practices in the field have also not escaped criticism. Mefalopulos (2003) notes how one of the paradigm’s flagship field techniques, Participatory Action Research (PAR), which originated in the 1970s, was initially characterised by an “activist” approach which could easily cause a decline from the normative values espoused by participation into ideological imposition on people, ultimately negating the essence of participation and empowerment.

Methodologically, the practice of participation has also suffered a number of criticisms which emanate from its weak theoretical basis. Mefalopulos (2003:39) lists some of these methodological concerns:

- The time consuming nature of the process which enables and ensures people’s participation has been blamed for a lack of success in the field. Among issues adding to the limited effectiveness and length of the participation process are the

contradictions of top-down and bottom-up processes at different stages encompassing research, planning, implementation and evaluation.

- Participatory processes are easily subjected to external manipulation.
- They are difficult to reproduce on a national scale.
- They often adopt a patronising approach as a way of using "conscientising" techniques.
- The evaluation of the outcomes resulting from participatory approaches remains controversial.

3.4.4 Opportunity cost of participation

Yoon (1996) cites among criticisms of participatory approaches, that the opportunity cost for participants in development projects is often overlooked. Establishing fully participatory and democratic practice in communities, hitherto organised along set hierarchies, can require major investment in time and effort. According to Yoon, "it is often assumed that the villager has nothing better to do with his or her time [yet] for every hour spent "participating" … the villager may be foregoing a more productive activity if the participatory process does not lead to benefits either in the long or short term." Waisbord (2001) emphasises, noting that in fact, communities may be uninterested in spending time in democratic processes of decision-making and, instead, might prefer to invest their time in other activities.

3.5 CONCLUSION

The preceding discussion has given a historical analytical account of the origins of participatory development communication, showing the close relationship between dominant conceptions of development and the role assigned to communication in each era.

The chapter has presented a review of the literature and theoretical approaches to participatory development communication, in the process identifying theoretical principles of participatory development communication that could be applicable to a framework for disaster risk communication interventions (Research question 2). Two major themes, *inclusivity* and *shared power-holding within the community*, that emerged inductively from an ongoing analysis of data (see 4.10.1 on the hybrid thematic analytic approach used in this study) have been included and allowed to elaborate some deductively identified theoretical principles. Specifically, the issue of inclusivity has been added to the deductively identified principle of *democratic and egalitarian process* (see 3.3.4), while the crucial issue of shared power-holding within the community (see 3.4.2) has elaborated the scope of the *empowerment* principle. The decision to combine the inductively identified issues with the deductively identified principles has been motivated not only by appropriate fit, but also more importantly by the fact that their inclusion broadens the applicability of the principles derived from literature to the study and analysis of disaster risk communication interventions within the local context in the study areas. In addition, their presentation in this chapter allows for consistency of presentation, and avoids having to revisit the discussion on the theoretical framework in the chapters on empirical findings. Thus, from the combination of deductively- and inductively identified themes, six core principles were isolated that will comprise the theoretical framework for analysis in this study, viz:

- The defining outcome of disaster risk communication is the facilitation of shared power-holding between the various powerbrokers within the community and between disaster risk managers and the community, and the emergence of motivated and *empowered* communities, able to interrogate the risks they face and define solutions alongside disaster risk managers;
- A *liberating pedagogy* marked by equality between disaster risk managers and communities is a central aim of disaster risk communication practice;

- *Dialogue* is essential for effective engagement and the maintenance of an effective learning relationship between disaster managers and communities in the formulation and implementation of disaster risk participatory communication interventions;
- The practice of disaster risk communication must be based on a fully *democratic, egalitarian and inclusive* process;
- Disaster risk communication interventions must be *embedded in local context*; and
- Participation as an *end* bears the normative good and is essential for the emergence of an empowered at-risk community.

It is therefore against these fundamentals that the practice of disaster risk communication and community perceptions thereof in the study areas of Cape Town, George and uThungulu District will be evaluated and analysed in Chapter 5 to determine how the practice fares against salient theoretical and empirically validated theory for the practice of participatory development communication interventions (Research Question 3)

The next chapter outlines the methodological approach employed in the study.

Chapter 4 : METHODS AND APPROACH TO THE EMPIRICAL INVESTIGATION

4.1 INTRODUCTION

In the preceding chapters the local and global policy context providing for the planning and implementation of disaster risk communication interventions in communities living under constant threat of disaster has been outlined. Having outlined the policy context, an argument has been advanced that, notwithstanding the existence of an enabling policy environment, the contemporary dominant conceptualisation and practice of disaster risk communication, largely informed by unidirectional, information transmission models, is inadequate and incongruent with the location of disaster risk reduction within the broader concept of development. It has been argued that, as a subset of disaster risk reduction, which itself is located within the broader concept of development, disaster risk communication is a corollary to all efforts towards development and thus should be rooted in the evolved concept and practice of development communication. Consequently, it has been argued that, as the concept and practice of communication for development has evolved towards the more democratised, horizontal and participatory variant, so too should disaster risk communication.

This chapter proceeds to discuss the methodological approach employed in the study. The chapter discusses the research approach and design, and presents the physical and socio-economic conditions obtaining in the research sites to situate the research in context. The chapter proceeds to outline community entry, methods used in the data generation process, the process of data generation and challenges faced in the field, and the data analysis procedures employed. Some ethical considerations observed throughout the empirical stage of the investigation, limitations of the analytic procedure and considerations for trustworthiness of the research process and subsequent findings are also discussed.

4.2 RESEARCH APPROACH

A predominantly qualitative research approach was used to carry out this study. Qualitative research is deeply contextualised and uses discourse in its native form as its data (Lindlof, 1995). Qualitative research is conducted in the natural setting of the participant and thus enables the researcher to obtain detailed primary data from participants in their natural surroundings (Mack *et al.*, 2005). This study, being largely exploratory, was served well by the qualitative research approach as it aims less at measuring and more at understanding the subjects under study as its analytical objectives allow for description and explanation of variation, relationships, individual experiences and group norms (Mack *et al*., 2005).

Methodologically, qualitative research offers flexibility as the study design is iterative (Mack, *et al*., 2005; Dey, 1993; Konaté & Sidibé, s.a.). Qualitative analysis is not a sequential process but rather essentially an iterative process, involving repeated returns to earlier phases of the analysis as evidence becomes more organised and ideas are clarified (Dey, 1993). Konaté and Sidibé (s.a.) have illustrated diagrammatically (see Fig 4.1) how the researcher may revisit their data generation strategy and tools and adapt them as research proceeds. The arrows in Fig 4.1 show stages at which the researcher may decide to return to an earlier phase of the research to redefine aims, strategy or tools used as guided by what is learned as the research proceeds. This allowed for data collection through the interviews and focus group discussions to be adjusted according to what was learned in the literature study and as the field research proceeded from one interview or focus group discussion to the next (Mack, *et al*., 2005; Dey, 1993; Konaté & Sidibé, s.a.).

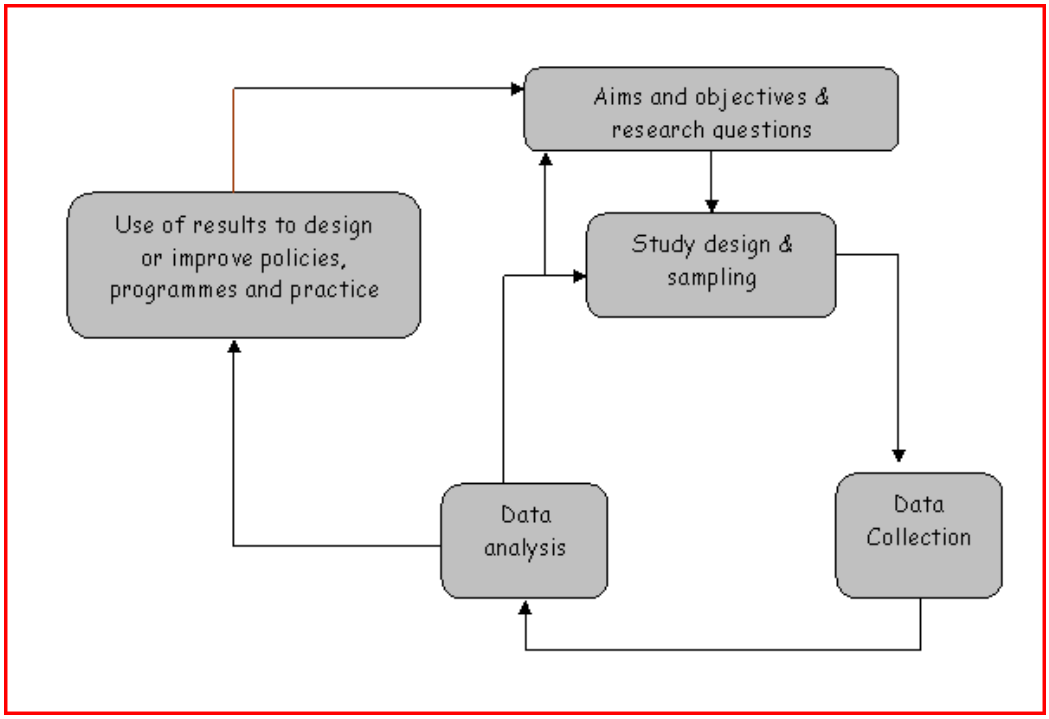


Figure 4.1 Iterative qualitative research process

Adapted from Crabtree and Miller (1992)

4.3 RESEARCH DESIGN

The critique of the current practice in disaster risk communication presented earlier (see section 2.6) argued strongly for a turn to participatory practice in the conceptualisation and delivery of disaster risk communication. However, while a few studies (see Fourie, 2011; Maartens, 2011 and Solomon, 2011, for example) have focused on communication interventions for disaster risk reduction in South Africa, there remains huge scope for more work on the applications of participatory development communication theory to disaster risk communication interventions in South Africa. More so is the urgency to understand the potential for the application of participatory practice in disaster risk communication interventions in the informally settled areas of South Africa, which are most prone to disasters and where the impact of disasters is most severe. This study is therefore exploratory in nature as it seeks to address a subject on which there is yet to be a robust theory and conceptual certainty. To explore the research problem, therefore, the study

sought to elicit wide and diverse perspectives of the phenomenon under study from the actors involved in the communicative act. To do so, qualitative methods of enquiry, specifically focus group discussions and semi-structured interviews, were employed for the empirical investigation, with deductive and inductive thematic analysis used to analyse the gathered data (see 4.10 for the analytic procedure used).

A major advantage for the use of qualitative methods in exploratory research is that they use open-ended questions which give the research participant the opportunity to respond in their own words, rather than choose from a fixed set of responses (Babbie, 1992). When used by the researcher, open-ended questions result in responses that are meaningful and culturally salient to the respondents, often unanticipated by the researcher, and rich and exploratory in nature. Another advantage of the qualitative methods was that they allowed the researcher the flexibility to probe initial participant responses, leading to fuller understandings of the issue being researched (Jackson, 2008; Babbie, 1992).

Interviews with key informants offer a vivid picture of the interviewee's perspective on the research topic (Mack *et al.*, 2005) and interviewees are normally chosen on the basis of their knowledge, long tenure in the social unit, position of authority and wide-ranging access to the activities of participants (Lindlof, 1995: 123), as well as having access to information that the researcher cannot obtain elsewhere (Konaté & Sidibé, s.a.). Semi-structured interviews are widely used in qualitative research and consist of a list of open-ended questions based on the topics the researcher intends to study. The open-ended nature of the questions provides opportunities for both the interviewer and interviewee to discuss certain topics in more detail, and the interviewer is able to probe where they see a need for elaboration or clarification of the interviewee's responses. Similarly, if the interviewee has difficulty understanding or answering a question, the interviewer is able to rephrase a question or assist the interviewee in understanding the question. Paragraph 4.8 describes how the interviews were conducted.

The focus group method was found particularly suited to this study due to the fact that a major repository for the data to be unearthed would be the personal and collective experience of the at-risk communities. This was in conformity with the theoretical underpinnings of participatory development communication (see section 3.3) which emphasise the need to value the knowledge held by communities in any endeavour aimed at development of the community. Powell *et al.* (1996:499) define a focus group as "a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research."

Focus groups are ideal for exploring a community's experiences, opinions, wishes and concerns (Kitzinger & Barbour, 1999:5; Morgan, 1997:13). They are well suited to gaining insight into which issues are most relevant to the community, understanding how the population is being affected by certain practice, as well as discovering variety of opinion within a population (Mack *et al.*, 2005). The method is particularly suited to this study as it enabled the researcher to gain insights into the community's shared understandings (Gibbs, 1997) of how disasters impact their livelihoods and how they engage in, and with, the responses to disasters among which are the disaster risk communication activities of the local municipality. The method is socially-oriented and captures real-life data in the same social environment in which responses to lived conditions are constructed and negotiated among communities, and was thus found to be congruent with the interpretive phenomenological approach to data generation that was adopted for this study (see paragraph 4.3.1).

The focus group method was also selected for its flexibility and that it allowed the researcher to probe initial responses, thereby allowing the unearthing of differing perspectives within the community and nuances of opinions regarding an issue. Another reason for choosing this method was purely a practical one; unlike other social research methods, the focus group

enables the reviewer to generate a larger amount of thick data in a much shorter period of time (Onwuegbuzie, *et al*., 2009; Gibbs, 1997).

With the study being exploratory in design and seeking to understand the research problem from the perspectives of the local population it involves, the researcher approached the field-based semi-structured interviews with key informants and focus group discussions with an interpretative phenomenological research lens.

4.3.1 A phenomenological approach to data generation

A researcher working from the phenomenological framework is concerned with understanding social phenomena from the perspectives of the people involved (Groenewald, 2004). Epistemologically, phenomenological approaches are based on the paradigm of personal knowledge and subjectivity, and they emphasise the primacy of personal perspective and interpretation (Lester, 1999). Bradbury-Jones *et al.* (2009) isolate two main theoretical approaches: the descriptive phenomenology of Husserl (1962) and the interpretative/hermeneutic phenomenology of Heidegger (1962). Goulding (2005) notes that phenomenology has also been conceptualised as a methodology by Schultz (1967). It is, however, important to advance, from the onset, the caveat that in the present research, phenomenology was not adopted as a methodology but only so far as to provide a theoretical framework for understanding and defining the researcher's relationship with the research subjects. Such a relationship would be that which privileges the perspectives of the research participants and ensures that the researcher's role is primarily to represent the participants' perspectives, opinions and expressed needs. Thus, ultimately, it is the perspectives of the research participants that would outline the definitional features of the emergent framework for disaster risk communication.

The most influential idea from Husserlian's descriptive phenomenology was that of the 'life-world'. Life-world refers to experiential happenings that we live before we know it and can be understood as what individuals experience pre-reflexively without resorting to interpretations (Bradbury-Jones *et al*., 2009). According to Husserl, human beings live naturally 'in the natural attitude' (Husserl, 1983:51 cited in Bradbury-Jones *et al.*, 2005); the term 'natural' being used to indicate what is original and naive, prior to critical or theoretical reflection. In the descriptive approach, the aim of the researcher is to describe as accurately as possible the social phenomenon, refraining from any pre-given framework, but remaining true to the facts (Groenwald, 2004). In this approach, therefore, the researcher is called upon to suspend all assumptions and work towards a description of the essential structures of phenomena in a manner that is free of interpretation (see Bradbury-Jones *et al*., 2009).

Phenomenology was reinterpreted as hermeneutic or interpretive by Heidegger. Heidegger's interpretive phenomenology, like Husserl's, was concerned with human experience as it is lived, but instead privileged understanding the lived experience rather than Husserl's preoccupation with description (Bradbury-Jones *et al*., 2009). According to Heidegger, Husserl's attempt to develop methods to guarantee a truth undistorted by human perspectives was misdirected (Polkinghorne, 1983, cited in Bradbury-Jones, 2009). Heidegger argued that it is impossible to bracket one's being-in-the-world and that interpretation presupposes some prior understanding on the part of the interpreter. According to Walters (1994), the presupposition is that it is only possible to interpret something according to the interpreter's own lived experience and thus this originates from their being-in-the-world. Therefore, in the process of inquiry, everything is guided by what is sought (Heidegger, 1962). Heidegger argued that to be human is to be interpretive, for the very nature of the human realm is interpretive (Polkinghorne, 1983 cited in Bradbury-Jones *et al*., 2009).

Thus, whereas the phenomenology of Husserl focused on the description of the lived world from the viewpoint of a detached observer, the phenomenology of Heidegger was based on the assumption that the observer cannot separate themselves from the world (Walters, 1994). Bradbury-Jones *et al*. (2009) summarise that an interpreter always brings certain experiences and frames to bear in the act of understanding and these cannot be bracketed. Understanding, from this perspective, is based on the interpretation of phenomena rather than the description of the phenomena (Bradbury-Jones *et al*., 2009:665).

While the pure phenomenological research methodology based on Husserlian thinking seeks to start from a perspective free from hypothesis or preconception, Lester (1999) argues that more recent humanist and feminist research challenges this orthodoxy and refutes the possibility of starting without preconceptions or bias. Instead, it is argued by both Lester (1999) and Goulding (2005) that what is important is to acknowledge existence of the researcher as an interested and subjective actor as well as account for how their frame of reference or assumptions may have imposed certain interpretations and meanings on the findings. At this point the researcher declares a critical assumption and interpretive theoretical schema with which they went into the empirical study, viz:

> *disaster risk communication is best served by a participatory approach in which the full involvement of at-risk communities in decision-making throughout all stages of the intervention is fundamental and indispensible.*

The utility of the phenomenological research approach to the present study whose underlying aim is to remedy or guide contemporary disaster risk communication practice is brought home by Lester (1999:1), who states: “adding an interpretive dimension to phenomenological research, and enabling it to be used as the basis for practical theory, allows it to inform, support or challenge policy and action.” How the theoretical interpretive schema outlined above was operationalised in the processing of field data will become apparent during the discussion on data analysis below (paragraph 4.10).

Phenomenological and associated approaches can be applied to single cases or, as applies to this study, serendipitous or deliberately selected samples (Lester, 1999). In the phenomenological research methodology, sampling is purposive and participants for the empirical exercise are selected primarily on the basis of having lived the experience under study (Goulding, 2005). Groenewald (2004) emphasises that a researcher applying the phenomenology approach is concerned with the lived experiences of the people involved, or who were involved, with the issue that is being researched.

It is for this reason that the City of Cape Town, George Local and uThungulu District municipal areas were chosen for the study. Thus, it can be said that the primary unit of analysis which comprises the sample of interviewees and focus group participants selected for this study was based on the researcher's judgement and the purpose of the research; that is, looking for those who "have had experiences relating to the phenomenon being researched" (see Groenewald, 2004:8-9).

Having outlined the theoretical approaches to the empirical study, the section that follows presents the research context and the sample followed by a detailed outline of how the field data gathering procedures were carried out in practice.

4.4 RESEARCH CONTEXT

Primary data generation was through focus group discussions with residents of informal settlements and semi-structured interviews with disaster risk managers, disaster risk communication managers and other key experts and social development practitioners in the three study areas of the City of Cape Town, uThungulu District and the George Local Municipal area. The phenomenon of informal settlements is not peculiar to South Africa but represents a global trend in which more and more people are moving to urban centres where

there has not been adequate planning for services to cater for the large influxes of people (Tempelhoff *et al.,* 2009; UN-Habitat, 2003). However, post the first democratic elections in 1994, the trend has certainly become more pronounced in South Africa as a result of the greater freedom of movement and relaxation of previously restrictive laws on movement of people (Tempelhoff *et al.,* 2009). The three areas selected for this study area are among those that have experienced pronounced rates of informal settlement growth in South Africa. Besides the socio-economic maladies and overall marginalisation that bedevil informally settled communities in these areas, they are also especially prone to recurrent floods, frequent informal dwelling fires and outbreaks of diseases brought on by localised flooding.

4.4.1 Cape Town Metropolitan Municipal area

The City of Cape Town Metropolitan municipal area comprises the city of Cape Town on the west coast of South Africa, and its suburbs and extra-urban areas (Jantjes, 2008) and is home to over to 3.4 million people (Statistics South Africa, 2008). The greater municipal area is often commonly referred to simply as the City of Cape Town and, for brevity, this has also been adopted in this study. Due to its relatively large total area of 2,455 km², the municipal area boasts a lower than national average population density of 1,394 people per km^2. The City of Cape Town has mild wet winters, and warm dry summers. Cold fronts from the South Atlantic are largely responsible for stormy weather, heavy rains and strong winds during the winter rainfall months of May, June and July (Solomon, 2011).

Despite the City's bustling economy many of its residents live in the crowded suburbs that lie on the large plain called the Cape Flats, a low-lying, flat area situated to the southeast of Cape Town's central business district (Visser & Kotze, 2008). Often referred to as 'apartheid's dumping ground' (Jensen, 1999), the area was predominantly home to people designated as non-white under the apartheid government (Grunebaum, 2007). Under the repressive laws of the apartheid regime non-white people were either driven out of more

central urban areas into government-built townships in the Cape Flats, or forced to live in informal settlements elsewhere in the Cape Flats. The topography of this area, coupled with its high water table, makes it particularly susceptible to flooding during the deluges experienced in winter months. It is in the Cape Flats that most of the municipal area's informal settlements are to be found today (Solomon, 2011).

The City of Cape Town defines an informal dwelling as a wood and iron structure, which does not meet basic standards of safety in building (City of Cape Town, 2005). Many of the informal dwellings are built on inappropriate sites such as former rubble dumps and wetlands. The sub-standard level of housing in informal settlements exposes residents to inclement weather as often experienced in the City of Cape Town, which in addition to flood waters, includes strong winds and freezing temperatures. Fires are also a prevalent risk to informal dwellings, as the high level of densification and inflammable building materials contribute to the spread of uncontrolled fires. Grossly unhygienic conditions predominate, particularly during the winter rainfall season, and people living in informal settlements are also more susceptible to disease and epidemics (City of Cape Town, 2005). These recurrent disasters lead to loss of life, property and homes setting back the livelihoods of the affected communities (DiMP, 2008, City of Cape Town, 2005). Of the 902,278 households in the City of Cape Town, 15.6% live in informal dwellings, a number that is above the provincial average of the Western Cape (14.2%) (Statistics South Africa, 2008). Dwelling counts by the City of Cape Town show that informal settlements continue to grow, with the total number of informal dwellings estimated at 108,899 as of the last count in 2007. Whereas in 1993 there were approximately 50 informal settlements in Cape Town, this number had shot up to over 200 in 2005 (Rodrigues, Gie & Haskins, 2006).

