Informal Settlement Fires:
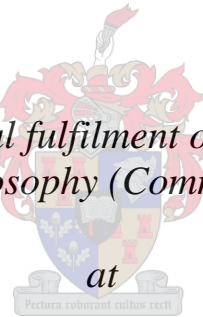# Addressing the issue in Kayamandi

by

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Declaration

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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Abstract

This study examines the issue of informal settlement fires, specifically in Kayamandi a township of Stellenbosch in the Western Cape province of South Africa. The study aims to identify the relevant role-players involved in addressing the issue and to understand the unique dynamics involved in this type of fires at the local level context. The study illuminates the main contextual factors that contribute to the perpetuation of informal settlement sprawl in South Africa and that relates to the risk and vulnerability experienced by informal settlement dwellers.

A qualitative research approach was followed and a triangulation of data collection methods was used, combined with a relatively broad literature study to capture the complexity of the related issues. The contextual focus includes the macro-economic factors that contribute to the environment in which informal settlement fires occur, and furthermore, developmental, economic, political and social aspects and the related experience of poverty, urbanisation and unemployment.

It was found that the theoretical underpinning of both the fields of Disaster Management and Community Development are relevant for analysis and addressing the research questions. Furthermore, that a relationship exists between the Disaster Management, Development and Community Development fields. This is particularly evident in Disaster Management policy and planning as related to prevention, mitigation, and public participation, such as community involvement in Community-Based Risk Assessments.

Key findings suggest that local government in the demarcated study area has great influence on how the problem of informal settlement fires is addressed. From national to local municipality level, the State plays the largest role in addressing the issue and takes the responsibility for addressing informal settlement fires as part of disaster management mandates prescribed in legislation.

The local government agenda as influenced by Disaster Management legislation include efforts related to awareness, education and training focused on Kayamandi as an informal settlement community and can be considered community development initiatives. This further relates to the view taken in the thesis that informal settlement fires are a social issue and not only an operational issue. Therefore the broad social, economic and political context and history were included and it was shown that the 'problem' of informal settlement fires is part of a greater developmental context and related processes.

A variety of community development theories were chosen as a useful framework for analysis in this study and to approach issues of risk and vulnerability on a community level. It also presents a conceptual framework for including both non-governmental stake-holders and the affected community as role-players.

Opsomming

Hierdie studie ondersoek die kwessie van vure in informele nedersettings en spesifiek in Kayamandi, 'n informele nedersetting van Stellenbosch in die Wes-Kaap provinsie van Suid-Afrika. Die doel van die studie is om die relevante rolspelers te identifiseer wat betrokke is by die aanspreek van die kwessie en om die unieke dinamika van vure in hierdie plaaslike konteks te verstaan. Hierdie studie beklemtoon die belangrikste kontekstuele faktore wat bydra tot die uitbreiding van informele nedersettings in Suid-Afrika en wat verband hou met die risiko en kwesbaarheid van inwoners van informele nedersettings.

'n Kwalitatiewe navorsingsbenadering is gevolg en 'n triangulasie van data-versamelingsmetodes is in hierdie studie gebruik. Dit is met 'n relatief breë literatuur-studie gekombineer om die kompleksiteit van die verwante kwessies weer te gee. Die konteksuele fokus sluit in makro-ekonomiese faktore wat bydrae tot 'n omgewing waarin informele nedersettingsbrande voorkom, en voorts, ontwikkelings-, ekonomiese-, politieke- en sosiale aspekte, sowel as die verwante ervaring van armoede, verstedeliking en werkloosheid.

Daar is bevind dat die teoretiese begronding van beide die velde van Rampbestuur en Gemeenskapsontwikkeling relevant is vir ontleding en om die navorsingsvrae te kan beantwoord en dat daar 'n verhouding tussen Rampbestuur, Ontwikkeling en meer spesifiek Gemeenskapsontwikkeling bestaan. Dit kom veral na vore in Rampbestuurbeleid en -beplanning soos van toepassing op voorkoming, mitigasie en publieke deelname.

Van die belangrikste bevindinge suggereer dat die plaaslike regering in die gegewe studie die grootste invloed het oor hoe die probleem van brande in informele nedersettings aangespreek word. Van nasionale tot plaaslike vlakke neem die Staat die verantwoordelikheid vir die aanspreek van informele nedersettingsbrande, soos vervat in mandate wat deur rampbestuur wetgewing bepaal word. Die plaaslike regering se agenda soos bepaal deur Rampbestuur wetgewing bevat gemeenskapsontwikkelingsidees oor deelname en inklusiewe beplanning, bewusmaking, opvoeding en spesifieke opleidingsinitiatiewe wat op Kayamandi afgestem is.

Dit sluit verder aan by die siening, soos geneem in die tesis, dat informele nedersettingsbrande meer as net 'n operasionele kwessie is, maar ook 'n sosiale dimensie insluit. Om hierdie rede word die breër sosiale, ekonomiese, politieke en historiese konteks in die studie ingesluit, soos wat dit op die 'probleem' van informele nedersettingsbrande as deel van die groter ontwikkelingskonteks en prosesse dui.

'n Verskeidenheid van gemeenskapontwikkelingsteorieë is as 'n bruikbare raamwerk geselekteer vir ontleding en as 'n benadering om risiko en kwesbaarheid op gemeenskapsvlak aan te spreek. Dit bied ook 'n konsepsuele raamwerk om beide nie-regeringsrolspelers en die geaffekteerde gemeenskap ook as rolspelers in te kan sluit.

Acknowledgements

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Chapter 1 - Introduction

1.1   Introduction

This study focused on informal settlement fires from a micro-level development perspective. The dynamics of the problem was studied by giving specific attention to how, and by whom, the issue is addressed. Informal settlement fires were therefore not only approached as a physical hazard, but also a societal issue.

The study went beyond a mere discussion of the physical causes of informal settlement fires and also emphasised the contextual exacerbating factors and the role of key stake-holders who are instrumental in addressing the various issues within this particular context. The analysis was applied within the context of the informal settlement of Kayamandi, a township of Stellenbosch in the Western Province of South Africa. By employing an empirical qualitative research approach – involving observation, interviewing, consultation and participation in various ways and on different levels, from grassroots level to engagement with the Disaster Management division of Stellenbosch municipality over more than a two-year period – this study aimed to establish how and by whom the issue of informal settlement fires in the demarcated study area is addressed.

Topics discussed in the thesis are firstly the broader economic development and policy context that in part influence poverty, deprivation, risk and vulnerability reduction efforts. A second topic is how the issue of informal settlement fires are addressed by the relevant stake-holders. The relationship between disaster management policy and strategy is a third topic, followed by a discussion of selected community development theories as conceptual framework for understanding the actions and responses of key stake-holders. The grassroots context in which informal settlement fires occur, are explored as part of the analysis and findings.

1.2   Overview

From a development perspective, the occurrence of fires in informal settlements can be a major obstacle to development. It can contribute to the perpetuation of poverty through the loss of personal and community assets and also strain government resources where recurring fires require continuous government spending on disaster management efforts, which could otherwise have been directed towards more development initiatives.

The occurrence of informal settlement fires could be related to the distinct inequality in the South African society, including inequalities ranging from economic, social, political, class and structural inequalities, to inequality of opportunities. All these factors are related to poverty and deprivation. This, in turn, is related to informal settlement sprawl and a potential increase of the risk of informal settlement fires occurring. Two contributing factors to informal settlement sprawl in South Africa are poverty and urbanisation. The latter is arguably part of a strategy of the rural poor searching for better opportunities, which is related to a person's economic status as a direct measure of poverty and a motivating factor in migration. The economic environment of a town, province, country and the global market,

influences the financial resources and employment opportunities of individuals, and in turn migration to and from these areas.

According to Swanepoel & De Beer (2006:3) macro economic growth in South Africa has contributed to an increase in urbanisation due the economic growth focused in the urban centres, which, in turn, has lead to an increase in rural poverty. Between 1996 and 2001, the population in towns and cities has increased by 17.2%, and there was a significant 45.1% growth in the urban African population of the Western Cape (Christopher, 2005:2305-2306). Thus, urbanisation in South Africa since the end of apartheid has been rapid, partly due to former inequitable housing policies, and the current social and economic environment in South Africa.

Urbanisation and poverty are furthermore linked to current and historic economic and social conditions, government policy and also legislation regarding housing and services. According to Huchzermeyer et al. (2006:20), informal settlements are seen, from a government perspective, as the "failure of the public sector, the legislative framework and the economy to provide conditions through which the poor may be housed formally".

The main policy documents that have influenced South African economics over the past 20 years have been the Reconstruction and Development Program (RDP); Growth Employment and Redistribution Strategy (GEAR) and the Accelerated Shared Growth Initiative for South Africa (ASGISA).

When the ANC government came into power in 1994 one of the priorities was the provision of housing for all citizens. The driving policy document of the time, the Reconstruction and Development Programme (RDP) prioritised the 'reintegration of South African cities' and included many social development targets. Two years later in 1996 there was a shift in economic policy and the free-market orientated GEAR strategy was introduced (Christopher, 2005:2306). Consequently, large-scale plans to undo apartheid re-settlement ended. The more recent Accelerated Shared Growth Initiative for South Africa is mainly an extension of the GEAR strategy and also focus largely on economic growth strategies.

The exacerbation of informal settlement sprawl and growing urbanisation have manifested in physical and structural marginalisation, and the associated risk experienced by informal settlement dwellers. This has culminated in an enormous housing backlog in South Africa. According to Cornelissen (2001; in Darkwa, I. 2006), the housing backlog in 2003 was estimated at 2.3 million units. In 2007 the Western Cape Local Government has achieved 100% expenditure of the housing conditional grants, but even with significant increase in funding, it was not able to significantly reduce the housing backlog (Dyanti, 2007). The housing backlog persists to be a pressing issue for Western Cape provincial government. In the 2009/2010 Budget Speech, the Western Cape Minister of housing, mr. Madikizela estimated the housing backlog in the Western Cape at around 410,000 units based on a 2006 study. The Minister indicated that if the housing shortage remains static considering current conditions, that it will take the province up to 28 years to eradicate the backlog. This problem is aggravated by in-migration in the Province which, according to the Budget Speech, has led to a 17% population growth between 2001 and 2007 in the Western Cape and it is projected that the housing backlog will double to 804,000 units by 2040 (Madikizela, 2009).

The expansion of informal settlements in South Africa is also linked to historic policies and is currently shaped by economic factors and urbanisation trends. The ever-growing informal settlements on the margins of urban centres are a constant reminder of the persistence of poverty and deprivation in South Africa.

With poverty, deprivation and urban informal settlement sprawl comes physical risk. Recurring informal settlement fires are both a danger to the inhabitants and an obstacle to development in South Africa. This is related to the issue if informal settlement fires addressed in the thesis. The issue of informal settlement fires has three dimensions. There are issues associated with the cause, the response, and the long-term impact. The government plays the most direct role in response to disasters, but government responses are also more directly involved in dealing with the socio-economic causes of the problem and the long-term solutions thereof.

The problem of informal settlement fires is addressed through government policy, legislation, local government spending and services provided. In the face of a substantial housing backlog and ever-growing urbanisation, the approach does not address the major physical and social problems faced by the urban poor on a daily basis.

1.3 Scope of the problem of informal settlement fires in Kayamandi

According to Richard Dyantyi, the Provincial Minister of Local Government and Housing in the Western Cape, the Province experienced 306 informal settlement fires in 2006 in which 3000 families were affected (Dyantyi, 2007). Kayamandi, a township with an estimated 2781 informal dwellings (Stellenbosch Municipality Annual Report 2005/2006:99), has experienced problems with fires on a seasonal basis in recent years.

In 2004 the township experienced a significantly large number of fires in the summer season. According to the Fire Chief, there were 11 serious fires in Kayamandi between December 10, 2004 and January 10, 2005 (Breytenbach, Cape Times 2006). One fire, which damaged 1000 structures, affected 4000 people and claimed nine lives, and only four days later another 700 shacks were burned to the ground (Philander & Smith, Die Burger 2004; Die Burger 2005). The 2004 fires lead to increasing attention given to disaster management by the Stellenbosch municipality (Stellenbosch Municipality Annual Report 2005/2006).

Despite the various efforts and attention given by the local government and fire services to this problem, fires recur persistently. In 2005, Kayamandi experienced seven fires, during which one of these fires destroyed 150 shacks and displaced 600 people (Die Burger, 2005). While in 2006 an incident was reported in which 200 shacks burned down and 800 people were displaced (Breytenbach, Cape Times 2006).

1.4 Research questions and methodological approach followed

The empirical study was focused on identifying the relevant role-players both affected and involved in addressing the issue of informal settlement fires in Kayamandi. The role-players include government officials, private sector workers, and the informal settlement dwellers affected by fires. The role of the private sector was not included in this study. No evidence was found in the initial exploration of the topic of any significant direct involvement of the private sector.

The research questions were twofold. Firstly: How is the issue of recurrent fire hazard in informal settlements constructed by the different role-players? Secondly: How does this affect the way in which the issue is addressed?

These questions were furthermore analysed in terms of the resources made available by local government or other role-players to the affected community; linkages between the local government, other role-players, and the community affected; and how this influences the community's capacity to respond or to lower the risk for recurring fires.

A qualitative research approach was considered appropriate to study the issue of informal settlement fires and to answer the research questions within the demarcated space of Kayamandi. The study was limited to the Kayamandi informal settlement in the municipal area of Stellenbosch. This made it possible to study the experience of one informal settlement more in-depth. Information towards answering the research questions was obtained through making use of triangulation of qualitative research methods, including secondary data collection and analysis, participant observation and in-depth interviewing. Triangulation adds validity to qualitative data collection and findings by employing varying methods of data collection. This method proved affective after obtaining access to the disaster division of Stellenbosch municipality and being involved in various initiatives related to fire and disaster issues over time, including participating in focus group interviews with disaster experts and community members and being trained as a facilitator of community participation in service delivery (see Appendix B) by researchers of the Cape Peninsula University of Technology who were involved in a research project in this subject area. Being able to engage directly with the various stake-holders mentioned, created as space for reflexivity which is considered an important aspect of qualitative research and which enhances the quality of information obtained.

1.5   Thesis layout

This dissertation consists of eight chapters. Chapter's two to five comprises the contextual aspects of the dissertation which involved predominantly a *literature study* including the broader development context in which informal settlement fires occur and the role of the South African State; the Disaster Management legislative framework, including issues around risk identification, planning and disaster management; and finally, an attempt to make connections between these aspects mentioned and ideas and constructs of community development theory.

Chapters six, seven and eight focus respectively on the *research approach* followed in the study, the data analysis and findings, and the conclusion and recommendations.

Chapter 2 – The broader development context in South Africa

2.1   Introduction

Informal settlement fires are a recurrent event and are both directly and indirectly linked to the South African development context. From a development perspective, the occurrence of fires in informal settlements is a major obstacle. It not only worsens conditions of poverty, but also impacts on associated social, economic and political issues.

Goebel (2007:3) identifies various historical and contemporary South African realities that act as obstacles to sustainable low cost housing in the country. These same factors contribute to poverty and the persistence of informal settlements in South African cities. The factors identified include: 'macro-economic policy, Apartheid legacies and persistent inequalities, and the extent and rate of contemporary urbanisation' in the country (Goebel, 2007:3-6).

In turn, macro contextual factors mould the environment in which severe poverty, homelessness and lack of opportunity are experienced by the urban poor in South Africa. For this reason, this chapter of this thesis will focus on the macro developmental factors identified here, to outline the broader developmental, historical and economic dynamics that shape the environment in which informal settlements and their related risk persist.

The content explored below is as follows: development as concept, the relationship between the economic context and development, the South African economic context, and urbanisation and the history of urbanisation in South Africa. Furthermore, the factors of poverty, unemployment and underdevelopment, seen as the vulnerable areas of growth and development in South Africa are reviewed.

2.2   The idea of development

Development is an aspiration to achieve a desired condition. There are various development theories arguing for diverse concerns such as economic, political, human, and even alternative development, but all theories intrinsically argue for change (Martinussen, 1999:331).

Chambers (1997; as quoted in Allen & Thomas, 2000:23) defines development broadly as 'good change', change that is necessary to reach a desirable state of being.   In this regard development is valued positively, because of the concern with changing unsatisfactory existing conditions.

Development change includes multiple environments and is dynamic. Swanepoel and De Beer (2006:11) note that society, and the communities of which it consists, function within a developmental environment consisting of political, social, cultural, economic and global spheres.   Each developmental sphere consist of their own various inter-connected and dynamic factors and are also inter-connected and dependent on the dynamics of related developmental spheres.

Because of its complexity and changing nature, the measure of development is not easily determined. Development is relative, and so are many developmental issues. The level of

'development' can be determined through comparing the disadvantages of nations, communities, and individuals to those who are more 'developed'.

As Allen and Thomas (2000:24) state, "development is a process that builds on itself, where change is continuous, and where improvements build on previous improvements." Therefore development is often also measured in terms of goals, like the developmental goals set out by the South African government for the economic growth and social improvement of the country. These aspects are discussed in more detail in the section following that focuses on South African policy documents such as the RDP, GEAR, ASGISA and the 'Millennium Development Goals' (MDG's).

Despite arguably good intentions, with change also often comes disruption. Development can have a markedly negative impact on individuals and communities as previous lifestyles are altered or swept away. Urban poverty increase in South Africa is an example of the negative side effects of development. With national economic growth, urbanisation increases and the rural poor leave the relative security of their homes, land, and families, in search of opportunities in the city. However due to uneven economic growth, there are not enough employment opportunities in all South African cities and this leads to urban poverty and informal settlement sprawl (Allen & Thomas, 2000:23-24).

Another negative aspect of development, highlighted in the example above, is the exercise of power on the premises of development. Padachayee (2006:15) argues that the impact of 'development' worldwide can be understood as "the exercise of power in multiple, interconnected arenas, inseparably linked with the socially and spatially uneven dynamics of capitalist development". Those who control resources such as land, labour, capital, and knowledge or those who have greater access to those resources than others, have greater power (Hustedde & Ganowicz, 2002:4). The more developed countries, groups, and individuals normally have such power over the less developed or 'underdeveloped' countries, communities and individuals (Sachs, 1992:1). The impact of globalisation and the capitalist free-market system is difficult to avoid, affecting South Africa in various possible ways.

In South Africa, as in many other developing countries, the state principally drives the development agenda. National government sets goals enforced by policies and legislation that determines local government action and subsidies (Napier & Rubin, 2002). This influences the available resources and services rendered to informal settlement dwellers. Therefore, the government as institution has the 'power' to influence the fate of informal settlement dwellers and provide the resources needed to address the issue of fire risk and vulnerability in informal settlements.

2.3   Economics and development

Development is popularly equated with economics as coined by Adam Smith, the founder of liberal economics. To Smith 'the 'wealth' of a country consist of real goods and services, and a country is rich or poor according to its annual production in proportion to its population (Hoogvelt, 2001:4). This concept is still in use universally through 'gross domestic product (GDP) per capita', which serves as a measure of the economic wealth of a country (Hoogvelt, 2001:4-5).

Development as equated to economics was pioneered by the so-called Neo-colonial theories of development, the most prominent being modernisation theory. In the tradition of Adam

Smith (and others) the modernization theories accept "uncritically the structure of the relationships between rich and poor countries" (Hoogvelt, 2001:35). This uncritical acceptance and belief in market forces is also referred to as liberal economics. Distribution of wealth or development in terms of liberal economic thinking is brought about by relying on the workings of markets without political interference. Liberal economics "emphasizes the 'invisible hand' of the market as the best regulator of the economy" (Hoogvelt, 2001:5).

The notion of an 'invisible hand' is contested by various theorists, the first of whom and most well known being the reasoning of the Marxist traditions. Also known as the political-economy perspective, this is summarised by Robinson (1985:298 in Kingsbury, 2004:171) as an "analysis of the development of capitalist relations of production and the development of class of capital accumulators". They argue that "at all times, and at all levels, the 'invisible' hand was guided and steered by politics and power, and that it always, and cumulatively so, ended up in the concentration of wealth and prosperity for some, while causing abject misery, poverty and appalling subjugation for a majority of others" (Hoogvelt, 2001:15).

More recent theories developed as direct critique of modernisation theories, are dependency theories coined mainly by theorist from the formerly colonised countries of South America to address underdevelopment in Third World Countries (Theron et al; 2008:6). These theories criticised modernisation theories "by bringing the structure of unequal relationships between rich and poor countries back into the picture" (Hoogvelt, 2001:35). Kingsbury (2004:171) adds that dependency theorists "support the idea that economic classes are often too weakly developed to constitute a political basis". This is also what leads to unequal and extortive relationships between developed and undeveloped countries, as well as between the capitalist and political elite, and the citizens of developing countries.

Issues of underdevelopment and neo-dependency (Kingsbury, 2004:171) theories are still popular in macro economic and political analysis. The flaws of the capitalist system, especially the inequality of growth between countries and between the elites and poor in countries, still demand scrutiny in terms of the macro economic development theories that has developed from modernisation and dependency theories.

However, the development paradigm that has reached centre stage in recent years, are humanist theories that are based on a micro-level people-centred approach to development (Theron, 2008:7). This approach asserts that "development is more than just economics; it also represents institutional, cultural, political, and psychological issues" (Theron, 2008:7). Through increased study and understanding of inequality, poverty and underdevelopment over the spectrum of the countries of the world, it has become clear that there are non-economic factors that influence the experience of poverty and the face of inequality between and within countries. A pioneer in this theory shift was the work of Mahbub Ul Haq and the World Bank (even being ironically so), who identified human development indicators and developed the Human Development Index (HDI). Increasingly alternative people-centred theories and measures of development have gained attention. This includes determining 'development' through quality of life.

Furthermore people-centered development theories moved away from measuring development on a macro-level to focussing on the affects of underdevelopment and poverty and searching for solutions on a micro-economic level. People-centred theorists have argued that there is a "need for a shift from growth-oriented development strategies" to strategies that "give first priority to the fulfilment of the basic needs of the poor" (Friedman, 1992; in Martinussen, 1999:332). The relevance of people-centred development theory to studying

developmental issues is central to the analysis in this study, and will be further discussed in chapter five.

The economic principles followed by the South African government are reflected in the main economic policies or those policy documents driving the developmental agenda pursued by the South African government.

When the ANC government came into power in 1994, the Reconstruction and Development Programme (RDP) was the first policy document to address social development in South Africa. The RDP focused strongly on correcting past social inequalities through redistribution and social welfare, and one of the priorities was the provision of housing for all citizens and prioritising the 'reintegration of South African cities' (Bond, 2000; in Christopher, 2005:2306).

Two years later in 1996 there was a shift in economic policy and the free-market orientated Growth, Employment and Redistribution (GEAR) strategy was introduced (Christopher, 2005:2306). The shift toward the GEAR strategy is seen as the adoption of neo-liberalism by the South African government. GEAR was created around neo-liberal economic principles such as 'deficit reduction, trade liberalisation, privatisation and the overall shrinking of State control' (Theron; 2008:32). The strategy is largely focused on economic growth, as the central way to address inequality, poverty and stagnant growth. In 2005, using the foundation of the international Millennium Development Goals (MDGs) put forward in 2004, the South African government launched the 'Accelerated and Shared Growth Initiative' (AsgiSA) (Mohamed, 2006).

AsgiSA was an extension of the GEAR strategy and does not replace, but extend government's economic policies of the last decade. AsgiSA was launched in February 2006. In AsgiSA six 'binding constraints on growth' are identified, that need 'to be addressed to achieve its target of halving unemployment and poverty between 2004 and 2014' (SA yearbook 2008/09: 129). It emphasises 'accelerating infrastructure development, programmes to improve performance in certain targeted economic sectors, unblocking of bureaucracy for small-business success, and addressing poor delivery from government and improving access to skills' (Mohamed, 2006). The strategy is that targeted investment in key areas that affect economic growth and employment, like infrastructure development and investment labour intensive sectors, will accelerate growth and increase employment opportunities (SA Government Information, 2008).

Through capitalist free-market principles, the South African economy is stable and growing. There has been an average annual growth in Real Gross Domestic Product (GDP) of over 3% from 1995 to 2003, which was about double the growth rate between 1980 and 1994 (Nowak 2005:2, quoted in Southall, 2007:1; Knight, 2006:2). See Figure 2.1 for a representation of GDP growth in South Africa over the last two decades. GDP growth has peaked in 2007 at just over 6%, while most recent statistics show that the annual GDP for 2008 was 4.9% (SA yearbook, 2008/09:130).

Figure 2.1   GDP growth in SA 1994-2007
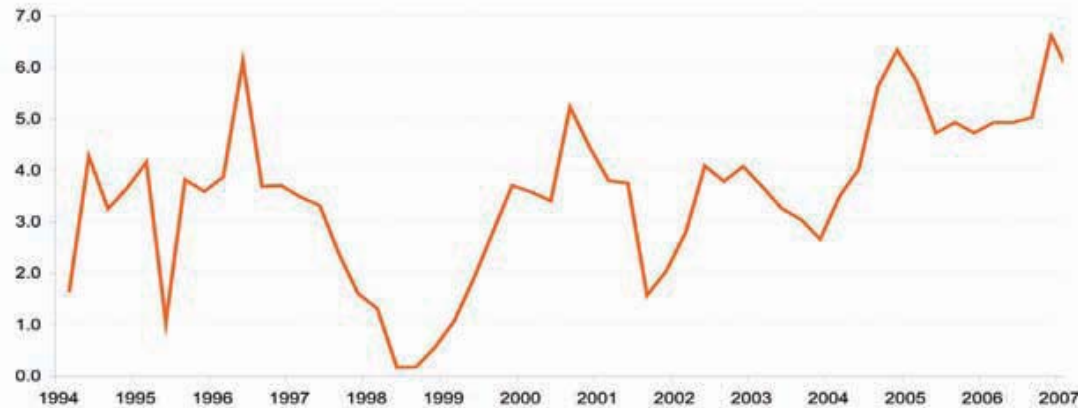
(SA Yearbook 2008/09:130)

Unfortunately, government policy and the private sector did not succeed in creating an environment with enough employment opportunities for all South African citizens. Despite economic growth over the last ten years, an estimated 26% of South Africans are unemployed and there is a growing gap between the rich and poor of the population (AgsiSA, 2006; quoted in Knight, 2006:14). Although economic growth has averaged at 3 per cent annually in the last 15 years, the 2008 State of the Nation states that economic growth needs to double to 6 percent to "pull 45 percent of South Africa's 44 million (people) out of poverty and to reduce chronic unemployment" (Kagwanja, 2009:xxxv).

A large group of South African citizens, the poor, is excluded from the benefits gained through economic growth enjoyed by the rest of the country and the poor are increasingly "denied the ability to fully participate in society" (Du Toit, 2005:5; Du Toit, 2004:999). Kagwanja (2009:xxxv) describes South Africa's economy as 'two-tier', which refers to the unequal distribution of wealth as reflected in a Gini coefficient of 0.6, making it one of the most unequal societies in the world (Herbst 2005:99 in Kagwanja 2009:xxxv).

With the increase of the gap between the wealthy and the poor, the number of urban residents living in poverty increases (Oelofse, 2003:261). The challenges that the poor face due to exclusion from income opportunities, include "factors such as shelter, lack of infrastructure and health facilities that play a major role in keeping people from improving their circumstances" (Swanepoel & De Beer, 2006:5).

Poor communities have fewer resources and capabilities at their disposal and whatever they have are spend on basic household necessities and individual survival (Du Toit, 2004:999). Due to these disadvantages, it is extremely difficult for those living in poverty to rise out of their circumstances. Chambers (1983) quoted in Swanepoel & De Beer (2006:4) states that this is even more difficult for communities and societies that experience large scale poverty, as is the case in South Africa, because it requires mass action and agency from all sectors of society.

2.4   The Apartheid legacy and history of urbanisation in South Africa

Poverty and inequality are problems that have persisted throughout South African history and for many disadvantaged groups in South Africa. In recent decades, since the end of Apartheid, there has been reasonably steady economic growth, but the experiences of poverty has been, and is aggravated by unemployment and unequal income distribution.

Unequal ownership of economic and political power in South Africa has a long history, beginning with British occupancy and colonialism of the country. Oppression, slavery and economic and spatial marginalisation of the indigenous inhabitants characterised this period in the South Africa history (Marna & Roy, 2007:3). In 1828, 'Ordinance 50' was introduced and by 1838, slaves were given apprenticeship training and their freedom. This was the beginning of a wage-based economy in South Africa.

Expansions of white occupancy lead to the discovery of minerals in central and northern South Africa. South Africa's mineral resources have had a great impact on the country's economy and control over its markets.

Greater expansion and conflict over British control on South African minerals and other land resources, ultimately lead to war between the British colonial government and the Boers in the Anglo-Boer War at the beginning of the 1900s. Afrikaner nationalist politics development and during 1907 and 1908 the two former 'Boer' republics were granted self-government. The focus was on building a white nation through education and enforcing the language division, while sacrificing black interests. The National Party was elected to Parliament in 1948 and by the time South Africa became a republic in 1961 under Hendrik Verwoerd Apartheid was firmly entrenched (Havemann & Kearny 2006, 3).

According to Tienda (2006), the South African economic history is "dominated by the mining industry and industrialisation followed the mineral discoveries of the late nineteenth century". This had a great influence on the geographic make-up of South African workers, and along with the 'apartheid-driven 'homeland' system', "settlement patterns and livelihood strategies of the African population, was restructured to provide necessary labour" (Tienda, 2006).

The National Party ruled for 40 years before 1994 and the end of Apartheid, and created immense inequality through political control. The Apartheid government exercised state-driven, racially discriminating policies focused on segregation that benefited the white minority (Huchzermeyer, 2003:591). According to Travis et al. (1999:178) the "former apartheid rule served to under-develop the majority of South Africa's population while the minority held on to power and control through social, political and economic inequalities".

The South African history of unequal land distribution and resettlement policies also contributed greatly to the current problems facing government in terms of urban housing. One of the characteristics of Apartheid was control over the urbanisation process through pass laws and racially defined urban planning (Huchzermeyer, 2003:601). This was sanctioned by the 'Influx Control, Group Areas Acts, and the pass laws' (Giliomee and Schlemmer 1985; in Tienda, 2006).

Not only was urbanisation regulated, but the majority of the South African population was excluded and removed from the urban centres of the country (Mohamed, 2006:35). Most of the black population was relocated to the homelands in Transkei and elsewhere, while all of the non-white population was marginalised to the peripheries of the cities and towns

(Mohamed, 2006:36). "With the laws, rapid evictions and inadequacy of urban planning, came a change of urban settlement into sprawling peri-urban areas" (Giliomee and Schlemer 1985 Graaff 1984; in Tienda, 2006).

The Western Cape has a particularly long history of informal settlements. Most of the African population of the Western Cape was expelled to the Bantustans or so-called homelands in Transkei. Permanent rural-urban migration was discouraged for black Africans in South Africa, even though many industries were dependent on migrant labourers from the so-called homelands (Collinson & Kok, 2006:5). Due to the distance from these Bantustans to the Western Cape illegal settlements perpetuated. Many of these informal settlements developed next to temporary hostel housing for male migrant workers and by the late 1970's the city of Cape Town and a number of other areas in the province recognised urban transit camps (Huchzermeyer, 2003:601). To be able to work in South Africa, including the Western Cape, all black citizens had to carry Pass identification documents. After long political struggle the pass laws were repealed in 1986 (Wilson 2001; in Tienda, 2006:195).

Inequality in urban areas was exacerbated in post-apartheid by increasing proliferation of informal settlements (Mohamed, 2006:36). Christopher (2005:2306) argues that various aspects, of the transition from Apartheid to Democracy in South Africa and the resulting policies, contributed to an urban environment where newcomers resorted to informal settlement.

He further argues that the transitional phase from 1991 to 1994, under National Party control, lacked clear policy direction for the reintegration of excluded citizens as attention focused on peaceful and orderly political transfer. Subsequently the removal of restrictive legislation did not result in residential reintegration in Post-Apartheid South African cities. Urban spatial segregation continued to mark post-apartheid development, and the 'legacy of segregation' persisted as the poor mainly "African arrivals typically settled, in the areas historically reserved for Africans" (Goebel, 2007:3).

Deep-seated social and economic inequalities persist in post-apartheid South Africa (Bracking, 2003). The legacy of Apartheid endures, as poverty, unemployment and homelessness remains high, despite significant progress made since the end of Apartheid in meeting basic needs (Knight, 2006:19).

In conclusion, South Africa has a history of urban segregation, resettlement and exclusion, which contributed to the development of informal housing for the unrecognised black citizens working far away from the homelands to which they were removed (Huchzermeyer, 2003:601). The end of Apartheid saw rapid urbanisation as the formerly excluded attempted to reclaim some of the country's wealth and opportunities by moving to the urban economic centres. Furthermore, within the last decade of post-apartheid South Africa the liberalisation of markets and a plummeting gold price contributed to a net loss of jobs in the mining sector and growing unemployment (Collinson & Kok, 2006:4). Both, former migration and settlement patterns, and the macro-economic environment, which lack employment opportunities, in turn contributed to present-day settlement patterns in South African urban centres (Collinson & Kok, 2006:5).

2.5.   An overview of urbanisation

Urbanisation refers to the movement of people from rural to urban areas (Gibson et al., 2008:196). In South Africa poverty is concentrated in rural areas, and an increase in rural poverty leads to increasing urbanisation due the economic growth being focused in the urban centres (Swanepoel & De Beer, 2006:3).

Urbanisation is a growing trend in both South Africa and the rest of the world. Urbanisation is considered the driving force in the creation and ongoing remake of cities and towns (Gibson et al., 2008:196). Unfortunately, urbanisation in South Africa is linked to unplanned informal settlement growth (Goebel, 2007:5).

Urbanisation persists in South Africa due to growing unemployment and poverty in the country, and worldwide trends of globalisation and decentralisation. South Africa has one of the largest income disparities in the world, with the substantial gap between the rich and poor population of the country (Knight, 2006:1). Parallel the trend towards worldwide spatial and social polarisation is the issue of globalisation. Oelofse (2003:261) argues that there "is an increase in poor urban residents due to growing disparity between wealthy and poor nations of the world".

Douglass (1998) argues that nations are caught up in this growing polarisation which in turn worsens the stress on local governments to provide infrastructure in pace with demand (Oelofse, 2003:268). The result is greater exposure of the poorer members of society to risks. According to Oelofse (2003:267), the "way in which global forces play themselves out locally, through local social, political and economic institutions, is critical to the understanding of urban poverty and environmental risk". The benefits of globalisation do not reach these communities, who continue to be exposed to the chronic risks associated with poor services (Oelofse, 2003:268).

2.5.1 Urbanisation trends

Africa is experiencing major urbanisation. While 39% of Africa's total population lived in urban areas in 2003, it is estimated that by 2030 Africa's urban areas are likely to hold the majority of its people at about 54% of the total population (United Nations 2004; quoted in Collinson and Kok, 2006:21). From 2000 to 2003 the population has already increased from 37.9% to 39%.

Between 1996 and 2001, the population in towns and cities in South Africa has increased by 17.2%, and there was a significant 45.1% growth of the urban African population in the Western Cape (Christopher, 2005:2305-2306). It is estimated that the Cape Town area alone receives an additional 16 000 households per annum, mainly from the Eastern Cape (Local Government Briefing June 2005; quoted in Atkinson, 2006:72). See Table 2.1 for comparative levels and rates of urbanisation.

Table 2.1   Comparative Levels and Rates of Urbanisation

Region	Level of Urbanization % (2000)	Urban Population (thousands) (2000)	Annual Growth Expected % (2000–2015)
World	47.0	2,845,049	2.0
Africa	37.9	297,139	3.5
Asia	36.7	1,351,806	2.4
Latin America	75.3	390,868	1.7
Oceania	70.2	21,338	1.2
North America	77.2	239,049	1.0
Europe	74.8	544,848	0.3

Source: UNCHS (2001, 271–73)

(Garland et al, 2007: 15)

Census results, in Table 2.2 below, shows that the South African population has increased by 4.3 million between 1996 and 2001 and similarly by approximately 4 million between 2001 and 2007. This represents an overall increase of 8.2% since 2001. The largest percentage of population increase was in the Western Cape, with an increase of 16.7% in 2007. This is double the average national percentage increase (Community Survey, 2007:2).

Table 2.2   Total Population by Province – Census 1996, 2001, CS 2007

Provinces	Census 1996	Census 2001	% Change '96/01	CS 2007	% Change '01/07
Eastern Cape	6 147 244	6 278 651	2.1	6 527 747	4.0
Free State	2 633 504	2 706 775	2.8	2 773 089	2.4
Gauteng	7 624 893	9 178 873	20.4	10 451 713	13.9
KwaZulu-Natal	8 572 302	9 584 129	11.8	10 259 230	7.0
Limpopo	4 576 133	4 995 534	9.2	5 238 286	4.9
Mpumalanga	3 124 203	3 365 885	7.7	3 643 435	8.2
Northern Cape	1 011 864	991 919	-2.0	1 058 060	6.7
North West	2 936 554	3 193 676	8.8	3 271 948	2.5
Western Cape	3 956 875	4 524 335	14.3	5 278 585	16.7
South Africa	**40 583 573**	**44 819 778**	**10.4**	**48 502 063**	**8.2**

(Community Survey, 2007:2)

The Green Paper on the Settlement Framework for the Western Cape Province indicates that 90% of the Western Cape population is settled in urban areas. The reality is that living conditions of many people are far from ideal, for example, more than 300 000 households live in circumstances of informal and other types of inadequate housing.

Figure 2.2 below shows the percentage distribution of municipalities in the Western Cape by percentage of households which reported living in informal dwellings during 2007. The Western Cape reports 14.2% informal settlements which is an average number in relation to the other provinces.

Figure 2.2   Percentage of households living in formal and informal dwellings

	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	North West	Northern Cape	Western Cape
Formal Dwelling	54.7	71.0	73.5	60.5	83.2	77.0	66.5	80.4	83.4
Informal Dwelling	8.0	18.4	22.7	8.6	5.6	11.7	23.8	10.5	14.2
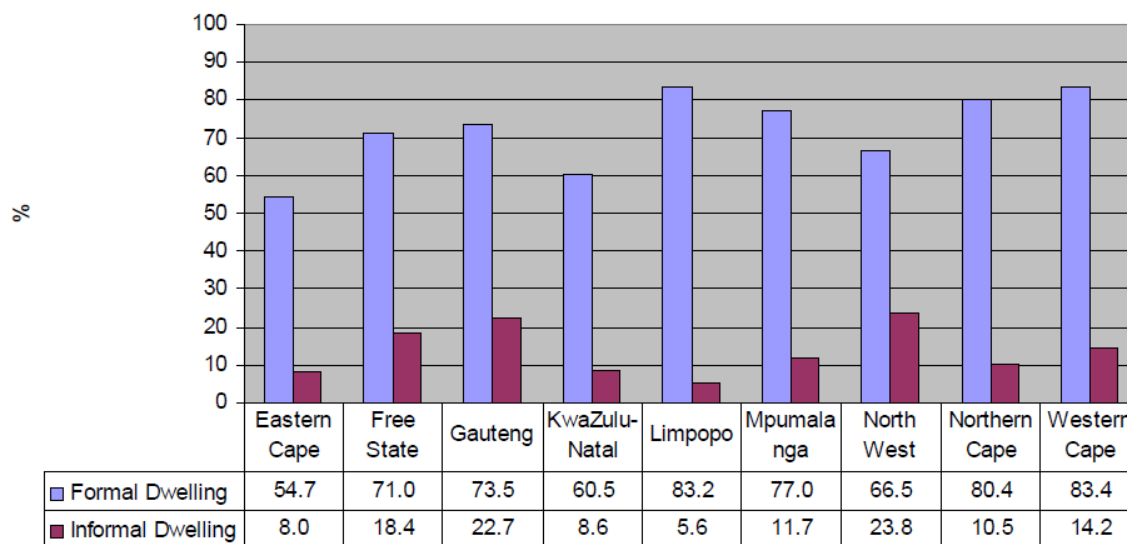
(Community Survey Basic Results Municipal, 2007:17)

Table 2.3   Percentage of households living in formal and informal dwellings by municipality: Census 2001 and CS 2007

Municipalities	Formal		Informal	
	Census 2001	CS 2007	Census 2001	CS 2007
DC2: Cape Winelands	**85,5**	**82,7**	**12,2**	**10,5**
Witzenberg Local Municipality	88,5	70,1	9,1	7,8
Drakenstein Local Municipality	81,9	76,9	16,0	16,0
Stellenbosch Local Municipality	81,4	90,4	15,7	8,2
Breede Valley Local Municipality	87,2	85,9	11,5	12,0
Breede River/Winelands Local Municipality	92,9	96,2	4,5	3,5

(Community Survey, 2007:45)

Table 2.3 shows the statistics for the Winelands District Municipality and Stellenbosch Local Municipality. According to the Community Survey of 2007, Stellenbosch has a decrease in

percentage of informal settlements from 15.7% in 2001 to 8.2% in 2007. This is less than both the district average of 10.2% and the provincial average of 14.2%.

2.5.2   Migration in the Western Cape

The Western Cape offers opportunities and benefits, with lower unemployment rates and a high GDP relative to most other provinces in South Africa (Green paper: Settlement Framework for the Western Cape Province; i). The Province contributed the third largest percentage of GDP at 14.1% in 2001. The average growth in the province was 3.8% higher that the national figure (Green paper: Settlement Framework for the Western Cape Province;13)

A 2006 study on 'Migration and Urbanisation' by Statistics South Africa identifies eleven reasons why people intend to migrate. These reasons relate to the possibilities in other areas as perceived by the migrant, dissatisfaction with their local area of residence, age (younger people migrate more), education, the non-urban and in South Africa, the black population has a higher level of migration (Lahohla, 2006:13-14).

Relocation to an urban area can facilitate employment, and general better life opportunities (Gelderblom, 2007:242). Figure 2.3 below shows the relationship between a person's probability of being employed and the level of urbanisation. Six municipal areas have a higher-than-expected probability of being employed: Swellendam, Carletonville, Stellenbosch, Malmesbury, Knysna and Bronkhorstspruit (Havemann & Kearny 2006:10).

Figure 2.3   Level of urbanisation and the probability of being employed
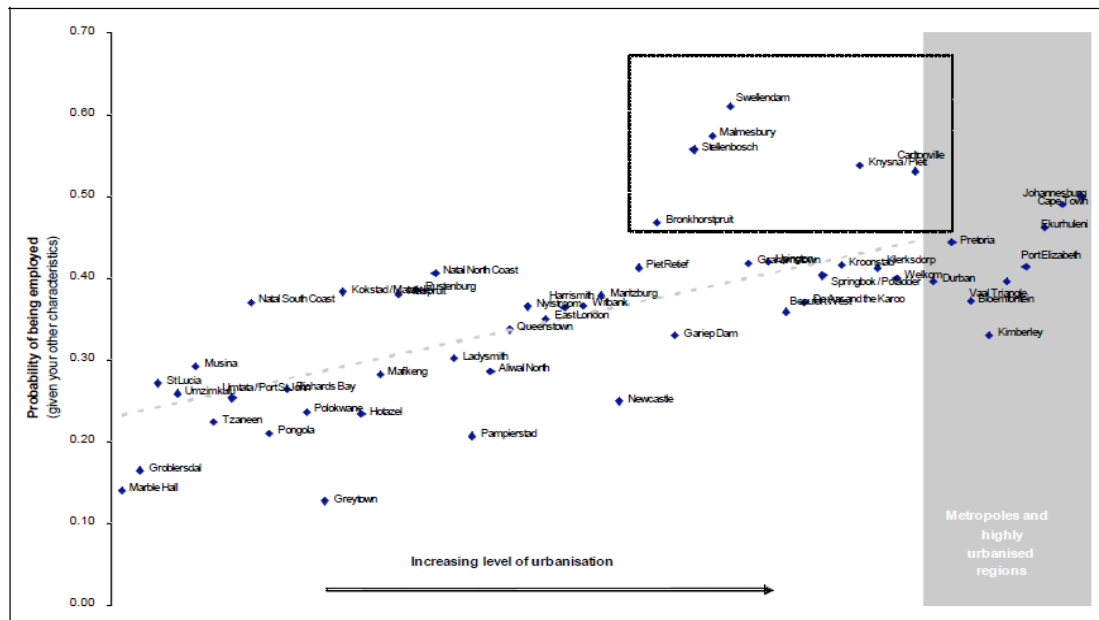
(Havemann & Kearny 2006:10).

According to Marna and Roy (2007:10) factors that can explain the better conditions in these areas are: proximity of job opportunities, excellent road and rail linkages to large cities and above-average skills or education levels; and in the case of Swellendam, Stellenbosch and Malmesbury, their proximity to Cape Town as a metropolitan area.

According to Collinson and Kok (2006:4,11) urbanisation is mainly a 'behavioural response to spatial differences in income and consumption opportunities'. In this case, a growing and dynamic economic environment, like that of the Western Cape (including Stellenbosch) providing more employment opportunities, will facilitate migration to the area.

2.6   An overview of poverty

Poverty is the major challenge associated with informal settlement life in South Africa (Travis et. al, 1999:178). Poverty contributes to homelessness and migration to urban areas, and poverty exacerbates the disadvantage experienced by the homeless by contributing to their vulnerability (Napier & Rubin, 2002:3).

Aliber (2001:2) defines 'chronic poverty' as "a household or individual's inability, or lack of opportunity, to better its circumstances over time or to sustain itself through difficult times." The urban poor experience income poverty severely as money is necessary for almost all basic needs, like procuring food and shelter.