A study by the City of Cape Town on the social profiles of residents in three of its major informal settlements (Joe Slovo, Nonqubela K-section and Sweet Home) (Resource Access, 2004) found that levels of formal education were low, with only 16% of adults with a

university entrance level education. Notwithstanding the constant exposure to hazards, education for awareness of fire risk and prevention is relatively low, with only 36% of residents reporting that they had received any education or awareness training on the dangers of fire (Resource Access, 2004).

Solomon (2011) found that existing flood risk communication interventions by the City of Cape Town may be considered inappropriate for informal settlement residents affected by rising floods. The study's findings indicate that risk communication processes need to be centred around the community's need to protect livelihood assets as informal households have shown that they value their assets and will make creative adjustments to protect them during a flood event.

Two informal settlements, exhibiting significantly similar socio-economic characteristics were chosen as sites for focus group discussions in this study: Gugulethu and Du Noon. Gugulethu is a township 15 kilometres from the central business district of Cape Town, which has experienced a continued growth of informal settlements among and around formally planned houses. As of January 2007, Gugulethu had 9,799 informal dwellings, up from 6,298 in February 2002 (City of Cape Town data). The area has a population of 80,277 residing in a total land area of 6.24 km^2, resulting in a density of over 12,850 people per km^2 (compare with the municipal area's average of 1,394/km^2). The twin hazards of flooding and uncontrolled fires recur in the area, causing loss of life and property. Du Noon lies 16 kilometres north of the central business district of Cape Town and borders a predominantly industrial area. Most buildings are shacks made from wood and corrugated iron. Data from the City of Cape Town indicates that there were 705 informal dwellings in Du Noon in January 2007, up from 417 in February 2002. A total population of 9,045 lives on an area of just 0.64 km^2, resulting in a very high population density of over 14,000 people per km^2. The section that follows presents physical and socio-economic conditions prevailing in uThungulu District, the second of the three sites selected for the study.

4.4.2 uThungulu District Municipal area

The uThungulu District is located in the north-eastern region of the KwaZulu-Natal Province on the eastern seaboard of South Africa. The District Municipality's area of jurisdiction covers six local municipalities of Mbonambi, uMhlathuze, Ntambanana, uMlalazi, Mthonjaneni and Nkandla. The area stretches from Gingindlovu in the south to Kwambonambi in the north and inland to Nkandla, covering an area of 8,213.39 km². Approximately 80% of its total population of 958,958 lives in rural areas with more than 50% of those being younger than 19 years old (uThungulu District Municipality, 2011).

The district has a warm climate all year round, with very mild winters and hot, humid summers. There is also a good seasonal rainfall. However, the climatic conditions vary as you move from the coastal areas inland. For instance, mean annual rainfall decreases from 1200-1400mm along the coast to about 650mm inland. Similarly, mean annual temperatures decrease from 21 degrees Celsius along the coast to 16 degrees Celsius inland (uThungulu District Municipality, 2007).

There are enormous backlogs in service infrastructure, with vast populations going without basic services like electricity, safe water and sanitation, especially in rural areas (uThungulu District Municipality, 2007). Respondents for this study were drawn from Mthonjaneni which has the smallest population (50,383 people) of the six local municipalities in the uThungulu District (Mthonjaneni Municipality, 2012).

Socio-economic factors increasing vulnerability of people in Mthonjaneni to hazards include the nature and location of their dwellings and access to clean water and sanitation. Approximately 3.1% of households in Mthonjaneni are in the homeless and informal dwelling/shack category, whilst 55.8% of dwellings fall into the traditional housing category,

which tend to be frail and rickety, providing very little protection in times of extreme weather and other natural hazards (Mthonjaneni Municipality, 2012).

The communities in Mthonjaneni are susceptible to a number of hazards. A Disaster Management Risk Profile compiled by the Rural Metro Emergency Management Services (2009) shows that the Mthonjaneni municipal area has particular susceptibility to drought, fire, floods, storms and disease epidemics with the greater uThungulu District area. The uThungulu District risk manageability classification (2008) ranked community awareness of severe storms *poor*, drought and cholera *modest* and fires *good* in Mthonjaneni. Early warning systems were ranked as *poor* for drought and severe storms and *modest* for fire and cholera. Existing risk reduction measures and public participation in these were ranked as *modest* all round, with the exception of fire risk reduction measures in which public participation was classified as *poor*. In the section that follows, the physical and socio-economic conditions in the last of the selected study areas, George local municipal area, are presented.

4.4.3 George Local Municipal area

The George municipal area is found on the southern coast of South Africa, halfway between the major cities of Cape Town and Port Elizabeth. It has a total area of 1,068km^2, which comprises the City of George; the villages of Wilderness and Herold's Bay; various coastal resorts such as Kleinkrantz, Victoria Bay and the Wilderness National Park; and rural areas such as the area around Rondevlei, Geelhoutboom, Herold, Hansmoeskraal and Waboomskraal. The municipal area is home to approximately 160,000 people (Van Niekerk *et al.*, 2009).

George has a temperate, coastal climate with hot humid summers and cool rainy winters. It receives rain throughout the year with high rainfall coming during the periods March-April

and September-October. Average annual rainfall varies from 866mm in the low lying areas to 1200 in the Outeniqua Mountains. Average temperatures are 25°C in summer and 13°C in winter (Van Niekerk et al, 2009). Although George sits 200m above sea level it frequently suffers from floods, with the most vulnerable people being those on farms and the urban poor who often settle in floodplains or on hillsides (Benjamin, 2009). Residents living in informal settlements are often the most affected as informal areas are poorly drained and therefore the ground is always saturated long after heavy rains.

There are 24 informal settlements in George, comprising 4992 dwellings which house close to 25,000 people (George Local Municipality, 2011). The majority of these (3598) are found in Thembalethu, a settlement in the south-eastern part of the town with an approximate population of 18,000 (Benjamin, 2009). Respondents for focus group discussion in George were largely drawn from this area. Informal settlements suffer from huge basic services backlogs, with minimal access to piped water, electricity and sanitation services (Benjamin, 2009).

Thus, recurrence of extreme weather events only serves to heighten the vulnerability of poor communities in George. In his analysis of flood risk in low-cost settlements in George, Benjamin (2009) concludes that the vulnerability of residents in poor settlements was due to them choosing to live in such settlements because of a lack of alternative options. Furthermore, poor integrated development planning and disaster risk response by the local municipality expose residents of informal settlements to hazards and increase their vulnerability.

Tempelhoff *et al*.'s study (2009) into the December 2004-January 2005 floods in George and surrounding towns of the Southern Cape found that existing channels for the communication of risk to communities were inadequate. Benjamin's (2009) study reveals similar shortcomings in the George Municipality's preparedness and risk communication response

to severe flooding experienced in August 2006. Tempelhoff *et al*. (2009) report that, in the 2004-2005 events, the George local municipality had no communication channels in place while the neighbouring Bitou Local Municipality is reported to have used a loudspeaker system within communities to warn them of approaching conditions. Benjamin (2009) notes that, in the case of the 2006 floods, no warnings were communicated to local communities for the first flooding event and residents from the impoverished settlements in Thembalethu and Touwsranten claimed that they received no warning. Crucially, informally settled communities in the George local municipal area argue that local government has not met the needs of the people in so far as implementing risk reduction measures and Tempelhoff *et al*. (2009) report distinct evidence of a communication gap between the expectations of the citizens and the goals of the responsible local authorities. The discussion that follows details how the research participants in the three study sites described above were located.

4.5 THE RESEARCH SAMPLE

In keeping with the interpretive phenomenological approach outlined above (paragraph 4.2.1), the sample of respondents in this study was purposively selected. The sample of disaster risk managers and managers of the risk communication, or as the function is often formally called 'public awareness,' within the selected municipal areas was arrived at by way of doing internet searches and telephonic enquiries at the relevant municipal offices in the three study sites. A snow-ball sample of social development practitioners and experts selected for having worked with communities and municipalities in disaster risk communication interventions was developed by asking the municipal interviewees and community members participating in focus groups to recommend names of people they had worked with in disaster risk communication interventions from whom the researcher could get additional perspectives on the subject under study (see Crabtree & Miller, 1992). The process through which recruitment of participants for the focus group discussions was done, and the actual procedures followed in the conduct of semi-structured interviews with key

informants and focus group discussions, are discussed at length in the sections that follow. In total, the unit of analysis comprised 12 focus groups, each of which comprised between 6-8 participants, five Disaster and Disaster Risk Communication (or public awareness) Managers and five experts and social development practitioners. Guidance from literature indicated that this was an adequate sample size; Kreuger (1994) and Morgan (1997) have, for instance, suggested that anything between three to six different focus groups are adequate to reach data and/or theoretical saturation in qualitative studies. Noticing that after a couple of focus group discussions, gathered data became repetitive, the researcher was therefore satisfied that four focus group discussions per study site would be adequate to ensure that most or all of the perceptions that might be important in that area are taken into account. The decision was also taken with the deliberate aim to ensure that the sample was kept to a manageable size for data collection and subsequent analysis. Once these practical decisions had been taken, the actual fieldwork began with considerations of how the researcher would gain entry into the locality in which research would be conducted.

4.6 COMMUNITY ENTRY

Community entry is a critical and indispensible part of any endeavor that requires community participation (Tareen & Omar, 1997). In practice, it is a gradual and time consuming process through which the researcher establishes the relationships required to foster a true partnership with the community in order to achieve the goals of community-situated participatory research. Participation of the community in exogenous research pursuits requires that first, the community is prepared to act together and, second, it is willing to interact with the external agent (Tareen & Omar, 1997). This is no simple task. However, when done correctly, community entry ensures that the role of the researcher, which initially could be considered as intrusive, is transformed to that of catalyst and finally the researcher achieves an organic relationship with the community. Only then is true participation in the research endeavor achieved in community-settings. The researchers also observed in the

course of the empirical study that the establishment of a good level of rapport and empathy is critical to gaining depth of information, particularly when investigating issues where the participant has a strong personal stake (Lester, 1999). If community members have trust in the outsider working with them, then open sharing about issues, problems, concerns and solutions can take place (Abarquez & Murshed, 2004). However, the researcher is cautioned to guard against developing liaisons at personal and other levels that may lead to undesired outcomes (Tareen & Omar, 1997). This was a particular challenge for the researcher working in informal settlements in South Africa as these are politically restive areas with a community that immediately seeks to identify an outsider's motivation for establishing contact. The community often quickly sought to establish the researcher's political objective when entering their space and turned out to be highly sensitive to political manipulation as described below.

Informal settlements in South Africa are typically highly politicized areas with multiple, concurrent loci of political power (Roth & Becker, 2011; Oldfield, 2007; Pithouse, 2006). The empirical investigation established that among these concurrent loci of power in the study areas were the very politically powerful and influential street committees, ward committees and councilors elected via the official local government electoral processes and the very vocal community activists respected for their championing of community demands around various social development causes. While 'street committees' and ward councilors are products of party-aligned political organisation, individual community social development agents, and community-based organisations, to which most of the social development agents are affiliated, are premised on the normative goal of deconstructing structures of domination and establishing a mass democratic model of local governance (Zikode, 2012; Pithouse, 2006). Thus it was observed in the study areas that there exists a continual, latent and often overt contestation for space in informal settlements for political organisation. This presented real challenges for entry into the community, particularly so as the researcher was

considered an external agent seeking to bring people together to dialogue and interrogate their lived condition.

Against this background the process for gaining entry in this study was tortuous, initially requiring repeated visits to the community to observe and familiarise with the community's lived conditions and establish where the various loci of social and political power lie. This process was followed by a period of reflection on the most appropriate level of entry to gain both the permission of the powerbrokers to enter their social-political space and the trust of the community. Given that the subject of discussion in focus group discussions involved issues of service delivery, a hotly contested and politically divisive issue in South Africa's under-served communities, a decision was made not to seek entry via overtly political structures such as ward councils or 'street committees'. Given their emancipatory rhetoric and normative goal of seeking an egalitarian, fully participatory and liberating governance model at the local level, community-based organisations and community-based social development agents were deemed the most appropriate points of entry.

Once the appropriate point of entry was identified, meetings were organised with the identified community social development agents or community-based organisations to explain the aim of the study and gain their support. A letter introducing the researcher and the study (Appendix 1) and a letter requesting support with recruitment of participants for focus group discussions (Appendix 2) were sent to the community-based organisation, or social development agents, whichever the case was, prior to the first official meeting. Later meetings discussed criteria and appropriate methods for recruitment of participants, settings for the discussions, logistics and scheduling of the focus group discussions. Among the issues discussed was the need for the recruitment process to be non-coercive and community participation to be wholly voluntary. This process was in large part repeated in the three study sites. However, where it was not possible, for practical reasons, to meet regularly, for instance, in uThungulu District (Mthonjaneni), once a partner organisation had

been identified, the first contact to introduce the study and get provisional support was made telephonically. This was followed by the dispatch of the official letters to which a reply was received electronically, giving official commitment of support from the partner organisation. Subsequent meetings to discuss the participant recruitment process and logistical issues were conducted by telephone conference and an in-person meeting was then scheduled closer to the period of the focus group discussions to thrash out outstanding issues before the conduct of the group discussions. Having achieved community entry and established the relevant working relationships at the community level, the researcher proceeded to conducting the focus group interviews and semi-structured interviews with key informants.

4.7 FOCUS GROUP DISCUSSIONS

Focus group discussions (n=12, comprising 4 group discussions in each of Cape Town Metropolitan, uThungulu District and George Local municipal areas) were conducted with participants living in disaster-prone, informally settled areas in the three study sites. Focus group discussions were held during the periods 29 March – 25 April 2012 in Cape Town; 29 July – 02 August 2012 in uThungulu and 3-4 September 2012 in George. The main purpose of these focus group discussions was to establish perceptions of at-risk communities of disaster risk communication interventions in their community. Appendix 3 is a list of guiding questions that were used to orient discussions in the focus group discussions. Discussions were carried out to elicit responses that would enable the determination of how far existing disaster risk communication interventions fared against salient principles of participatory development communication (see section 3.5) and also to gather the overall perceptions of the community on the disaster risk communication interventions being implemented in their locality. The focus group discussions each comprised a total of 6 to 8 adults (18 years+) of both sexes. There are several guidelines on how many participants should comprise a group, ranging from five to 12. In this study the number settled on for each group was determined by the need to get a full range of opinions, but at the same time not having so

many participants as to discourage participation. Smaller groups and those with participants with a narrower range of demographic characteristics tended to be more coherent and interactive. Although effort was made to have male and female participants represented in equal numbers in each discussion, this was not always possible due to various reasons such as non-arrival of participants, while in some cases it became evident that certain discussants were more comfortable in a group comprising their acquaintances or participants of the same sex. In the latter case, reallocation of group composition was made. The problem of non-arrivals was especially pronounced in the focus group discussions held in Gugulethu, Cape Town. In two instances, (Dunoon and Mthonjaneni) respondents expressed a wish to participate in a group with their close acquaintances, and in both cases this resulted in a single sex group. Being steeped in the qualitative research paradigm, focus group discussions were held in the respondents' own natural settings within informal settlements and at places of the groups' own choice.

The focus group, though adequate for this study, is not without limitations as a method in social research. Most of the limitations can, however, be traced back to the practicalities of conducting discussions. For instance, while participating in a group discussion on relevant developmental issues may be largely considered as empowering as established in the literature, a focus group may prove intimidating for some participants, particularly those who may feel that they are inarticulate, shy, lack confidence or where social norms discourage people of different sexes or ages from interacting openly in small group settings. In the present study, sex was found to impact significantly on participants' willingness to participate within a certain group and the researcher on occasion had to reallocate group composition where it was found necessary to make for more expansive and expressive discussions (as discussed above).

In practice, focus groups can be difficult to assemble. As described in section 4.6 the process from identifying a partner organisation to assist in recruitment to the actual conduct

of focus groups at all three study sites was both protracted and circuitous. One way to get around this challenge is to recruit through the use of key informants or through existing social networks (Holbrook & Jackson, 1996). As detailed in the discussion on community entry (4.6), the researcher chose to follow this path and recruited research participants through establishing partnership with community-based organisations and community social development agents. A potential danger with this strategy, which was, however, not observed in this study, is that it may lead to a bias in composition of group as gatekeepers may screen potential participants (Barbour & Kitzinger, 1999). Another issue is an ethical one; while facilitating access a gatekeeper may do so without passing on all relevant information (Barbour & Kitzinger, 1999). In this study, although adequate explanations had been given to recruiting partners prior to their recruiting participants, the researcher realised that some participants arrived for the discussions without adequate knowledge of the nature and purpose of the discussions they had volunteered to participate in. Time was therefore taken up prior to each discussion to go over these details again with all participants.

In addition to focus group discussions, primary data was gathered by way of semi-structured interviews with municipal disaster risk managers and municipal disaster risk communication managers in each of the three study areas, and a snow-ball sample of social development practitioners and experts chosen for their knowledge of the issue under investigation. The procedure followed and considerations taken into account are discussed in the section that follows.

4.8 SEMI-STRUCTURED INTERVIEWS WITH KEY INFORMANTS

Semi-structured interviews with disaster risk and disaster risk communication managers (Identified by their codes *GBN, KGP, KPC, NMT & MZB*) and other key informants or experts in the study areas (*MSS, KBB, KDT, GMN* & *KSF*). The interviews were conducted in order to determine how existing disaster risk communication activities in the Cape Town, George

and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions. A letter introducing the researcher and the study (Appendix 1) and a letter requesting the participation of the prospective interviewee in the study (example in Appendix 4) were sent to them prior to each interview.

Interviews were conducted on separate occasions during the period starting 22 March 2012 to 4 September 2012. In all, a total of 10 semi-structured interviews with key informants were conducted. The long time span through which interviews were conducted allowed the researcher to take some time between interviews to reflect on the past interview, review interview notes, and gain an understanding of key issues and themes emerging from the field research, all of which were crucial to improving the process and content for the subsequent interviews.

Appendix 5 shows a copy of guidelines used in semi-structured interviews with municipal disaster risk communication managers. The questions were designed to elicit responses that address issues concerning the participatory nature of interventions, and specifically those related to the principles of participatory development communication identified as being applicable to the practice of disaster risk communication (see section 3.5). The interviews began by establishing a background understanding of the respondent on their role, the value of communication as a strategy for disaster risk reduction and what disaster risk communication entails. More specific questions related to the roles played by disaster risk managers, the community and community structures in the municipality's disaster risk communication interventions followed to establish the nature and levels of participation within the interventions. Questions relating to feedback mechanisms and the space for communities to engage with municipalities in shaping the content and nature of interventions followed, before conclusion of the interviews where disaster managers were given an opportunity to address other issues they may feel had not been addressed in the conversation.

The conduct of research in the field through semi-structured interviews with key informants and focus group discussions (4.7) is fraught with ethical considerations a researcher must account for. Research ethics deal primarily with the interaction between researchers and the people participating in the study and the researcher had to observe and safeguard the conduct of the present research against several ethical pitfalls. A discussion of ethical considerations accounted for in the present study follows.

4.9 ETHICAL CONSIDERATIONS

Throughout the empirical stage of the investigation, several ethical considerations were observed. Prior to all focus group discussions and interviews with key informants, respondents were advised of the purpose of the discussions and the scope within which their contributions would be utilised. Specifically, respondents were also guaranteed full confidentiality and the removal from transcriptions and all subsequent analysis of data any details that may identify them. Participants in the focus group discussions, whose conduct beyond the discussion was beyond the control of the researcher, were encouraged to keep confidential what they would hear during the group discussion. Respondents' informed consent for their voluntary participation in the study was sought and recorded or documented. Once the data had been generated from the fieldwork, the researcher also observed some professional ethics in so far as using the data only for the purposes, and in a manner, agreed with the research participants. In the subsequent analysis phase the researcher also made sure to represent the view of the participants as best understood; steering away from embellishment, deliberate suppression of some voices and views or fabrication. Having observed these ethical standards for the conduct of social research and having gathered the full data set from the research sites, the researcher proceeded to the analysis phase of the research.

4.10 DATA ANALYSIS

Qualitative data is mostly found in the form of words, phrases, sentences, visual images, audio and video recordings. It is a mass of words obtained from recordings of interviews, field notes of observations and analysis of documents as well as reflective notes of the researcher. This mass of information has to be processed to allow for interpretation. Thus, this section sets out to detail the procedures through which data generated in the field was processed to bring the researcher to some form of explanation, understanding or interpretation of the phenomenon being investigated.

Qualitative data analysis is usually based on an interpretative philosophy, with the idea of giving meaning to the data generated (Lewins *et al.*, 2010). Qualitative researchers look for categories or themes from the raw data and set out to analyse and characterise the relationships and patterns between these categories and themes in order to describe and explain phenomena. Whereas, traditionally, researchers have derived the categories and themes from the data by turning to either of two approaches: inductive or deductive, this need not be so. Fereday and Muir-Cochrane (2006) have argued that the two approaches are not mutually exclusive in any one study, and they have illustrated the use of a hybrid inductive and deductive thematic analysis to interpret raw qualitative data. Not only does the hybrid approach allow for analysis of data according to themes established from a review of the literature and decided on at the beginning of the research; it also allows for analysis of data according to themes that emerge from preliminary readings of accumulating data as the study progresses, as well as those themes that only become apparent at the final stage where the full data set is analysed (Fereday & Muir-Cochrane, 2006). The combination of deductive with inductive qualitative analytic techniques increases interpretive rigor and makes the study richer (Fereday & Muir-Cochrane, 2006; Chitnis, 2005). In addition, thematic analysis as a method is accessible and theoretically flexible, and can be used for analysis of qualitative data across a range of theoretical and epistemological approaches

(Braun & Clarke, 2006). For these reasons, the hybrid thematic analytic approach was deemed most appropriate and was adopted for this study as discussed in greater detail below.

4.10.1 A hybrid thematic analytic approach

Analysing qualitative data involves reading through the interview or focus group transcripts, field notes, post interview memos and other data, developing codes, coding the data and identifying themes, patterns and relationships between the discrete pieces of data. A researcher seeks out the categories and themes from the raw data to derive an explanation of phenomena. Thematic analysis is thus a method of identifying, analysing and reporting patterns within the data, where emerging themes become the subsets for analysis and explanation of phenomena (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). These categories and themes can be derived either *inductively* – whereby the categories or themes are allowed to 'emerge' from the data through a process of rigorous analysis; or *deductively* – whereby from the very beginning or midway through the research exercise the researcher sets the categories and themes into which they then 'fit' the data for interpretation.