There are three main approaches to understanding poverty. The first and most basic approach to poverty is "as the inability to attain an absolute minimum standard of living this is an absolute, quantitative, indicator based on a minimum income line" (May, 2008:27). Secondly, poverty is often approached as the lack of resources with which to obtain a socially acceptable quality of life. According to May (2008:28), this is a relative indicator, "relative poverty is related to the distribution of income or wealth, and the poverty of an individual is thus relative to the well-being enjoyed by others". The third approach to poverty, identified by May (2008:28) is that poverty is "constrained choices, unfulfilled capabilities, and exclusion". Poverty is not only the extent of individual characteristics of the person or household, it is also a function of an environment that does not offer opportunities to the poor.

In South Africa the experience of poverty is often a combination of both individual inabilities, associated with health, education and family life factors; and a lack of opportunity due to "skewed resource distribution, inadequate infrastructure, and scarce employment opportunities" (Aliber, 2001:2).

There are three ways in which poverty is measured and determined. They relate to the above mentioned approaches to poverty. These include the quantitative money matrix approach, the poverty index that includes human development factors and the measurement of poverty in terms of assets, called 'asset poverty'.

2.6.1. Money matrix

Economically South Africa's growth is reflected by her 'purchasing power parity' (PPP) measure. At PPP$ 11 240 per annum in 2001, South Africa's per capita GDP corrected for

purchasing power parity now places it as one of the 50 wealthiest nations in the world" (May and Meth; 2007:273).

South Africa's economic wealth is a result of progressive growth 'in the post-apartheid period, along with increased social spending and steady and substantial investment in infrastructure and basic services' (May & Meth; 2007:273). Nonetheless, there are still a large number of absolutely poor people in South Africa, with large income inequality in the country. This is evident in South Africa's high Gini coefficient at 0,6 (Herbst 2005:99; in Kagwanja 2009:xxxv).

2.6.2 Poverty index

Poverty in South Africa is highlighted when viewed in terms of human development measures and shows its distinct relationship with underdevelopment and the disparity with economic growth in the country. Social indicators have not shown the same positive results, and in 2003 South Africa was ranked 115th of 175 countries in terms of its Human Development Index (HDI) indicators compared to its "ranking of 93rd in 1992" (UNDP, 2002; 2003 in Aliber, 2003). The HDI for South Africa is 0.674, which gives the country a rank of 121st out of 177 countries (UNDP; 2008). Thus, when normalized measures of life expectancy, literacy and educational attainment is combined with GDP per capita a less positive light is shined on South Africa's level of 'development'.

2.6.3 Asset poverty

Satterthwaite (1999:1; quoted in Oelofse, 2003:269) defines urban poverty beyond conventional income- and consumption-based definitions to include health, social and environmental aspects of deprivation. He states that absolute poverty consist of five interrelated deprivations, inadequate and unstable income; inadequate or risky asset base (of both material and non-material resources); lack of/or poor quality basic public services and housing; limited or no rights to make demands within the political or legal system; and discrimination, particularly against women (Oelofse, 2003:269).

Oelofse (2003:269) further argues that these forms of poverty contribute to levels of risk experienced by individuals and communities in urban areas. Environmental problems in cities can be reduced by altering the condition of poverty and improving access to an assets base or providing basic services and infrastructure that improves quality of life, more than thinking only in terms of an income increase.

The vulnerability of a person or a group can also be determined by their capacity to anticipate, cope, resist and recover from the impact that social and environmental problems have on their lives, this includes the impacts of hazards (Blaikie et al. 1994; quoted in Oelofse, 2003:262). It has been established that the poor are vulnerable to a number of harmful and potentially devastating threats and that they are not likely to have the resources or power to avert these threats. One of these identified threats is informal settlement fires, which destroys homes and possessions (Aliber, 2001:23). "Poverty exacerbates the vulnerability of and risk often experienced, by informal settlement dwellers, associated with poverty and homelessness" (Huchzermeyer et al. 2006:19).

The risk associated with informal settlement fires is also a result of, and brings deprivation to the fore. Poverty contributes to people's access to necessary infrastructure like electricity and running water. Dense living conditions caused flammable objects to be near to fires and stoves. The population density in informal settlements therefore contributes to the already poor infrastructure which results in unsafe living conditions (Swanepoel & De Beer, 2006:6).

2.7 An overview of unemployment

A central "contributor to poverty and inequality is a high level of unemployment" (Aliber et al., 2006:49). The unemployment rate in South Africa, according to the official definition, declined from 25,5% in September 2006 to 22,7% in September 2007, although the pattern in provincial rates varied. Table 2.4 shows that in relation to other provinces and the national average, the Western Cape has a relatively low unemployment rate at 15.7% (Labour Force Survey, 2007). Although the provincial economy compares favourably with others in South Africa, it is clear that it is not able to provide sufficient permanent paid jobs to its available labour force (Green paper: Settlement Framework for the Western Cape Province;13).

According to the 2007 Stellenbosch Municipality IDP (2007:16), 12% of the total population in the municipal area was unemployed in 2006. This is 3% less than the Provincial percentage of 2006 and half the rate of the national unemployment rate in 2006. The longer term trends for the region (1991 – 2001) show that unemployment has in general risen in all the surrounding regions but that the increase has been lowest in the Stellenbosch Municipality.

Table 2.4   Unemployment rate by province, Sept. 2001 to Sept. 2007

Province	Sep'01	Sep'02	Sep'03	Sep'04	Sep'05	Sep'06	Sep'07
				Percent			
Western cape	17.7	19.6	19.5	18.6	18.9	15.0	15.7
Eastern Cape	31.4	32.7	31.7	29.6	29.9	32.0	26.1
Northern Cape	25.0	24.9	26.4	24.5	24.7	28.7	26.0
Free State	27.0	29.1	28.0	28.6	30.2	26.5	25.2
KwaZulu-Natal	33.8	35.0	31.6	28.7	32.8	26.6	30.0
North West	28.6	30.6	28.4	28.0	27.4	29.7	24.6
Gauteng	30.4	30.5	27.6	25.7	22.8	23.2	17.4
Mpumalanga	29.2	30.1	25.3	24.8	26.9	28.0	22.0
Limpopo	34.6	34.1	31.1	27.8	30.1	32.0	27.3
RSA Average	**29.4**	**30.4**	**28.0**	**26.2**	**26.7**	**25.5**	**22.7**

(Labour Force Survey, 2007:xvii)

Aliber et al (2006:49-50) identifies three factors that have contributed to high unemployment statistics in South Africa since the end of apartheid. These are 'a massive increase in labour force participation'; a 'rapid increase in the number of households'; and a marked increase in the number of working poor.

Two factors contribute to increased labour participation, firstly the working-age population of South Africa has grown by 2.2 percent per year since 1995; and secondly the economically active population has increased by about 4.8 percent per year (Aliber et al, 2006:49). Rapid

increase in households is linked to 'a decrease in average household size and increased in-migration and inter-provincial migration' (Aliber et al., 2006:49). Lastly, the 'working poor' are "those who are employed, even in the formal sector, but remain in poverty".

2.8 The relationship of poverty with underdevelopment

It was shown that the 'end of apartheid' did not immediately translate into improved conditions for all South Africans.

May (2008:39) makes a distinction between 'good growth' and 'bad growth'. Good growth is 'economic growth that translates into increased income for the poor and improvements in all aspects of improved well-being that are considered part of poverty reduction'.

Poverty in this sense is a reflection of underdevelopment. Underdevelopment directly correlates with economic development practice as we know it. According to "Andre Gunder Frank the early theorist of underdevelopment; "economic development and under-development are the opposite face of the same coin" (Frank 1969:9; in May, 2008:30). Where economic development is associated with growth and wealth production, and the other side of the coin is an 'intertwined and exploitative' relationship with under-development, through unequal exchange (May, 2008:30). Underdevelopment highlights the relationship between growth, economic policy and development; and poverty production, unemployment and marginalisation. Duality is entrenched into the system; according to Aliber et al (2006:47) two domains co-existed, "on the one hand, a globally integrated world of production, exchange and consumption and, on the other, a constrained world of informality, poverty and marginalisation".

Global poverty has become an urban phenomenon. In the year 2002, 746 million people in urban areas were living on less than $2.00 a day (Ravallion 2007, 16 in Garland et al, 2007:vi). The absolute number of urban poor has increased in the last fifteen to twenty years at a rate faster than in rural areas (Garland et al, 2007:2). For the first time in history, the majority of the world's people will live in cities, and according to the United Nations, the global urban population will grow from 3.3 billion people in 2008 to almost 5 billion by the year 2030 (UNFPA 2007, 1 in Garland et al., 2007:vi). This urban expansion is a phenomenon of developing nations. Almost all of the growth will occur in unplanned and under-serviced city slums in parts of the world that are least able to cope with added demands. The pace of urbanization far exceeds the rate at which basic infrastructure and services can be provided, and the urban poor face the consequences (Garland et al, 2007:vi).

According to Garland et al (2007:11) the threat of urbanizing poverty is the greatest in Africa, which has the fastest rate of urban growth and the highest incidence of slums in the world. Rapid urbanization in Africa has been decoupled from economic development. In the last fifteen years the number of informal settlement dwellers has almost doubled in Sub-Saharan Africa, where 72% of the urban population lives in slums (UN-HABITAT 2006, 11; in Garland et al., 2007:2).

Conditions in Africa and the rest of the underdeveloped world reflect the underbelly of economic growth both on an international and local level. The disastrous impact of informal settlement fires to which informal settlement dwellers are exposed, as it "unfolds against a background of the slow-motion disaster of poverty and homelessness" (Napier and Rubin, 2002:3), call for the attention of African governments and stakeholders in this regard.

2.9   Conclusion

The aim of this chapter was to illustrate the macro developmental context that shapes the environment in which informal settlements and their associated risks persist in South Africa. As mentioned throughout this chapter, informal settlement dwellers are as much dependent on the decision-making of state and local government to mitigate their circumstances. The next chapter will explore in more detail the role of the South African government in mitigating the vulnerability and risk related to urban poverty, unemployment and the occurrence of informal settlement sprawl in and around South African cities.

Chapter 3 - The South African government and development

3.1   Introduction

The resources invested by the government or other interested parties in prevention, recovery and mitigation of informal settlement fire incidents have a great impact on the immediate and long-term vulnerability of those affected by the incident. Also, the destruction and cost of the hazard perpetuates poverty, resulting in the long-term collapse of developmental prospects.

In most countries, especially developing countries, the poor are largely dependent on government support and funding. Government through policy and legislation and local government spending and services, formally address social issues such as poverty and unemployment associated with informal settlement life. Moreover, governments are tasked with acting as a safety net to create a social, economic, and political environment in which the poor may emancipate themselves or be emancipated from poverty.

Structural factors are an important consideration when looking at problems that face communities, since people are "as much part of larger structures as they are of communities" (Emmett, 2000:503). According to Carter and May (2001; quoted in du Toit, 2005:8), the structural position of the poor constitutes "the way they are positioned in society by their access to resources and the social power relations within which they exist".

If structural factors are constraining, such as lack of employment opportunities and housing in South Africa, it can cause people to be vulnerable to being poor for 'long periods of time' (Du Toit, 2005:8). Vulnerabilities associated with poverty are among others, homelessness and its associated risks.

As discussed in the previous chapter, historic and present political, economic and social forces on local, national, and global levels affect poverty. The impact of forces operating beyond the individual's or communities' control can destroy progress achieved in communities or societies socio-economic positions, and this can leave "many poor communities and societies to accept their poverty and accommodate it as best they can" (Swanepoel & De Beer, 2006:9).

Therefore, constraining structural factors can also lead to dependency on government and other forms of welfare because the opportunities to acquire resources are not available to the poor. Communities must contend with "the power of larger structures, market forces, and policies over which they have little control" and as Emmett (2000:503-503) notes, "the distribution of power and resources between communities and the structures, which transcend them, [can] place severe limitations on what communities may accomplish". Du Toit (2004:999) argues that such dependency "reduce poor people in complex and unequal relationships of patronage, clientelism and exploitation" and can "rob them of many of the resources and capabilities they need to be able to claim the rights and entitlements that they are theoretically afforded in a democratic society".

3.2 Development and the State

"The success of South Africa's transition to democracy is linked to the extent to which the political, social and economic reforms introduced since 1994 can address the legacy of purposeful and institutionalised underdevelopment resulting from apartheid policies" (May and Meth; 2007:271).

In 1994 the ANC government, based on democratic principles, came into power after 40 years of Apartheid (Havemann and Kearny 2006; 3). The ANC government regard the country as a 'developmental state', a state that, according to Southall (2007:1) aims to "successfully combine extensive social redistribution with high economic growth." This approach is accordingly believed to be the best way to "effectively tackle poverty, overcome historic racial divides, and generally render the economy more dynamic, innovative, just, and equitable" (Southall, 2007:1). Policy and developmental efforts by government are broadly aimed in line with this philosophy.

As discussed in the previous chapter a distinction can be made between 'good growth' and 'bad growth'. Good growth is 'economic growth that translates into increased income for the poor and improvements in all aspects of improved well-being that are considered part of poverty reduction' (May, 2008:39). Where this falls short, the 'developmental state' "operates from the basis that state intervention is determined by context; the political, social, and economic context, but is not principally 'anti-market'" (Fakir, 2008:133). Supporters of the 'development state' agenda in South Africa believe 'that the growth model, through neo-liberal economic principles, has not translated into real social welfare for the poor and the needy in our society' (Fakir, 2008:133).

Critiques of the GEAR policy document, sees the failure of GEAR as the reason for "government increasingly wishing to embrace the idea of the 'developmental state", because the market has not been able to stimulate employment and combat poverty (Aliber et al., 2006: 47). On the other hand, according to Aliber et al. (2006:47), "the government on the contrary asserts that it is the success of GEAR that will make the developmental state a possibility".

According to the ANC manifesto on the developmental state (2005; Fakir, 2008:135):

"the developmental state bases accumulation on a growth-led model, supported by a number of 'capturing' and 'nurturing' mechanisms that allow welfare transfers to be made from one segment of the economy to another, and one group of citizenry to another" (Fakir, 2008:135).

One way in which the government aims to address contextual factors that affect development in South Africa is through social spending. Social spending, especially with regard to the African population, increased from 51 per cent of the total in the immediate transition period to 80 per cent in 1997. These include cash and non-cash transfers to the poor from the government in the form of pensions and the child support grant, water and electricity, health care, housing, sanitation, education and transport. The aim of much of this spending is to improve the quality of life by providing better services and infrastructure (Aliber et al. 2006: 49).

3.3   Overview of the development policy framework

Government's policy framework direct the strategies according to which developmental issues in South Africa are addressed and provide a framework of the developmental goals of the country on all levels of government.

The policy context that applies to the problem of informal settlement fires is two-fold. The first set of policies is the economic and housing policies; they indirectly shape the 'location, size and incentive for informal settlement formation and growth' (Napier & Rubin, 2002:8). The second set of policies applies to government strategies to prevent and respond to disaster risk or threat. Local government policies on housing and service delivery are aimed at implementing national policy for local conditions. This includes implementation of disaster management policies and plans (Napier & Rubin, 2002:8).

Housing policy tools that deal with urban housing and the problem of informal settlements are in place to ensure delivery of land in accord with land-redistribution and city planning, services and housing to the need and to mitigate the impact of migration of people to cities and the growth of existing urban population.

Huchzermeyer (2004:333) argues that informal urban land occupation in South Africa has historically been treated in a 'technocratic' way, through policies introduced in the 1980's of orderly urbanisation and continues with recent mandates by the national Department of Housing to eradicate the phenomenon of urban informal settlements within the next decade. The eradication of informal settlements is a pressing issue for the South African government, because according to Huchzermeyer et al. (2006b:20) informal settlements are seen from a governmental perspective as the "failure of public sector, the legislative framework and the economy to provide conditions through which the poor may be housed formally".

In accordance with this perspective government policies focus mainly on the long-term prospect of housing for all and do not directly deal with the problems that informal settlement dwellers face in their daily lives (Huchzermeyer, 2003:594). In the face of a substantial housing backlog and ever growing urbanisation, this approach is unrealistic and does not address the major physical and social problems continually faced by the urban poor. While informal settlements persist and the urbanisation of the rural poor continues, the problems and risks faced by informal settlement dwellers have received little attention. Huchzermeyer and Karam (2006:3) state that inadequate understanding reflected in policy and programmes of the conditions of informal settlements, and of the capacity for implementation, relate to too many reasons for the perpetuation of informal settlement dwellings.

Policies are in place to uphold the Constitutional rights of citizens. Housing efforts by the SA government is based on the 'right to housing', ensconced in Act 108 of the Constitution of the Republic of South Africa. The act states firstly that "everyone has the right to have access to adequate housing" and secondly, that "the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right." According to Napier and Rubin (2002:8), the motivation of these policies is that 'the government will enable people to realise that right, over time, through a combination of state assistance and individual contributions'. The state aims to fulfil this 'right' of South African citizens, but it has been established that the realisation of this right, for every homeless person, will most likely not be possible within the near future.

The Constitution also includes that "everyone has the right to an environment that is not harmful to their health or well-being," as contained in Act 108 of 1996. Although the right to

an environment that is not harmful to a person's well-being is not directed specifically at informal settlements, it may be argued that if a problem like informal settlement fires and the unhealthy conditions associated with informal settlements are known to the government, then there should be legislation and policy directed specifically at improving these conditions.

3.4 The issue of urbanisation and housing

Where restrictive migration legislation has been the major way in which urbanisation has been addressed in South Africa in the past, post-Apartheid policy and strategy have focused on urban integration and development of local areas. One of the major challenges that urban municipalities are facing, is providing housing for existing and growing informal settlement areas.

3.4.1 Addressing urbanisation

Urbanisation can become a problem for policy-makers and planners in government, but without strict and democratically unjust migration restriction, such as imposed by the Apartheid regime, 'internal migration cannot be stopped or redirected (Stats SA, 2006:16). Nonetheless, the development of urban areas is influenced by urban policy and planning, concerned with the management of urban areas (Pillay, 2008:109).

One of the six binding constraints to growth identified in Asgi-SA is the spatial legacy of apartheid. The marginalisation of informal settlement and townships on the outskirts of towns and cities exacerbate poverty beyond the physical vulnerability associated with lack of housing and infrastructure. Marna and Roy (2007:2), for example, identify such factors as increased transportation cost of labour, rising reservation wages and affecting especially the opportunities available to the rural poor, due to irrational informal settlement patterns, as also highlighted by Havemann and Kearny (2006:2).

Most post-apartheid policy documents and legislation, such as the '1997 Urban Development Framework' and the recent 'Draft White Paper on Urbanisation', focus on the importance of post-Apartheid urban integration (Pillay, 2008:113). Pillay (2008:114) further criticises the implementation of urban planning and policy legislation and argues that urban policy and planning have not had a great impact on South African urban areas. He argues that there has been a greater focus on the larger goal of accelerated economic growth and that urban integration and equality have been substituted in the process (Pillay, 2008:114).

> *"Urban policy direction has mainly focused on re-demarcating municipalities and restructuring the municipal system towards 'developmental local government', focusing largely on improving service delivery and increased housing"* (Pillay, 2008:114).

3.4.2   The problem of housing

The end of Apartheid segregation and post-Apartheid urbanisation has culminated in an enormous housing backlog in South Africa. According to Cornelissen (2001; in Darkwa, I. 2006), the housing backlog in 2003 was estimated at 2.3 million units. Over the last few years, the Western Cape Local Government has achieved 100% expenditure of the housing conditional grants, but even with significant increase in funding, it would be impossible to reach the current housing backlog (Dyanti, 2007). Due to the housing backlog and a shortage of housing subsidies many South Africans have no alternative but to live in informal housing (Richards et al. 2007:375).

When the post-apartheid Government came into power in 1994, their main priority was to address former inequalities. The driving policy document of the time was the RDP. The RDP prioritised the 'reintegration of South African cities' (Bond, 2000; in Christopher, 2005:2306), and one of the goals the South African government set themselves in the RDP was to deliver one million houses within five years (Mmakola, 2003:3; quoted in Darkwa, 2006:1). The government's approach to housing, at the time, was aimed at addressing the country's housing backlog left by Apartheid as rapidly as possible (Tomlinson, 2006:95).

Two years later in 1996, there was a shift in economic policy to the free-market orientated Growth, Employment and Redistribution (GEAR) strategy. GEAR supported neo-liberal macro-economic policies (Goebel, 2007:3) and focussed on economic growth and fiscal discipline. This ended large-scale housing plans to undo apartheid re-settlement (Bond, 2000; in Christopher, 2005:2306). There was an expectation by the proponents of GEAR that "the economic situation of households would improve over time and this would enable individuals to meet their housing needs" (Tomlinson, 2006:90). Yet this was not the case, and poverty worsened despite economic growth and the housing needs increased (Tomlinson, 2006:90).

Despite policy changes there has been continual government subsidised low-cost housing delivery in South Africa (Huchzermeyer et al. 2006:19 (b)). According to the Department of Housing (2005:1; quoted in Darkwa, 2006:1), the South African government provided six million people with homes and 1.64 million houses between 1994 and 2004 were built. Yet, as in many developing countries, informal settlements persist in South Africa and the government is unable to deliver enough housing at a pace fast enough (Huchzermeyer et al. 2006:19 (b)).

With growing poverty and unemployment, the number of people that cannot afford housing has increased and the housing backlog has not decreased significantly. Along with the 2.3 million unit housing backlog estimated in 2003 (Cornelissen 2001; in Darkwa, 2006) there has been a population growth of 2.1% a year on average since 1996 and 2001, and the absolute number of households has increased by 30% (Department of housing, 2004:3;quoted in Tomlinson 2006:89-90).

Shortly after setting the goal in 2004 to eradicate all existing shacks and informal settlements by 2014, (Matemola, 2005:1; quoted in Darkwa, 2006:1), the political aim of eradicating informal settlements was adapted to a more sensible 10-year upgrading programme called the 'Informal Settlement Upgrading Programme' as part of a new document called 'Breaking New Ground': A Comprehensive Plan for the Development of Sustainable Human Settlements (Huchzermeyer, 2006:42). Breaking New Ground is 'intended to address delivery problems and highlights changes in the way in which the government intends to address the housing backlog over the next five years' (Tomlinson, 2006:85). The policy

recognises that upgrading informal settlements can be better than finding and servicing land for relocation (Finweek, 2006:22). Therefore, it includes a focus on 'eradicating informal settlements through *in situ* upgrading and encouraging the construction of social [medium-density] housing' (Tomlinson, 2006:98).

3.5   The role of local government

"Urban policy direction has mainly focused on re-demarcating municipalities and restructuring the municipal system towards 'developmental local government', focusing largely on improving service delivery and increased housing" (Pillay, 2008:114).

Government strives to follow and use as framework the 'developmental government' principles not only on a national level, but also on the local municipal level. The role of a 'developmental local government' is to create an environment that is dynamic and to provide the necessary infrastructure and services for all its residents. According to Garland et al (2007:5) "effective urban governance can be used as a powerful tool to deal with urban growth, poverty, and inequality by allowing for popular participation in decision-making, creating connections between civil society and the government, and ultimately fostering the articulation of a common vision for the city".