The two approaches are best operationalised by use of the *constant comparison technique* (for the inductive approach) and the *framework analysis technique* (for the deductive approach). The constant comparison technique developed by Glaser and Strauss (Glaser, 1992; 1978; Strauss, 1987; Glaser & Strauss, 1967) was first used in grounded theory research but is now more widely used (Onwuegbuzie *et al*., 2009). Three main stages characterise application of constant comparison. In the first stage, open/initial coding, the data are broken down into small units. The researcher attaches a descriptor, or code, to each of the units. This is followed by the second, axial/focused coding stage during which the initial codes are clustered into categories. Finally, in the third and final stage of selective

coding, the researcher develops one or more themes that express the content of the clusters (Onwuegbuzie *et al*., 2009).

Constant comparison is especially useful for focus group research where multiple groups are used. Comparison of emergent themes across groups enables the researcher to assess data and theoretical saturation both within groups and across groups. Researchers can also use multiple groups to assess whether the themes that emerged from one group also emerged from other groups. This was particularly important for this study and enabled comparison of emergent perspectives across groups within one research site as well as those emerging across the three different research sites. Thorough this process of comparison, the researcher was able to define additional, emergent, categories for analysis which were used to broaden deductively defined principles '*empowerment'* and '*democratic and egalitarian process'* to the more encompassing themes '*shared power-holding and empowerment'* and '*democratic, egalitarian and inclusive process,'* respectively (see, 3.3.4, 3.4.2 and 3.5). Braun and Clarke (2006) emphasise that the inductive or 'bottom up' approach means that the resultant themes are strongly linked to the data generated.

The framework analysis technique was explicitly developed for applied research. The general approach of this technique shares many of the features of the constant comparison technique such as preparation and organisation of the data for analysis, and the initial and focused coding processes. The substantive difference, however, arises from the fact that the framework analysis technique allows the researcher to set the categories and themes at the beginning of the research study and in some cases even the codes. This is often done by reviewing existing literature on the phenomenon under investigation and determining what the dominant themes, categories and codes may be (Zhang & Wildemuth, 2009). Once the categories or themes have been pre-determined, the coding processes identify specific pieces of data which fit into the different themes.

In the present study, analysis of interview and focus group data was done by using a hybrid (Fereday & Muir-Cochrane, 2006) of the two traditional approaches. The analysis was carried out along six themes, four of which (*A liberating pedagogy, dialogue, embeddedness in context and participation as an end*) were derived solely from the literature while two (*shared power-holding and empowerment*, and *democratic, egalitarian and inclusive process*) -- were derivations from a combination of deductively and inductively identified categories as outlined above. Coding within the themes was guided by illustrative descriptions of what each theme entails to ensure that the researcher (coder) can easily assign codes and categories that belong to the theme, i.e. as a quick reminder of what the coder is looking for within that theme. In doing the analysis the researcher was also on the lookout for counter-indicators, which are viewpoints related to a theme but given in ways that negate perspectives that affirm the respective theme. When a respondent exhibited these counter-indicators it would reveal that they did not fully embody the respective theme, allowing therefore for the full accounting of negations of the themes in the data.

The chosen approach, which allowed inclusion of data-driven categories and themes into the overall analysis, was therefore consistent with the adopted interpretive phenomenological approach to data generation which sought to understand the phenomenon under investigation from the perspectives of the people involved and thus to ensure that, as far as possible, the definitional features of the resulting framework for disaster risk communication were to emerge from the views and perspectives of the research participants.

4.10.2 The data analysis procedure

Analysis of data generated from interviews with key informants and focus group discussions was carried out separately, albeit following a uniform stage-by-stage procedure as shown in Fig. 4.2 below. It is important, however, to note that data analysis was not a linear process in which the researcher simply moved from one stage to the next along the arrows depicted in

Fig. 4.2. In practice, the process was iterative and progressive as well as recursive where at certain times it was necessary to move back before proceeding (Braun & Clarke, 2006; Seidel, 1998). The analysis of key informant data generated from interviews with municipal disaster risk managers was particularly to establish how existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions considered applicable to disaster risk communication. The analysis of data generated from focus group discussions was primarily meant to establish the perceptions of the community of the disaster risk communication interventions implemented by the mandated authorities in their localities. Data from experts and social development practitioners participating as key informant interviewees was used to triangulate data gathered from municipal disaster risk managers and the community focus groups. Having identified the experts and social development practitioners through interviews with disaster risk communication managers and discussions with at-risk communities, their perspectives were used to get an overall feel of how far perspectives given by both the managers and communities were shared perceptions or issues the experts and practitioners had also observed in their interactions with communities and municipal disaster managers. An outline of the data analysis procedure follows.

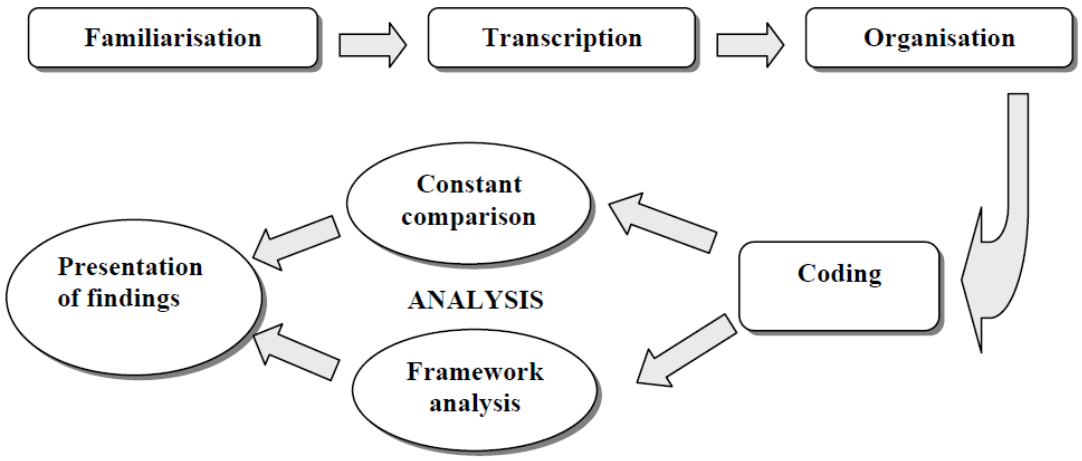


Figure 4.2 Stages in data analysis

Adapted from Lacey and Luff (2001)

4.10.2.1 Familiarisation

The first stage in analysis involves familiarisation with the corpus of data generated in the field. In this stage the researcher immersed himself in the data to gain an understanding of the scope, depth and breadth of the data available (see Braun & Clarke, 2006). This entailed listening to audio-recordings, repeated reading of field notes and analytical memos prepared at debriefing sessions after each interview and focus group discussion.

4.10.2.2 Transcription

Given the time and resource constraints that are typical of any research endeavour, particularly one for doctoral studies, the researcher took some time to consider whether comprehensive analysis would necessarily require resource-intensive verbatim transcriptions or whether selective transcription would suffice. Verbatim transcription refers to the word-for-word reproduction of verbal data, where the resulting text is an exact replication of the audio-recorded words. Halcomb and Davidson (2006) have discussed this issue at length. Braun and Clarke (2006), and Wellard and Mckenna (2001), cited in Halcomb and Davidson (2006), assert that transcription forms part of the data analysis process and it is therefore essential that the transcription method chosen be congruent with the theoretical underpinnings of the specific investigation and its analytical method. While it can be argued, as Halcomb and Davidson (2006) do, that selective transcription may be sufficient where analysis is guided by a set of predetermined themes, the present study employed a hybrid thematic analysis approach in which the researcher sought to identify emergent categories and themes in addition to themes defined *a priori.* Thus, the verbatim method was chosen in order to retain the totality of the data generated, thereby maximising the possibility of unanticipated themes emerging from analysis of the full data set. With a transcript of everything observed and recorded the researcher thus retained the full picture of what transpired in the empirical investigation, thereby minimising the chances of bias as can happen when a researcher selectively transcribes a discussion.

Transcription is a key phase of data analysis within the interpretive qualitative methodology and it is recognised as an interpretive act where meanings are crated rather than simply a mechanical act of putting spoken words on paper (Braun & Clarke, 2006). To each transcript of the actual conversation were integrated field notes on contextual issues, non-verbal cues and other exogenous stimuli or factors that were deemed to have had an impact on the actual conversation. While the researcher undertook to transcribe all interviews and focus group discussions conducted in English, professional services were sought from experienced language practitioners for transcription of discussions that took place in vernacular into English. The researcher's non-native proficiency in the vernacular languages meant that they could provide some measure of verification that the transcriptions done by hired services were sufficiently representative of the actual discussion. In this way it can be argued that there was some measure, albeit basic, of quality control. Once transcription was completed, the researcher listened to the audio recording again with the transcript to ensure that the transcript represented the actual conversation held and recorded.

4.10.2.3 Organisation of data

Organisation of data is the practical categorisation and filing of data so that it can be stored as well as retrieved, manipulated and still be traceable back to its original conversation and respondents with ease. A document linking real key informant interview respondent names to pseudonyms used for analysis was kept and filed - to be destroyed on completion of the research. Seating plans showing how respondents, indicated by pseudonyms, were seated during focus group discussions were filed. Names and any information that may link the real identities of respondents to data in the transcripts were removed from the transcripts. The transcripts were numbered by line and two sets of all the transcripts were prepared. Two copies of each transcript formatted differently – one for reading and highlighting text within the full transcript and another for cutting out at the coding stage – were made. An

alphanumeric scheme was developed to facilitate that each segment cut out from transcripts could be traced back to its original context if need be.

4.10.2.4 Coding, categorising and thematising

Coding is the process of examining the transcriptions, extracting sections of it and assigning different labels so that they can be easily retrieved for further comparison and analysis, and the identification of patterns (Lewins *et al*., 2010). In essence, it involves assigning meanings to sections of the text which can be words, sentences, phrases or whole paragraphs. The two techniques, constant comparison and framework analysis, were carried out simultaneously. The researcher grouped transcripts from interviews with key informants and focus groups by research site (to allow for intra- and cross-site comparison of themes at a later stage) and read through the data from each site in long undisturbed periods searching for meanings, patterns and relationships in the data. A second reading was then carried out on one set of the transcripts, this time identifying data that are related and labelling them, thereby generating numerous codes. Due to the fact that transcription of the focus group discussions had been done from vernacular to English and therefore individual words and phrases may have lost their true meaning in translation, a decision was made to make the expression of an idea or concept the unit of analysis for coding (see Minichiello *et al.*, 1990). Most individual words and phrases are not directly translatable between languages with their original full meaning, value and cultural associations. The initial codes were then assigned to categories derived deductively from the literature and those developed inductively where themes had been broadened to include perspectives which emerged as salient dimensions of analysis as the empirical investigation unfolded (see paragraph 4.10.1 for a description of the hybrid thematic analytic approach employed). To illustrate this time consuming process Figure 4.3 shows how codes identified in excerpts from transcripts of interviews with disaster risk communication managers and focus group discussions with members of at-risk communities in the study areas were assigned to two main categories under the theme

relating to the need for disaster risk communication to be embedded in local context (see 5.3.4).

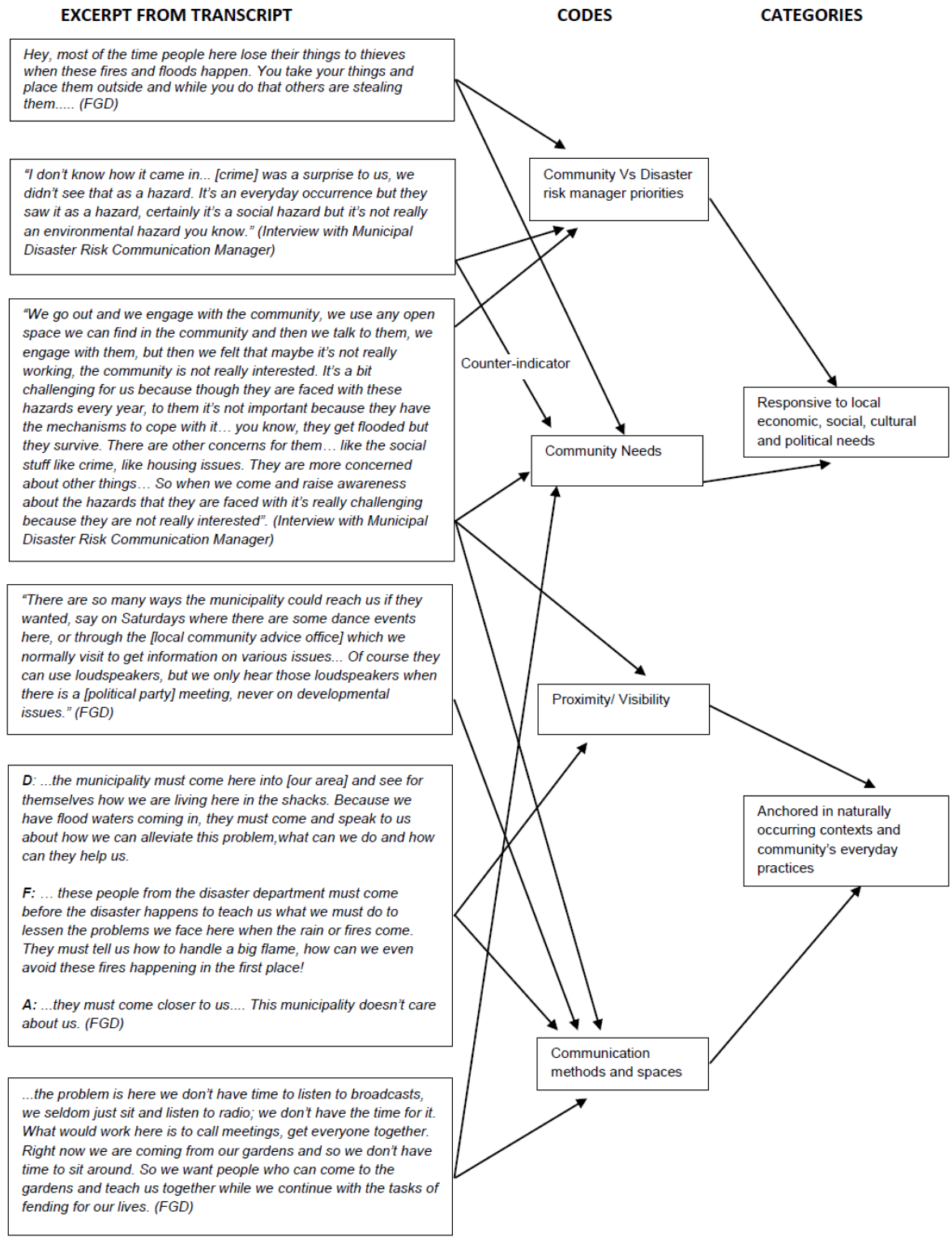


Figure 4.3 Deriving codes and assigning them to categories under the theme on embededness of disaster risk communication in local context

Where there were negations or dissenters the portion of text expressing the negation was coded correspondingly with the idea it negates (i.e. as a counter-indicator) to allow for the accounting of negations, a sense of nuance to the generated themes and to ensure that the voice of dissenters was not censored or minority views marginalised (Onwuegbuzie *et al*., 2009).

4.10.3 Limitations of the analysis

Due to the nature of a doctoral study in which both time and material resources are constrained, the data were coded and themes identified in the data only by the researcher and the analysis then discussed with the supervisors. While such a process may allow for consistency in the method, it is insufficient in so far as it does not provide multiple perspectives, particularly at the stage of coding, categorising and thematising the generated data. Any efforts to replicate this study would be well served by coding the data with several individuals and having the themes developed through discussions with other researchers and/or the participants themselves.

Also, the fact that transcription of focus group discussions were often done from audio recorded in vernacular to an English text meant that the most useful unit to code was the idea or concept expressed in a section of the text (Minichiello *et al*., 1990) rather than individual words or phrases in the transcripts. Thus by not focusing the analysis on the units by which people naturally communicate with each other (that is, people communicate through words and phrases, not ideas. Ideas are contained within these natural units) nuances in intra-group interaction were not fully analysable.

Finally, while all efforts were made to note any contextual issues, non-verbal interaction, seating arrangements and turn-taking in speaking, the use of video recording would have

enhanced the capturing of non-verbal cues and group dynamics for analysis alongside the verbatim transcripts.

4.11 TRUSTWORTHINESS

While various forms of triangulation (methods, study areas, sources) were used to ensure that the data generated were valid and reliable, Zhang and Welmuth (2009) have put forward that the notions of validity and reliability are criteria used to evaluate the quality of research in the conventional positivist research paradigm and are inadequate when it comes to the findings of interpretive research work. Instead, the process and results of interpretive work need to answer to four main criteria: credibility, transferability, dependability and confirmability (Lincoln & Guba, 1985). The researcher posits that these criteria have been sufficiently met in the present work.

According to Lincoln and Guba (1985), *credibility* requires that the constructions of the social world under study be adequately represented by the researcher. The adoption of an interpretive phenomenological theoretical framework to data generation in this study was especially meant to ensure that the study elicits understandings of the phenomenon which are anchored in the perspective of the people and their lived social condition. Lincoln and Guba (1985) have identified a number of practical steps to improve credibility of research, the majority of which have been met in the present research as elaborated at various points in this work, viz: prolonged engagement in the field; persistent observation; triangulation; designing transparent processes for coding and drawing conclusions from the raw data; checking interpretations against raw data; peer debriefing; negative case analysis; and member checking. For lack of time, the last two steps were, however, not carried out.

Transferability refers to the extent to which the researcher's working hypothesis can be applied to another context. While the researcher is not called upon to provide an indication of

how far their work may be transferable, they are required to provide data sets and descriptions that are rich enough to allow other researchers to make judgments about the findings' transferability to different contexts (Zhang & Welmuth, 2009).

Dependability speaks to how far the internal process is coherent and how the researcher accounts for changing conditions in the phenomena under study. Lastly, *confirmability* refers to "the extent to which the characteristics of the data, as posited by the researcher, can be confirmed by others who read or review the research results" (Bradley, 1993:437, cited in Zhang & Welmuth, 2009). The technique most used for establishing dependability and confirmability is audits of the research processes and findings. Such audits are possible by making use of materials such as audio recordings, transcriptions, field notes, analytical memos and coding schemes, among others, that were also developed by the researcher in the present research (See Appendixes 1 to 5 for samples of the research instruments, and the data analysis procedure outlined in paragraphs 4.10.2.1 to 4.10.2.4 for details on materials developed for data organisation and analysis in this study). Specifically, these materials can be used to determine dependability by checking the consistency of the study processes and confirmability by checking internal coherence of the research product, namely, the data, the findings, the interpretations, and the recommendations as contained later in this work (Zhang & Welmuth, 2009).

4.12 CONCLUSION

The foregoing chapter has expounded on the research approach and methodology employed in the research. An overview of the research sites was given to situate the research in context. The theoretical grounding of the researcher's approach to data generation was outlined. The chapter also explained the actual data generation procedures, the challenges faced in the field and the theoretical and practice-based issues that the research exercise threw up for consideration. Chapter five presents the findings from the

empirical investigation and seeks to determine the extent to which existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions.

Chapter 5 : DISASTER RISK COMMUNICATION IN CAPE TOWN, GEORGE AND uTHUNGULU

5.1 INTRODUCTION

This chapter seeks to assess how far existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against salient theoretical principles for the practice of participatory development communication interventions (Research Questions 3). This is to be achieved by presenting and analysing (i) the findings from semi-structured interviews with municipal disaster risk communication managers, (ii) the data gathered from focus group discussions that sought to determine perceptions of the community of the disaster risk communication interventions delivered by the respective municipalities in the study areas of Cape Town, George and uThungulu (Research question 4), (iii) triangulating the data gathered from interviews with disaster risk managers and community focus group discussions with findings from experts or other key informants in the study areas, and (iv) assessing these findings against the principles of participatory development communication that were identified as being applicable to a framework for disaster risk communication interventions (see section 3.5).

It is instructive to note, from the onset, that the delivery of communication interventions for disaster risk reduction in informally settled areas by municipalities in South Africa cannot be viewed in isolation of the general state of service delivery by mandated local government actors in the underserved areas of the country. Currently, service delivery is inadequate with the many municipalities across South Africa failing to meet the demand for housing and basic infrastructure such as running water, sewage and electricity among the poor, a significant number of whom live in informally settled areas (Chagutah, 2011). Thus, in the findings presented below, particularly the perceptions of at-risk communities and analysis

thereof, it is was evident in some cases that when communities gave their views on disaster risk communication interventions delivered by local government, their assessment was often conflated with perceptions on a myriad other issues that, in their view, mirrored and/or exacerbate the problems associated with disaster risk communication delivery by municipalities.

5.2 THEORETICAL FRAMEWORK FOR THE ANALYSIS

Data analysis was carried out to determine how disaster risk communication interventions in the study areas fared against salient and empirically validated theoretical principles of participatory development communication distilled from the theoretical study (see sections 3.3 to 3.5), including those categories that emerged as the empirical study progressed (see 3.3.4, 3.4.2 and 3.5 for the discussion on inclusion of inductively identified themes of analysis). Thus, the theoretical framework against which the empirical findings are analysed in this chapter assesses whether the observed disaster risk communication process was:

- *empowering* for communities, facilitated multi-dimensional *shared power-holding* and enabled at-risk communities to interrogate the risks they face and define solutions alongside disaster risk managers;
- marked by a *liberating pedagogy* based on equality between disaster risk managers and communities;
- *dialogical* and ensuring effective engagement and the maintenance of an effective learning relationship between disaster managers and communities in the formulation and implementation of disaster risk participatory communication interventions;
- fully *democratic, egalitarian* and *inclusive*;
- embedded in *local context*; and
- based on participation being an *end* in itself and therefore ensuring the emergence of an empowered at-risk community.

In a distinct phenomenological approach, the findings are presented, in part, in the words of the study respondents and discussants to emphasise the primacy of personal perspective and foreground the participants' interpretation (Lester, 1999). The researcher's interpretation is therefore anchored within the subject's worldview, thereby ensuring that the analysis presented preserves fidelity to the subject's perspective and understanding of the social phenomena under investigation (Groenewald, 2004).