In the 1996 South African Constitution (article 152;153) local government is given a central role in the social and economic development at local level (Davids, in Theron, 2008:35). This is also known as decentralisation of the state, which in South Africa takes the form of an integrated system of 'developmental local government'.

In 1998 the White Paper on Local Government was published, followed by the promulgation of two new acts that affect local governance: The Local Government: Municipal Structures Act and the Municipal Demarcation Act. According to the Green Paper: Settlement Framework for the Western Cape Province (2003:11) the legislations intention was to establish more financially viable and administratively capacitated local authorities, through demarcation and the centralisation of authority in metropolitan and district councils.

National government sets goals enforced by policies and legislation that determines local government action and subsidies (Napier & Rubin, 2002), which, in turn, influence the available resources and services rendered to informal settlement dwellers. Therefore the government as institution has the 'power' to influence the fate of informal settlement dwellers and to provide the resources necessary to deal with a problem such as fire hazards.

According to Fakir and Matshiqi (2008:87), developmental local government is fundamentally important for poverty alleviation, because a developmental perspective should include democratic and social development along with the traditional role that local government plays as service deliverers. Co-operation and coordination are important to local government developmental efforts, and local governments are expected to 'work effectively with other tiers of government, a range of non-governmental social and political organisations, and the private sector. In this way they would contribute to economic growth, job creation and social development'.

The aim of local government and its driving policy document, the Integrated Development Planning (IDP) is "the creation of financially viable municipalities geared towards meeting the social, economic and material needs of its people in a participatory and sustainable manner" as stated by Davids (in Theron, 2008:35). Each district and local municipality is required to have an IDP by the White Paper on Local Government (1998), and the Municipal Systems Act (Act 32 of 2000) that mandates that; "each municipal council must… adopt a single, inclusive and strategic plan for the development of the municipality" (Davids, in Theron, 2008:35).

The IDP sets out what the municipality aims to accomplish over a five-year period and how. It is a management tool that provides municipalities with a framework for strategic decision-making (SM IDP 2007/2008:4). As the driving-policy document for each municipality, the IDP 'sets out the vision, needs, priorities, goals and strategies of a municipal council to develop the municipal area and its people during its five year term of office' (Davids, in Theron, 2008:35) and it is responsible for 'creating spaces for people's participation in municipal planning and budgetary processes' (Davids, in Theron, 2008:36). According to Fakir and Matshiqi (2008:87) local governments should aim to: 1) ensure sustainable service provision to communities; 2) promote social and economic development; 3) and to promote safe and healthy environment.

The guiding policy document of Stellenbosch and all other municipalities in South Africa are the integrated development program (IDP). Each municipality is required to have an IDP each year that serves as the blanket planning document for all the municipal departments.

The safety of Stellenbosch residents is included in the 'vision' of Stellenbosch Municipality as stated in the IDP. It states among other things that the municipality must make a 'determined and concerted effort' to "create opportunities for all in Greater Stellenbosch to improve quality of life in safe, sustainable human settlements"(SM IDP; 2007:3). While, the 'mission' statement includes the aim to "serve the Greater Stellenbosch community with integrity and efficiency through the delivery of municipal services, [...] the maintenance of a safe, healthy, sustainable and unique living environment and the active engagement of civil society in the business of the Municipality" (SM IDP; 2007:3). Both the vision and mission refer to 'safety' and the 'sustainability of human settlements', both of these challenges link directly to informal settlement fires.

Little consideration is given to informal settlements in the IDP. It is acknowledged that there has been "proportional change since 1991 and suggests that the backlog is growing and that people living in informal dwellings have increased by more than 10 percentage points" (SM IDP, 2007:12). The IDP makes a "comparison between 1996 and 2001 figures, in which is found that the housing backlog has been inflated by 2% each year". According to the IDP this represents the "impact of in-migration into the municipal area, which requires more focussed interventions and increase in Provincial funding and Council prioritised funding are required to address this challenge" (SM IDP, 2007:12).

The IDP is increasingly becoming an important document in terms of disaster management, because all the municipalities must have a disaster management chapter in their IDP, and it is a requirement of both the Systems Act and the Disaster Management Act'.

3.6   Conclusion

In South Africa government has taken it upon itself to determine the nature of development and the growth of the country and through legislation and policy the developmental ideology and implementation thereof is passed down from national to local government level.

Informal settlements and the risks and vulnerability experienced by informal settlement dwellers are some of the greatest challenges faced by local governments. Providing housing is the long-term plan towards addressing the problem, but incidents such as informal settlement fires and day-to-day vulnerability experienced by residents in informal settlements is the responsibility of the Disaster Management department of Provincial Government, Metropolitan and District Municipalities.   Most local municipalities, also called B-Municipalities, do not have departments designated to Disaster Management and then the responsibility falls on the Fire and Police Departments that primarily focus on response to an actual incident. In Chapter 4 disaster management and the related South African policies in the field will be discussed as relevant to the study.

Chapter 4 – Risk identification and disaster management

4.1   Introduction

In studying the issue of fire hazards in informal settlements the various aspects of risk reduction and disaster management in South Africa come to the fore. Various distinctions can be made between definitions of disaster, risk, hazard and vulnerability; and furthermore these aspects are all interrelated elements that determine the magnitude and impact of an incident or risk event.

Vulnerability is an especially relevant concept in understanding the risks faced by informal settlement dwellers. Various factors contribute to vulnerability associated with the physical and social conditions in informal settlement communities, including developmental issues such as poverty, migration and unemployment. Therefore the physical risk posed by fire cannot be separated from social, political and economic risks facing informal settlement dwellers, and should be approached and addressed accordingly.

The South African government addresses the physical risks and vulnerability facing informal settlements as part of Disaster Management legislation and planning. Addressing informal settlement fires includes a range of factors and role-players, the affected community being an important role-player in this regard. Therefore, comprehensive strategies are necessary to sustainably bring about risk reduction and long-term change. Accordingly, disaster management focus has shifted to include mitigation and prevention strategies that focus on strengthening the assets of affected communities to decrease the vulnerability as much as possible.

4.2   Defining disaster: hazard, risk and vulnerability

There is a marked distinction between a disaster, risk, hazard and vulnerability in terms of the magnitude and the impact of an event. It is important to qualify these terms. The manner in which relevant government institutions and interest bearing role-players approach and address risk events and disasters are determined firstly by their definition of- and distinctions made between a disaster, risk, and hazard; and secondly by the perception of risk and its relationship with hazards and vulnerability.

4.2.1 Disaster

According to Coppola (2007:25) an incident or risk event can be 'considered disastrous if the realized hazard overwhelms the response capability of the affected community'. The UN defines an international disaster, as "a serious disruption of the functioning of society, causing widespread human, material, or environmental losses which exceed the ability of the affected society to cope using only its own resources" (UN, 1992; quoted in Coppola, 2007:25). In other words a disaster occurs 'when the vulnerability of individuals and groups is so great that they cannot cope with the event' (Neefjes, 2000:31).

In line with above mentioned definitions the South African Disaster Management Act of 2002 (p6) define a disaster as "a progressive or sudden, widespread or localised, and natural or human-caused occurrence; which firstly causes, or threatens to cause death, injury or disease; damage to property, infrastructure or the environment; or disruption of the life of a community. Secondly it is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources".

This comprehensive definition provides for both the inclusion of the disruptive impact of disaster events, physically and socially, as well as the relationship thereof with the vulnerability of the affected. According to the above-mentioned definitions, not all adverse events are disasters, only those that overwhelm response capacity. Nonetheless, disasters are mainly measured "in terms of the lives lost, injuries sustained, property damaged or lost, and environmental degradation" (Coppola, 2005:25).

4.2.2 Risk

Not all events become risk or disaster situations and natural or man-made incidents will not equal risk or disaster if there were not the vulnerability of those affected. The most popular explanation of risk events is defined in terms of the relationship between risk, hazard, and vulnerability. Risk and disaster, are accordingly, 'both the product of the hazard and the vulnerability of the affected' (Kotze, 1999; quoted in Oelofse, 2003:262). Blaikie et al (1994, quoted from Vatsa, 2004:8) define risk "as the cumulative impact of hazard and vulnerability" equated as R=HV.

Figure 4.1   R=HV

R = 'loss or realised risk'

H = 'probability of occurrence of a specific hazard in a given area over a given time period'

V = 'vulnerability as the degree of loss resulting from the occurrence of the phenomenon'
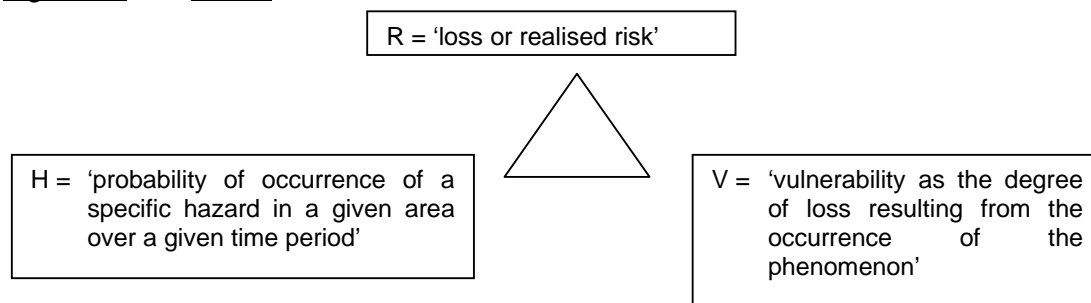
(Vatsa, 2004:8).

Risk is also defined through another equation, stating that "risk is the likelihood of an event occurring multiplied by the consequence of that event was it to occur" (Ansell and Wharton, 1992; quoted from Coppola, 2007:24). Accordingly, "consequences are a measure of the effect of the hazard on people or property" and thus through "reducing either the likelihood of a hazard, or the potential consequences that might result, risk is effectively reduced" (Coppola, 2007:24):

Combining the above mentioned definitions, the official definition of 'risk or disaster risk' according to the South African Disaster Management Framework of 2004 states that risk or disaster risk equal:

"the probability of harmful consequences or expected losses (deaths, injuries, property, livelihoods, disrupted economic activity or environmental damage) resulting from interactions between natural or human-induced hazards and vulnerable conditions" (SA Government Information, 2008).

In addition, Vatsa (2004:7) makes a distinction between what he calls 'idiosyncratic' (individual) and 'covariate' (collective) risks. Individual risk is household-specific and refers to events that are uncertain and that can damage their particular well-being. Also, the 'impact of individual risk events on vulnerable households; depend upon the household's level of vulnerability or resilience' (Holzmann and Jørgensen, 2001, Siegel and Alwang, 1999; quoted in Vatsa, 2004:7-8).

Collective risks are classified as those events that "affect many households in a community or region" (Vatsa, 2004:7). According to Vatsa (2004:7) the size of the risk pool, represented as "the group that households can draw upon for assistance in managing the impacts of risk" determines what he calls the 'covariation of risks', in such an instance the "capacity to insure against threats depend upon the size of the risk pool" (Vatsa, 2004:7).

Therefore, the 'impact and losses of disasters or risk events are not distributed evenly; that distribution depends upon underlying vulnerabilities that arise from factors such as the location of settlements and economic enterprises, conditions of housing, and access to resources and information' (Vatsa, 2004:1-2).

4.2.3 Hazard

To be able to understand the relationship between risk, hazard, and vulnerability is to qualify what a hazard entails. According to the United States Federal Emergency Management Agency (FEMA) hazards can be defined as "events or physical conditions that have the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption of business, or other types of harm or loss" (FEMA, 1997; quoted from Coppola, 2007:24).

In the South African Disaster Management Framework (2004:113-114) hazard is similarly defined as "a potentially damaging physical event, phenomenon and/or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation". The framework adds that "hazards can include latent conditions that may represent future threats and can have different origins: natural or induced by human processes". Each hazard is comparatively unique, because it is "characterized by the location, intensity, frequency and probability" (Disaster Management Framework, 2004:114). This sentiment was born in the pre-runner to the Framework the Green Paper on Disaster Management of 1997 (13-14), which states that: 'exposure to a hazard need not necessarily mean it is a disaster, it is rather, the level of vulnerability of those who are exposed to the hazard that increases risk and, thus, the likelihood of a disastrous occurrence'.

4.3   Disaster Management

The first official Emergency Management legislation was that of the British Civil Defence in 1948 with the British Civil Defence Act.   40 Years later in December 1987 the United Nations General Assembly put Disaster Management on the international stage, by declaring the 1990s as "International Decade for Natural Disaster Reduction (IDNDR)"(Coppola, 2007:5).

In 1994 the Yokohama Strategy and Plan of Action for a Safer World was developed at the UN World Conference on Natural Disaster Reduction (Coppola, 2007:6-7). Only at this stage consensus was found on the principles of Disaster Management.   In relation with the agreements and principles discussed at the Yokohama conference it was agreed that 'comprehensive disaster management is based upon four distinct components: mitigation, preparedness, response, and recovery' (Coppola, 2007:8).   SA policy concurs with Habitat Agenda's 'Global Plan of Action for disaster prevention, mitigation and preparedness, and post-disaster rehabilitation' (Napier & Rubin, 2002:9-10).

These principles were later incorporated in the South African Disaster Management Act of 2002 (7). In the Act Disaster Management is defined as:

> *"a continuous and integrated multi-sectoral multi-disciplinary process of planning and implementation of measures aimed at preventing or reducing the risk of disasters; mitigating the severity or consequences of disasters; emergency preparedness; a rapid and effective response to disasters; and post-disaster recovery and rehabilitation".*

The Disaster Management Act of 2002 (8) defines 'mitigation' in relation to a disaster, to be "measures aimed at reducing the impact or effects of a disaster".   But mitigation also 'involves measures to reduce or eliminate the likelihood and not only the consequences of a hazard (Coppola, 2007:8).

Coppola defines preparedness as "equipping people who may be impacted, by a disaster or who may be able to help those impacted, with the tools to increase their chance of survival and to minimize their financial and other losses" (Coppola, 2007:8). Related to preparedness is 'prevention' defined in the Disaster Management Act of 2002 (8), as "measures aimed at stopping a disaster from occurring or preventing an occurrence from becoming a disaster".

The Disaster Management Act of 2002 (10) defines 'response' in relation to a disaster, as "measures taken during or immediately after a disaster in order to bring relief to people and communities affected by the disaster".   Coppola (2007:8) include relief as a component of response as in 'taking action to reduce or eliminate the impact of disasters that have occurred or are currently occurring, in order to prevent further suffering, financial loss, or a combination of both'.   Recovery 'involves returning victims lives back to a normal state following the impact of disaster consequences' (Coppola, 2007:8).

In the following section, the policy and legislative framework for disaster management in South Africa will be explored.

The Constitution of South Africa (1996) requires government to bear the primary responsibility for disaster risk management (Schedule 4, Part A, Constitution of the Republic of South Africa, Act No. 108 of 1996). Schedule 4 of the Constitution designates disaster risk

management as a concurrent national and provincial responsibility. However, the Act places the responsibility for certain disaster risk management activities within the local government sphere (Disaster Management Framework, 2002:89).

One of the first documents toward disaster management legislation in the new dispensation was the Green Paper on Disaster Management of 1997, followed by the White Paper on Disaster Management of 1999. According to the Green Paper (1997:13) disaster management in South Africa "has traditionally been viewed as an approach to the preparation for and management of discrete events such as floods, droughts and fires." For the past two decades (1990s) the relationship between disaster, risk and vulnerability and development was increasingly recognized. Legislative reform was reflected in an extensive stakeholder consultative process undertaken between 1997 and 2002 with the generation of Green and White Papers in Disaster Management, resulting in the promulgation of the Disaster Management Act, No 57 of 2002, on 15 January 2003 (4).

The Disaster Management Act 2002 introduced a cyclical approach to disaster management, based on prevention policy, mitigation of the severity of disasters, preparedness for emergencies, response to disasters and post-disaster recovery. The Act also focuses on the establishment of national, provincial and municipal disaster management centres, disaster management volunteers, and matters incidental thereto.

The Disaster Management Act 2002 distinguishes guidelines for disaster management on national, provincial and municipal level. The Act describes expectations in terms of the frameworks, Disaster Management Centre's and the powers and duties of each governmental entity.

The National Disaster Management Centre was established in 2000 within the Department of Provincial and Local Government (Napier & Rubin, 2002:9) and the National Disaster Management Framework was introduced in 2004. The framework " is the legal instrument specified by the Disaster Management Act to address such needs for consistency across multiple interest groups, by providing a coherent, transparent and inclusive policy on disaster management (section 7(1))"(National Disaster Management Framework, 2004:1).

The Disaster Management Act of 2002 prescribes the duties and expectations of Municipal Disaster Management in terms of their framework for Municipal Disaster Management Centres. According to section 44 (1), of Chapter 5 of the Disaster Management Act of 2002 a municipal disaster management centre must, among other duties, "promote an integrated and coordinated approach to disaster management in the municipal area, with special emphasis on prevention and mitigation."

In terms of prevention and mitigation the act in section 47(1) requires that 'the municipal disaster management centre carry the responsibility to give guidance to organs of state, the private sector, non-governmental organisations, communities and individuals in the municipal area to assess and prevent or reduce the risk of disasters'. They must also themselves 'find ways and means of determining levels of risk; assess the vulnerability of communities and households; increase the capacity of communities and households to minimise the risk and impact of disasters, and monitoring the likelihood of, and the state of alertness to disasters that may occur'. In this section disaster management centres are given the added expectation to 'develop and implement appropriate prevention and mitigation methodologies; to integrate prevention and mitigation methodologies with development plans, programmes and initiatives; and to management of high-risk developments'.

Section 47(2) of the Disaster Management Act also require "a municipal disaster management centre to promote formal and informal initiatives that encourage risk-avoidance behaviour by organs of state, the private sector, non-governmental organisations, communities, households and individuals in the municipal area" (Disaster Management Act, 2002:46;48). Thus, through legislation, Disaster Management policy and practice were given the responsibility "to take full account of known hazards, likely risks facing a community, and the community's capacity to withstand these hazards" (Green Paper DM, 1997:13).

In South Africa local government is a key role-player in disaster management for informal settlement communities, they are tasked with providing environmental infrastructure and services necessary to reduce risk in their municipal areas (Oelofse, 2003:271). Problems associated with informal housing are addressed through the 'Integrated Development Planning' (IDP) (Napier & Rubin, 2002:8). According to Rubin and Napier (2002:8) one of the main features of the IDP is the integration of the "community in planning and building partnerships between local government and the community to reach common developmental goals".

> *"In theory, the IDP should enable local authorities to plan according to local needs, thereby providing more appropriate development, which in turn will lead to more efficient use of resource" (Du Plessis & Landman, 2002; quoted in Napier & Rubin, 2002:8).*

The national disaster management framework (2004:2) comprises four key performance areas (KPAs) and three supportive enablers required to achieve the objectives set out in the KPAs. In addition three enablers where identified to address the key performance areas.

Table 4.1: Disaster Management Framework outline (DM Framework, 2004:2-6).

KPA 1	KPA 2	KPA 3	KPA 4
Establish necessary institutional arrangements for implementing disaster risk management' Include: the principle of cooperative governance between spheres of government, strengthened by involvement of stakeholders, and establishment of co-operative arrangements with international and local role players.	Address the need for disaster risk assessment and monitoring to set priorities, guide risk reduction action and monitor the effectiveness of efforts. Outlines: requirements for implementing disaster risk assessment and monitoring by organs of state within all spheres of government.	Address disaster risk management planning and implementation that inform development-oriented approaches, plans, programmes and projects that reduce disaster risks. Include: alignment of disaster management frameworks and planning within all spheres of government and gives particular attention to planning for, and integration of, core risk reduction principles of prevention and mitigation into ongoing programmes and initiatives.	Implement priorities concerned with disaster response and recovery and rehabilitation. Adhere to the requirements in the Disaster Management Act for an integrated and coordinated policy that focuses on rapid and effective response to disasters and post disaster recovery and to establish the roles and responsibilities and the necessary procedures to be followed.
Enabler 1	**Enabler 2**		**Enabler 3**
Focus on priorities related to establishment of an integrated and comprehensive information management and communication system for disaster risk management.	Addresses disaster risk management priorities in education, training, public awareness and research.		Set out the mechanisms for the funding of disaster risk management in South Africa.

4.4   Sustainability

The idea that there is a developmental perspective to disaster management comes to the fore in the Green Paper on Disaster Management. The Green Paper (1997:14) states directly that "there is a significant relationship in the way that disasters and development affect one another". The Green Paper (1997:14) recognizes the importance of consistency, growth and sustainability for disaster management and planning, and that "disasters are also a consequence of poor risk management over the long-term". Furthermore, disasters are recognized to be the "outcome of interconnected social and physical processes that increase risk and vulnerability to even modest threats" (Green Paper DM, 1997:14).

In the White Paper on Disaster Management (1999:7) it is recognised that 'scarce resources have in previous years been diverted for disaster relief at expense of growth and development opportunities', which has worsened the plight of poor communities in the long run (White paper: 1999:7). This is an example of unsustainable disaster mitigation planning and unsustainable development.

The relationship between sustainability and development when it comes to disaster risk and vulnerability is contradictory. On the one hand "losses from natural disasters occur because of development that is unsustainable" (Mileti et al., 1995:122). On the other hand "development can also increase the vulnerability of communities, e.g., by creating employment opportunities, that can lead to rapid urbanisation areas as people look for jobs and settle on dangerous locations". Then, disasters impact on development and can 'set back years of investment in development' (Green Paper DM, 1997:15).

The importance for development to reach sustainable goals is argued. In the name of sustainability 'post-disaster operations that include a developmental perspective' are promoted in the aim to reduce vulnerability (McEntire, 2004). Disasters lead to development programmes being designed to decrease vulnerability to, and negative consequences of, disasters. Furthermore, disasters often 'highlight high-risk areas where development and action is necessary to prevent future disaster, and the vulnerability illustrated by a disaster can motivate policymakers and the public to participate in risk-reduction activities' (Green Paper DM, 1997:15).

The United Nations simplify the relationship between disaster and development by indicating that "development can increase and/or reduce disaster vulnerability, while disasters may halt development and/or provide new opportunities for progress thereby having a negative or positive impact on future disaster vulnerability"(UNDP, 1992:15; quoted in McEntire, 2004:193). This notion is reiterated in by various authors, Carney, Drinkwater and Rusinow (1994:4); Chambers (1995) and Holloway (2006:104), who argued that a 'livelihood is only sustainable when it can cope with and recover from shocks and stresses, can maintain and enhance its capabilities and assets both now and in the future, whilst not undermining the natural resource base'. Therefore, according to Holloway (2006:105), it is important to focus attention on strengthening the "capabilities, assets (including both material and social resources) and activities required for a means of living in a sustainable manner" (Holloway, 2006:104).

4.4.1 Mitigation and sustainability

Political factors that augment risk and vulnerability have been identified as factors such as "minimal support for disaster programs among elected officials; the inability to enforce or encourage steps for mitigation; over-centralization of decision making; and isolated or weak disaster related institutions" (McEntire, 2001:191). These factors are addressed in legislation and policy in South Africa. Those that are not, depend on the effectiveness of the agents in disaster management. Another factor that is highlighted in legislation is an approach to focus on the cooperation and participation of affected communities. Through policies such as integrated development planning, government aims to make the starting point of development planning the local community.

Mitigation strategies that shift from a disaster-driven to threat-driven systems and policy are proactive rather than reactive. A 'proactive approach' requires that policy framework focus on the context and foreseeable risks in an area, Schneider (2002:143-144) calls this "living within an ecological system with foreseeable variations". The focus of this approach is to develop resilient communities through practice and policy (Schneider, 2002:143-144). Resilient communities are sustainable, and Mileti (1999:4; quoted in Schneider, 2002:143) describe a sustainable community as "a locality that can tolerate and overcome damage, diminished productivity, and reduced quality of life from an extreme event without significant outside assistance".

The goal of building sustainable communities is related to hazard mitigation strategies in disaster planning and management. For this to be possible 'economic and community development decision makers must operate with a full awareness of the risks to people and property posed by natural and man-made hazards, and through community planning should be able to anticipate and find solutions to the risks associated with potential hazards' (Godschalk et al. 1999; quoted in Schneider, 2002:143).

According to Godschalk et al (1999; quoted in Schneider, 2002:141), "hazard mitigation has been identified as a critical activity, especially with respect to recurrent hazards that are generally predictable". Important to mitigation is to be able to predict the result of interaction between "the physical environment, which includes hazardous events; the social and demographic characteristics of the communities that experience them; and the components of the constructed environment" (Mileti, 1999:3; quoted in Schneider, 2002:142). Strengthening these systems will automatically increase the capacity if individuals, communities or societies that could potentially be at risk. An added outcome of effective mitigation is that it can substantially reduce the cost of disaster response and recovery, thus resources are also spend in a more sustainable manner (Godschalk et al, 1999:17; quoted in Schneider, 2002:142).

4.4.2 Vulnerability as a way to address risk

Through concerted effort, vulnerability to and risk of disaster can be limited (McEntire, 2004; quoted in McEntire, 2005:213). By focusing on community assets and mitigation on a local level towards sustainable risk reduction, efforts are made toward reducing the vulnerability of at risk individuals, communities or societies. A major strength in an approach that addresses vulnerability is that it allows for complexity.

McEntire (2005:217) suggest five measures to managing vulnerability for disaster reduction: The first measure relates to establishing a knowledge-base: "to gain an understanding of vulnerability and also conduct regular assessments of our liabilities and capabilities in the physical and social environments". The second measure is the "education of policy makers and citizens would need to on disasters, and effort to strengthen disaster prevention and preparedness institutions". Thirdly, measures should be taken in "harnessing technology, protecting the environment, and reducing poverty to reduce vulnerability", by addressing contextual factors. Fourthly, "additional measures should be taken to implement vulnerability management by promoting individual and community empowerment and responsibility and lastly, "activities should be integrated and coordinated through public, private and non-profit partnerships and collaboration as a way to reduce liabilities and raise capabilities is" (McEntire, 2005:217).

4.5   Informal settlement fires

In informal settlements, everyday risks brought about by the development process, in the words of Bankoff et al. (2004:3), "share with disasters a common origin that an appreciation of vulnerability more fully reveals." Vulnerabilities can be very personal and distinctive, but vulnerabilities do tend to be more pronounced in developing countries and where processes of marginalization are at work, which has a strong spatial implication in terms of pushing the poor into unsafe living conditions (Vatsa, 2004:1-2,12-13).

The 'Disaster Management Framework' defines informal settlement fires as "higher frequency 'low-impact' events" (2004:4). In relation to this is stated that "small-, medium- and large-scale disaster events significantly constrains opportunities for social and economic development in the most marginal rural and urban communities" (Disaster Management Framework, 2004:4).

Informal settlement fires are recurrent hazards in informal areas and the impact is directly related to the vulnerability of those affected. Informal settlement fires occur regularly and spread rapidly, as a direct result of flammable materials used to construct the structures and the nearness of the structures to one another (Global Report on Human Settlements, 2003:11; Godwin et al., 1997:151). Such fires also threaten developmental efforts as funds and efforts that could have been devoted to implementing long-term sustainable solutions, become concentrated on remedial responses.

Studies on urban risk in South Africa show that the majority of fire related disasters are informal settlement fires, of up to 60 dwellings and of a recurrent nature (www.ecprov.gov.za). A study of 'incidents as reported in the Cape Argus found that 78% of all non-medical and non-crime-related incidents were fire-related and nearly half of all these fires occur in informal settlements' (United Nations:ISDR).

The Disaster Management Framework of 2004 addresses the socio-economic challenges related to vulnerability and threat, by consenting that "despite ongoing progress to extend essential services to poor urban and rural communities in South Africa, large numbers of people live in conditions of chronic disaster vulnerability", in underserved, "ecologically fragile or marginal areas where they face recurrent natural and other threats that range from drought to repeated informal settlement fires" (National Disaster Management Framework, 2004:1).

Informal structures in informal settlements consist predominantly of low-cost raw materials, built on small open areas near other such structures. Living in these, conditions are a risk to the inhabitants' health and safety (Swanepoel & De Beer, 2006:5). Other risks are associated to the nature of the settlement, such as health risk from damp, poor indoor ventilation, collapsing structures and risks of rapidly spreading fire (Napier & Rubin, 2002:5). Moreover, informal settlements mostly develop on un-serviced land on the outskirts of cities or towns, and in proximity to hostels or other low cost housing developments (Travis et al., 1999:178). Vulnerability to risk is increased by the qualities of the location. Settlements are often located on land seen as unsuitable for housing by the rest of the residents of the town or city.

The physical and social environment shape the risk event that occur, which in turn provide the context that will shape the way in which a risk event is played out and will influence peoples' response (Oelofse 2003:272). Informal settlements meet the immediate shelter needs for the inhabitants, while simultaneously leading to conditions that pose risk to their health and wellbeing. Therefore, Huchzermeyer et al (2006:19), argues that settlements require both technical and socio-economic interventions.

There are various problems associated with the physical characteristics of informal settlements. Poorly constructed structures from patchwork materials have the danger of collapsing, catching fire more easily, and lack of isolation lead to unhealthy dampness in the winter. Lack of basic services like water, electricity and decent sanitation also lead to health and risk problems, and the lack electricity leads to the use of gas or open fire (Global Report on Human Settlements, 2003:11; Smit, 2006:110).

Factors such as lack of electricity and running water, mean that 'meals are (hence) cooked on primus stoves and lighting is usually provided by candles', which can easily fall or be knocked over, thus igniting the shack (Godwin et al., 1997:151). The assortment of cardboard, wooden planks and corrugated iron sheets that are the make-up of most informal structures will easily catch fire (Saff, 1996:235; quoted in Darkwa, 2006:1). Furthermore, because of the proximity of these dwellings to each other, one shack fire often sets the adjacent shack alight and, not uncommonly, multiple shacks go up in flames (Godwin et al., 1997:151). In such fires, flames consume numerous dwellings before help can arrive, and dozens of families lose their homes instantly (Godwin et al., 1997:151). An incident of this nature affects a whole community and becomes a disaster on community level. These factors contribute to the vulnerability of informal settlement dwellers, leaving them less able to protect themselves against the recurrent threats of fire (Holloway, 2006:104).

According to Napier and Rubin (2002:4), when it comes to informal settlement fires "the severity of the impacts is less related to the triggering weather or other hazard process, but more associated with the growing concentration of people, services and infrastructure in urban areas, as well as sweeping and often irreversible changes in land-use. It is also significantly increased by the socio-economic, infrastructural, and environmental vulnerabilities of the affected settlements and communities".

It is important to set informal settlement fire risk within the social context, because the level of the hazard is not determined solely by the event itself, but is also the result of a combination of social and political factors linked to the context of peoples' living environments (Marsh & Oelofse, 1998:4–5; quoted in Oelofse, 2003:262).

McEntire (2005:191) identifies, "massive and unplanned migration to urban areas and the marginalization of specific groups and individuals" as key social factors that contribute to risk and vulnerability. In urban areas such marginalisation is seen in spatial/geographic isolation. These events unfold in the context of economic vulnerability, related to rural poverty and

unemployment in South Africa. As growing divergence in the distribution of wealth and sparse resources affect disaster prevention, planning and management (McEntire, 2005:192).

Insufficient housing for the influx of migrants into urban areas in South Africa leads to a range of risks. Risks then result from economic and political factors, which are sometimes exacerbated by pressures that concentrate populations in prone areas' (Bankoff et al. 2004:48). Due to a lack of housing, informal settlements develop on the outskirts of urban areas in South Africa. Furthermore, such structures can potentially pose physical risk and vulnerability due to the dangers of "improper construction of buildings; inadequate foresight relating to the infrastructure; and degradation of the environment" (McEntire, 2001:191).

According to Bankoff et al (2004:48), 'in most cases, the reduction of vulnerability is closely linked to the provision of basic needs. Services are one strategy to address 'the relation between social and economic marginality, exclusion and vulnerability' (Bankoff et al., 2004:48). Vatsa (2004:9) argue that "an individual, a household, or a community can be considered vulnerable when there is a probability that they will experience a level of well being that is below a socially accepted threshold".

Disasters have particularly negative impacts on the non-formal sector of South Africa. The Green Paper on Disaster Management (1997:14) recognise that "the costs of disasters in informal areas are often underestimated, mainly because small-scale disasters go unrecorded and receive no national priority. However, these disasters adversely affect households and individuals who feel the consequences most due to loss of income or breadwinner members. Disasters depress the non-formal economy through the direct costs of lost equipment, infrastructure, housing, lives and household utensils. Disasters also result in indirect costs such as loss of employment and economic losses."

Despite distinctive physical and social characteristics, informal settlement communities are also complex and vary significantly from one settlement to another. According to Oelofse (2003:272) it is this context that will shape the way in which a risk event is played out and will influence people's response to it.

4.6   Planning for risk and/or disaster vulnerability

> *"While good disaster planning minimises interruptions to development, poor responses can divert scarce resources, increase dependency, and actually increase vulnerability to further disasters" (Donohue et.al.: 2000).*

> *"By implementing a sustainable development system, which recognises the link between disasters and development, local authorities are able to show financial savings and improved quality of life for residents" (Kensten:2000).*

In disaster planning, a structural approach to Disaster Management and Planning was originally focused on response and recovery and has developed to include non-structural factors associated with prevention, risk management and mitigation (Vatsa, 2004:21). The initial non-structural measures included the management of human systems, such as "land use planning, zoning restrictions, building codes and insurance schemes" (Vatsa, 2004:21). Thereafter community-based mitigation plans began to be implemented as alternative to these

standard notions of mitigation planning (Vatsa, 2004:21-22). This was seen as a more community centred approach that takes into account the social and economic vulnerability of communities, as well as the cultural aspect of community life (Alexander, 1997; quoted in Vatsa, 2004:21).

Vatsa (2004:22) suggests the "asset-based approach" as an alternative and "innovative way of pursuing disaster mitigation and providing a bridge to other developmental efforts". This approach argues that assets play a central role in reducing vulnerability. Similarly, Moser (1997:2) argues that "the more assets people have, the less vulnerable they are and the greater the erosion of their assets, the greater their insecurity". Including assets in a wider approach to disaster planning and risk reduction can be linked to prominent social challenges and concepts, such as 'livelihood, human rights, social protection and social capital. Thus representing, a comprehensive approach to risk management, drawing from different disciplines' (Vatsa, 2004:22).

A comprehensive approach to disaster management will therefore comprise strategies that "connect the conventional measures of disaster management to the world of development, which includes financial assets, livelihoods, social protection, community networks, housing, and information sharing. Interventions that promote these issues could be used effectively for managing disaster risks" (Vatsa, 2004:30).

This approach to disaster management and risk reduction is central to this study and relates to the next chapter on community development. The findings of the study is analysed based on an asset based approach to disaster management from a community development perspective. The current framework for disaster management in South Africa will be overviewed in the remainder of the chapter following.

4.7   Conclusion

It has clearly been established that the contributing factors to vulnerability and risk are all interconnected and inseparable. Socio-economic factors contribute greatly to vulnerability in informal settlements and therefore government has take responsibility to address this issue and protect the safety of its citizens. On the other hand, cultural and other social factors such as attitudes and practices also contribute to vulnerability and the affected community is in the best position to understand its conditions, risks and assets. Therefore, addressing risk should be a participatory approach that focuses "both risk reduction and disaster management on multidisciplinary processes, engaging a wide range of stakeholders" (Green Paper DM, 1997:14). Many scholars seem to agree that we need a comprehensive, integrated, coherent, multi-dimensional and aggressive disaster policy. Geis (2000:152; quoted in McEntire, 2005:206) states that "everything is interconnected and a holistic, integrated approach is required".

Disaster management and planning strategies attempt to address risk by increasing an appreciation for safety precautions and preventative measures; including and considering diverse populations, and in a sustainable manner learning from past disaster lessons to reduce future liabilities. Improvements in mitigation, preparedness, response and recovery operations, in addition to the involvement of the entire population in disaster management programs, can, according to McEntire (2001:192) do much to promote future capabilities. This, of course, does not mean that it will be possible to eliminate all vulnerabilities. Human knowledge about and control over the physical and social environments will always be

inadequate. Nonetheless, it is increasingly clear that something should be done to reverse the trend toward increased vulnerabilities (McEntire, 2001:193).

Attempts to decrease vulnerability and increase capacity form part of mitigation and preparedness for risk, and stress social rather than physical approaches that emphasise pro-active, rather than reactive actions (Weichselgartner, 2001:86). Salter (1997/98:22; quoted in McEntire, 2005:207) stresses the "need for the field to become proactive, increase partnerships with other agencies, and accept the findings from all disciplines".

Related to the assets based approach to addressing vulnerability and risk to disaster or hazards, as outlined in this chapter, the next chapter will focus on approaches in Community Development. These approaches focus on the assets of individuals and community as a foundation for development efforts.

Chapter 5 – Community development: conceptual and theoretical framework

5.1 Introduction

In the previous chapters, much emphasis was placed on the role of government legislation, policy and planning. The impact that government policy has on the lives, choices and opportunities of the poor is vital to understanding the problems and opportunities of the poor. Furthermore informal settlement dwellers are very much reliant on the national and local government to be able to mitigate their circumstances.

In South Africa, increasing attention is given to inclusive local government strategies that emphasise public participation and integrated development planning. Such strategies stem from the shift in academic development thinking to go beyond macro level growth models, towards placing the individual at the centre of development. This is popularly known as People-Centered Development. This chapter will explore a theoretical framework presented by 'community development' as micro-development approach and will also serve as conceptual framework for analysing the empirical data.

5.2 'Development' and 'Community Development'

All development theories, be it macro-economic or people-centered, have defined developmental goals and theories on change (Martinussen, 1999:331). People-centered development theorists argue that there is a "need for a shift from growth-oriented development strategies" to strategies that "give first priority to the fulfilment of the basic needs of the poor" (Friedman, 1992; in Martinussen, 1999:332).

Constanza et al (2006:2), argue that people seek change through development to be able to obtain improved quality of life. In agreement with Chambers (1997; quoted in Allen & Thomas, 2000:23), development is viewed here as 'good change', to reach desired quality of life. Quality of life is defined by Constanza et al (2006:2) as "how well human needs are met or the extent to which individuals or groups perceive satisfaction or dissatisfaction in various life domains". According to this definition, quality of life is not limited to the individual, quality of life in a community or a country can be pursued by creating opportunities for human needs to be met (Constanza et al. 2006:3).

This definition of 'quality of life' relates to 'community development' theory. Community development theorist Jnanabrata Bhattacharyya (2004:5) defines community development as a 'process aimed at building solidarity and agency', where "solidarity is the essential characteristic of community, and the promotion of agency within the community is the purpose of development". In this case, development is an endeavour for 'human autonomy or agency' (Bhattacharyya, 2004:12). Human autonomy or agency can be defined as: "the capacity of people to order their world, the capacity to create, reproduce, change, and live according to their own meaning systems, to have the power to define themselves as opposed to being defined by others" (de Certeau, 1986; Giddens, 1984; in Bhattacharyya, 2004:12). Therefore, he argues that there should be a redistribution of power from the driving forces, like the state and market, to the individual and community.

In this way development, through the concept of agency, is linked to choice. Agency promotes human development and empowerment. The concept of agency is founded on the choices available to one that is "able to intervene in the world, or refrain from such intervention, with the effect of influencing a specific process or state of affairs" (Bhattacharyya, 2004:11). In this context human development is positively associated with the creation and promotion of people's choices and capabilities. To have a right to chose and have the opportunities to direct one's own life is also the foundation of modernity and democracy (Bhattacharyya, 2004:13).

It is possible to argue that 'quality of life' can be improved without reaching human autonomy. Many developmental agendas followed by states and aid organisations are aimed at changing the unsatisfactory conditions associated with poverty and deprivation, thus at improving the quality of life of the poor. However, it is a short sighted endeavour if the promotion of agency is not concurrently prioritised; because, as mentioned, development is not a once-off process of change to something better (Allen & Thomas, 2000:24). Allen and Thomas (2000:24) argue that "true development is a matter of changes occurring at both the level of social change and change in the individual at one and the same time". If individual development does not take place at the same rate as national or societal development, those individuals or communities will be left behind and be excluded from taking part in society, due to the incapacity to adapt to developmental changes.

5.3 The 'community' in Community Development

5.3.1 Community

The 'community' is the focus of development in 'community development theory'. A 'community' encompasses the people, structures and resources in direct relation to development efforts on the micro-level. The sociologist Tonnies (1887) formulated one of the earliest constructs of 'community'. Tonnies distinguished between Gemeinschaft (community) and Gesellschaft (society) (Gilchrist, 2004:2). Gemeinschaft incorporates the "concept of traditional community, in the natural soil of place, family, and kin" (Aigner et al, 2002:87). However, Tonnies also argued that Gemeinschaft goes beyond mere geography to include a 'common experiences, shared values, and mutuality' as a distinctive characteristic of what community life is (Gilchrist, 2004:2).

His follower Durkheim (1893) also inspired the field of community studies. He emphasised the common experience essential to community life and argued that 'community' represented a form of 'organic solidarity' (Gilchrist, 2004:2). Organic solidarity is embodied in "tightly knit bonds between members, groups, and cohesive communities" (Aigner et al, 2002:87). In this way, 'community' is a loaded term. Hence, a community cannot only be distinguished from others by its physical characteristics, but 'community' also has value as a connected group of individuals.

Contemporary community development theorist Bhattacharyya (2004:11) furthers Durkheim's train of thought in his definition of 'community development'. In which he argues that 'community development is 'a process aimed at building solidarity and agency' (2004:5). He continues to state that 'solidarity is the essential characteristic of community', because 'a neighbourhood cannot automatically be assumed to be a community regardless of the absence of any cohesion' (Bhattacharyya, 2004:11). The 'community', thus, exists

through a 'shared sense of identity', and not because it is defined as such by others (Butler, Flora and Flora, 2004:7).

As a group, informal settlement dwellers share physical threats and risk to their shelter and well-being; they are all vulnerable to the daily 'threat of fire'. This vulnerability is perpetuated and aggravated by social, economic, and political vulnerabilities that have contributed to their current living conditions. Therefore, members of informal settlements are tied by their shared vulnerability.

Yet, Durkheim, Bhattacharyya, Butler, Flora and Flora, and Swanepoel and De Beer argue that "sharing vulnerable circumstances does not necessarily mean that individual members may view themselves as part of the community solely or at all" (Swanepoel & De Beer, 2006:43). Cohesion can be fostered between community members through circumstance, like through shared interest, on which solidarity can be based (Bhattacharyya, 2004:11), but solidarity and cohesion are not necessarily inherent to community life. A sense of community is constituted by face-to-face social interactions and social relationships (Aigner et al., 2002:86). What is more, solidarity is built on relationships, strains, and conflicts that are always under the surface (Bent, 1997; quoted in Gilchrist, 2004:4).

Forrest and Kearns (2001: 2125) explore the issue of social cohesion in contemporary urban neighbourhoods. A key characteristic of contemporary urban neighbourhoods, they argue, is that there is a constant influx of newcomers and that there are great cultural and identity differences between neighbours. This issue has Forrest en Kearns (2001:2126) questioning the capacity of neighbourhoods as communities. Cars et al. (1998; quoted in Forrest & Kearns, 2001: 2126) argues that disadvantaged areas "suffer especially because of a lack of qualities and elements that produce and sustain social cohesion and that the poor in poor neighbourhoods are fragmented". They are increasingly excluded from mainstream society.

Defining members of informal settlements according to social cohesion is therefore problematic. Because if communities exist due to their shared interest and cohesion, a fragmented group, which informal settlements are likely to be, cannot be seen as a community. The interactional approach to community development address this problem by not focussing on the community as a body reliant on cohesion or solidarity but as a dynamic field of interaction. From this perspective, a community should be viewed as a dynamic interactional field, which "denote the network of social interactions that contains and integrates various community interests in a local society'' (Wilkinson 1999:81; quoted in Pavey et al., 2007:93).

Bridger and Luloff (1999:386) suggest that limits to community action can be addressed by 'delineating the various social fields that comprise a community'; where the 'community field' cuts across social fields to incorporate all areas that affect the community (Wilkinson 1999; quoted in Pavey et al., 2007:93). In this approach the community setting can be distinguished, but it is not central, 'the community occurs in places and is place oriented, but the place itself is not the community, it simply serves as the setting in which social interaction occurs' (Theodori, 2005:663).

5.3.2 Networks

Almost all approaches to community development stress the importance of relationships both among community members and between communities and outside groups and organisations.

Gilchrist (2004:2) emphasise networks as the core of community interaction. Through making connections communities can gain access to more resources and enhance their ability to cope with difficulty. This in the long run leads to empowerment through promoting agency. A "well-connected community should better able to mobilize local and extra-local resources to effectively act" (Putnam, 1993; 2000; in Agnitsch, Flora & Ryan, 2006:36).

According to Theodori (2005:666) the development of community is a "much broader process than economic development, modernization, improved service delivery, and other developments in the community. This type of development consists of establishing, fostering, and maintaining processes in the community that encourage communication and cooperation between/among individuals, informal groups, and formal organizations."

The place of residence provides the staging grounds upon which social and environmental interactions take place (Collinson & Kok, 2006:10). Networks of informal relationships in a community make it easier for people to communicate and cooperate with one another, because they create the condition for collective action. By utilising networks, people are enabled to work together to achieve shared interests (Gilchrist, 2004:8). According to Goodman et al (1998; quoted in Laverack, 2001:140), "the ability of the community to mobilization resources both from within and the ability to negotiate resources from beyond is an indication of a high degree of skill and organization." This again resonates with the idea of 'community fields' where the key characteristic of fostering network relations lies in strengthening the community field by building organisational capacity (networks) between various stakeholder organisations within the community field (Bridger and Luloff, 1999).