5.3 DISASTER RISK COMMUNICATION IN THE STUDY AREAS

This section presents the findings and analysis of the data gathered in the empirical investigation. Analysis of data from interviews with municipal disaster risk communication managers (Identified by their codes *GBN, KGP, KPC, NMT & MZB*), other key informants or role players (*MSS, KBB, KDT, GMN & KSF*), and the focus group discussions carried out in the study areas reveals a number of salient issues that shape the dominant practice of disaster risk communication in the study areas. These are discussed in the sections that follow and analysed against the theoretical framework outlined above (section 5.2).

5.3.1 A liberating pedagogy?

An analysis of the practice of disaster risk communication in municipalities in South Africa requires that one first establishes what the relevant functionaries understand to be the utility of disaster risk communication and their role as managers of disaster risk communication within their localities. The primary finding in this regard was that the utility of disaster risk communication was primarily defined by its value as a vehicle through which municipal disaster risk managers could educate at-risk communities about the risks they face. However, while the disaster risk managers retained an understanding of their role as catalysts in the learning process (Freire, 1970), their conception of the pedagogical interaction with communities was found to be based on conservative forms of learning, which

as discussed in paragraphs 3.3.2 and 3.3.4 privilege the development practitioner as the sole holder of knowledge which is to be transmitted unidirectionally to the learners (Gadotti, 2001).

Engagement in public meetings was reported by respondents as largely taking the form of information delivery by disaster risk managers with limited input in interrogating the nature of existing risks and defining solutions from the community members. *Respondent GBN* described their interventions as "delivering lectures" to the community while *Respondent MZB* said they often "made presentations" to communities during community consultation and education meetings.

This limited application of participation coupled with establishment of an 'all-knowing expert'/'un-knowing community' dichotomy during community engagements retards the potential for pedagogical interaction based on mutual problem interrogation, solution finding, and co-equal learning and reflection between disaster managers and the community, as established in section 2.6. It was noted in paragraphs 3.3.2 and 3.3.4 that only a democratic pedagogy, characterised by a teacher-learner relationship where there is mutual respect for the other as a knowing subject can bring about a transformation and empowerment in the community. However, communities generally viewed municipalities as having little commitment to a learning relationship founded on equality and often seeking to unilaterally define issues and draw the parameters when engaging with them. Residents noted the municipalities' preponderance for prescribing remedial actions rather than negotiating solutions with communities. One discussant in Thembalethu, George, put it thus*:*

> ***D:*** *[The municipality] only prioritise things once people have begun to toyi-toyi (protest)… and even then they just come to you and say this is the idea we have to solve the issues here. They don't come with the intention of listening to you and hearing why you have decided to toyi-toyi. They come to say this is what you will do!"* (in discussion 2, Thembalethu)

Recurring responses to questions on the form of engagement between disaster risk managers and at-risk communities revealed no mention of how disaster risk managers use their contact with the community to learn from the community's experiential knowledge on reduction of risks. Ironically, this limited acknowledgement by disaster managers of communities as knowing subjects, and a repository of crucial experiential knowledge and energy to lead processes towards their own safety, existed in a context where communities, as represented by discussants in the focus groups, exhibited a willingness to take on an active role in directing disaster risk reduction interventions. While acknowledging the role of disaster managers in facilitating the learning process in disaster risk communication interventions, discussants exhibited a keen awareness of the leading role they themselves ought to play in any public intervention intended to benefit them. Not only were they aware of this leadership role they ought to play, they also showed a willingness to take on that role and not only implement actions defined by others. For instance, *Discussant A* in Gugulethu, Cape Town, (discussion 1) said:

> ***A:*** *...the best way forward for any developmental projects in this community is for us, the community, to lead it. The municipality can supply resources, advice but the people should be at the forefront of any initiatives. The municipality must listen to us in terms of what we need, they must not predetermine what resources or what sort of aid we need."*

Discussants pointed out that there has been a precedent to prove that communities can take ownership and lead development interventions when municipalities engage them effectively in participatory development processes. An example was given in focus group discussion 1 in Dunoon:

> ***F:*** *The municipality has a sport and recreation programme that they implement when it's school holidays for school children to play sport and not mill around in the streets. Before they started [implementing the programme]*

they called a meeting here within the community and we participated... some of us ended up being volunteers on that programme such that we were the ones helping the children play sport and we assisted in all things related to that programme - but it was only that one programme."

Even where there had been no engagement with municipal disaster management teams, communities exhibited agency when asked how, in the absence of interventions, they had coped in times of disaster; the conversation unfolded as follows:

B: *We find these skills and ideas by ourselves...*

C: *We have learnt where the best places are to look for water, so we take buckets and try to slow down the fire by dousing with water.*

D: *We have to help each other.*

E: *We have to be self-sufficient because the municipality is not concerned about us.*

5.3.2 Dialogue

The process of knowledge sharing wherein development practitioners do not only share their knowledge with the community, but also learn from the community's experience is facilitated by dialogue (Fourie, 2012; Tufte & Mefalopulos, 2009; Cadiz, 2005; Gadotti, 2001; see 3.3.2 to 3.3.4). The conception of what constitutes disaster risk communication in the study areas was, however, found to be limited in application and distinctly non-dialogical. Respondent *GBN* characterised disaster risk communication mainly to entail the unidirectional dissemination of early warning messages ahead of incidences of heavy rainfall, strong

winds, storms or other hazards considered likely to cause damage or major disruptions, saying:

> *"... say for instance we get a weather report and we know that bad weather is on its way we go out into the communities and we warn them and say listen; you must be aware of this and you must be aware of that, and we are going to get rain like say 80 to 100ml in an hour or something like that. We give them just warning like that, that's basically what we do for the community to that end."*

Discussant D in Thembalethu (Discussion 2), as quoted in paragraph 5.3.1, also emphasised the perception among the community that disaster risk communication managers engage the communities mainly to inform them of impending hazards and less to listen to the communities.

The communication approaches often employed by municipal authorities were criticised for not fostering two-way interaction between disaster risk managers and communities. A majority of focus group discussants questioned the absence of closer interaction between disaster managers and the community which would promote dialogue and argued that such commonly used methods as loud-hailing were ineffective. *Discussant E* in Dunoon (discussion 1) stated:

> *"the municipality should consider moving from door to door to deliver this information, because while sometimes they announce on loud speakers, we may not be around or we may be busy. So they [should] deliver information in every home and explain to those at home what is in the pamphlets..."*

Mannell and Chowdhury (2005) and Burger (1999) have also emphasised how dialogue in community development interventions is best achieved in face-to-face communication contexts (see paragraph 3.3.3).

The sentiment that municipalities do not ordinarily engage with residents of informal settlements unless forced by circumstance (such as protest action) and have not established dialogue with at-risk communities expressed by *Discussant D* in discussion 2 in Thembalethu (see paragraph 5.3.1) was echoed in Gugulethu, Cape Town (discussion 1), where *Discussant A* reported:

> ***A:*** *... when there has been floods [the disaster risk management teams] only come after we have staged a toyi-toyi (protest) otherwise they do not come of their own volition. We have to rise up and demand that they act, and ask them what we must do as flood rains are getting into our homes. This is because they do not speak to us at all; they only listen to people who push their demands forcefully."*

In Dunoon, while group discussants revealed that there had been some information shared by the municipal disaster risk managers, they decried the absence of opportunities to engage in dialogue, saying:

> ***E:*** *There are no ways of dialogue... we've never even had workshops in this area. Well sometimes they give us pamphlets…*
>
> ***D:*** *and there those things like small calendars that they leave…*
>
> ***E:*** *Yes, there are calendars that contain some information... but no opportunities to meet with these people and tell them what we think... we've never had workshops here.*

The commitment to dialogical interaction was also found to be missing in the design of communication interventions, with communities often not afforded ample opportunity to voice their concerns on disaster risk reduction interventions and influence decision making.

Planning for disaster risk communication was found to be top-down and unidirectional, with no feedback loops and allowance for the community to adequately critique the design and planning of communication interventions and critically input with decisions that influence the process. Planning processes were often driven by the municipal disaster managers through a chronological, step-by-step, process from start to completion with very few instances whereby the community representatives involved in planning were given the opportunity to discuss draft plans with communities at large, while the official planning process pauses to receive feedback and incorporate perspectives from the community before proceeding. On being asked to comment on the absence of channels of feedback from the community in their planning processes *Respondent KPG* noted that this was not the aim when planning began. Instead, he said:

> *"the emphasis is not so much on feedback, the emphasis is more in getting inputs that [one] can put into the plan... it's not necessarily the other way... that is not the focus. The focus is getting inputs so that [we] can inform [our] plan. [We] get inputs from all the internal departments as well as [other] role players [and] the NGOs etcetera. We've also now tried to extend it to include councillors as well so that the councillors themselves can also give input [and] speak for the community, and that way [we] will get input from them."*

Instructive in the excerpt above is the fact that *Respondent KPG* saw the planning process and any resultant plans as belonging to the municipality and engagement with other role-players mainly as a process that seeks to extract inputs to plug into a predefined matrix rather than to define the broad parameters of the plan, which calls into question the democratic nature of disaster risk management planning. He said:

> *"... there is a wide consultation process, we get inputs from it. We provide [other role players] with a template… a skeleton of a plan, and as we continue in the meetings we start to basically fill the plan, occupy it and fill the plan with inputs..."*

5.3.3 A fully democratic, egalitarian and inclusive process?

A close reading of the literature laid out in chapters 2 and 3 reveals that a democratic, egalitarian and inclusive process is a primary and critical aspect of participatory communication interventions. While respondent *KPG* argued vociferously that his municipality's engagement with communities on disaster risk reduction issues was *" [a] very inclusive process… very wide [and] very consultative,"* members of the community felt that they are only formally allowed into "created" (Kabane, 2012) or "invited" (Cornwall, 2004) engagement spaces to satisfy the legal requirement for consultation, in a tick-the-box approach to participatory planning; said the a discussant in Gugulethu (discussion 3),:

> *"... the municipality's community engagement is just to hoodwink us. [It is] done so that it appears on the surface that due process has been followed."*

Observations within each municipality studied revealed that disaster risk interventions are generally unilaterally led by the municipal disaster risk management team. Respondent *KPG* used the analogy of the conductor in an orchestra to explain their singular leading role in disaster risk management:

> *"In disaster risk management, we see our role as that of coordination, and coordination not only in disasters, but coordination proactively, in terms of preparedness… You must see disaster management... in the municipality as being an orchestra, everybody is playing his (sic) different instrumentation and then comes the [conductor] who says bass come in, alto come in, violin come in... So that is what our job is, to basically get out this nice tune that must emerge at the end of the day."*

While the inclusion of representatives of the community and civil society in disaster risk management planning is safeguarded by legislation (See Section 51 of the DMA 57 of 2002

on Municipal Disaster Management Forums and their composition), inclusion of community concerns in the planning of risk communication activities is simply understood to be implied by the wide representation within the forums. As outlined in section 2.3, the legislated IDP process also makes provisions for community participation in development and disaster risk reduction planning through local structures such as ward committees. However, the recourse to ward committees by municipalities as spaces and structures for engaging the community on developmental and disaster risk issues was identified as problematic by a number of respondents across the study sites due to perceived deep democratic deficits that characterise these formally and politically elected structures of grassroots representation. While in the minority of cases, communities, just like municipal disaster risk functionaries, were quick to identify ward committees as the most readily available and appropriate structures for engagement on disaster risk reduction and development issues, there were significant dissentions in a number of group discussions. Dissenters often expressed little confidence in the ability and good will of elected representatives and structures to stand for community concerns and often put democratic deficits within these structures as a leading concern. For instance *Discussant F* in Dunnoon, discussion 1, stated:

> ***F:*** *... on this issue of committees I beg to differ, some of these are not doing much, they only concentrate on their selfish agendas and sometimes they are just not powerful enough to stand for and represent our grievances. Their meetings never address the real issues the communities are facing... we never hear of meetings on [disaster risk management] concerns, or meetings where we can question how they are working and why our issues are not being addressed.*

Discussant B in discussion 3 in Gugulethu charged:

> ***B:*** *[It] never happens here that a certain day and space will be put aside for the community to meet and bring their views on what is happening; what they are happy with; what they are not so happy with; what should be happening;*

> *and for there to be someone who will take note and record our views…. that is something that never happens here. When we are called, we are called for things that have been clandestinely discussed and finalised.*

In addition, tensions that exist between politically elected leaders and members of the community who may be perceived as local champions on social causes have led to champions feeling threatened and disempowered to exercise their commitment to local development. *Discussant B* in Thembalethu revealed:

> *" there are some of us who are active in the community and we try and collate people's concerns and take them to the municipality, but this lands us in trouble with the councillors; they view us as threats [for political office]. I have even told myself, I will never volunteer my energy to help the people again, because now I am threatened by the councillors…"* (in discussion 1, Thembalethu)

Exclusion of marginalised communities, and minorities within them, from mainstream development and disaster risk reduction planning spaces also emerged as a pertinent aspect of disaster risk reduction interventions. Access to communicative spaces is only meaningful when people, including the marginalised, are not only considered as full citizens of that space, but also feel so, and are given equal opportunity to contribute to decisions made in such spaces. Data from interviews with disaster managers showed that *othering* - and therefore exclusion from the mainstream - of the most marginalised, and most vulnerable to disaster, was not only a feature of the communities being investigated but also the disaster risk management cohort within municipalities. Respondents repeatedly spoke of informally settled communities as people originating from elsewhere that have come into settings that are not designed to accommodate them with little knowledge of how to survive or adjust to their new setting. Thus, not only are marginalised people cast as lacking the economic capacity to respond to the risks they face, disaster risk managers exhibited little

confidence in their ability to negotiate risks and adapt to their new environments. Servaes (2004) has emphasised that development efforts must be based on faith in the people's capacity to contribute and participate actively in the task of transforming their lived condition, but, as *Respondent GBN* put it:

> *"… just for instance they are coming from Mozambique or Zimbabwe… they don't know the weather patterns down here, especially for runaway fires, they go [and] build their shacks for instance in the [shrubland] area… they really don't want to take any warnings from us when we tell them that's not the right place to build a house… but we are trying to do our best to accommodate them, to tell them what's wrong and what's right, you know."*

While describing a play being produced by their disaster risk communication team to raise flood and fire risk awareness, *Respondent KPC* expressed little confidence in the capacity of externally originating informally settled communities to cope with the effects of the flooding:

> *"The play is a typical scenario in [this city]. People come from the Eastern Cape, they come to [this city] and they find a spot - I'm just using the winter scenario, - they find a spot in summer [and] it looks all good but when winter comes and it starts raining, they get flooded and they don't know how to cope!"*

Respondent KPG advanced an argument that residents of informal settlements tolerate higher levels of risk in their living conditions because they originate from elsewhere and do not consider their settlements as permanent homes:

> *"Now you also need to have in mind that very often the people come to the city and these informal settlements are exactly that [to them]; they are informal in the sense that very often people have residencies up in the rural areas. I know [that those from] the Eastern Cape for instance, in the Transkei and Ciskei, they go back there."*

The marginalised and poor were therefore often perceived as foreign communities who have come into informal settlements and, therefore, discounted from the mainstream. As such, there was an apparent neglect in ensuring full integration of their concerns in municipal responses. Even when attempts were made to engage them, communities argued that the inability to cater for diversity in their communities was a barrier to inclusion of all, particularly minorities, in disaster risk communication interventions. *Respondent G*, in focus group discussion 1 in Dunoon, noted that municipal authorities engage with people in only one or two dominant languages, thus excluding minorities from engaging in the disaster risk communication interventions:

> *" You see sometimes when these people come with loudspeakers some of us do not understand because they make announcements in Afrikaans only and sometimes meetings are in Xhosa only… this is a diverse community they need to consider that."*

5.3.4 A practice embedded in context?

The literature study established that to succeed communication interventions must be embedded in local realities and be responsive to local economic, social, cultural and political needs, as well as be anchored in the community's everyday practices (see paragraph 3.3.5). However, the empirical investigation found that the disjunction between community priorities and those of disaster managers, and therefore the disconnect between interventions and context specific needs, is a major barrier to the success of communication interventions for disaster risk reduction. Where there existed a variance between community priorities and expert perspectives on what should constitute the content of interventions, communication interventions were sometimes observed to privilege expert priorities. For instance, *Respondent KPG* told of a time when a community-based disaster risk assessment conducted by his municipality ranked crime during disaster incidents as a priority risk while

an expert-led risk assessment, that his municipality had commissioned in parallel, prioritised risks associated with physical harm from flooding and fires. Commenting on prioritisation of criminal elements during disaster incidents such as shack fires and floods being prioritised by the community respondent *KPG* said:

> *"I don't know how it came in... [crime] was a surprise to us, we didn't see that as a hazard. It's an everyday occurrence but they saw it as a hazard, certainly it's a social hazard but it's not really an environmental hazard you know."*

However, the evidence from this study was that residents in *Respondent KPG*'s municipality strongly felt that crime was an issue strongly linked to disaster events. This was illustrated by the following conversation which unfolded in a focus group discussion in this municipality after the researcher had asked participants to share some of the common ideas they exchange in the community on what issues are most important to deal with in relation to disaster risk management:

> ***E:*** *Hey, most of the time people here lose their things to thieves when these fires and floods happen. You take your things and place them outside and while you do that others are stealing them, so there is not much sharing of ideas on how to prevent these disasters.*
>
> ***B:*** *People steal….*
>
> ***E:*** *A lot of people have lost their TVs, there is no unity here. Even beds have been stolen.... there's is nothing we do because when a fire comes and your belongings are burning, you are battling to get water to put out the fire only and there is no time to think of anything else, you are not worried about who is stealing and who is doing what.*

D: *You take your things and put them outside, there is no one you can call on to watch your things because they are also preoccupied with salvaging their belongings. So when you come back you realise some of your things are gone.*

Notwithstanding, a subsequent check on communication interventions implemented in this area revealed that most focused on the risks identified by the expert-led process and none at all addressed the crime issue prioritised by the community. The disaster risk communication managers in this specific instance were therefore pre-occupied with providing information that they deemed important for communities but that did not necessarily relate to the challenges prioritised by the community in their particular context.

The inability to focus on responding to expressed community information needs militates against successful communication interventions even where efforts are made to encourage interaction between disaster managers and the communities. Respondent *KPC* commented:

"We go out and we engage with the community, we use any open space we can find in the community and then we talk to them, we engage with them, but then we felt that maybe it's not really working, the community is not really interested. It's a bit challenging for us because though they are faced with these hazards every year, to them it's not important because they have the mechanisms to cope with it… you know, they get flooded but they survive. There are other concerns for them… like the social stuff like crime, like housing issues. They are more concerned about other things… So when we come and raise awareness about the hazards that they are faced with it's really challenging because they are not really interested".

Respondent KPC fully illustrated what can happen when disaster risk managers base the content of their interventions on issues unrelated to community priorities:

"I can just give you an example, we had a community session where we called the community and they all [came] and we spoke about the pamphlet. [Yet] when we left all the pamphlets were lying on the ground!"

Discussants in focus groups noted that, although communication approaches such as radio and television broadcasts, and loud hailing that are commonly used by disaster risk managers are critical for delivering information on risks to the wider community and setting an agenda for discussion of risks within the community, the municipality needed to ensure that for each particular context there is an effort to promote sharing of information through channels and on platforms in which they naturally share ideas, discuss issues that affect them and devise common solutions to their lived challenges. Discussants emphasised that naturally occurring communicative contexts should therefore be used in conjunction with broadcast methods in disaster risk communication campaigns. The use of participatory communication methods in spaces in which people naturally gather was particularly encouraged. Discussants in Dunoon (discussion 1) encouraged the municipality to integrate lessons on risk avoidance into dance events that occur regularly in their community rather than communicate by way of loud-hailing. *Discussant G* stated:

"There are so many ways the municipality could reach us if they wanted, say on Saturdays where there are some dance events here, or through the [local community advice office] which we normally visit to get information on various issues... Of course they can use loudspeakers, but we only hear those loudspeakers when there is a [political party] meeting, never on developmental issues."

This sentiment was echoed across all study sites where the communities felt that the channels and platforms of communication and engagement employed by the municipalities were inaccessible, not visible or not anchored within their context. Repeated group discussions in Thembalethu, George, revealed that discussants commonly viewed the

municipality as largely divorced from the conditions in which they live. As had been expressed by discussants in Dunoon, Cape Town, discussants in Thembalethu also urged their municipality to be more accessible and engage the communities within their own contexts in coming up with solutions on how to avert common risks in the area. Conversation in one group (Thembalethu, discussion 1) unfolded as follows:

> ***D**: ...the municipality must come here into [our area] and see for themselves how we are living here in the shacks. Because we have flood waters coming in, they must come and speak to us about how we can alleviate this problem, what can we do and how can they help us.*
>
> ***F:** … these people from the disaster department must come before the disaster happens to teach us what we must do to lessen the problems we face here when the rain or fires come. They must tell us how to handle a big flame, how can we even avoid these fires happening in the first place!*
>
> ***A:** ...they must come closer to us.... This municipality doesn't care about us.*

The lack of recognition of people's everyday livelihood responsibilities and the opportunity cost of investing time in learning about disaster risk was also highlighted in discussions as a common problem with interventions that are disconnected from the context in which they are implemented (see also paragraphs 3.4.4). Discussants in Mthonjaneni, uThungulu, (discussion 1) emphasised that they deal with multiple demands for survival on a day to day basis such that it was not always possible to get away from their tasks and make time to listen to radio or watch televised educational messages on risk reduction. Respondents are continually engaged in efforts to limit their vulnerability and susceptibility to poverty and other conditions that limit their ability to be free from want. Discussants therefore emphasised that disaster risk communication interventions should be anchored in their lived routines and brought into contexts where the community can continue with their livelihood tasks while

engaging with disaster risk managers. Additionally, discussants indicated a significant preference for communication interventions that are invested in community building, that are more than just information dissemination but foster feelings of community, encourage social learning and unity of purpose. One discussant noted*:*

> ***A:*** *...the problem is here we don't have time to listen to broadcasts, we seldom just sit and listen to radio; we don't have the time for it. What would work here is to call meetings, get everyone together. Right now we are coming from our gardens and so we don't have time to sit around. So we want people who can come to the gardens and teach us together while we continue with the tasks of fending for our lives.*

5.3.5 Shared power-holding and empowerment

The community structures and communicative spaces used by disaster managers to gain access to the community, such as ward committees, are not always neutral, but often inhabited by social and political powerbrokers who play a major role in shaping the form of engagement that occurs. Data from focus group discussions with members of informally settled communities points to power imbalances in communicative spaces used for disaster risk reduction interventions. For instance, discussants in two focus groups (Gugulethu, Cape Town and Thembalethu, George) demonstrated how undue exertion of political power by politically elected local leaders in ward committees leaves the community feeling disempowered:

> ***C:*** *...we are decided for by the committee all the time, yet we also have ideas and opinions, we don't have to wait for this committee to make decisions for us without consulting us. We should be saying such and such a way would make things better for us in this committee... what I would like to see is a united community, a community where ideas and advice are exchanged, not*

a community where the committees are doing whatever they are doing away from the people …" (in discussion 1, Gugulethu)

B: *The councilor is the only one who can call meetings, but we are like little puppies who stand by the table and put in a word or two or feed off the scraps from the table. The councilor decides who we call [and] where we meet. (in discussion 1, Thembalethu)*

From the above it is evident that political hierarchies and domination of these formal spaces of engagement by community leaders and local political elites have led to a glaring lack of effectiveness in participation in these spaces and the community dialogues they seek to promote [see also and Fourie (2012) and Kabane's (2012) arguments in paragraph 3.4.2].

Hierarchies are also a very visible feature of traditional leadership structures, spaces and processes used by disaster risk managers in their outreach activities, particularly in rural settings. Traditional councils and regular meetings of local traditional leaders with the community, whom they commonly consider their *subjects* and therefore can make decisions for, are often the settings in which disaster risk managers meet with the peri-urban and rural communities. The difficulty with shifting the locus of power in these settings from the traditional leaders, disaster risk managers and experts to the lay members of the community so that interventions are directed and decided on by the community deters the possibility of the process to incubate empowerment of the community. As Nikkhah and Redzuan (2009) have emphasised in their argument laid out in paragraph 3.3.1 on the power-empowerment dialectic, if the locus of power cannot change, if it is inherent in positions or people, then genuine empowerment is neither possible nor conceivable. In the present study it was found that typically, traditional leaders will decide, on the basis of the power vested in their leadership to make far reaching decisions on behalf of the community. Left without avenues to negotiate or challenge decisions made by local leaders, communities feel disempowered

and resigned to bear the burden of decisions made of their behalf. *Discussant D* in a focus group discussion in uThungulu noted:

> *"The problem is that these government [officials] sometimes just go to the chief and the chief agrees to everything without consulting our local committees who would stand for our rights or talk to us to find out if we are happy with what's coming. The chief will just say yes and the next thing these people come [with their intervention] so our committee is not involved in any way. They will just tell the committee [this is what we are bringing] and what can we do? The chief has already agreed."*

Beyond the difficulties posed by these contextual power holding and sharing dynamics in the community, there was also evidence of manipulative practices that retard the internally originating drive and potential for the community to empower themselves through participation in disaster risk communication activities implemented in their localities. A major aim of disaster risk communication is to go beyond merely conveying information about hazards and risks but to motivate and thus empower communities to become involved in risk minimising activities (UNISDR, 2004:284). However, the evidence from the study points to limited success by disaster risk communication practitioners to motivate genuine interest in participation, and subsequent recourse to manipulative practices which shift the balance of power to disaster risk managers and thus pervert the engagement process. Manipulative practices include such tactics as the provision of material incentives to members of the community to ensure that they sit through meetings they are not genuinely interested or motivated to participate in. For instance *Respondent KPC* revealed:

> *"My experience in working with communities is you have to provide an incentive. There must be a way to get them there… it's a lot of unemployed people that we are talking about, people that have got serious issues to deal with… they don't have food, they don't have electricity, so when you come up there and you want to talk about floods, it's not a priority to them. So you have*

to provide an incentive, even if it's a meal… [or] a water bottle; we found that even if we give them a water bottle, or a pen or something… some marketing item, they would then sit and listen [to] us."

The provision of any sort of material incentives to needy people, including sundries that have no practical use in people's lived conditions in the manner described by *Respondent KPC* above, amounts to renting a crowd, usurping their power and manipulating the participation process. In this way disaster managers define the spaces of engagement and through such manipulative practices exert their power, and wield control over and within these spaces of engagement, all of which is manifestly disempowering and suppresses the internal drive for communities to engage as equals in the interrogation of risks and crafting of solutions.

5.3.6 Participation as an end

From the foregoing discussion in this chapter it emerges, therefore, that participation is not only integral to the achievement of disaster risk communication practice that is anchored within the principles of participatory development communication, but a principle that focus group discussants considered essential to bring about an empowered, engaged and self-assured community with a commitment to lead their own development, take ownership of their destiny and realise their right to a better lived condition. While participation has been applied with a very limited and instrumental scope (for instance in planning as discussed in paragraph 5.3.2, within formal spaces of engagement as outlined in paragraph 5.3.5, or in the learning process in paragraph 5.3.1) and largely as a means to achieve the goals set for and by disaster risk management units in the municipalities studied, communities expressed a desire for a deeper form of participation. Existing forms of participation, which are currently seen as a means to achieve disasters risk managers' goals within the study areas, were largely perceived as inadequate by discussants and framed through sentiments such as:

"*the municipality's community engagement is just to hoodwink us"* – in Gugulethu *(discussion 3)*

"*the municipality is not concerned about us" – Dunoon (discussion 1)*

"*they do not speak to us at all" – Gugulethu (discussion 1)*

"*they must come closer to us.... This municipality doesn't care about us" – Thembalethu (discussion 1)*

The desire expressed within communities, as expressed in paragraphs 5.3.1 to 5.3.5, was for a deeper and more fulfilling form of participation that not only enables communities to understand existing disaster risks and to act to limit them, but a participation that enables communities to speak and be heard, and to engage development facilitators as equals, to participate within local political spaces as full citizens, and claim their right to lead in their development in general. It is this realisation, which emerges from the findings of this study, which gives credence and evidence to the necessity of participation as an end in itself not only in disaster risk communication interventions but in development as a whole.

5.4 PERSPECTIVES FROM OTHER ROLE PLAYERS

While municipalities are the mandated authorities in the delivery of disaster risk communication, there exists, in many municipalities, a number of other disaster risk management role-players whose activities intersect with and/or complement those of the municipalities. These role-players include nongovernmental organisations, community-based organisations, faith-based organisations and other loosely held associations of community members. Interviews with these other role-players (*Respondents MSS, KBB, KDT, GMN & KSF*) identified as key informants within the study areas, were used to gather general

perspectives that would help triangulate findings from interviews with municipal disaster risk managers and focus group discussions with members of at-risk communities. Interviews with experts and practitioners from these organisations revealed that, on the whole, they did not believe that municipalities were delivering their disaster risk communication mandate effectively. While the efforts of municipalities were acknowledged it was noted that delivery is neither constant nor consistent, with some areas severely underserved while in some areas interventions are ongoing but implemented in ineffective ways. *Respondent GMN* said while there is some presence of disaster risk reduction interventions in George, municipal officials only visit sporadically and their interventions are inadequate and inconsistent:

> *"Yes, they will come to the communities, they come to the main halls, they call for meetings via loud speakers, their cars go around the whole community inviting people to the meetings… and telling people what the discussions are going to be about. But you find out that even if they say things in the right way, they don't deliver. They mention the right things and they promise people that we will bring money, we will bring this and that, we will try and protect people and provide assistance if your house burns or in times of flooding, but come time to deliver…. you'll never see them, you see them after 8 or 9 months or even after a year. Yes, it's very bad, they come with promises, they do the talking but they don't deliver; if they deliver its only 10 percent of what they promised".*

The perception shared by *Respondent GMN* that disaster risk communication initiatives are inconsistent was echoed in a focus group discussion in Dunoon where the conversation unfolded as follows:

> ***D:*** *...yes, they come and move from door to door and leave pamphlets…*
>
> ***E:*** *They once called us to the community hall...*

B: *When was that?*

E: *Some years ago.. and they taught us about fires*

F: *Yes, yes… I remember the one at the community hall, they taught us about the dangers of fire, what causes fire and what we must do when there is a fire or when a person has been burned. Also what causes fires to spread and that children must not play with open flames, yes they did such a programme.*

B: *well, for me I've never seen these people, I have no idea what they are said to be teaching people*

Similarly in uThungulu *Respondent MSS* said, although there were disaster risk management units and personnel assigned to that function in the district, she had little knowledge of disaster risk communication interventions implemented by these units, saying:

> *"I have never heard of anyone from the district level or any local municipalities that are working with communities except in [a neighbouring municipality] where there is a group called Working on Fire [which] conduct workshops and awareness campaigns on natural hazards in the communities".*

Regarding the conduct of disaster risk communication interventions in the study area of Dunoon, Cape Town, *Respondent KDT* noted some of the same challenges that *Respondents GMN and MSS,* as well as focus group discussants, had highlighted, specifically the inadequacy of existing interventions and ineffective modes of engagement with communities. He commented:

> *"[There is] no education, no awareness, no door-to-door awareness raising as [there] is supposed to be. And I think door-to-door communication activities would be vital to this area because once the climate or season changes,*

when it's windy, for instance, there will definitely be fires occurring in the area. So we don't want to see our community being victims of disasters of that nature [and] the municipality can [ensure that]; but we feel that this community has been excluded in many things"

With regards to forms of engagement between the municipal authorities and communities, respondents observed that municipalities needed to understand the local context well first, to be able to engage effectively with communities. *Respondent KBB* cautioned against the practice by municipalities to engage with every community through the ward based model stating that:

"Each community is slightly different and although the basic model is that you have a community leadership, they might call it a community development forum or task team or crisis committee, different communities have not exactly the same structure."

Respondent KDT advised that, in order for municipalities to engage appropriately with communities, they needed to manage their entry into communities with care and sensitivity to local context and political sentiment. He added that, for instance, as a locally situated organisation they were best placed to advise the municipality on how to engage with the fluid power centres and forms of organising that exist in the local community, going on to say:

"I think the best mechanism would be for them to approach us as a community based organisation because we know the community... we are connected. We know the leadership, we know the stakeholders around, even the church members... we do have channels to the leadership. Although there is a new leadership and the old leadership... we know the political dynamics in the area."

Respondent *MSS* noted that, for the disaster risk reduction messages to reach people in the community, the municipality needed to tap into existing networks and work with members of the community who are active in these networks. Identifying home based care community workers as a typical example, the respondent noted that such social agents have established trust with the community and are given unique access into homes of residents in the community. If these agents are incorporated into disaster risk communication campaigns, it would enhance the reach of the risk reduction message and prepare the ground for municipal functionaries to enter communities with full-fledged interventions. This notion had also been expressed in a focus group discussion in Dunoon, Cape Town, where in response to a question to explore appropriate ways in which the municipal disaster risk managers could engage with communities, respondents had noted:

> ***B:*** *Well the municipality needs to bring their own people into the community, to explain to us on these issues. They can work with people in this community who can help them to communicate with us on these issues.*

> ***F:*** *You see there are ways, for instance on HIV, we had peer educators and home based care programmes that would come to homes and schools and teach on HIV and AIDS; but here in the community there are never meetings calling people to teach on anything. Not here in Dunoon.*

5.5 CONCLUSION

Chapter 5 has presented the findings of the empirical study into the contemporary practice of disaster risk communication in Cape Town, George and the uThungulu District. The findings have been analysed to establish how the existing practice of disaster risk communication in the study areas fares against theoretical assumptions of participatory development communication established in Chapters two and three, and advanced in Chapter 3 as being applicable to a likely conceptual framework for disaster risk participatory communication.

Analysis of data gathered in interviews with municipal officials responsible for the conduct of disaster risk communication has been presented alongside findings from focus group discussions that sought to establish the perceptions of at-risk communities in the study areas of the disaster risk reduction communication interventions implemented in their locality to enable a comparative analysis of perspectives. Perspectives of other role players have also been briefly described and analysed to triangulate findings.

Notwithstanding efforts by the respective municipalities to deliver effective communication interventions, it has emerged that the contemporary practice of disaster risk communication in the study areas faces a host of challenges, and falls significantly short of the fundamentals of participatory practice within which it has been argued in the theory that it must be anchored.

While disaster risk managers recognised the ultimate utility of disaster risk communication to be inherent in its value as a vehicle through which they could educate at-risk communities about the risks they face, the investigation established that the manner in which interventions have been implemented, and the learning process facilitated, falls short of the expected participatory practise as established within the principle of a liberating pedagogy, put forward as applicable to disaster risk communication. The learning process was primarily found to be based on conservative conceptions of pedagogy which privilege the disaster risk manager as the holder of all useful knowledge while learners, or the community, are cast simply as recipients of knowledge. The establishment of an ‘all-knowing expert’/‘un-knowing community’ dichotomy during community engagements was shown to limit the potency of the pedagogical interaction. The resulting interaction was found to limit the potential for participants to emerge from the learning experience as a fully empowered community, able to interrogate its existing challenges and craft appropriate solutions alongside disaster professionals, and act on gained knowledge to limit the risks they face in the locality.

Engagement between municipal disaster risk managers and communities was shown to be decidedly non-dialogical. While interview responses from municipal disaster risk managers showed that their practice is mostly based on unidirectional efforts to deliver messages of risk and behaviours they would like to promote among communities, discussants from the community expressed frustration at neither being listened to by municipal officials nor being given the opportunity to engage disaster risk managers in contexts that are suitable to establishing a dialogue. It was argued, therefore, that there exists little opportunity for communities to voice their concerns and priorities and be able to influence how municipalities deliver on their disaster risk reduction mandate.

The inability to anchor disaster risk communication interventions in context was argued to be a huge barrier to effective engagement and the implementation of successful interventions. It was shown that, without giving due regard to context, municipalities delivered interventions that were not fit for purpose and were characterised by a disconnect between what they prioritised and what the urgent needs of communities were. In addition, municipalities used communicative methods, channels, contexts and spaces that were largely limited, inaccessible or not preferred by the communities as platforms for exchanging ideas and debating solutions to their lived challenges.

A major shortcoming was the preponderance by the respective municipalities to use communicative contexts that were inhabited by social and political powerbrokers who play a major role in shaping the form of engagement that occurs in those contexts. It was argued that undue exertion of power within these communicative spaces by local elites, and disaster risk mangers themselves, distorted participation in these contexts and ultimately disempowered lay members of the community. Communities were thus severely limited in their ability to shape conversation or contribute to outcomes of any disaster risk communication planning or implementation of initiatives. Democratic deficits in these spaces resulted in the exclusion of some voices, domination of process by the municipal officials or

local political power brokers and thus ultimately perversion of the communication intervention.

While disaster risk managers endeavoured to put participation at the core of their work, observed forms of participation within disaster risk communication interventions in the study areas were very limited in scope and shallow in depth. Communities, thus, called for deeper involvement through participatory practice that puts them at the centre of interventions and in ways that will deliver a more empowered community in all aspects of their being and not simply the deployment of participation as a means to achieve narrow disaster risk reduction goals.

On the basis of the literature and empirical investigations, and corresponding analyses carried out in this study, the next chapter proposes a conceptual framework for disaster risk participatory communication for at-risk communities in South African municipalities.

Chapter 6 : A CONCEPTUAL FRAMEWORK FOR DISASTER RISK PARTICIPATORY COMMUNICATION

6.1 INTRODUCTION

This chapter proposes a conceptual framework for disaster risk participatory communication for at-risk communities in South African municipalities. A conceptual framework may be defined as a network, or "a plane," of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena (Jabareen, 2009). According to Miles and Huberman (1994:440), a conceptual framework "lays out the key factors, constructs, or variables [of the phenomena under study], and presumes relationships among them."

6.2 THE CONCEPTUAL FRAMEWORK

The proposed conceptual framework is derived from constructs emerging from the key findings of the literature and empirical investigations presented in the preceding chapters.

The study was conceived to investigate and propose a conceptual framework for the reorientation of the thinking and practice of disaster risk communication with the recognition that disaster risk communication interventions are not carried out in a vacuum, but in an environment where operational parameters and definitional issues are circumscribed by an existing framework of policies. To establish the defining features of this policy milieu within which disaster risk communication interventions are conceptualised, developed and implemented by disaster risk managers and show how the policy environment, specific provisions for delivery of disaster risk communication and conceptions of communication

within the policy frameworks translate into contemporary practice, the study sought out to establish:

1. *What global, regional, national and local frameworks exist and provide for the implementation of disaster risk public communication activities by municipalities in South Africa?*

The global, regional, national and local policy frameworks constitute a critical part of the context within which disaster risk communication activities are implemented. The Constitution of South Africa provides for the enjoyment of a safe and healthy environment by all (Section 152). In addition, the Constitution provides for inclusive governance and participation of communities in local government where the mandate for development planning, generally, and disaster risk reduction planning, specifically, lie. The Constitutional commitment is buttressed by an assortment of other legislation among which some, for instance the Municipal Systems Act (32 of 2000) and the Municipal Structures Act (117 of 1998), provide a supportive environment, while some, such as the Disaster Management Act 57 of 2002 and its corollary, the South African National Disaster Management Framework (NDMF), specifically provide for communication interventions aimed at the reduction of disaster risks among communities. The conception that communication interventions serve a critical role in aid of disaster risk reduction efforts derives, and benefits from adoption by the South African government of an approach to development which perceives communication as the critical enabler that links the continuing processes of social, human and political development (Barker, 2001:4). Specifically, the government of South Africa adopted development communication, and the use of participatory communication methods, as an approach to maintaining dialogue between government departments and its citizens, and to ensure that communities participate in planning and implementation of their development as equals with development facilitators. This approach recognises and values participation for its intrinsic value (GCIS, 2000b).

South Africa is also party to regional, continental and global frameworks that, similarly to its national Disaster Management Act and the NDMF, provide frameworks for policy and institutional architecture for ensuring disaster risk reduction and the implementation of disaster risk public communication activities therein. These policy frameworks include the SADC Draft Regional Multi-Sectoral Disaster Management Strategy (2001), The Africa Regional Strategy for Disaster Risk Reduction, and The Hyogo Framework for Action – a global blueprint for disaster risk reduction efforts during the decade 2005-2015, all of which identify and provide for the implementation of communication strategies as a critical element of national and local level disaster risk reduction responses.

Whereas the study established a generally adequate policy environment for the implementation of disaster risk communication within South African municipalities, analysis of the conception of communication propagated within policy revealed a limited definition, which consequently was observed to translate into an inadequate conception and implementation of communication as the basis of interventions for disaster risk reduction. The literature study, consequently, established that a participatory critique of the dominant expert-centric, unidirectional conception and practice of disaster risk communication has arisen primarily on the back of the success of the participatory turn in development practice over the past few decades, see section 2.6. Therefore, having situated the critique of the dominant conception and practice of disaster risk communication within participatory development thinking, the study proceeded to consider the following question:

2. *What principles of the participatory approach to development communication could be applicable to a framework for disaster risk communication interventions?*

Six core principles of the participatory development communication approach, comprising those identified by deduction through the literature study and some identified by induction as

the empirical study proceeded, were identified as being particularly applicable to a possible conceptual framework for disaster risk communication interventions. These are:

- *Empowerment and shared power holding* whereby the defining outcome of disaster risk communication is understood to be the facilitation of shared power-holding between the various powerbrokers within the community and between disaster risk managers and the community, and the emergence of motivated and *empowered* communities, able to interrogate the risks they face and define solutions alongside disaster risk managers;
- A *liberating pedagogy,* whereby the learning relationship between disaster risk managers and communities is marked by equality, recognition of each other as significant others with valuable knowledge to share and the emergence of an enlightened community who are able to interrogate their lived challenges and through enacting the knowledge they gain can free themselves from the constraints of their lived realities;
- *Dialogue* as an essential characteristic of the manner in which disaster risk managers and communities engage, and critical to effective engagement and the maintenance of an effective learning relationship between disaster managers and communities in the formulation and implementation of disaster risk participatory communication interventions;
- Fully *democratic, egalitarian and inclusive* process as central to the practice of disaster risk communication to ensure co-determination of the engagement agenda, objectives of interaction and content of the disaster risk communication endeavour by both disaster risk managers and communities, inclusion of the voices of the marginalised and minorities in the mainstream, and an active role in decision-making processes for all.
- *Embeddedness in local context*, whereby disaster risk communication interventions are anchored in, and respond to local economic, social, political and cultural needs

and realities, and communication interventions are embedded in everyday community practices; and

- *Participation as an end,* whereby participation is implemented in so far as it is a process in which people are directly involved in shaping, deciding, and taking part in the development process from the bottom-up, and participation is not solely focused and implemented in order to meet the goals of the disaster risk reduction project, but is implemented as a process for achieving greater individual fulfilment, personal development, and self and collective-awareness of challenges and a desired future being for self and the community.

Having put forward these salient theoretical hallmarks of participatory development communication considered to be applicable to disaster risk communication, the empirical study and analysis of findings thereof were carried out to consider the following two questions:

3. *How do existing disaster risk communication activities in the Cape Town, George and uThungulu municipalities fare against the established salient theoretical principles for the practice of participatory development communication interventions,*

   and

4. *What are the perceptions of at-risk communities in the Cape Town, George and uThungulu municipal areas of the disaster risk reduction communication interventions implemented in their locality?*

Whereas disaster risk managers showed an understanding of their role as facilitators of the learning process in disaster risk communication interventions, the process itself was found to

be marked by an unequal ‘all-knowing expert’/‘un-knowing community’ dichotomy in which disaster risk managers as the ‘all-knowing experts’ seldom accorded communities the recognition as holders of critical experiential knowledge that could be integrated into the learning process. The pedagogical interaction was, therefore, one that established a privileged ‘knowledge bearing teacher’ (in this case the disaster risk managers) relative to the ‘unknowing learner’ (in this case the community), with the two related by way of a unidirectional content transfer relationship, from teacher to learner.

Communities generally perceived disaster risk managers as prone to wanting to unilaterally define issues and prescribe solutions to the community’s challenges rather than negotiating solutions with communities. It was felt by communities that where opportunities have been made available for communities to participate in the learning process, it has often been the case that participation is narrow in breadth and shallow in depth, and sometimes done simply to satisfy procedural requirements.