5.3.3 Networks and deprivation

Poverty contributes to social fragmentation, because it can be an obstacle to communication and co-operation (Oelofse, 2003:269). Particularly between poor communities and external institutions, organisations and other role-players on whom they may be dependent for resources or access to resources.

Edelman (2006:32) argues that informal settlements dwellers that lack other social networks rely heavily on political networks to improve their living conditions. Concerned community members often resort to leadership within the community, be it traditional or democratically elected, with concerns and problems.

Disadvantage and deprivation can be a major obstacle to communication and cooperation. Linked to poverty and isolation is the unequal 'distribution of power and resources between communities and the structures that transcend them' (Emmett, 2000:503-504). Restrictions posed by an unequal relationship are manifested in a lack of access to power structures, and inaccessible legislation and policy (Oelofse & Patel, 2000; quoted in Oelofse, 2003:269).

Not all networks or relationships are always beneficial to the individual or community (Gilchrist, 2004:9). Inequality in a community manifests in unequal relationships, as 'networks often contains pockets of power' (Gilchrist, 2004:9). Such 'inequalities can undermine the reciprocity that is needed to sustain relationships and may provide a systematic advantage for a specific group' (Gilchrist, 2004:9).

Such relationships are unsustainable and not beneficial to the community (Gilchrist, 2004:9). Community relationships with external structures should be ties that strengthen community

resources through the capital, skill, information and connections that can contribute to developmental efforts. Equal partnerships should serve as a catalyst for action taken by community members to "effect change in the policies and practices that influence their lives" (Fawcett et al., 1995; quoted in Laverack, 2001:140).

5.3.4 Community capacity

Wilkinson (1999:87) attests that the value of community development lies in "the efforts of people and not necessarily in goal achievement." The interactional theory's focus on relationships that can stimulate community capacity and strengthen the community's potential for self-governance (Pavey et al., 2007:93).

All people have different dimensions to their lives and are influenced by the various environments in which they negotiate their daily exploits. This includes al domains that influence individuals, like the physical, social, political, cultural and economic environments. These environments can also be seen as capitals or resources. Butler Flora, and Flora (2004:9) argue that 'every community, irrespective of poverty and vulnerability, has resources' be it social, political, economic, or otherwise. What is also important to empowerment is the ability of the community to be able to critically assess the social, political, economic and other contextual causes that contribute to their level of disempowerment' (Lall et al., 2004:140).

In their model of 'Whole Community Organizing', Kretzmann and McKnight (quoted in Aigner et al., 2002:92) argue community empowerment will not only strengthen the community solidarity, but also enable them to build strong relationships with role-players outside the community. The concept of 'whole community organizing' is based on four principles. The first is that if empowered 'communities should be able to address issues on the outside and the inside of the neighbourhood or community'. Second and thirdly the whole person should be addressed and everyone should contribute (Aigner et al., 2002:92). Lastly, a 'community needs to develop a coherent organization with the capacity to collaborate with external resources before reaching out' (Aigner et al., 2002:93).

The Community Capitals Framework (CCF) relates to whole community organising, it is one way of focussing on all the areas of peoples' lives and communities as a whole. This comprehensive theoretical framework makes it possible to analyse community efforts from a systemic perspective. The key principle of the CCF is that 'every community, however rural, isolated, or poor, has resources within it. When those resources or assets are invested to create new resources, they become capital' (Flora & Flora: 2004). The CCF is based on a field of Community Development called the Asset Based Community Development (ABCD) approach that argues that assets should be the starting point for grassroots development (Aigner et al., 2002:90).

In the CCF, a distinction is made between material factors, also called capitals, and human factors that influence communities. The material capitals identified are natural capital, financial capital and built capital. The human capitals include cultural capital, political capital, human capital, and social capital (Flora & Flora, 2006:19). The strength of political capital in the community is very relevant to this data analysis, because the local municipality and other levels of government play a large role in the way that informal settlement fires are addressed and the resources made available to the community regarding this problem.

Edelman (2006:32) argues that informal settlement dwellers that lack other social networks rely heavily on political networks for improvements in living conditions.

Political capital refers to access to power, organisation, connections to resources and so forth, and influences a community's ability to find its own voice and engage in action (Flora & Flora, 2006:19). Furthermore, the process of community development is political. The taking of power and the resulting decision-making on the utilisation of scarce resources are political acts (Swanepoel & De Beer, 2006:xiii).

5.4   The informal settlement community

The characteristics of informal settlement life coincide with and perpetuate poverty and social exclusion (Global Report on Human Settlements, 2003:11). The physical and social characteristics of the environment in which an informal settlement is located provide the context in which a risk event or hazard occurs. Poverty is one of the main features of informal settlement life (Travis et. al, 1999:178). Poor informal settlement dwellers are constantly at risk and have low socio-economic status, making them more vulnerable than the rest of society.

An informal settlement is a mainly unplanned and sub-serviced area made up of dwellings that are unstructured, self-constructed from raw materials built close-together (Saff, 1996:235; quoted in Darkwa, 2006:1). Such settlements mostly develop on the outskirts of cities or towns, and in proximity to hostels or other low cost housing developments (Travis et al., 1999:178).

Social problems that particularly afflict informal settlements include insecure land tenure, which leads to legal and economic vulnerability; and high density and overpopulation, that lead to unhealthy living conditions and intensifies risks such as fire hazards (Smit, 2006:110).

The term 'informal' refers to both the physical nature of shelters and the unplanned and often illegal means of occupation (Huchzermeyer & Karam, 2006:3). These factors contribute to the vulnerability of members of informal settlements (Holloway: 2006). In earlier chapters it has been established that poverty and urbanization are two of the main factors that lead to the development of informal settlements, therefore leading indirectly to informal settlement fires, the suffering and loss endured by the affected and the resources needed to address the problem.

5.5   External forces in relationship to the community

In today's society, and especially in urban settings, community boundaries are not clear and external forces influence many community processes (Bridger & Alter, 2006:14). Historically development, through urbanisation and globalisation, has contributed to "increasing contact with and reliance on extra-local institutions and sources of income and employment" (Warren, 1972; quoted in Bridger & Luloff, 1999:382).

As a result, decisions affecting local life are mainly made outside of the community (Warren, 1972; quoted in Bridger & Luloff, 1999:382). When outside forces such as local governments and civil society organisations make it their business to work or deal with communities, the

'community' is often collectively regarded as receivers or non-receivers of services, or as targets of development and beneficiaries (Swanepoel & De Beer, 2006:43).

When external role-players define communities according to their disadvantage, 'community' problems are approached accordingly (Swanepoel & De Beer, 2006:43). According to Bridger and Alter (2006:14), as extra-local forces drive community processes, the actions of decision makers and implementers often express private interest. This leads to a clientele's giver and receiver relationship between governments or organisations, and communities that can create chronic dependency and hinder development, because no opportunities are created for the 'receiver' to 'break out of the relationship' (Bhattacharyya, 2004:13).

As a result, there has been a growing emphasis in development circles on facilitation of development through community involvement and empowerment. Especially on local government level, internationally and locally, there is a trend toward community involvement by defining local governments' role in development, to be facilitators rather than agents (Oelofse, 2003:271). To facilitate development entails that the development effort is not controlled, but only promoted by the facilitator.

There are two concerns that can be raised against this form of community organising. One critique is that through 'promoting community involvement' by facilitation, 'governments seek to avoid demands for significant redistribution of resources and opportunities' (Gilchrist, 2004:10). This is based on the socialist argument that government has a social responsibility toward the poor and disadvantaged of society. Accordingly, it should not be expected of disadvantaged communities to mobilize resources that they do not have.

The other critique is on the implementation of policies and programs. Many policies and programs are designed to include and conform to community norms and desires, but because they are formulated outside the community, there is still often little regard for local circumstances with limited participation of community members in decision-making (Bridger & Luloff, 1999:382). Consequently, those in positions of power still 'regard development projects as theirs and not belonging to the affected communities' (Swanepoel & De Beer, 2006:20).

> *"Any effort from the "top" to plan or develop a shared vision has to include the marginalized. Otherwise, lingering resentments and distrust of the elites' motives continue. An effort should be made to break down diffusion and prevent othering by not objectifying a 'target'..."* (Aigner et al., 2002:93).

5.5.1 Public participation and the 'community' as participant

Despite disparities between the philosophy and practice, facilitation in development efforts is a positive step towards empowering community members in becoming agents of their own future. However, participation without empowerment does not equal development.

Critics argue that in practice, government often only uses the term 'community' to 'soften the edge of state interventions' (Gilchrist, 2004:10). Community members may participate 'with different degrees of intensity at the project or neighbourhood levels' (Mohamed, 2006:36), without having influence on major decision that determine their livelihoods and futures. In government rhetoric, development efforts then sound progressive and inclusive, while in practice true community involvement in driving their own development is not affected.

Through facilitation local stakeholders strive to offer 'communities the opportunity to better plan for their futures by tailoring regulations and programs to fit local circumstances' (Pavey et al., 2007:91). Bhattacharyya (2004:12) argues that the "ultimate goal of development should be human autonomy or agency." Therefore, any developmental effort that includes or targets a specific community will only be successful if the result is that the community is empowered to act. Agency also incorporates the capacity of local individuals and communities. Bhattacharyya defines agency as:

> *"the capacity of people to order their world, the capacity to create, reproduce, change and live according to their own meaning system, to have the powers to define themselves as apposed to being defined by others" (de Certeau, 1986; Giddens, 1984; in Bhattacharyya, 2004:12)*

Therefore, facilitators must aim to 'stimulate the capacities of local people and institutions' (Brunner and Steelman 2005; Dukes 1996; Innes and Booher 2003; in Pavey et al., 2007:91). Pavey et al. (2007:91) suggests that the 'resources and energy of local residents to collaboratively plan for the future can be united by leveraging the strength of communities of interest. In this regard, the role of facilitators is to bridge the gap between parties of interest, what they call the 'community of interest' and the local community (Murray & Dunn, 1996; quoted in Pavey et al., 2007:91). Thus creating mutual opportunities for parties of interest and opening the door to new resources for the 'community'.

5.5.2 Local government on municipal level, NGO's and CBO's

Development is about affecting development and bringing about change. There are different ways in which change is approached. Action is driven by "the interest a person or a group has in achieving a goal" (Swanepoel & De Beer, 2006:17).

Different stakeholders approach community problems and change differently and according to their own agenda's and fields of expertise. Swanepoel and De Beer, 2006:17) differentiate between stakeholders on different levels; this includes the levels of government, private sector, non-governmental organisations, and community sector stakeholders.

The way in which community action is approached can also be differentiated in terms of the position of the stakeholders. Decision-makers that hold power manage the flow of resources from the top. A so-called "top-down" approach to community development focuses on social planning, policy, technical assistance and traditional politics (Rothman, 1995; Christenson, 1989; Hanna & Robinson, 1994; in Aigner et al., 2002:89). In this approach, community participation is often limited, especially about decision-making in planning and policy. Bureaucratic organisations such and governments, private sector and large civil society organisation stakeholders have traditionally used this approach to community organising. Top-down development can be ineffective because a lack of participation and dependency. This approach may "lead to substantial change in the community, but does not build the local capacity of the community" (Aigner et al, 2002:90). If capacity is not built, communities are not empowered and will have gained no assets to further their own development. Even fostering real participation in decision-making is problematic and often neglected, because it can be time consuming, and this constraint leads to token participation facilitated only to speed up the process (Aigner et al, 2002:89).

The interactional approach to community development argues that the community should be regarded as a field of relationships and networks. According to the interactional approach, there are several social fields of action in a community. Social fields include such areas as economic development, health care, education recreation, faith-based services, local government etc. (Pavey et al., 2007:93; Theodori, 2005:664). "Each field is generally marked to a greater or lesser extent by its own identity, organization, core interactional properties and set of specific and/or institutional interests" (Theodori, 2005:664). An example of such fields in this case study is the local government and disaster management fields as part of the public sector involvement and resources in Kayamandi. At times, the community field may be strong, and at times, it may be relatively weak. In many of our distressed rural and urban communities, fragile bonds hold the community field together.

However, regardless of its state at a particular time, community development aims to strengthen the community field by building from existing fields of interaction to find points of intersection around which actions can occur and linkages made (Luloff & Bridger, 2003; Bridger & Alter, 2006:15). This approach requires that residents and community development practitioners focus on the community, even when an effort or program is directed at a specific problem (Bridger & Alter, 2006:15).

In South Africa local government is a large stakeholder in informal settlement communities, they are tasked with providing environmental infrastructure and services necessary to reduce risk in their municipal areas (Oelofse, 2003:271). Problems associated with informal housing are addressed through 'Integrated Development Planning' (IDP). One of the main features of the IDP is the integration of the "community in planning and building partnerships between local government and the community to reach common developmental goals" (Napier & Rubin, 2002:8).

5.6   Vulnerability

One of the most comprehensive definitions of vulnerability is presented by Coppola (2007:25). He defines vulnerability as:

> *"a measure of the propensity of an object, area, individual, group, community, country, or other entity to incur the consequences of a hazard. This measurement results from a combination of physical, social, economic, and environmental factors or processes. Vulnerability can be decreased through actions that lower the propensity to incur harm, or it can be increased through actions that increase that propensity... populations have vulnerabilities as well, which are raised or lowered according to their practices, beliefs, and economic status"* (Coppola, 2007:25).

Similarly the National Disaster Management Framework (2004:117) reiterates in its definition, that "conditions of vulnerability and susceptibility to the impact of hazards are determined by physical, social, economic, and environmental factors or processes". While the South African Disaster Management Act of 2002 (p10) quite clearly and simply defines vulnerability as "the degree to which an individual, a household, a community or an area may be adversely affected by a disaster".

5.6.1 Contextualising vulnerability

Countless variables interact to cause and increase vulnerability. In definitions of vulnerability, a distinction is made between physical, social, political, economic and technological factors that augment vulnerability.

Social factors include limited education or knowledge about disaster; massive and unplanned migration to urban areas and marginalization of specific groups and individuals (McEntire, 2001:191). For example Bankoff et al. (2004:49) argue that in developing countries, increases in vulnerability are related to factors such as rapid and uncontrollable urban growth and environmental deterioration. These social problems are related to the economic factors of "growing disparity in the distribution of wealth, the failure to purchase insurance and limited resources for disaster prevention, planning and management" (McEntire, 2001:192).

Then there are physical and technological factors that influence vulnerability. The most basic physical threat is the "proximity of people and property to triggering agents" in their surroundings. This relates to "inadequate foresight relating to the infrastructure, and the degradation of the environment" that can potentially lead to risk and hazard. Technological factors include lack of structural mitigation devices, ineffective warning systems, and carelessness in industrial production (McEntire, 2005:191-192).

There are various cultural factors that contribute to vulnerability, McEntire, (2005:192) identifies "public apathy towards disasters, defiance of safety precautions and regulations, and dependency and an absence of personal responsibility" as such factors. Mileti is more abstractly stating (1999; quoted in Vatsa, 2004:10) "social factors in risk vulnerability as similarly influenced by values, attitudes and practices". This relates to the augmenting effect of exclusion or discrimination on gender, class or ethnic basis on vulnerability to disaster (Vatsa, 2004:10).

The political factors identified by McEntire (2005:191) include "minimal support for disaster programs among elected officials; over centralization of decision making; and isolated or weak disaster related institutions". As Bankoff et al (2004:5) argue "which areas are vulnerable, and why the people living there are considered as such, often form part of a political discourse evoked by both international agencies and national governments to decide who should receive assistance and in what manner".

Furthermore, disaster management activities taken in response to above mentioned factors may also contribute to vulnerabilities (Vatsa, 2004:10). Vatsa (2004:11) has identified the following examples: "Structural mitigation devices can exacerbate hazards of which, an example is dam related flooding; planning based on false assumptions may inhibit effective responses; the provision of disaster relief may subsidise risk-taking and encourage dependence on others while response and recovery operations may sometimes ironically augment vulnerability" (Vatsa, 2004:11).

From these distinctions, it becomes clear that "the development process is itself creating diverse vulnerabilities" (McEntire, 2005:120). A perspective shift toward an approach focused on vulnerability moves away from former technocratic approaches to risk, which focused on the tangible aspects of a disaster to include various socio-economic factors. Vulnerability expresses changing social and economic conditions in relation to the nature of a hazard and is part of a dynamic process (Lewis, 1999; quoted in Bankoff et al, 2004:2). Furthermore, social and cultural processes that give rise to vulnerability are subordinate to,

and enmeshed in, broader processes that are expressions of international and national political and economic considerations (Cannon, 1994:24; quoted in Bankoff et al. 2004:2).

5.6.2 Addressing vulnerability through Assets

The diverse vulnerabilities identified by McEntire (2005) are similar to those identified in community development theory. In particular the CCF where social, economic and political factors are paradoxically seen as potential assets or capitals that needs to be developed and utilized in the developmental efforts of a community.

Vulnerability is embedded in complex social relations and processes. There is therefore a need for more local and dynamic analyses of what makes certain people vulnerable to risk and through what processes they become resilient (Bankoff et al. 2004:5).

One way to address vulnerabilities is through focusing on assets as 'the key to reducing risk and vulnerability'. Accordingly, households resist and cope with adverse consequences of disasters and other risks through the assets that they can mobilize in face of shocks (Vatsa, 2004:1). Vatsa (2004:22) define assets "as the stock of wealth in a household, representing its gross wealth. Assets can be tangible, such as land, house, jewellery, savings, and education and skills, or intangible assets such as household relations, social capital, proximity to markets and health and education facilities, and empowerment".

Assets are also a progressive way to understand the relationship between vulnerability and poverty. According to Vatsa (2004:14) "low asset base and limited livelihood opportunities trap low-income group into a vicious cycle of poverty and deprivation". He argues that for households to be able to cope with risks "they must have a minimum level of assets and those households that do not have the essential assets, slip into situations where they cannot cope with risks and reach a breakdown point" (Vatsa, 2004:26).

Assets are not limited to economic asset in the form of financial support. Gilchrist (2004:3) argues that "community networks enhance peoples' ability to cope with difficulties and disasters. Sharing scarce resources during times of hardship is common among communities living in poverty or harsh environments, and can be crucial to the survival of some community members". Last mentioned is an example of social assets, political assets that may also play a large role in the coping mechanisms of affected individuals and communities, understanding vulnerability requires taking into account people's experiences and perceptions. Therefore Bankoff et al (2004:3) observes that "current preoccupation, in practice and literature, with 'local knowledge' stems from the realization that for many people this is the only remaining asset they possess and leaves them little option but to manifest their capacity through political organization and activism". Disasters can impact on social capital, but can also be influenced by social capital through better community cohesion and response (Gilchrist, 2004); (Bruhn:2005); (Coleman, 1988; quoted in Bridger & Alter, 2006); (Flora&Flora 1993; quoted from Cavaye, 2004:3); (Edelman & Mitra, 2006:25).

5.7 Conclusion

The majority of the South African population 'suffers' from what Swanepoel and De Beer (2006:10) calls societal poverty. The state of poverty that the country is currently experiencing is affected by historical inequalities and massive unemployment. Furthermore, poverty impacts on the measures that individuals can take to sustain their livelihoods. One of the means through which the poor attempt to survive or even improve their livelihoods is by migrating to the urban centres where economic growth is taking place. Unfortunately, this leads to sprawling informal settlements, due to the rapid pace of urbanisation coupled with unemployment and poverty. Consequently, informal settlements have become the face of urban poverty in South Africa.

The South African government attempts to address the issue by following macro-economic growth policies and the delivery of as many houses as they possibly can. But, until the economic growth of the country is shared more equally amongst its citizens, more employment opportunities are created and all other issues associated with poverty are addressed, poverty will continue and the housing backlog will not be met. In the meantime, informal settlement communities face acute social, economic and material problems, which leaves them vulnerable and abject (Smit, 2006:117).

Therefore, structural factors in South African contribute enormously to limiting the choices and development prospect of informal settlement dwellers. However, knowing that there are structural constraints to individual and community development does not mean that all attempts made by communities or interest groups to better circumstances are in vain. Butler, Flora and Flora (2004:9) argue that, despite poverty and vulnerability, every community has resources be it social, political, economic or otherwise. Given Butler, Flora and Flora's argument, communities have an asset base upon which development can be built. Therefore, a community can begin to gain the power to bring about change through identifying community assets and finding ways to harness them. For this to be feasible, the 'developmental state' should provide the opportunities for political action and eventually the fostering of their agency.

Chapter 6 – Methodological approach

6.1   Introduction

The research methodology was based on a qualitative design focused on in-depth study. In-depth study was necessitated by the explorative nature of the study of a micro-level developmental problem within the demarcated parameter, of 'Informal settlement fires in Kayamandi'. As a qualitative research design the study aims to 'describe the actions of the research subjects in detail and attempt to understand the actions in terms of the relevant context (Babbie & Mouton, 2004:79).

The empirical research element of this study is focused on identifying the approach of the relevant role-players to addressing the occurrence and outcome of informal settlement fires. The role-players include government, non-governmental organisations, and the informal settlement dwellers affected by informal settlement fires. The research methods included secondary data analysis, fieldwork observation and interviewing. The methods were selected to provide a comprehensive understanding of the role-players affected by and involved in informal settlement fires in Kayamandi and understand the dynamics involved in addressing the 'problem'.

To appreciate the problems faced by an informal settlement community thoroughly only the 'problem' of informal settlement fires in one informal settlement was analysed. The study is demarcated to the geographical space of Kayamandi, an informal settlement of Stellenbosch in the Western Cape Province of South Africa, although stakeholders from outside the community was included in the interviewing process, including provincial and district municipal officers. This is due to the fact that different levels of decision-making and planning in disaster management influence the way in which informal settlement fires are addressed by the local government and as particularly observed in the case of Kayamandi.

The research questions are twofold: Firstly, how the problem of recurrent fire hazard in informal settlements is constructed by the different role-players? Secondly, how this affects the way in which the problem is addressed?

The purpose was firstly, to identify the role-players that are involved or have an interest in efforts of fire prevention, response, and mitigation of risk. Secondly, to understand what interest each of the role-players has with regard to the problem of fire risk. Thirdly, to find out how the role-players address the problem of fire hazards, and lastly, how the different interest groups are linked, if at all.

6.2   Research design

The qualitative approach to social research takes the inside perspective on social action as point of departure (Babbie & Mouton, 2004:270). Regarded as the naturalistic approach to social research, philosophical assumptions are the foundation of qualitative research. This

also includes a unique approach to methodology that makes use of multiple sources of information and narrative (Creswell, 1998:15). According to Nachmias and Nachmias (1987:287), qualitative researchers must gain an empathic understanding of societal phenomena. For this reason qualitative research is not stringent when it comes to data collection, it is focused on the reflexive relationship between social theory and methods, which Marvasti (2003:11) also calls a "give-and-take relationship".