The dominant conception of what constitutes communication was that of a process that is patently non-dialogical. Communication interventions identified by disaster risk managers were often unidirectional and using methods, channels and communicative settings that discount the possibility for feedback from communities. Communities generally felt that municipalities were not committed to dialogue and made very little provision for “listening” or “talking” to them. The design of communication interventions and planning processes also gave little leeway for the expression of community voices, and therefore influence in decision-making.

Contexts and spaces utilised for planning and implementing disaster risk communication interventions were found mostly to be characterised by power-holding imbalances that perverted distorted participation and shaped communication behaviours along power hierarchies. Whereas disaster risk reduction and participatory practice in development in

general requires that democracy and inclusivity be central to the endeavour, communities reported that often there are tensions between power-holders and social champions that disrupt the needed coordination of efforts and sharing of ideas and resources. Inclusivity was observed to be severely curtailed as disaster risk managers exhibited tendencies towards exclusion of marginalised communities from their core mandate, while communities reported that communication interventions seldom made allowances for catering to the language diversity within the community.

Disaster risk communication interventions were found to sometimes be characterised by a disjuncture between the main messages of the intervention and the needs of the communities. While communities are engaged in daily efforts to limit their vulnerability and susceptibility to poverty and other livelihoods limitations interventions were reported to be incongruent with the onerous demands communities have on their time. While broadcast methods were considered crucial by both managers and the community for reaching a critical mass of people with crucial disaster risk reduction messages, communities decried the inability of disaster risk managers to employ participatory communication methods, embedded in the local social, political and cultural context for ensuring exchange of ideas at the interpersonal level and within naturally occurring groups in the community. Municipal disaster risk managers were urged to integrate communication interventions in commonly occurring natural communicative spaces within the community and in so doing also ensure that communication interventions invest in community building, foster feelings of community, and encourage social learning and unity of purpose. Communities across the study sites generally urged municipalities to be more visible and engage with communities in contexts in which they can relate to each other and discuss challenges and risk response options in close settings.

A leading objective of disaster risk communication was established as being to go beyond information dissemination, and to contribute to an empowered community with motivation to

participate in the intervention and act on knowledge gained. However, the evidence showed limited success in this regard and common recourse to manipulative practice to ensure that people gather in what mostly are consultation gatherings rather than genuine participation of the community in the planning and implementation of disaster risk communication processes. Manipulative practices such as provision of material sundries or food as encouragement for the community to gather for consultation engagements inevitably pervert the participation process, strip away the dignity of participants and result in a disempowered community. Undue exertion of power by disaster risk managers, political elites and other local leaders in communicative spaces was found to disempower the lay participants in the communication process.

Lastly, while participation and communication were found to have been applied narrowly and in shallow ways by disaster risk managers and largely as a means to achieve set goals, communities expressed a desire for deeper and more fulfilling forms of participation and communication in disaster risk reduction interventions. Communities therefore saw and demanded beyond the dominant conception of participation and communication as means for achieving narrow disaster reduction targets; they argued for participation and communication as ends in themselves, and as the epitome of claiming their rights to lives free from constraint.

The perspectives and perceptions of disaster risk managers and informally settled communities were triangulated with findings from interviews with other key role-players in the study areas. Given that the key role-players were selected on basis of having worked closely with municipal disaster risk management units and with the communities in disaster risk communication interventions, their perspectives were used in part to establish the trustworthiness of the findings of the study (see section 4.11). From the key findings presented above, constructs were derived, which together map out the proposed conceptual framework presented in Fig 6.1 below and elaborated in section 6.3.

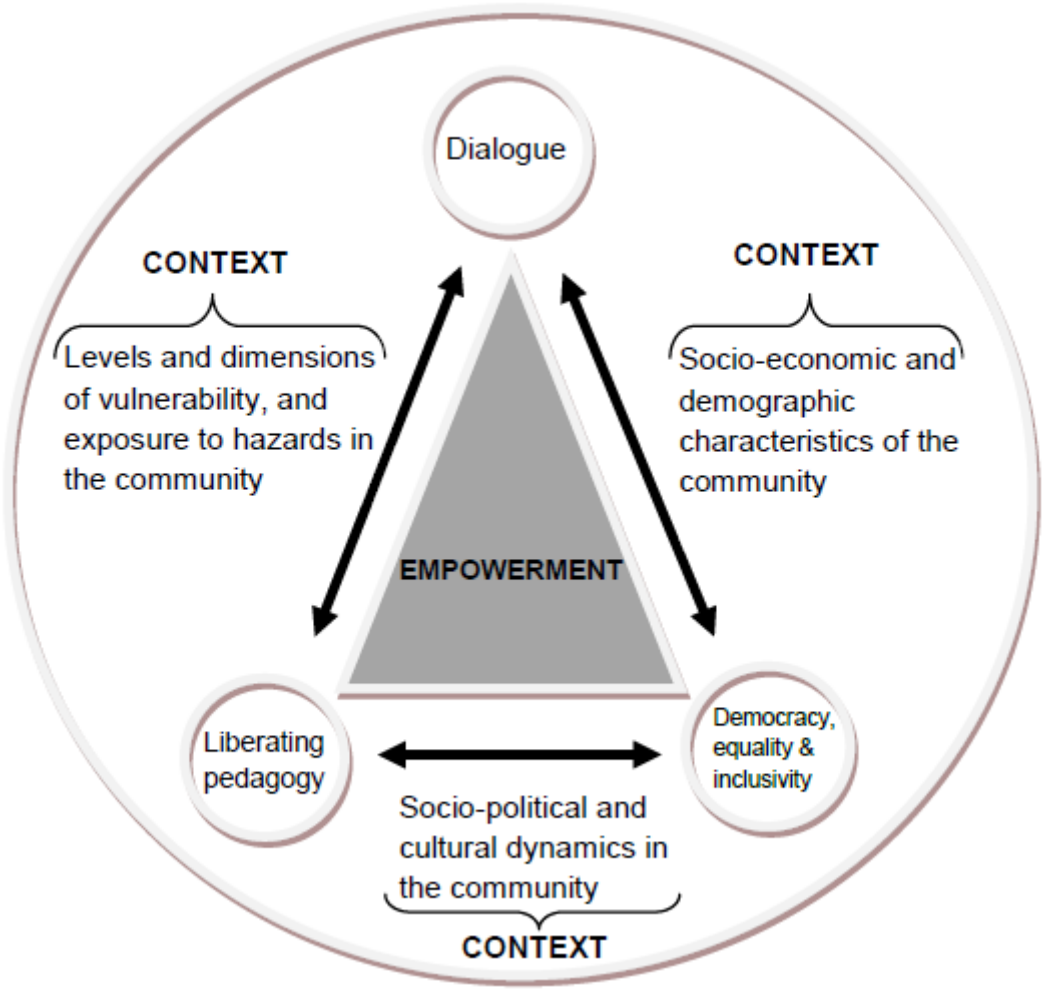


Figure 6.1 A conceptual framework for disaster risk participatory communication

6.3 THE KEY CONSTRUCTS

The key constructs that make up the proposed conceptual framework for disaster risk participatory communication (Fig 6.1) are elaborated below:

1. **Pedagogy marked by equality is a central aim of disaster risk communication practice.**

Without knowledge about measures that can be taken to mitigate and prepare for potential disaster, communities are not able to mobilise to protect themselves from losses and harm.

Disaster risk communication is therefore an endeavour aimed at equipping communities with the knowledge resources they need to reduce risk to disaster; it is essentially a learning enterprise. It is, however, critical to note that, while the disaster risk managers may approach the learning process with more scientific knowledge of the problem, they must be prepared to learn just as much from the problem inquisition as does the community. Marginalised communities, and particularly those in informally settled areas, live with the daily threat of disaster. Not only are they engaged in an on-going exchange of ideas among themselves on their lived condition and what would entail an appropriate response to each threat, but over time they build up a repository of knowledge that relates to their specific condition and capacities to meet the challenges they face. Communities therefore have important knowledge resources to bring to the learning process, as does the disaster risk manager. The disaster risk communication endeavour must, therefore, be one that accords equal respect and status to the experiences, worldview and interpretations of the at-risk community as it does to the scientific knowledge of the disaster risk manager. It is essential that the learning process that defines the disaster risk participatory communication process be based on equality, respect and trust of the other not to seek to impose their interpretations of the problem. It must bolster in the community the confidence to deploy their repertoire of experience, knowledge and skills towards collective inquisition of the problem, negotiated understandings of the phenomena under investigation and the collective development solutions. Lastly, learning without putting to action learned knowledge would render the learning exercise futile. The pedagogy of disaster risk communication is therefore one that should be marked by praxis, wherein learned knowledge is actioned towards reduction of risk and results are used to guide the process and content of future learning interactions.

2. Disaster risk communication interventions must be embedded in local context.

Efforts towards the management of disaster risk through communication will benefit immensely from being informed by, and embedded in the local political, social, economic, cultural and environmental (including vulnerability and exposure to hazards) context within

which communities live and will be expected to exercise identified solutions. Effective interventions are those that will address the socio-economic and political undergirding of the community's vulnerability to hazards rather than simply discuss the hazards themselves or attempt to persuade people to adopt certain behaviours. Disaster risk communication interventions in informally settled areas must be sensitive and flexible enough to respond to and be integrated into the modes of societal organisation and relationships between people and the ways in which the community engages with social, economic, cultural and political processes. Interventions need to be seen as part of a range of developmental endeavours and should therefore complement, catalyse or consolidate the processes and outcomes of other initiatives in the locality. It is essential therefore that disaster risk communication interventions are implemented within the context of local development policy and be anchored in the risk reduction paradigm that ensures that communication becomes the process by which communities' capacity to limit risk rather than evade hazards is strengthened. Decisions on communication methods to be used in interventions must be informed by the ways and platforms on which the community naturally seek information and exchange ideas within that locality.

3. **The practice of disaster risk communication must be based on fully democratic, egalitarian and inclusive process.**

Democratic process, equality and inclusivity are desirable values in their own right and instrumental to achieving a sense of self-worth and responsible citizenship. A fully democratic, egalitarian and inclusive practice in participation, which ensures involvement of communities and disaster risk managers in all phases of communication interventions, enhances ownership of process and outcomes, and fosters stronger commitment to common action. Processes and spaces in which disaster risk communication activities are implemented must therefore encourage acknowledgement and acceptance of vertical and horizontal differences and accord all participants, including marginalised minorities, the chance to influence the process and decision-making. Democratic process, inclusivity and

participation are ideals that must also apply to the contexts, spaces and methods of disaster risk communication, wherein the contexts, spaces and methods selected must be those that allow for horizontal and co-equal engagement between disaster risk managers and communities in determining the content and processes of communication. Similarly, when in use, the contexts, spaces and methods must foster horizontal flows of information and inclusive engagement of the different actors in the communication enterprise.

4. **Dialogue is essential to effective formulation and implementation of disaster risk participatory communication.**

The ability to foster dialogical and relational interaction between disaster risk managers and communities is a defining feature of disaster risk participatory communication. Dialogue is the medium or currency that allows for unfettered participation. It supports the existence of the dynamic equilibrium that allows the interaction between disaster risk managers and the community to continue as the locus of power continually shifts during the interchange of sender/receiver roles in the communicative process. Dialogue prevents exclusion of the weaker and marginalised members of society and ensures that they are accorded an opportunity to voice their concerns, articulate their aspirations and contribute to interrogation of problems, crafting of solutions and adoption of decisions. It is therefore essential in establishing and maintaining commitment to collective action.

5. **The defining outcome of disaster risk communication is the emergence of empowered communities through a process facilitated by shared power-holding between the various stakeholders and role-players.**

The defining feature of genuine participation is that ordinary people must transition from being recipients of assistance to having the power and means to shape their own context and direct their own development. This comes about through a renegotiation of power-holding with disaster risk managers in whom the power is vested by law which accords them the means to control not only the spaces of engagement and the composition of participants

within them, but also the agenda for engagement and the deployment of resources meant for the community. The necessary renegotiation of power is only possible where disaster risk managers are prepared to lose some of their control in the processes behind the formulation and delivery of disaster risk communication interventions. Renegotiation of power is also essential in communicative spaces that occur within the communities and are often characterised by unequal power-holding between local political elites, community leaders and lay community members.

Effective disaster risk communication endeavours bind communities together, and build individual and collective confidence, skills and capacity to cooperate. They awaken and stimulate a commitment to critical appraisal of the lived condition, and participation in problem inquisition and solution finding among the community. The result of effective disaster risk communication therefore becomes the emergence of a community and disaster risk manager who possess a wider array of skills and competences, self-worth, confidence and the conviction that they can transform their lived reality through individual and collective action.

6. Participation as an *end*

Participation is not only integral to the achievement of a disaster risk communication practice that is anchored within the principles of participatory development communication, but a principle that is essential to bring about an empowered, engaged and self-assured community with a commitment to lead their own development, take ownership of their destiny and realise their right to a better lived condition. While participation has often been applied in limited ways, involving local actors and institutions as the 'last mile' of the necessary linkages to achieve the goals set for and by disaster risk management units in the municipalities studied, the value of participation emerges from this investigation to be much deeper than that hitherto accorded it. Participation not only enables communities to understand existing disaster risks and act to limit them, but critically also enables

communities to speak and be heard, and to engage development facilitators as equals, to participate within local political spaces as full citizens, and claim their right to lead in their development. The opportunity to participate, therefore, accords communities the assurance that they can claim their rights to lives free from constraint.

6.4 APPLYING THE CONCEPTUAL FRAMEWORK IN PRACTICE

As outlined in section 1.8, this study was conceived with the aim of providing conceptual guidance for the reorientation of thinking and improvement of the on-the-ground practice of disaster risk communication in South African municipalities. While the conceptual framework presented in sections 6.2 and 6.3 above proposes core principles to guide thinking underpinning the disaster risk communication in South African municipalities, further practical guidance is required to translate the conceptual framework into improved on-the-ground practice. Table 6.1 therefore offers guidance notes for the practical application of the proposed conceptual framework by municipal disaster risk communication practitioners and other role players responsible for delivering communication interventions within at-risk communities in South Africa.

Table 6-1 Applying the conceptual framework for disaster risk participatory communication in practice

Construct	Application
Pedagogy marked by equality is a central aim of disaster risk communication practice.	• Disaster risk communication interventions must foster a learning process through which disaster risk managers and communities exchange ideas and experiences, and mutually interrogate problems, craft solutions and jointly reflect on results. • Communities and disaster managers must continually engage to discuss issues that shape vulnerability to disaster and what actions communities can implement autonomously and in collaboration with disaster managers to limit risk of disaster related livelihood losses. • Disaster risk communication must build on knowledge within the community and create opportunities for continued learning. • Disaster risk managers play a role in catalysing the learning process but communities and disaster risk managers are equals in the learning process and must jointly define the agenda for learning, disaster risk priorities to be tackled and approaches to engagement. • Communication interventions must respond to knowledge gaps and information needs within the community. • The engagement process must engender reduction of social distance between disaster risk communication managers and all participants for the duration of the disaster risk communication intervention. • The relationship between municipal authorities and communities, as well as structures of community leadership, must be based on mutual trust, empathy for the condition and aspirations of the other, and belief in each other's capability to lead in their own development. • Engagement between the community and disaster risk managers must be based on sensitivity to the each other's perceptions of self and the other.
Disaster risk communication interventions must be embedded in local context.	• Disaster risk communication interventions derive their legitimacy from existing policy frameworks and their suitability to the social, economic, cultural, political and environmental (vulnerability and exposure to hazards) context within which the communities reside • The agenda for action must respond to the developmental demands and priorities of communities. • Disaster risk communication interventions are best implemented within naturally occurring settings of community engagement. • Communication methods and platforms used must be selected jointly by disaster risk managers and communities, and be those that members of the community naturally participate in.

	• Decisions on communication methods to use must be guided by accessibility of language used, competence of communities to engage through the chosen methods, affordability and suitability to social, economic, environmental and cultural settings. • Existing networks of knowledge and information exchange must be incorporated into risk communication designs and strategies. • Municipality structures responsible for disaster risk must be present within at risk community and be easily accessible to members of the community.
The practice of disaster risk communication must be based on fully democratic, egalitarian and inclusive process.	• All planning, implementation and evaluative processes must involve stakeholders that are representative of all segments of the community, making sure to include minority groups. • All structures of local leadership at the community level must be given equal access to processes, spaces and resources used in planning and implementation of disaster risk communication interventions • There must be unfettered access to communicative spaces for all members of the community, with respect for differences and otherness. • All stages of interventions must be led jointly by community representatives and disaster risk managers and conducted in a manner that accords equal decision making power to all participants. • Planning and reporting processes must be carried out within community settings and in languages that communities understand and can competently participate in. • Planning processes must allow for draft plans to be presented and analysed by as many members of the community as possible, and allow for their feedback to inform subsequent revisions of the plan. • Final drafts of the plan must be made available to the community for interrogation and adoption for implementation after thorough and fully participatory multi-stakeholder debate. • Spaces of engagement should foster equality and eliminate vertical and horizontal power asymmetries. • Decisions on content and physical form of communication methods must be made jointly.
Dialogue is essential to effective formulation and implementation of disaster risk participatory communication.	• The communicative process must be characterised by interchange of sender/receiver roles in which the community and disaster risk managers take turns in speaking, listening and leading the engagement process. • Different methods of communication, including face-to-face and small group approaches, should be employed in an integrated and complementary manner.

	• Communication methods must allow for joint creation and exchange of messages by communities and disaster risk managers.
The defining outcome of disaster risk communication is the emergence of empowered communities through a process facilitated by shared power-holding between the various stakeholders and role-players.	• Communities should be accorded as much power to influence decisions as the disaster risk managers possess. • Disaster risk communication interventions must motivate communities to action learned ideas. • Disaster risk communication interventions must foster a sense of solidarity, belonging and collective action. • Communities must voluntarily occupy spaces of learning without coercion from disaster risk managers or local leaders. • Engagement spaces must be jointly convened by communities, local leaders and disaster risk managers to avoid one group imposing power over deliberations and decision taken. • All spaces and forms of engagement used by the community must be accorded equal status as legitimate spaces of engagement between the community and disaster risk managers.
Participation as an end	• All stages of disaster risk communication interventions must be based on fully participatory practice as an end in itself. • Modes of participation implemented must enable communities to speak and be heard, and to participate within local disaster risk reduction and developmental endeavours as citizens with full rights to direct and lead interventions.

6.5 CONCLUDING REMARKS

> *"Any intervention with the intent of achieving a real and sustainable improvement in the living conditions of people is doomed to failure unless the intended beneficiaries are actively involved in the process. Unless people participate in all phases of an intervention, from problem identification to research and implementation of solutions, the likelihood that sustainable change will occur is slim" (Bessette, 1996)*

The literature study established, among other things, that an adequate legislative framework providing for the involvement of local communities and encouraging meaningful community participation in disaster risk communication exists in South Africa. The commitment to participation in development and efforts to attain such are operationalised in large part by recourse to participatory development communication, considered a critical enabler that links the continuing processes of social, human and political development in South Africa (Barker, 2001:4).

The foregoing discussion has also presented a cogent argument for a turn to participatory practice in disaster risk communication efforts aimed at the attainment of a safe and healthy environment for all in South Africa (see 2.6). The discussion in Chapter 3 expounded on the theoretical principles of the participatory development communication paradigm, showing its relevance, potency and applicability to the contemporary practice of disaster risk communication. It is against these salient principles (summarised in section 3.5) that the empirical findings into the contemporary practice of disaster risk communication in Cape Town, George and uThungulu were analysed, and from that process a conceptual framework for disaster risk participatory communication for at-risk communities in South African municipalities was developed and proposed in the preceding chapter.

Informally settled residents in the Cape Town, George and uThungulu municipalities, like many others in South Africa, face an array of threats to their livelihoods. The most devastating of these are disasters brought on by uncontrolled fires, extreme wet weather and diseases associated with localised flooding. Unplanned and rapid urbanisation exacerbates the problem as municipal authorities battle to provide services against rapidly rising demand. To limit disruptions to livelihoods and debilitating losses of assets, municipalities are implementing disaster risk reduction responses, within which communication interventions are a critical ingredient.

In the absence of adequate infrastructural and other 'hard' responses to disaster, risk communication interventions for information sharing and knowledge building among at-risk communities have gained prominence. However, this study reveals that existing communication interventions are largely inadequate and, in most instances, at variance with the participatory approach adopted by the government of South Africa for local development governance and implementation. Although sufficiently adequate policy guidelines exist for the conceptualisation, formulation and implementation of disaster risk communication interventions that are aligned to the participatory development paradigm adopted by the government and enshrined in the South Africa Constitution, the practice remains littered with distortions and inadequacies. For instance, the study overwhelmingly finds that regardless of the anchoring in policy, disaster risk communication interventions suffer from a practice that largely excludes communities from interventions meant to benefit them.

This study has therefore set out to investigate the possibility of offering a conceptual framework for the reorientation of thinking and improvement of the on-the-ground practice of disaster risk communication, to ensure, among other things, that the practice of disaster risk communication in South Africa places communities at the centre of interventions. To this end the study has succeeded in defining some core principles and a conceptual framework for disaster risk participatory communication (Chapter 6), which, if adopted, will bend the

trajectory of disaster risk communication practice towards effective participatory practice, as required in the law of the country and expected by citizens. In so doing, the study has sought to broaden and deepen the scope and applications of participatory development communication theory to the increasingly critical field of disaster risk reduction in South Africa. The study has also extended to the local context the work started by scholars elsewhere who have investigated applications of participatory development theory to the practice of disaster risk communication in their own contexts.

6.6 RECOMMENDATIONS FOR FURTHER RESEARCH

Being the first study with a focus on the applications of participatory development communication theory to disaster risk management to be completed at this level in South Africa, the study opens up further avenues for research in the same area by other researchers. Some possible investigations might include:

- How does the highly structured culture of management within municipalities impinge on the ability of communication managers to respond with appropriate interventions that make allowances for the fluid nature of political, social and cultural organisation found in informal settlements?
- What networks of knowledge sharing exist in informally settled communities and how could these be integrated into formalised structures of engagement between municipal mangers and the community?
- What internal factors shape the ways in which municipal mangers formulate and deliver on their disaster risk communication mandate?
- To what extent does the preoccupation with awareness raising found in policy shape the practice of disaster risk communication in South African municipalities?
- What levels of participation are appropriate for communication interventions in the different phases of the disaster cycle?

APPENDICES

Appendix 1: Letter of Introduction

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222
Web:http://www.nwu.ac.za

School of Communication Studies
Tel: +2718 2991647
Fax: +2718 2991651

27 February 2012

To whom it may concern

PhD Field work: Mr. T Chagutah

This serves to confirm that Tigere Chagutah is a bona fide PhD student in the School of Communication Studies at the North-West University, Potchefstroom Campus. For his doctoral thesis Mr Chagutah is conducting research into current disaster risk communication practice and perceptions of it among marginalised communities at the three levels of local government in South Africa (Metropolitan, District and Local). In addition to a literature study, he will be conducting interviews with local government officials and focus group discussions with residents of informal settlements in the George Local Municipality, uThungulu District Municipality and Cape Town Metropolitan Municipality.

Mr Chagutah's study aims to propose a framework that could serve as a guide for the implementation of disaster risk communication interventions in informally settled communities affected by recurrent flooding, fire and disease outbreaks in South Africa.

We are therefore approaching you as Mr Chagutah's Supervisors to request your participation in this study. Your cooperation will be greatly appreciated as the above-mentioned field work forms a crucial part of his thesis. After completion of the thesis he would also gladly share his findings with you.

Should you wish to confirm the above information, or raise any concerns you may have, please feel free to contact us at the following details:

Professor Lynnette Fourie, email Lynnette.Fourie@nwu.ac.za or phone +27 (0) 18 299 1647.

Professor Dewald Van Niekerk, email Dewald.VanNiekerk@nwu.ac.za or phone +27 (0)18 299 1634.

Yours sincerely

Prof Lynnette Fourie
School of Communication Studies
Supervisor

Prof. Dewald van Niekerk
Director of the African Centre for Disaster Studies
Co-Supervisor

Appendix 2: Letter of Request for Assistance with Recruitment of FGD Participants

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222
Web: http://www.nwu.ac.za

School of Communication Studies
Tel: +2718 2991647
Fax: +2718 2991651
Email: 21845468@nwu.ac.za

Date _ _ _ _ _ _ _ _

The Manager
Relevant Organisation in Cape Town/ George/ uThungulu
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

REQUEST FOR ASSISTANCE WITH RECRUITMENT OF PARTICIPANTS FOR FOCUS GROUP DISCUSSIONS

Dear Sir/Madam,

My name is Tigere Chagutah. I am currently enrolled for PhD studies in the School of Communication Studies at the North-West University, Potchefstroom Campus. For my thesis I am conducting research into current disaster risk communication practice and perceptions of it among marginalised communities at the three levels of local government in South Africa (Metropolitan, District and Local). In addition to a literature study on the topic I will be conducting interviews with local government officials and focus group discussions with residents of informal settlements in the George Local Municipality, uThungulu District Municipality and Cape Town Metropolitan Municipality.

I am requesting your assistance with recruitment of participants for focus groups in this study. The focus groups are aimed at understanding the perceptions of communities in informally settled areas of the local government's disaster risk communication activities, with a special focus on the participatory nature of the planning and implementation of such activities by the municipality.

A total of 4 groups comprising 6-8 adult participants in each group will be required. Each discussion will take about 90 minutes and we will meet at a place that is convenient to the group but will also be ideal to the conduct of such a focused discussion. I will facilitate the discussion with the aid of an assistant who will audiotape the discussion and transcribe it (typing the conversation out) at a later date. Names of participants and information that may identify them will be kept completely confidential and all features that could identify the participants will be removed from the transcription. The transcription and all information obtained through this discussion will be used only for academic purposes.

Recruited participants will each be asked to read, understand and sign a consent form.

If you would agree to assist in recruitment of participants I would be glad to meet with you to discuss in detail the scheduling, practical and all other logistical requirements for the group discussions.

Please contact me for any further clarification about the study, via email (21845468@nwu.ac.za) or phone +27 (0) 76 060 5643. You may also contact my supervisors at North-West University. My supervisors are Professor Lynnette Fourie, email Lynnette.Fourie@nwu.ac.za or phone +27 (0) 18 299 1647 and Professor Dewald Van Niekerk, email Dewald.VanNiekerk@nwu.ac.za or phone +27 (0)18 299 1634.

I look forward to your favourable response to my request for your participation in this study.

Yours truly,
Tigere Chagutah
Student Number: 21845468

Appendix 3: Focus Group Facilitation Guidelines

A. Introductions

B. Purpose of discussion, guarantee of confidentiality, house rules & signing of consent forms

C. Discussion

1. *Please describe the ways in which the municipality and other stakeholders have been helping you to deal with risks posed by hazards such as fire, floods and diseases that may arise after flooding?*
2. *To what extent have you been involved in the planning and implementation of these measures? In what ways have you made your input?*
3. *Please share some of the communication interventions you are aware of that help the community understand how and in what ways you may be at risk of flood or fire, as well as what you can do to lessen this risk?*
4. *To what extent do the interventions relate specifically to your situation and address issues in your community?*
5. *From who are these interventions and to what extent have you been involved in creating them?*
6. *Please explain how some of the messages and ideas you have gained from the interventions are shared in the community? And what community structures are available for sharing these ideas and messages?*
7. *Which of these ways do you find most helpful and how so?*
8. *In which of these ways are you most able to give your opinions on the intervention and how you could best address the risk to fire, floods and disease?*
9. *Are there any issues concerning existing nature of communication and the relationship between the community and the municipality with regards to risk reduction that you would like to add to the discussion?*

D. Thanks and explanation of process going forward.

Appendix 4: Key Informant Interview Request Letter

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222
Web:http://www.nwu.ac.za

School of Communication Studies
Tel: +2718 2991647
Fax: +2718 2991651

Date _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

The Manager
Disaster Risk Management,
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

REQUEST FOR INTERVIEW

Dear Sir/Madam,
My name is Tigere Chagutah. I am currently enrolled for PhD studies in the School of Communication Studies at the North-West University, Potchefstroom Campus. For my thesis I am conducting research into current disaster risk communication practice and perceptions of it among marginalised communities at the three levels of local government in South Africa (Metropolitan, District and Local). In addition to a literature study on the topic I will be conducting interviews with local government officials and focus group discussions with residents of informal settlements in the George Local Municipality, uThungulu District Municipality and Cape Town Metropolitan Municipality.

I am requesting your participation in this study through an interview during the period ___ to ___, 2012. By taking part in this research study, you will be helping me to understand how much scope there is for the involvement of the community in communication activities aimed at addressing the risk of disaster among communities in your municipal area.

Your interview will take about 60 minutes and we will meet at a place of your choice. I will audiotape the interview and transcribe it at a later date. Your name and information that may identify you will be kept completely confidential and all features that could identify you will be removed from the transcription. The transcription and all information obtained through this interview will be used only for academic purposes.

If you agree to participate, you will be asked to sign a consent form or put on record that your participation is voluntary. You are free to ask to see the transcription of your interview before the interview analysis takes place.

Please contact me for any further clarification about the study or the interview process, via email (21845468@nwu.ac.za) or phone 076 060 5643. You may also contact my supervisors at North-West University:

Professor Lynnette Fourie, email: Lynnette.Fourie@nwu.ac.za or phone 018 299 1647

Professor Dewald Van Niekerk, email: Dewald.VanNiekerk@nwu.ac.za or phone 018 299 1634.

I look forward to your favourable response to my request for your participation in this study.

Yours sincerely,
Tigere Chagutah
Student Number: 21845468

Appendix 5: Key Informant Interview Guidelines

Interview guidelines for interviews with the manager responsible for the disaster risk communication function at each of the 3 study sites

A. Introductions

B. Purpose of the discussion, clarifications, guarantee of confidentiality and signing of consent forms

C. Interview

1. *How would you define your role within the Disaster Risk Management department in the municipality?*
2. *How would you describe the value of communication interventions in disaster risk reduction?*
3. *What is your understanding of what disaster risk communication entails?*
4. *How are your disaster risk communication plans, or if there is no specific disaster risk communication plan, any other municipal plans to address disaster risk problems in your municipal area put together;*
    a. *Who leads the planning process?*
    b. *Who participates in the actual making of plans?*
    c. *In what ways do they make their input?*
5. *How much scope is there for the involvement of the community in the implementation of the municipality's risk communication interventions?*
6. *At what stages of communication interventions and in what ways is the community involved?*
7. *What are some of the community structures you work with in the community for your communication interventions?*
8. *In what ways do you work with these structures?*

9. *Who in the municipality would you say is most vulnerable to disaster risks and have any of your communication interventions involved these groups? If so, how?*
10. *What feedback mechanisms exist for communities to engage with you if there is anything they need to discuss regarding the municipality's disaster risk communication activities?*
11. *How is this feedback used by your department?*
12. *What are the priority disaster risk issues addressed in the communication interventions you have carried out?*
13. *How did you determine what the priority issues should be?*
14. *What are the practical dynamics and challenges that impact on implementation of your communication campaigns?*
15. *Any other comments?*

BIBLIOGRAPHY

Abarquez, I. & Murshed, Z. 2004. Community based disaster risk management: A field practitioner's handbook. Pathumthani: Asian Disaster Preparedness Centre.

Alexander, B., De Milliano, C. & Bahinipati, C.S. 2010. Participation of the most vulnerable in Disaster Risk Reduction and Climate Change Adaptation decision-making and action. (*In* Setiadi, N. Birkmann, J. & Buckle, P., *eds*. Disaster Risk Reduction and Climate Change Adaptation: Case studies from South and South East Asia. SOURCE, No. 14/2010. Bonn: UNU-EHS. p. 54-61).

Altheide, D. 1996. Qualitative media analysis. Thousand Oaks: Sage.

Agunga, R. 1990. Development support communication and popular participation in development projects. *Gazette*, 45(3):137-55.

Arnstein, S. 1969. A ladder of citizen participation. *Journal of the American Planning Association*, 35(4):216-224.

AUC. 2009. Report by the Commission of the African Union of the Second Africa Regional Platform for DRR Consultative Meeting held in Nairobi, Kenya, 5-7 May 2009.

AU/NEPAD. 2004. Africa Regional Strategy for Disaster Risk Reduction. July, 2004. http://www.unisdr.org/files/13093_AFRICAREGIONALDRRSTRATEGYfullPDF.pdf Date of access: 9 May 2009.

Babbie, E. 1992. The practice of social research. London: Wadsworth.

Bahry, M. 2007. The relationship between household livelihood profile and fire and flood-related vulnerability. Cape Town: UCT. (Dissertation – BSc Hons.).

Banda, F. 2003. Community radio broadcasting in Zambia: A policy perspective. Pretoria: UP. (Thesis - PhD).

Baran, P. 1957. The political economy of growth. New York: Monthly Review Press.

Barbour, R.S. & Kitzinger, J. 1999. Introduction: The challenges and promise of focus groups. (*In* Barbour, R.S. & Kitzinger, J., *eds*. Developing Focus Group Research: Politics, theory and practice. London: Sage. p 1-20).

Barclay, J., Haynes, K., Mitchell, T., Solana, C., Teeuw, R., Darnell, A., Crosweller, H., Cole, P., Pyle, D., Lowe, C., Fearnley, C. & Kelman, I. 2008. Framing volcanic risk communication within disaster risk reduction: Finding ways for the social and physical sciences to work together. (*In* Liverman, D., Pereira, C. & Marker, B. Communicating Environmental Geoscience. Geological Society of London, Special Publications No. 305).

Barker, R. 2001. Communication with communities: A South African experience. *Communicatio*, 27(1):3-14

Belsten, L. 1996. Environmental risk communication and community collaboration. (*In* Muir. S. & Veenendall, T., *eds*. Earthtalk. Westport, CT: Praeger. p 27-42).

Benjamin, M.A. 2009. Analysing urban flood risk in low-cost Settlements of George, Western Cape, South Africa: Investigating physical and social dimensions. Pretoria: NDMC.

Bessette, G. 2004. Involving the community: A guide to participatory development communication. Ottawa: International Development Research Centre.

Bessette, G. 1996. Development communication in West and Central Africa: Towards a research and intervention agenda. (*In* Bessette, G. &. Rajasunderam, C.V., *eds*. Participatory development Communication: A West African Agenda. Ottawa: IDRC). http://www.idrc.ca/en/ev-30908-201-1-DO_TOPIC.html Date of access 11 Mar. 2010.

Bolnick, J. & Bradlow, B. 2010. Rather a better shack now than wait twenty years for a formal house: Shack Dwellers International and informal settlement upgrading in South Africa. *Trialog,* 104(1/2010):35-41.

Bowen, G.A. 2007. An analysis of citizen participation in anti-poverty programmes. *Community Development,* 43(1):65-78.

Bradbury-Jones, C., Sambrook, S. & Irvine, F. 2009. The phenomenological focus group: an oxymoron? *Journal of advanced nursing,* 65(3):663-671.

Braun, V. & Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3 (2):77-101.

Burger, M. 1998. Information campaigns and local authorities: A DSC case study. *Communicare*, 17(1):143-159.

Burger, M. 1999. Participatory small-group communication as a medium for information campaigns in KwaZulu-Natal. *Communicatio*, 25(1&2):88-94.

Burton, S. 1998. Contemplating the future of 'development communication' in South Africa today. *Communicare*, 1(1):88-96.

Buys, L.M. 2005. Status of Disaster Management in South Africa. Pretoria: Department of Provincial and Local Government, South Africa.

Cadiz, M.C. 2005. Communication for empowerment. The practice of participatory communication in development. Buenos Aires: CLACSO.

Carmen, R. 1996. Autonomous development. New York: Zed Books.

Catto, N. & Parewick, K. 2008. Hazard and vulnerability assessment and adaptive planning: Mutual and multilateral community-researcher communication, Arctic Canada (*In* Liverman, D., Pereira, C. & Marker, B. Communicating Environmental Geoscience. Geological Society of London, Special Publications No. 305).

Chagutah, T. 2011. Land tenure opportunities for reform. Potchefstroom: USAID/African Centre for Disaster Studies, North-West University.

Chagutah, T. 2009. Towards improved public awareness for climate related disaster risk reduction in South Africa: A participatory development communication perspective. *JÀMBÁ: Journal of Disaster Risk Studies*, 2(2):113-126.

Chitnis, K.S. 2005a. The duality of development: recasting participatory communication for development using structuration theory. *Investigación y Desarrollo*, 13(2).

Chitnis, K.S. 2005b. Communication for empowerment and participatory development: A social model of health in Jamkhed, India. Athens, OH: Ohio University. (Thesis – PhD).

Cissna, K.N. & Anderson, R. 1994. Communication and the ground of dialogue. (*In* Anderson, R., Cissna K.N. & Arnett, R.C., *eds*. The reach of dialogue: Confirmation, voice and community. Cresskill, NJ: Hampton. p. 9-31).

City of Cape Town. 2005. Cape Town Sustainability Report 2005. Cape Town: Environmental Planning Department.

Comfort, L., Wisner, B., Cutter, S., Pulwarty, R., Hewitt, K., Oliver-Smith, A., Wiener, J., Fordham, M., Peacock, W., & Krimgold, F. 1999. Reframing disaster policy: The global evolution of vulnerable communities. *Environmental Hazards,* 1(1999):39-44.

Community Agency for Social Enquiry (CASE). 2012. Enhancing the voices of the poor in urban housing: Durban and Johannesburg. Johannesburg: CASE.

Cornwall, A. 2004. Spaces for transformation? Reflections on issues of power and difference in participation in development. (*In* Hickey, S. & Mohan, G., *eds*. Participation from tyranny to transformation. New York: Zed Books. p 75-91).

Crabtree, B.F. & Miller, W.L., *eds*. 1992. Doing qualitative Research. Newbury Park, CA: Sage.

Croft, R.S. 2004. Communication Theory. www2.eou.edu/~rcroft/MM350/CommModels.pdf Date of access: 22 Jun. 2010.

Cronin, S., Gaylord, D., Charley, D., Alloway, B., Wallez, S. & Esau, J. 2004. Participatory methods of incorporating scientific with traditional knowledge for volcanic hazard management on Ambae Island, Vanuatu. *Bulletin of Volcanology*, 66:652-668.

De Campos Guimaraes J. 2009. Participatory approaches to rural development and rural poverty alleviation. The Hague: ESCAP.

Dey, I. 1993. Qualitative data analysis: A user-friendly guide for social scientists. London: Routledge.

Disaster Mitigation for Sustainable Livelihoods Programme (DiMP). 2008. Weathering the storm: Participatory risk assessment for informal settlements. Cape Town: Periperi Publications.

Dixit, A. M. 2003. The community based program of NSET for earthquake disaster mitigation. Paper presented at the International Conference on Total Disaster Risk Management, Kobe, 2-4 December.

Elo, O., Palm, E. & Vrolijks, L. 1995. Disaster risk reduction in urban areas. Geneva: UN Department of Humanitarian Affairs.

Faling, W. 2011. Urban disaster risks. Potchefstroom: USAID/African Centre for Disaster Studies, North-West University.

Fereday, J., & Muir-Cochrane, E. 2006. Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, *5*(1), Article xx.
http://www.ualberta.ca/~iiqm/backissues/5_1/pdf/fereday.pdf Date of access 3 Aug. 2012.

Forster, A. & Freeborough, K. 2006. A guide to the communication of geohazards information to the public. British geological Survey Urban Science and Geohazards Programme Internal Report, IR/06/009.

Foulger, D. 2004. Models of the communication process.
http://davis.foulger.info/reserach/unifiedModelOfCommunication.htm Date of access 29 Nov. 2009.

Fourie, K. 2011. Building a culture of safety: The nature of communication between the Maquassi Hills Fire Services and the community. Potchefstroom: NWU. (Thesis – MA).

Fourie, L.M. 2012. Participatory Governance: A perspective of participatory communication for social change. Paper presented at the annual International Association for Media and Communication Research (IAMCR) conference, Participatory Communication Division, Durban, 15-18 July.

Fraser, C. & Villet, J. 1994. Communication: A key to human development. Rome: FAO.

Freire, P. 1970/1973. Pedagogy of the oppressed. New York: Continuum.

Freire, P. 1998. Pedagogy of the oppressed (New Revised 20th-Anniversay ed.) New York: Continuum Publishing Co.

Freidmann, J. 1992. Empowerment: The politics of alternative development. Cambridge, MA: Blackwell.

Gadotti, M. 2001. The political-pedagogical praxis of Paulo Freire (1921-97): Dreaming of a world of equality and justice. (*In* Richards, M., Pradip N.T. & Zaharom, N., *eds*. Communication and development: The Freirean connection. Cresskill, NJ: Hampton Press)

Ganesh, S. & Zoller, H.M. 2012. Dialogue, activism and democratic social change. *Communication Theory,* 22(1):66-91.

Gaventa, J. 2004. Towards participatory governance: assessing the transformative possibilities. (*In* Hickey, S. & Mohan, G., *eds*. Participation from tyranny to transformation. New York: Zed Books. p. 25-41).

George Local Municipality. 2011. Draft Integrated Development Plan (IDP) 2011/12. George: George Local Municipality.

Gibbs, A. 1997. Focus groups. *Social Research Update*, Issue 19. Guildford: University of Surrey.

Goulding, C. 2005. Grounded theory, ethnography and phenomenology: A comparative analysis of three qualitative strategies for marketing research. *European Journal of Marketing*, 39(3):294-308.

Grabill, J. & Simmons, W.M. 1988. Toward a critical rhetoric of risk communication: Producing citizens and the role of technical communications. *Technical Communication Quarterly*, 7(4):415-441.

Groenewald, T. 2004. A phenomenological research design illustrated. *International Journal of Qualitative Methods*, 3(1). Article 4.

Grunebaum, H. 2007. Unburying the dead in the 'Mother City': Urban topographies of erasure. *PMLA,* 122(1):210-219.

Halcomb, E.J. & Davidson, P.M. 2006. Is verbatim transcription of interview data always necessary? *Applied Nursing Research*, 19(2006):38-42.

Hamdy, N.N. 2004. The Internet and Egypt's national development. *Global Media Journal*, 3(5). http://lass.calumet.purdue.edu/cca/gmj/fa04/gmj-fa04-hamdy.htm#top Date of access 27 Aug. 2010.

Hamelink, C. 1995. World communication: Disempowerment and self-empowerment. London: Zed Books.

Hammond, S.C., Anderson, R. & Cissna, K.N. 2003. The problematic of dialogue and power. (*In* Kalbfleisch, P.J., *ed*. Communication Yearbook 27. New Jersey: Lawrence Erlbaum. p. 125-157).

Heidegger, M. 1962. Being and time. Oxford: Blackwell Publishing.

Hemer, O. & Tufte, T. 2005. The challenge of the glocal. (*In* Hemer, O. & Tufte, T., *eds*. Media and global change: Rethinking communication for development. Buenos Aires: CLACSO. p. 13-22).

Heslop, J. 2008. An evaluation of the efficacy of communication with communities on health outcomes of a disaster: the floods in Taung, North West Province, South Africa. Johannesburg: WITS. (Thesis – MPH).

Hocking, J.E., Stacks, D.W. & Mcdermott, S.T. 2003. Communication research. 3rd ed. Boston: Allyn and Bacon.

Holbrook, B. & Jackson, P. 1996. Shopping around: focus group research in North London. *Area,* 28(2):136-142.

Höppner, C., Bründl, M. & Buchecker, M. 2010. Risk communication and natural hazards. CapHaz-Net WP5 Report, Swiss Federal Research Institute WSL. http://caphaznet.org/outcomes-results/CapHaz-Net_WP5_Risk-Communication.pdf Date of access 20 Aug. 2012.

Hornik, R. 1989. The knowledge-behaviour gap in public information campaigns: A development communication view. (*In* Salmon, C.T., *ed*. Information campaigns: Balancing social values and social change. *Sage Annual reviews of Communication Research*, 18. London: Sage).

Housing Development Agency (HDA). South Africa: Informal settlements status. Johannesburg: HDA.

Huesca, R. 2002. Tracing the history of participatory communication approaches to development: A critical appraisal. (*In* Servaes, J., *ed*. Approaches to development communication. Paris: UNESCO. p. 140-175).

Hughes, P., White, P. & Cohen, E. 2007. Bushfires and the media: A cultural perspective. *The Australian Journal of Emergency Management*, 22(4):14-20.

Humby, T. 2012. Analysis of legislation related to disaster risk reduction in South Africa. Geneva: IFRC.