There are various reasons for conducting qualitative research, mainly because the nature of the research question and topic requires in-depth study. The research question for this study required in-depth study, firstly because it refers to construction of meaning (problem) by a specific group of people (role-players) and because it addresses the dynamics associated with the problem of informal settlement fires. Not only does the study aim to explore the topic of 'informal settlement fires in Kayamandi', it also aims to examine the problem from a relatively new perspective that include the relationship between Disaster Management and community development and how this is reflected in the study of the role-players involved in addressing the problem (Babbie & Mouton, 2004:79).

This study is explorative as it deals with 'identifying' and 'understanding' the way in which the problem is addressed and the way in which the role-players are linked. The questions are not based on prior knowledge or assumptions, but rather on the notion that informal settlement fires can be seen as a problem with social elements and worthy of social study. The purpose of the primary research is focused on exploring and gaining an understanding of the problem of informal settlement fires and the dynamics involved in addressing the issue.

6.3   Unit of Analysis

The study is demarcated to Kayamandi informal settlement in Stellenbosch in the Western Cape Province of South Africa. To be able to study all the elements of the research question in-depth, it was necessary to narrow down the area of study to a single informal settlement. Generally the 'unit of analyses refers to 'what' is being studied, this can include an "object, phenomenon, entity, process, or event you are interested in investigating" (Babbie & Mouton, 2004:84). In this case the study investigates the role-players and social dynamics related to the 'incidence' of informal settlement fires in Kayamandi. When the subject of study is based in the 'real-life' as is the case, it is referred to as an empirical research problem (Babbie & Mouton, 2004:84). Therefore it is an empirical research study that includes interviews and observation of real-life experience and action.

Sjoberg et al. (1991:37), distinguish between micro and macro levels of analysis, and emphasize the complex interaction between these levels. For the purposes of this study, the relationship between the macro and micro level is analysed as lines are drawn between different levels of involvement of the State in disaster management. In addition, there is an examination of the relationship between the South African socio-economic developmental context and informal settlement livelihoods. People are not only social beings but also intersect with organisations and other autonomous agents (Sjoberg et al., 1991:39).

Thus, the issue or social problem of informal settlement fires in Kayamandi serves as the micro-level focus point. The case includes all role-players affected and involved in addressing the issue, and also includes the government legislation, policy, and role-players involved in disaster management from a macro to a micro level perspective. The main area of

study is the informal settlement of Kayamandi, while the interviewees include various role-players from local and provincial government officials to a community-based organisation.

Kayamandi is a township and not all the structures are informal, but the study mainly focused on the informal areas of Kayamandi, and the dynamics specific to addressing the problem of informal settlement fires. Despite distinctive physical and social characteristics, informal settlement communities are also complex and vary significantly from one settlement to another. According to Oelofse (2003:272), this context will shape the way in which a risk event plays out and will influence people's response to it.

6.4   The 'problem' investigated

Man-made fires are both an environmental and social problem with roots in societal factors that influence the context in which these fires occur and the manner with which they are dealt with. An informal settlement fire risk is not mainly a structural problem related to the nature of the structures, but is also affected by non-structural risks that drive vulnerability in informal settlements. Informal settlements are often seen as a 'problem', which needs to be eradicated, and little attention is given to the 'problems' facing informal settlement dwellers.

According to Rubin and Rubin (2001:26) a social problem is a "shared understanding of what its causes are and an agreement on what can and should be done about it". As different parties may differ in the framing of a single social problem, it reflects the underlying social and economic contexts that affect people's views on why something is problematic and what the [social] causes are. Social problems are thus complicated and interdependent (Rubin & Rubin, 2001:27-28). Therefore, it is feasible to expect that there will be differences in the government, community (affected) and stakeholders' views on the issues involved in the problem of informal settlement fires.

In this context, the livelihoods of informal settlement dwellers intersect with the field of disaster risk management and environmental hazards. This field also involves "issues of location, shelter, planning, services, and the nature of the livelihoods of people in informal settlements" (Napier en Rubin, 2002:3). The impact of informal settlement fires and other hazards to which informal settlement dwellers are exposed "unfold against the background of the slow-motion disaster of poverty and homelessness" (Napier en Rubin, 2002:3). Therefore, it is important to give attention to the intrinsic social problems associated with a disaster such an informal settlement fire.

Research and policy reflect the perception that fire risks are mainly structural and therefore require structural initiatives. However, there are non-structural risks that drive vulnerability in informal settlements. The role of the community or affected is becoming an important factor in prevention and response to disasters. These are communities of low socio-economic status, and at-risk communities and households in congested peri-urban settlements (Holloway:2006). Subsequently the way in which informal settlement fires is addressed and the study thereof necessitate social study.

Relevant to this study are the distinctions made between so called pure research and applied research. Bailey (1978:15-16) defines 'pure research' as the "development and testing of theories and hypotheses that are intellectually interesting to the researcher, but have no

application to social problems at the present time". He defines 'applied research' as "research with findings that can be applied to solve social problems of immediate concern" (Bailey, 1978:15-16). Pure and applied research are not necessarily mutually exclusive, the ultimate goal of a study can be that it is helpful in solving social problems and at the same time makes a valuable contribution to the theoretical social-science literature (Bailey, 1978:17).

This study qualifies for both applied and pure research requirements. The research both illustrates the applied issues related to disaster management and related change and in turn related to theory to show that theory and practice of disaster management and community development intersect. Furthermore, informal settlement fires as a research subject has mainly been studied as a structural issue or as a quantifiable social problem relating to the statistical scope of informal settlements or the cause and scope in relations to the living conditions in informal settlements.

6.5   Data collection

Data collection for this study consisted of secondary data sources, interviews and observation. Babbie and Mouton (2004:80) propose a model by Selltiz, et al. (1965) that focus on three methods by means of which exploratory research can be conducted:

> "firstly a review of the related social science and other pertinent literature; secondly a survey of people who have had practical experience of the problem to be studied; and lastly an analysis of 'insight-stimulating' examples" (Selltiz et al. 1965, quoted in Babbie & Mouton, 2004:80).

Chapters two to five aim to provide a broad description of the social, economic and political context that affect the social environment in which informal settlement fires occur and are addressed, as well as the related disaster management and community development literature. The research methods were chosen to logically follow, and to be able to explore and understand how the research question plays out in real life. Methods applied to exploratory research design in social research include; "following an open and flexible research strategy; and using methods such as literature reviews, interviews, case studies, and informants, which may lead to insight and comprehension" (Babbie & Mouton, 2004:80). In this study data collection included multiple in-depth interviews with each identified role-player, participatory observation, and unstructured interviews (with open-ended questions) with individuals previously affected by informal settlement fires in Kayamandi.

6.5.1   Interviews

The interviews can be separated into three categories: interviews with disaster management officials on different levels of government, interviews with members of a local community-based organisation and interviews with individuals who had been affected by informal settlement fires in Kayamandi. The qualitative interviewing design followed is 'flexible, iterative and continuous, prepared and based on basic themes in advance, but not locked in stone' (Rubin & Rubin, 1995:43 quoted in Babbie & Mouton, 2004:289).

Interviews were conducted with Disaster Management officials at different levels of state; two Municipal Disaster Management officers from Stellenbosch local municipality; the Cape Winelands District Municipality Disaster Management Centre; the Cape Town Metropolitan Disaster Management Centre; and three officials from the Western Cape Provincial Disaster Management Centre. Interviews were also conducted with members of a local community–based organisation in Kayamandi. The community-based organisation was identified in the first phase of the research process in which a brief exploratory survey was administered to identify all the role-players that make it their task to address informal settlement fires in Kayamandi.

The interviews held with role-players from the state and the community-based organisation was based on the questionnaire attached in Appendix B. These were in-depth interviews aimed at not only gaining knowledge of their functions, as much of this was obtained from documentation as part of secondary data analysis, but to gain a better understanding of the premise of their operations and their views on addressing informal settlement fires in Kayamandi. In-depth individual interviews as defined by Babbi and Mouton (2004:241), "is a process where the researcher is not all that interested in the content of the conversation, but rather in the process by which the content of the conversation has come into being".

With the help of one of the members of the community-based organisation who is also a resident of Kayamandi, six interviews were conducted in three different zones in Kayamandi that have been affected by informal settlement fires. He acted as contact person and translator, furthermore he guided me through two transect walks in Kayamandi's various informal settlement zones. The interview questions for community members were slightly different to that of the outside role-players. Open-ended individual interviews were conducted based on the questionnaire in Appendix C, 'an open interview allows the respondent to speak for him/her self rather than to provide our respondent with a battery of our own predetermined hypothesis-based questions' (Babbie & Mouton, 2004:289). Open-ended interviews also allows for "fluid interaction between the researcher and the respondent" (Marvasti, 2003:20). Through creating a conversation, it allows the researcher to gain important information from the respondents which was not anticipated in the questions.

The role-player in-depth interviews consisted of three themes and sub-questions, the themes included 'involvement' in the issue of informal settlement fires; 'premise of operation' on which they base actions taken to address informal settlement fires; and general knowledge and views of 'informal settlement fires' in Kayamandi. In a related way the open-ended interviews held with community members, start with questions regarding whether and how they have been 'affected' by informal settlement fires; how they 'dealt with or were assisted, when affected by informal settlement fire in Kayamandi; and their general view of the scope, impact and ideas on how to address informal settlement fires in Kayamandi.

6.5.2   Fieldwork and secondary data

Two types of observation is normally found in qualitative research the "first being 'simple observation' where the researcher remains an outside observer; and the second being 'participant observation', where the researcher is simultaneously a member of the group she or he is studying and a researcher doing the studying" (Babbie & Mouton, 2004:293).

For fieldwork, as part of participant observation, various presentations, workshops and training presented by the Winelands and Stellenbosch local government disaster management departments, was attended. This included a Disaster Management workshop for stakeholders and NGOs/CBOs hosted by Stellenbosch municipality; a workshop to identify risks in the Stellenbosch area as part of risk analysis sponsored by Cape Winelands District Municipality; lastly, a training workshop in CRA for Municipal Officials as part of the risk analysis and training funded by Cape Winelands District Municipality (see Appendix D).

Simple observation opportunities included a presentation by community members that took part in a Community Based Risk Assessment (CBRA) as part of provincially funded research; a meeting with stakeholders/community officials where the findings of the research were presented by the researchers hired by the Western Province Disaster Management Centre. Furthermore, the representative from the community-based organisation in Kayamandi guided me on two walks through Kayamandi that included conversations with local community members.

Secondary data include mainly official documentation regarding policy and planning (Patton, 1980:303; Yin, 1998:231). The secondary data used in this study include policy and planning documents, mainly from local to provincial disaster management strategies, as well as national legislation. However, it also includes newspaper and other sources linked to the incidence of informal settlement fires in Kayamandi.

6.5.3   Data collection process

The data collection process followed a snowball sampling procedure starting with the identification and introduction to a primary local municipal official that worked directly with mitigating and addressing informal settlement fires in Kayamandi. The official was the primary contact (or key informant) and she provided a broad outline of disaster management efforts by the Stellenbosch Municipality and the relationship with the district, provincial and national tiers of government. The official further facilitated access to various meetings held in Kayamandi as part of provincial research and assessment efforts, which served as a platform for participant observation.

The data collection process highlighted the primary role that government disaster management efforts play in mitigating and addressing informal settlement fires in Kayamandi. In line with the observation of local, district and provincial efforts to address informal settlement risk, attempts were made to identify non-governmental and community based role-players that address informal settlement fires. Among these is the Paraffin Safety Association of South Africa (PSA) an NGO with offices based in Cape Town and the Red Cross with some involvement in addressing informal settlement fires. They were not included as role-players in the study, because they are mainly providing support to the local government. Although the PSA have done various studies and projects in and around Cape Town, their involvement in addressing informal settlement fires in Kayamandi is restricted to distributing pamphlets and guidelines about paraffin safety, whilst the local municipality also distribute their own pamphlets that relates more to prevention efforts in general (see Appendix E). The Cape Town Red Cross provide clothing, food and other essentials for fire victims which are organised and distributed my Stellenbosch Municipality Disaster Management officials.
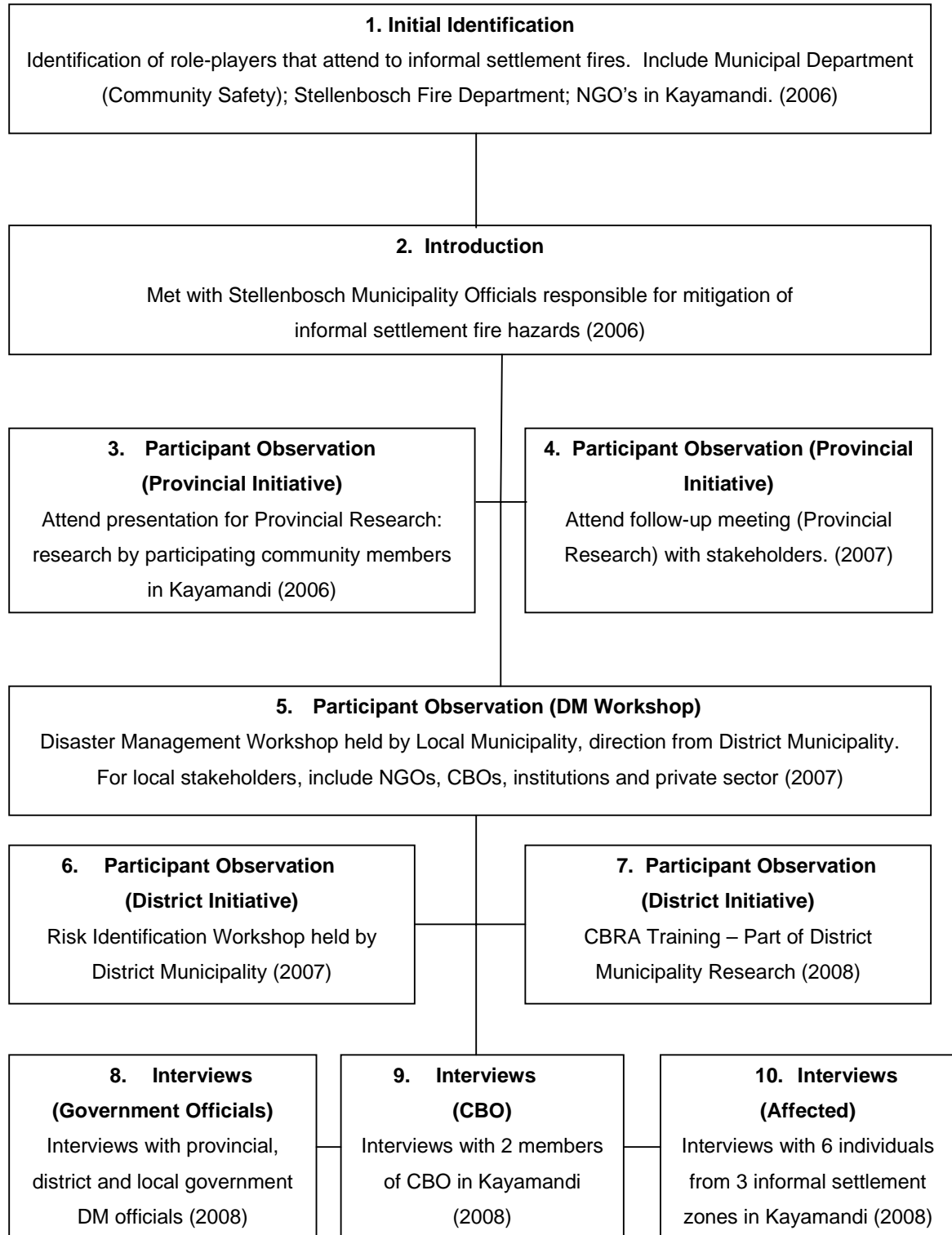
Although there are various community-based organisation in Kayamandi, only one organisation is involved in addressing informal settlement fires and most of their efforts are based on support after the fact. This is also the only organisation that has worked closely with the local municipality in addressing and mitigating the problem. With the help of one of their members, who is also a resident of Kayamandi, I was introduced to residents of the informal settlement on various occasions and therefore given an opportunity to gain more of an insider perspective of the conditions in Kayamandi. The data collection processed is summarised below (figure 6.1).

6.5.4   Validity and ethics

The research aims to comply with the principle of triangulation making use of multiple sources of information (Creswell, 1998:15). Using various sources of information is a thorough and balanced way to study an issue or problem in its entirety; and most importantly, triangulation lends validity to one's findings. According to Hammersly (1990; 57 in Marvasti, 2003:113) validity can be interpreted as; "the extent to which an account accurately represents the social phenomenon to which it refers". The interviews and participant observation ensured that the observation made in the study of the operations of especially local government disaster management was thorough and included various points of view. The secondary data analysis gave a picture of the scope of informal settlement fires, explained the policy, planning and legislation that highlighted a shift towards community involvement as related to addressing informal settlement fires.

In the following findings and analysis of the study the respondents from the interviews are referred to as either 'local, district or provincial officials', 'members of a community-based organisation' (CBO) or 'resident', to ensure the anonymity of the respondents for ethical considerations. This is based on the ethical notion that "researchers have the right to collect data through interviewing people but not at the expense of the interviewee's right to privacy" (Babbie & Mouton, 2004:520). A confidentiality agreement was thoroughly read and signed by the respondents before the interviews took place [see Appendix A]. Although the respondents' positions and names were known to me it was agreed not to share their identity publicly (Babbie & Mouton, 2004:523).

Figure 6.1   Data collection process

1. Initial Identification

Identification of role-players that attend to informal settlement fires. Include Municipal Department (Community Safety); Stellenbosch Fire Department; NGO's in Kayamandi. (2006)

2. Introduction

Met with Stellenbosch Municipality Officials responsible for mitigation of informal settlement fire hazards (2006)

3.   Participant Observation (Provincial Initiative)

Attend presentation for Provincial Research: research by participating community members in Kayamandi (2006)

4. Participant Observation (Provincial Initiative)

Attend follow-up meeting (Provincial Research) with stakeholders. (2007)

5.   Participant Observation (DM Workshop)

Disaster Management Workshop held by Local Municipality, direction from District Municipality. For local stakeholders, include NGOs, CBOs, institutions and private sector (2007)

6.   Participant Observation (District Initiative)

Risk Identification Workshop held by District Municipality (2007)

7. Participant Observation (District Initiative)

CBRA Training – Part of District Municipality Research (2008)

8.   Interviews (Government Officials)

Interviews with provincial, district and local government DM officials (2008)

9.   Interviews (CBO)

Interviews with 2 members of CBO in Kayamandi (2008)

10. Interviews (Affected)

Interviews with 6 individuals from 3 informal settlement zones in Kayamandi (2008)

Chapter 7 - Data analysis and findings

7.1   Introduction

The findings can be separated into three categories. The first findings pertain to the issue of defining the problem of informal settlement fires in terms of the empirical data.   These findings include the views of respondents on the source of fires in Kayamandi informal settlement, the scope and impact of informal settlement fires, and the nature of the aftermath and response to an informal settlement fire incident in Kayamandi.

Secondly the research questions are addressed.   These include the identification of role-players, discerning the interest that the various role-players have in the problem of informal settlement fires in Kayamandi, finding out how informal settlement fires are addressed in Kayamandi, and identifying the links that exist between the role-players.

Lastly, the findings include change that was observed through the empirical research period, and the identified relationship between development and disaster management that came to the fore.

7.2   Research question and findings

The research questions are twofold, firstly: How is the problem of recurrent fire hazard in Kayamandi informal settlement constructed by the different role-players? Secondly: How does this affect the way in which the problem is addressed?

To be able to satisfy the research questions, the first aim was to identify the role-players involved in efforts of fire prevention, response, and mitigation of risk as related to informal settlement fires in Kayamandi. Secondly, the research aimed to understand what interest each of the role-players has with regard to the problem of fire risk. Thirdly, the research aimed to understand how the role-players address the problem of fire hazards, and lastly, how the different role-players may be linked, if at all.

As Kayamandi informal settlement is the central focus of the study, a short introduction to Kayamandi will follow as collected from secondary data sources.

7.2.1 Kayamandi

Kayamandi is a township located on the outskirts of Stellenbosch founded as a result of Apartheid segregation in the early 1950s. In 1966 a group of prominent employers in the Stellenbosch district (among them the University, the city administration, several vineyards

and a fruit packing company) together erected 38 ready-made-homes as hostels for black migrant male labourers employed mainly on the farms in the Stellenbosch area. The area was largely unplanned and developed rapidly in the following years (Erhard, 2000).

According to the 1996 census there were 10,263 people living in Kayamandi at the time, while 2004 estimates assume a population of over 22, 000 (Erhard, 2000). Therefore between 1996 and 2004 there was a rapid population increase of approximately 10 000 residents. According to the Stellenbosch Municipality Kayamandi grows by 10% annually (Stellenbosch Municipality Integrated Development Plan, 2005:10). While the population has grown, the physical area of Kayamandi has not expanded significantly, and all residents live on an area of just over one square kilometre. There are an estimated 2781 informal dwellings in Kayamandi (SM Annual Report, 2005-2006:146). According to Darkwa (2006:3) this means that sixty-two percent of Kayamandi's population lives in informal shacks.

The lack of service delivery by the Municipality to the informal parts of Kayamandi contributes to the problem of large-scale fires in the area (Stellenbosch Municipality's Annual Report, 2005-2006:129). According to the Stellenbosch Municipality's Annual Report (2005-2006:129), there are 4700 units without services or with only partial services in the informal areas within the Stellenbosch Municipal district. In some of the informal settlements there is just one tap in each zone and 1 117 dwellings are served by a community tap that could be as far as 200m away from the dwelling (Stellenbosch Municipality IDP, 2005:11; quoted in Darkwa, 2006:73).

In 2007 construction started on an extension of Kayamandi on a piece of land acquired by the Municipality for housing. 500 Houses was built in this area with connected electricity and water.

7.2.2. Identification of role-players

From September to November 2006 initial steps were taken to identify all relevant role-players working in the field of disaster management and specifically in the context of fires in Kayamandi. It was found that, next to the local Fire Services, the Stellenbosch Municipality's Department of Public Safety carries the responsibility of immediate assistance to victims of fire-related and other disasters.

The provisions provided to victims of fires are the result of a longstanding relationship between the Municipality and the Cape Town Red Cross. The Red Cross is the official NGO partnered on a national level with the disaster management branch of government to attend to disasters. They make contributions in the form of food and clothes and offer medical care. Red Cross volunteers have also in greater crisis, along with community members, assisted the Stellenbosch Municipality officials by preparing meals and assisting with other practical matters in the direct aftermath of fires in Kayamandi.

Other non-governmental organisations that assist in times of informal settlement fires in Kayamandi are local community based organisations. They co-operate with the municipality in times of large crisis and assist community members when fires are not considered large enough for action to be taken by the Municipality. They are situated in the township of Kayamandi and exist to meet the immediate needs of community members by the distribution of clothing and food. A number of the community-based organisations in Kayamandi will

assist community members that come to them for assistance, but only one community-based organisation recognizes 'support for victims of fires' as one of their functions.