Husserl, E. 1983. Ideas pertaining to a pure phenomenology and to a phenomenological philosophy. The Hague: Martinus Nijhoff Publishers.

IFRC. 2005. World Disaster Report. Bloomfield CT: Kumarian Press Inc.

IISD. 2009. Briefing note on the second Africa Regional Platform for Disaster Risk Reduction Consultative Meeting, (19)1, 11 May 2009. http://www.iisd.ca/AFRICA/ISDR/DRR2 Date of access 24 Sept. 2009.

Jabareen, Y. 2009. Building a conceptual framework: Philosophy, definitions, and procedure. *International Journal of Qualitative Methods,* 8(4):49-62.

Jackson, S. 2008. Research methods: A modular approach. Belmont, CA: Thomson Wadsworth.

Jantjes, A. 2008. An analysis of organisational performance management in the City of Cape Town: From legislation to implementation. Stellenbosch: SUN. (Thesis – MPA).

Jeggle, T. 2001. The evolution of disaster reduction as an international strategy: Policy implications for the future. (*In* Rosenthal, U., Boin, R.A. & Comfort, L.K., *eds*. Managing crises: Threats, dilemmas, opportunities. Springfield, IL: Charles C. Thomas.

Jensen, S. 1999. Discourses of violence: Coping with violence on the cape flats. *Social Dynamics: A journal of African studies,* 25(2):75-97.

Kabane, N. 2012. Active citizen participation through ward committees. *Transformer: the journal for development and governance issues,* 18(3):10-13.

Kitzinger, J. & Barbour, R.S., *eds*. 1999. Developing focus group research: Politics, theory and practice. Thousand Oaks: London.

Konaté, M.K. & Sidibé, A. s.a. Excerpts from guides on qualitative research. ROCARE/ERNWACA. http://www.ernwaca.org/panaf/RQ/en/index.php Date of access 24 Feb. 2012.

Krueger, R.A. 1994. Focus groups: A practical guide for applied research. Newbury Park, CA: Sage.

Lacey, A. & Luff, D. 2001. Trent focus for research and development in primary health care: An introduction to qualitative analysis. London: Trent Focus.

Langenhoven, H. 2001. The facilitating role of the Mmabatho ICDL Centre in the process of women empowerment: A development communication perspective. Potchefstroom: NWU. (Thesis – MA).

Lerner, D. 1958. The passing of traditional society: Modernizing the Middle East. Glencoe ILL.: The Free Press.

Lester, S. 1999. An introduction to phenomenological research. Taunton UK: Stan Lester Developments. www.sld.demon.co.uk/resmethy.pdf Date of access 12 Jul. 2012.

Lewins, A., Taylor, C. & Gibbs, G.R. 2010. What is Qualitative Data Analysis (QDA)? www.onlineqda.hud.ac.uk/Intro_QDA/what_is_qda.php Date of access 29 Sept. 2012.

Lincoln, Y.S. & Guba, E.G. 1985. Naturalistic inquiry. Beverly Hills, CA: Sage.

Lindlof, T. 1995. Qualitative communication research methods. Thousand Oaks: Sage

Maartens, Y. 2011. Development communication in Disaster Risk Reduction: The G.I.R.R.L. (Girls In Risk Reduction Leadership) Project. Potchefstroom: NWU. (Thesis – MA)

Mack, N., Woodsong, C., Macqueen, K. M., Guest, G. & Namey, E. 2005. Qualitative research methods: A data collector's field guide. Research Triangle Park, North Carolina: Family Health International.

Mannell, J. & Chowdhury, A. 2005. An approach to communication and social change: How communications can build social capital for the ultra poor. Dhaka: Research and Evaluation Division, BRAC.

Mansell, R. 1982. The 'New Dominant Paradigm' in communication: Transformation versus adaptation. *Canadian Journal of Communication*, 8(3):42-60.

McEntire, D.A. 2004. Development, disasters and vulnerability: a discussion of divergent theories and the need for their integration, *Disaster Prevention and Management,* 13(3):193-198.

Mefalopulos, P. 2008. Development communication sourcebook: Broadening the boundaries of communication. Washington, DC: World Bank.

Mefalopulos, P. 2007. Participatory communication: When the beginning defines the ending. Glocal Times, Issue 09, November. http://www.glocaltimes.k3.mah.se/viewarticle.aspx?articleID=123&issueID=15 Date of access 16 Oct. 2009.

Mefalopulos, P. 2003. Theory and practice of participatory communication: The case of the FAO project 'Communication for Development in Southern Africa.' Austin: University of Texas at Austin. (Thesis – PhD).

Melkote, S.R. 2000. Reinventing development support communication to account for power and control in development. (*In* K.G. Wilkins., *ed.* Redeveloping communication for social change: Theory, practice, and power. Lanham, MD: Rowman & Littlefield Publishers. p. 39-53).

Melkote, S.R. 1991. Communication for development in the Third World: Theory and practice. London: Sage.

Melkote, S.R. & Kandath, K.P. 2001. Barking up the wrong tree?: An inward look at the discipline and practice of development communication. (*In* Melkote, S.R. & Rao, S., *eds.* Critical issues in communication: Looking inward for answers (Essays in Honor of K. E. Eapen) New Delhi: Sage Publications. p. 189-204).

Melkote, S.R. & Steeves, H.L. 2001. Communication for development in the Third World: Theory and practice for empowerment. 2nd ed. New Delhi: Sage.

Miles, M.B. & Huberman, M.A. 1994. Qualitative Data Analysis: An expanded sourcebook. 2nd ed. Beverley Hills: Sage.

Minichiello, V., Aroni, R., Timewell, E. & Alexander, L. 1990. In-depth interviewing: Researching people. Hong Kong: Longman Cheshire.

Misselhorn, M. 2010. A new response to informal settlements. *Transformer: the journal for development and governance issues,* 15(6):16-19.

Moemeka, A.A. 2000. Development communication in action: Building understanding and creating participation. Maryland: University Press of America.

Morgan, D.L. 1997. Focus groups as qualitative research, 2nd ed. Qualitative Research Methods Series 16. Thousand Oaks: Sage

Morris, N. 2005. The diffusion and participatory models: a comparative analysis. (*In* Hemer, O. & Tufte, T. Media and glocal change: Rethinking communication for development. Buenos Aires: CLACSO. p. 123-144).

Mthonjaneni Municipality. 2012. Integrated Development Plan for 2012/13 to 2016/17. Mthonjaneni Municipality, June 2012.

Mtshali, G. 2007. Statement to the First Session of the Global Platform for Disaster Risk Reduction, Geneva, 5-7 June.

Mugero, C. & Hoque, A. 2001. Review of cholera epidemic in South Africa with focus on Kwazulu-Natal Province: August 2000-11 April 2001.

Munnik, O. 2008. The progression of vulnerability to informal fire risk: An Imizamo Yethu case study with a specific fire risk comparison between informal freestanding dwellings and backyard dwellings. Cape Town: UCT. (Dissertation - BSc Hons.).

Narayan, D. 1995. The contribution of people's participation: Evidence from 121 rural water supply projects. *Environmentally Sustainable Development Occasional Paper Series,* No.1. Washington, DC: The World Bank.

Napier, M. & Rubin, M. 2002. Managing environmental and disaster risks affecting informal settlements: lessons in innovative practice from South African local authorities. Paper submitted to the international conference and meeting of CIB Task Group 40 on informal settlements: *Sustainable livelihoods in the integration of informal settlements in Asia, Latin America and Africa*, Surabaya, Indonesia, 10-13 October 2002.

Nikkhah, H. & Redzuan, M. 2009. Participation as a medium of empowerment in community development. *European Journal of Social Sciences*, 11(1):170-176.

Oakley, P. 1991. Projects with people: The practice of participation in rural development. Geneva: International Labour Institute.

Okada, N., Hatayama, M. & Matsuda, Y. 2005. Risk communication: Basic knowledge for disaster managers. Session 1 Presentation. *http://info.worldbank.org/etools/docs/library/230352/Session-1/Risk%20Communication%201.ppt* (*In* World Bank. Disaster Risk Communication - An online course. http://info.worldbank.org/etools/docs/library/230352/Tabel%20of%20content/Table%20of%20content.htm#_Toc126487057) Date of access 20 Apr. 2010

Oldfield, S. 2007. Building consensus and conflict: Community systems and local participatory mechanisms in democratising local governance. http://www.princeton.edu/~piirs/projects/Democracy&Development/papers/Oldfield,%20Building%20Consensus.pdf Date of access 16 Aug. 2012

Onwuegbuzie, A.J., Dickinson, W.B., Leech, N.L. & Zoran, A.G. 2009. A qualitative framework for collecting and analyzing data in focus group research. *International Journal of Qualitative Methods 2009*, 8(3).

O'Neil, G. 2004. Developing a risk communication model to encourage community safety from natural hazards. Paper presented at the 4th NSW Safe Communities Symposium, Sydney, NSW, 2004**.**

Parfitt, T. 2004. The ambiguity of participation: a qualified defence of participatory development, *Third World Quarterly*, 25(3):537-555.

Pelling, M. 2007. Urbanisation and disaster risk. Panel contribution to the Population-Environment Research Network Cyberseminar on Population and Natural Hazards, November 2007. http://www.populationenvironmentresearch.org/papers/Pelling_urbanization_disaster_risk.pdf Date of access 21 Jul. 2010.

Pelling, M. 2003. Disaster risk and development planning: The case for integration. *International Development Planning Review (IDPR)*, 25(4):i-ix.

Pelling, M. & Wisner, B., *eds.* 2009. Disaster risk reduction: cases from urban Africa. London: Earthscan.

Petterson, M., Tolia, D., Cronin, S. & Addison, R. 2008. Communicating geosciences to indigenous people: Examples from the Solomon Islands. (*In* Liverman, D., Pereira, C. & Marker, B. 2008. Communicating Environmental Geoscience. Geological Society of London, Special Publications No. 305).

Pithouse, R. 2006. Rethinking public participation from below. *Critical Dialogue: Public Participation in Review*, 2(2):24-30.

Polkinghorne, D. 1983. Methodology for the human sciences: Systems of inquiry. Albany: State University of New York.

Powell, R.A., Single, H.M. & Lloyd, K.R. 1996. Focus groups in mental health research: enhancing the validity of user and provider questionnaires. *International Journal of Social Psychology,* 42(3):193-206.

Pretty, J.N., Gujit I., Thompson, J. & Scoones, I. 1995. Participatory learning and action: A trainer's guide. London: International Institute for Environment and Development.

Quebral, N. 2001. Development communication in a borderless world. Paper presented at the national conference-workshop on the undergraduate development communication curriculum, 'New Dimensions, Bold Decisions'. Los Baños, Philippines, 23 November 2001.

Rawson, R. & Hooper, D. 2012. The importance of stakeholder participation to sustainable airport master planning in the UK. *Environmental Development*, 2(2012):36-47.

Resource Access. 2004. Study on the social profiles of residents of three selected informal settlements in Cape Town. Executive Summary: Survey results and study findings. Cape Town: Resource Access.

Rhodes, A. 2003. Understanding community preparedness and response to wildfire risk. http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN019481.pdf Date of access 4 Jul. 2010.

Rodrigues, E., Gie, J. & Haskins, C. 2006. Informal dwelling count for Cape Town (1993-2005). Cape Town: City of Cape Town.

Rogers, A. 2007. Participatory diffusion or semantic confusion? (*In* Harvey, M. *ed.* Media matters: Perspectives on advancing governance & development from the Global Forum for Media Development. Internews Europe. p. 179-187)

Rogers, E., M. 1976. Communication and development: The passing of the dominant paradigm. (*In* Rogers, E., M. *ed*. Communication and development: Critical perspectives. London: Sage. p. 121-148)

Rohrmann, B. 2000a. A socio-psychological model for analyzing risk communication processes. *The Australasian Journal of Disaster and Trauma Studies*, (2000):2.

Rohrmann, B. 2000b. Critical assessment of information on bushfire preparedness for residents. *The Australian Journal of Disaster Management,* (15):14-20.

Roth, A. & Becker, P. 2011. Challenges to disaster risk reduction: A study of stakeholders' perspectives in Imizamo Yethu, South Africa. *JAMBA: Journal of Disaster Risk Studies,* 3(2):443-452.

Rural Metro Emergency Management Services. 2009. A policy framework for disaster management: Mthonjaneni municipality, September 2009. Mthonjaneni: Rural Metro.

Sagala, S. 2007. Risk communication for disaster preparedness of earthquake and volcanic eruption. Case study: Yogyakarta, Indonesia. Discussion paper submitted for PhD Summer Academy, UNU – EHS, July 22-28, 2007.

Schramm, W. 1964. Mass media and national development. Stanford, CA: Stanford University Press.

Sedgo, J. & Somé, S. 2001. Enhancing public awareness for increasing sustainability of community in Sub-Saharan Africa. Global Blueprints for Change. 1st ed., Prepared in conjunction with the International Workshop on Disaster Reduction convened on August 19-22, 2001.

Seidel, J.V. 1998. Qualitative data analysis. Ethnography v5, Appendix E. Qualis Research.

Servaes, J. 2004. Multiple Perspectives on Development Communication. (*In* Okigbo, C.C. & Eribo, F., *eds*. Development communication in Africa. Lanham, MD: Rowman & Littlefield. p. 55-64).

Servaes, J. 1996. Participatory communication research from a Freirean perspective. *Africa Media Review,* 11(1):73-91.

Servaes, J. 1995. Development communication - for whom and for what? *Communicatio*, 21(1):39-49.

Servaes, J. 1991. Toward a new perspective for communication and development. (*In* Casmir, F., *ed*. Communication in development. Norwood, NJ: Ablex Publishing. p. 51-86).

Servaes, J. & Malikhao, P. 2005. Participatory communication: the new paradigm? (*In* Hemer, O. & Tufte, T. 2005. Media and glocal change: Rethinking communication for development. Buenos Aires: CLACSO. p. 91-103).

Servaes, J. & Malikhao, P. 2002. Development communication approaches in an international perspective. (*In* Servaes, J., *ed*. Approaches to development communication. Paris: UNESCO. p. 102-139).

Servaes, J., Jacobson, T. & White, S., *eds*. 1996. Participatory communication for social change. New Delhi: Sage Publications.

Singh, J. 2008. Paulo Freire: Possibilities for dialogic communication in a market-driven information age. *Information and Communication & Society,* 11(5):699-726.

Snyder, L.B. 2003. Development communication campaigns. (*In* Mody, *ed.* International and development communication: A 21st Century perspective. London: Sage Publications, p. 167-188).

Solomon, F.J. 2011. Examining the feasibility of informal settlement flood Early Warning Systems: Focus on the urban flood-risk experience of Kosovo and Masiphumelele residents, Cape Town South Africa. Cape Town: UCT. (Thesis – M.Phil).

South Africa. 2005. National Disaster Management Policy Framework 2005. Pretoria: Department of Provincial and Local Government, Government Printer.

South Africa. 2007. National Disaster Management Centre Inaugural Annual Report 2006/2007. Pretoria: Department of Provincial and Local Government, Government Printer.

South Africa GCIS. 2013. Government Communication and Information System Annual Report 2012/2013. Pretoria: GCIS, Government printer.

South Africa GCIS. 2000a. The Government Development Communication Initiative: A response to democratic communication and citizen participation in South Africa. http://www.thusong.gov.za/documents/policy_legal/gdc.htm Date of access 13 Jul. 2010.

South Africa GCIS. 2000b. Development communication - An approach to a democratic public information system. http://www.thusong.gov.za/documents/artic_pres/dev_comm.htm Date of access 11 Mar. 2010.

South Africa. 1997. White paper on local government. http://www.info.gov.za/view/DownloadFileAction?id=108131 Date of access 18 Jul. 2013.

South Africa. 1998. Local Government: Municipal Structures Act, 117 of 1998. Pretoria: Government Printer.

South Africa. 2000. Local Government: Municipal Systems Act, 32 of 2000. Pretoria: Government Printer.

South Africa. 1996. Constitution of the Republic of South Africa, Act 108 of 1996. Pretoria: Government Printer.

Statistics South Africa. 2008. Community Survey 2007 Basic Results: Municipalities. Pretoria: Statistics South Africa.

Steinberg, F. 1996. Can development communication improve urban management? *Habitat International*, 20(4):567-581.

Steyn, B & Nunes, M. 2001. Communication strategy for community development: A case study of the Heifer Project, South Africa. *Communicatio, 27*(2).

Switzer, L. 1987. Media studies and the critique of development. Seminar in Contemporary Cultural Studies, No. 9. Contemporary Cultural Studies Unit, University of Natal, Durban. 56pp.

Tareen, E.U. & Omar, M.A. 1997. Community entry – an essential component of participation. *Health Manpower Management*, 23(3):97–99.

Tempelhoff, J., Van Niekerk, D., Van Eeden, E., Gouws, I., Botha, K. & Wurige, R. 2009. The December 2004-January 2005 floods in the Garden Route region of the Southern Cape, South Africa. *JÀMBÁ: Journal of Disaster Risk Studies*, 2(2):93-112.

Tesfaye, A.M. 2011. Piggybacking the traditional coffee ceremony as a participatory communication strategy to resolve social problems: An assessment of practices in Addis Ababa, Ethiopia. *Online Journal of Communication and Media Technologies,* 1(4) October, 2011.

Tufte, T. & Mefalopulos, P. 2009. Participatory communication: A practical guide. Washington DC: World Bank.

Twigg, J. 2004. Disaster risk reduction: Mitigation and preparedness in development and emergency programming. London: Overseas Development Institute.

United Nations Secretariat. 2009. Summary and Recommendations: 2009 Global Assessment Report on Disaster Risk Reduction. Geneva: UN.

UN-Habitat. 2003. The challenge of slums: global report on human settlements, 2003. Nairobi: United Nations Human Settlements Programme.

United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UNISDR). 2008. Links between disaster risk reduction, development and climate change. Geneva: UNISDR.

United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UNISDR). 2005. Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters. Extract from the final report of the World Conference on Disaster reduction (A/CONF.206/6). Geneva: UNISDR.

United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UNISDR). 2004. Living with risk: A global review of disaster reduction initiatives. 2004 Version, Volume I. Geneva: ISDR.

United Nations Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UNISDR). 2003. Living with risk: Turning the tide on disasters towards sustainable development. Geneva: ISDR.

United Nations International Strategy for Disaster Reduction (UNISDR). 2009. 2009 UNISDR Terminology on Disaster Risk Reduction. Geneva: United Nations Office for Disaster Risk Reduction.

uThungulu District Municipality. 2011. uThungulu District Municipality: Integrated Development Plan Review (4): 2007/2008 – 2011/2012. Richard's Bay: uThungulu District Municipality.

uThungulu District Municipality. 2008. Towards disaster management plans for uThungulu District Municipality. Richard's Bay: uThungulu District Municipality

uThungulu District Municipality. 2007. uThungulu District Municipality: Integrated Development Plan: 2007/2008 – 2011/2012. Richard's Bay: uThungulu District Municipality.

Van Niekerk, D., Tempelhoff, J., Faling, W., Thompson, L., Jordaan, D., Coetsee, C. & Maartens, Y. 2009. The effects of climate change in two flood laden and drought stricken areas in South Africa: Responses to climate change – past, present and future. Pretoria: South African National Disaster Management Centre.

Van Niekerk, D. 2006. Disaster risk management in South Africa: The function and the activity – towards an integrated approach. *Politeia*, 25(2):96-116.

Van Niekerk, D. 2005. A comprehensive framework for multi-sphere disaster risk reduction in South Africa. Potchefstroom: NWU. (Thesis – PhD).

Visser, G. & Kotze, N. The state and new-build gentrification in central Cape Town, South Africa. *Urban studies,* 45(12):2565-2593.

Vogel, C. 1998. Disaster management in South Africa. *South African Journal of Science*, 00382353, Mar98, Vol. 94, Issue 3.

Waisbord, S. 2001. Family tree of theories, methodologies and strategies in development communication: Convergences and differences. New York: The Rockefeller Foundation http://www.comminit.com/pdf/familytree.pdf Date of access: 29 Sept. 2008

Walters, A.J. 1994. Phenomenology as a way of understanding in nursing. *Contemporary Nurse,* 3(3):134–141.

Wiesenthal, H. 2006. From a nest of rivals to Germany's agents of change: Remarks on 'Values and Conflicts' with regard to the German Greens in the 1980s and 1990s. (*In* Zelko & Brinkmann, *eds*. Green Parties: Reflections on the first three decades. Washington, DC: Heinrich Böll Foundation North America).

Wilkins, K. 2009. What's in a name?: Problematising communication's shift from development to social change. *Glocal Times*, (13) November.

http://www.glocaltimes.k3.mah.se/viewarticle.aspx?articleID=173&issueID=20 Date of access 5 Nov. 2009.

Wisner, B. 2003. Disaster preparedness and response: Why is the phone off the hook? Invited paper for the European Telecommunications Resilience & Recovery Association Inaugural Conference (ETR2A), Newcastle-upon-Tyne, UK, 11-13 June 2003. http://www.radixonline.org/resources/wisner-etrra.doc Date of access 11 Aug. 2010.

Wisner, B., Blaikie, P., Cannon, T. & Davis, I. 2004. At risk: Natural hazards, people's vulnerability and disasters, 2nd Ed. London: Routledge.

World Bank. 2013. South Africa Overview. http://www.worldbank.org/en/country/southafrica/overview. Date of access 9 Oct. 2013.

World Bank. 2005. Disaster risk communication. An online course. http://info.worldbank.org/etools/docs/library/230352/Tabel%20of%20content/Table%20of%20content.htm#_Toc126487057 Date of access 20 Apr. 2010

World Bank. 1996. The World Bank participation source book. Washington, DC: World Bank.

Yoon, C.S. 1996. Participatory communication for development. (*In* Bessette, G. &. Rajasunderam, C.V., *eds*. Participatoy development Communication: A West African Agenda. Ottawa: IDRC). http://www.idrc.ca/en/ev-30910-201-1-DO_TOPIC.html Date of access 11 Mar. 2010.

Zhang, Y. & Wildemuth, B.M. 2009. Qualititative analysis of content. (*In* Wildemuth, B.M., *ed*, Applications of social research methods to questions in library science. Westport, CT: Libraries Unlimited. p. 308-319.

Zikode, S. 2012. Rethinking the State's Housing Programme: Finding a sustainable and responsive solution to the need for adequate shelter and the right to the city [Email]. 18 May Cape Town.