7.2.3   Main role-player in fire risk and hazards prevention, mitigation and reduction

As stated before the local municipality was identified as the main role-player involved in addressing the problem of informal settlement fires in Kayamandi. They work on the premises and directives of district, provincial and national Disaster Management policies, plans and strategies.

The structures that direct the premise of operation for government officials include the Constitution, the National Disaster Management Framework, the Provincial Disaster Management Framework, -Centre and -Plan, and the District Municipality Disaster Management -Centre, -Plans and Risk and Vulnerability Assessment (RAVA) [Provincial Official].

Stellenbosch Municipality is a B-municipality, which means that in terms of the state structure they are not expected to have disaster management facilities. As one provincial official has stated:

> "It will be interesting to look at Stellenbosch municipality, because as you might have seen in the legislation and your other documents, on national level you have the national disaster management centre, on provincial levels the provincial disaster management centre and then you have, like in the case of Cape Town city, the metropole and the five districts". "But not the B-municipalities, Stellenbosch is one of the few B-municipalities that has a disaster management component. So it is absolutely a luxury, so I think it is quite good..."

Stellenbosch Municipality falls under the Cape Winelands District Municipality Disaster Management Centre.   The District Municipality carries the Disaster Management responsibilities for the B-municipalities in their area, including Stellenbosch. According to the head of the centre article 42 of the Disaster Management Act has placed the responsibility for disaster management on the district municipality and they are restructuring and developing their structures and strategies to be able to comply with the Act.

> "They have quite a big structure at the Cape Winelands, they are currently busy developing their disaster management centre. They are still in the process, there officials are divided into different areas" [Provincial Official].

Nonetheless, due to the frequency of informal settlement fires in the municipal area the immediate responsibility of tending to the victims of informal settlement fires have in the past fallen on local officials at Stellenbosch Municipality. Initially it was the responsibility of the Occupational Health and Safety Officer, under the directive of Social Development and Community Safety. This has changed in 2007 and there are now officials appointed specifically for disaster management functions under the Social Development and Community Safety department of Stellenbosch Municipality.

It was through an official from Stellenbosch Municipality's Social Development and Community Safety Department that first contact was made regarding research for this study. First meetings were held on the 17th of October 2006, at that stage the local official had the sole responsibility to co-ordinate all support departments like the fire department and the SAPS, organise the distribution of blankets and co-ordinate relief packages to disaster victims, and follow the administrative procedures when a incident occurred. The administrative procedures include identifying and recording the affected households and issuing the necessary identification documentation lost due to the fire. As mentioned, addressing informal settlement fires and risk in general was only a secondary function of the local official. Efforts at this stage in time were therefore mostly reactive – focused on the response to informal settlement fires as they happened.

> "It is the disadvantage especially with the B-municipalities, that people do not see the importance of these functions" [Provincial Official]

> "If there is a big incident or a disaster, then it is through and through, at the most B-municipalities the fire brigade or the traffic departments; so people, officials that jump in to help, but no one is 'dedicated' for the function". [Provincial Official]

More recently disaster management was streamlined at Stellenbosch Municipality [Local Official]. Meaning that, disaster management has become a recognised function of the municipality with officials directly appointed to disaster management in the Stellenbosch Municipal area. This came along with increasing attention being given to research and prevention strategies from District and Provincial levels of Disaster Management. Kayamandi has been included in these research and training initiatives, and in the process, local disaster management officials from Stellenbosch Municipality have become increasingly involved.

7.2.4 Defining the 'problem of informal settlement fires' in context

The first research question asks 'how the problem of recurrent fire hazard in Kayamandi informal settlement is constructed by the different role-players'?

To be able to address this question the first section of the unstructured interviews focused on questions regarding the source of informal settlement fires and fire incidence as experienced by the affected respondents, officials from the CBO and municipal officials.

To be able to obtain a better understanding of how the respondents understand and view informal settlement fires, respondents were questioned on the source or cause of fires; the scope and impact of the incidence, and the response to and aftermath of the incidence. It attempted thereby to define and illuminate how informal settlement fires in Kayamandi are experienced and perceived.

7.2.4.1 Source of fires

Despite repeated interviews with officials and community members the origin of specific fires occurring could not be established. Responses where either based on 'believed' sources and second-hand rumours, or described in terms of indirect causes of fire occurrences in Kayamandi.

Six community-members were interviewed, all of whom have been directly affected by fires since they have lived in Kayamandi. Some community members were questioned with regard to what they know to be the cause of the fire that cost them their homes. For all accounts, they did not know themselves what the causes were and most answers were based on 'rumours'.

> "But some guy said there was one shack that they were cooking something in [Resident 2]".

> "I just heard that the fire started somewhere in one of the houses but I couldn't get it clear which house was it in [Resident 3]".

> "…there was a girl that started the fire on top of the house, somewhere on top of the Zone. I don't really know what the story was" [Resident 5].

> 'I'm not sure. People were talking, they're saying all kinds of rumours. Nobody really knows what happened" [Resident 4].

The respondents also related the source of informal settlement fires to both the energy sources used for heating and social problems within the community. Disaster management officials, members of a community-based organisation in Kayamandi, and community members who have been affected by informal settlement fires named the above mentioned as sources of informal settlement fires. A local official gave the following response:

> "...we as Disaster Management must also evaluate the fire... you get fire setting, then you get social [reasons] in terms of fighting, candles that fall over, that type of thing and you get the gas stoves that fall over" [Local Official].

The respondents' views on the main physical source of informal settlement fires differed. Most respondents mentioned gas stoves as a leading cause of fires in the settlement, while one official feels that candles are more of a risk than gas stoves.

> "I think the biggest fires at informal settlements are caused by candles that fall over, people are careless, or also the stoves, but they are quite flat, so it won't fall over easily, except when knocked over" [District Official].

In relation to this, there was no agreement on whether electricity in shacks reduce fire incidence. One respondent felt that "the fact that more people have electricity can be a reason why there are less fires, because it is actually the paraffin stoves that people put on the ground that falls over and cause fires" [Member of CBO]. While another member of the same CBO who has assisted community members in the big fires of 2004 and 2005 feel that this is not

the case: "Even then there was already electricity in most of the houses. But the thing is, people use electricity only for lighting, but for cooking they use paraffin, because electricity is more expensive" [Member of CBO].

In addition, a local official pointed out that the electricity comes with problems of its own:

> "The problem that we have in terms of electricity... people steal electricity and the connection... this also causes fires...But you must not forget, the guys sublet the power... they steal the electricity and cables..."[Local Official].

Therefore all sources of energy in Kayamandi were identified as leading sources of informal settlement fires. On more than one occasion the respondents refer to the flammable substances such as candles and paraffin stoves being 'knocked over'. The respondents attributed the 'knocking over' of candles or paraffin stoves to various social issues in Kayamandi.

The social issues raised were that of neglect and accidents in the house in which the candles or stoves have fallen or been knocked over, and every respondent mentioned these reasons.

> "Because some people just leave their houses or when they have a fight... – ...one tries to put the other persons' house on fire" [Resident 4].

Furthermore, all the disaster management officials referred to informal settlement fires as mostly a seasonal occurrence, "...we have a season here from November until March when we have helicopters on standby" [Metropole Official]. The prevalence of fires are related to weather conditions, warm dry weather in the summer attribute to increased flammability of dry materials and the impact that dry summer winds have on the scope of informal fire incidents."

Therefore, the occurrence of informal settlement fires is related not only to the flammable energy source, but also to the conditions in which incidences occur. The dry flammable materials of which informal settlements are constructed and dry weather conditions contribute to the risk of/ and vulnerability to informal settlement fires in Kayamandi.

7.2.4.2 The scope and impact of fires

The materials of which informal structures are made along with the density of the informal settlement area in Kayamandi contribute to the scope of the fires and the impact on the community.

The respondents unanimously felt that density was one of the main problems, especially in terms of the scope of the problem. As one respondent says:

> "Every space [here are used to build on], because space is so little and new houses are built so slowly and it is very very full. If you walk through here, you will see the places are very on top of each other…"[Member of CBO]. By 'new houses' this

respondent referred to permanent brick homes built by the municipality for informal settlement dwellers.

The close proximity of the informal shelters in Kayamandi has an immense effect on the losses felt by the affected individuals:

"…the whole area was burnt down, it was many shacks that were burned down" [Resident 2].

"Because we couldn't get all the stuff to the main road. The fire was easy to spread. [Resident 2]

"I was at work. I just heard there was a fire so by the time, he got here, and then the fire was still going on. It was already gone. [his home]" [Resident 3]

"Yes it was so fast. No one could really take out there stuff, because it burned from the top to the bottom of Kayamandi, I think halfway, so it was bad [Resident 4]

"…by the day there was a fire, I was at work so he only arrived after 6 o'clock. Everything was already burned up" [Resident 5]

Informal settlement fires had a major impact on Kayamandi in 2004 and 2005, although from the interviews it was learnt that incidents have become less frequent and the scope of the impact smaller since that time.

"Well in the two years that I have been working here, there have only been two big fires… I can't say that it is not a big problem, but from what I have observed fires have decreased and it is smaller fires, the [omvang] is not as big" [Member of CBO]

Just as there are varying opinions on the sources of fires, the respondents' views are very different when it comes to the ways that the incidence of fires can be addressed, as well as why incidence has declined:

"Its not as big as it used to be. …in most cases fires are caused by people that are drunk, so the only solution is you tell people like to first cook before they go and drink" [Resident 5]

"I think that people are kind of getting strict now with people who are making fires, also because of the electricity, in Kayamandi most people has electricity" [Member of CBO 2]

"…the fires are a big problem, but to prevent it is not easy, it is caused by different reasons. But in our area now, what they do now is that if someone almost because a fire there is like a penalty to that person, so that he would be extra careful in the future and others would learn from it as well. […] If sometimes like the house didn't burn, but it almost burned the houses then they call a meeting for the people around there, so you will pay a penalty maybe a certain fee of money, but that money will be used for all the people who are in the area" [Resident 1].

Nonetheless informal settlement fires still affect the area and the consequences can be horrifying. Members of a local community based organisation recall incidences in 2006 and 2007 that has resulted in the loss of many shacks and a life. According to them, these incidents were the most profound in recent times. In 2006, 200 shacks burned down in a fire, and in July of 2007, a baby died from a fire that started in a shack next to a crèche. The scope of this incident is unclear, one respondent recalls that 12 shacks burned down, while the other states that 50 families were affected [Members of CBO].

Another recent incident affected a hostel in Kayamandi in October of 2006. One of the community members, a woman, who was directly affected by the fire, was questioned:

> "20 Families [were affected] because it was [only the one] side of the hostel. It started in one of the rooms here, but here it was… they say the fire came out of one of the rooms that was locked but they don't know whether it was a box or what happened. They say it was very quick within 30 minutes there was absolutely nothing" [Resident 1].

7.2.4.3 Aftermath and response

According to one respondent, the decline of fire incidence can be credited to a swift response:

> "So this shows that when a fire starts, there is much quicker response, so that it does not spread and for example 200 shacks burn down. So it does seem to me that the role-players and the people themselves do something about it much quicker, so it definitely has to do with prevention measures and quicker action" [Member of CBO].

Nonetheless, at the same time, it seems that despite a quick response from the fire department, they are often not in time to stop the fires before it has engulfed a number of shacks.

> "…the fire department came in time, although like the fire kept real quick. When they arrived they found that everything was already burned down"[Resident 1].

The respondents that have lost their homes in informal settlement fires recount the costs and time that it has taken to rebuild and recover. Some recall assistance from the municipality and others organisations;

> "I think from the municipality we got some help and from the other people around here in Kayamandi and they gave us some of their stuff because we almost had nothing left. Just parallels, planks and I can't remember more, but ja we got some things from the municipality" [Resident 4].

> "I received some of the materials from the municipality just to start building. We got some material after 3 days after the fire from the municipality. Some were staying in school, but some were staying with relatives. There were many people bringing clothes and food but he does not even know where they were from. [help] He said there were people from Kayamandi, there were also people from outside. So it was mixed" [Resident 5]

None of the respondents could give me exact information on the assistance that they received, making it difficult to identify the consistency of assistance from the either the local municipality or community-based organisations to the affected community members.

It took most of the affected respondents between a week and a month to rebuild their shacks, due to limited resources and time constraints, and most individuals stayed with relatives in Kayamandi in the interim:

> "It was different for different families, because for some they took about a month. So it differs on how much you have. […] We built everything on our own. I do not remember anything from municipality, but I remember that they got the food and the clothes from [CBO]. On the same day, after the fire, because we did not have anything" [Resident 1].

> "The reason that it took three weeks was because he had to get money first. We got like R500 each from the municipality, but it was only after we were finished building it. After a month. They made a list just immediately after the fire of all the people that was staying here so they followed the list" [Resident 3].

7.2.4.4   Efforts to identify the source and scope of informal settlement fires

From the interviews it was indirectly determined that there is little information available regarding the exact cause of informal settlement fires in Kayamandi. An accurate assessment of the source of informal settlement fires in Kayamandi would attribute greatly to future prevention and mitigation efforts in the area.

As part of ongoing efforts to assess risk in South African municipalities, as required by the Disaster Management Act, every district and local municipality is mandated to comprise and include a Risk and Vulnerability Assessment (RAVA) in the annual IDP. The purpose of the RAVA is to identify the risks that each municipal area is vulnerable to. Both the Western Cape Provincial Disaster Management Centre and the District Disaster Management Centre have launched risk assessment initiatives within the research period of this study, 2006 and 2008. More detail regarding these efforts are discussed in the next section.

7.2.5   Addressing informal settlement fire hazards

7.2.5.1 Local municipality services

Much of what Stellenbosch Municipality Disaster Management's work entails is focused on response and recovery to incidents and there are various procedures in event of informal settlement fires. As related they liaise with the Red Cross for donation and support, and hospice for clothes and blankets.

"Women from the community help prepare food initially and the government officials try to maintain structure and consistency in terms of the food that is provided at each incident. Red Cross volunteer workers on a provincial level- sometimes assist, as well as ward councillors and local members of community based organisations" [Local official].

In terms of administration, the local municipality official responsible for disaster management set up stations for all people affected where the information of the affected individuals are documented.

"In severe cases the affected receive R500 social grants to rebuild. The local official in charge of this process has noted that local community members are asked to assist in this process to help with the administration, translation and to establish the validity of claims" [Local official].

In larger incidents housing kits are provided by the municipality, and funding for this comes from the provincial housing head office;

"...they do allocations at the beginning of the year to all 30 municipalities and the municipalities go out on tender and they get a service provider to provide the starter kits. So, as the municipality buys them, they place this on the system at the department and then the department pays..." [Provincial Official]

Beyond response and recover increasing attention has been given to prevention programs as indicated by local and provincial disaster management officials. Although recovery procedures have in previous years been the main responsibility of the local municipal official when it comes to Disaster Management, the disaster management officials feel that their main function currently is to act proactively.

"We have to be proactive, if there are disasters we are reactive...The concentration (at the moment) is fire prevention...Disaster management is basically a coordinating [function]... [Local Official].

In terms of proactive measures for prevention and mitigation, the District and Provincial disaster management centres direct the work of the local government. For the last few years the greatest priority has been research and development of risk and vulnerability assessments (RAVA) for the different levels of government from the Western Province Disaster Management Centre to the local municipalities.

"...the 5 districts and the city must each have one. In that risk assessment they identify the risks and from that you take the most important information and this goes in your Disaster Management Chapter (of the IDP)" [Provincial Official].

An important purpose of the RAVA's, is to generate information that could inform the mandated Disaster Management Chapter in each municipality's IDP. The Systems Act of 2000 requires that each IDP must have a disaster management chapter and since 2006 the

Western Cape disaster management centre has started with research and training to 'assist the municipalities and to give them training' [Provincial Official].

> "We are busy with a service provider, to identify guidelines...Last year in February-March we held workshops in all the districts and the city, where we held the first practice round and told them that this is how you put together a disaster management plan... what is very important is that before that chapter of the IDP can be written the risk vulnerability analyses must be looked at" [Provincial Official].

Kayamandi itself formed part of a Western Cape Provincial Disaster Management initiative to promote and develop training, education, awareness and marketing in the Western Cape.

> "We launched the [...] program in 2005, this is 'Training Awareness and Marketing' and so the 'most vulnerable' areas in the Western Cape were identified. Where until now 11 areas have been identified. We received R1.8mil funding from the Development Bank and that money we had to spend before the end of March this year (2008). The aim was to capacitate these areas prone to disasters. And then training was given, First Aid, home-based care, fire training etc.... and the last thing, requirement, was the guideline document about how to do CRA" [Provincial Official].

As part of participant observation two meetings regarding this research initiative were attended. The first was a 'Community Risk Assessment Planning' meeting on 06 October 2006, in which community members shared the results of the CBRA. 18 Members of Kayamandi took part in the assessment and workshop. The ward councillors acted as contact and helped to recruit participants. One of the three risks identified, was fire-related disasters in the informal area.

The key objectives of the CBRA was to build an understanding of community based disaster risk assessment, to increase capacity in core skills/knowledge related to the risk assessment, to build capabilities in applying key risk assessment methods, to strengthen capabilities to monitor risk on an ongoing basis, and to strengthen skills in communicating risk assessment findings.

The second meeting on February 1, 2007 was held with stakeholders to discuss an 'Agenda for Community Based Disaster Risk Management'. This meeting comprised mostly ward committee members. The purpose of the meeting was to brief counsellors and officials on the Provincial programme and initiatives in Kayamandi. The meeting was then to look for solutions, synergise planning, and task officials with the identified risk areas and views of community as portrayed in the CRA, to reduce risk. Proposed solutions at the meeting, included the education of the community, through schools and churches (places were groups of people are active). They felt that this would be more successful, because of the difficulty faced by individual informed community members to bring across the message. In addition, they suggested that efforts to address problems in the informal settlement must begin by co-ordinating activities of existing structures (and their resources), to train community members and to link officials and the community. They suggested that officials should approach the community with the stumbling blocks they face and in this way involve them, as well as to find better and informed solutions. Proposed ways to communicate with the community included radio, newspapers and pamphlets. Officials that attended the meeting identified poor

response by the community as a problem in affecting above mentioned processes. They also identified the problem of blame-shifting on the municipality. The meeting was not representative as many key local government officials could not attend or did not find the location, due to confusion as a result of a last minute change of location.

Training workshops for the community members that took part in the CRA in Kayamandi followed the meetings mentioned. Training went hand in hand with CRA and included Fire Fighting, First Aid and Community Health.

> "The training was an effort towards affecting "community resilience", in terms of sustainable development and sustainable livelihoods" [Provincial and local Officials].

> "The last outcome of the program was the development of a guideline document called "Weathering the Storm". It is described as the pre-runner to "future project to include School Project, Awareness, and Basic education Kit as part of life-skills orientation. This will be developed by North-West University and based on UN-ISDR aims set in their disaster Management Week theme in 2007. 4 Pilot areas (schools) were identified and this include Ikaya in Kayamandi" [Provincial Official].

The Provincial Minister of Local Government and Housing (Richard Dyantyi) described the prerogatives of the research in an address made in 2006. He publicly stated a commitment towards the implementation of Disaster Management, as demonstrated through the Disaster Management Training, Education, Awareness and Marketing Programme. The programme was proposed as a Disaster Management Project, with the intent and purpose to "enhance risk reduction and coping skills of residents in the most vulnerable areas in the Western Cape through the provision of training, education and marketing interventions. These interventions are tailored to specific disaster hazards and risk applicable to vulnerable communities" (Dyanti, 2006).

The District Municipality, like the Provincial Disaster Management Centre plays a large role in financing and planning prevention initiatives. Similarly the District Disaster Management Centre initiated a research initiative in 2007. The aim of the research was to do a RAVA and develop disaster management frameworks and plans for the district, and guidelines for disaster management components of the various IDP's in the district.

> "…a few years ago the district municipality did a risk appraisal in the area to see where the greatest risks lie"… "this was further refined with the [current] CPUT analysis, where we go to the public to gain input to establish there risks" "So, we are busy with this and the end result will be to introduce the disaster management plans… because you cannot write a plan without knowledge of the risks" [District Official].

To develop RAVA's for the district the Winelands District Municipality underwent a community-based risk assessment (CBRA) initiative throughout the municipal areas in the district. Two components of this initiative were attended as part of the participant observation component of the research. The first was a risk identification workshop held in Stellenbosch in 2007, various stakeholders and officials from the Stellenbosch Municipal area was invited to partake in identifying and discussing the level of risk of all natural and man-made risks and vulnerability to disaster in the area. The second was a CBRA and training workshop in Franschoek in 2008. As part of the assessment initiative informal settlements were identified as particularly vulnerable to risk and two informal settlements in each municipality were

selected for CBRA. Along with the CBRA's local municipal officials were invited to partake in the assessment and in the process gain training in risk assessment. Kayamandi in Stellenbosch and Langerug in Franschoek were the chosen informal settlements for the Stellenbosch municipal area. Due to timing constraints the researcher were only invited to attend the workshop in Franschoek.

The Winelands District Disaster Management Centre also attempts to support the B-Municipalities in informal settlements.

> They "have training projects that the fire department does to train people in fire prevention… we also try to give every person that attended a fire extinguisher, so they at least have the basic training in fire fighting, and every now and again the committee makes funds available specifically for fire prevention in informal settlements" [District Official].

Funding from the District Disaster Management Centre also went toward funding stakeholder training workshops held in 2007.

> "Every year we have R200/300 000 that we make available, and we target certain target groups. This year we are working with headmasters at schools, we want disaster management to become a more prominent factor in the curriculum at school'. So this year we target the headmasters and next year we will once again focus on officials, the politici and the community, including NGO's and such structures" [District Official].

In 2007 Disaster Management Workshop's were held at Stellenbosch Municipality for local stakeholders including NGO's such as Child Welfare, CBO's from Kayamandi, and others. The District Municipality hired independent experts in Disaster Management to provide training. Other objectives of the meeting were to foster communication and connections between the various stakeholders and the local disaster management officials from Stellenbosch Municipality.

This was the beginning of an ongoing program on the side of the Winelands District Disaster Management Centre in prevention and education initiatives. In 2008 the focus on prevention fell to disaster management education in schools as mentioned above.

7.2.5.2 Expansion of local municipality services

During the data collection process it was shown that increasing attention has been given to prevention through education and training of stakeholders and community members on the part of disaster management authorities in government. It is one of the main ongoing initiatives from provincial, district and municipal disaster management levels to combine research, assessment of risk and training in areas identified to be vulnerable to risk.

In the past the Stellenbosch Fire Services has played the largest role in prevention and education. They educate primary school learners on fire safety and distribute pamphlets on fire prevention and response. Furthermore, they run an extensive programme of training for

eligible community members in fire fighting as volunteers and upcoming fire-fighters. They have a volunteer system where community members are provided with whistles, fire extinguishers, overalls, with the responsibility of alerting the fire department about a fire and training in-crowd control in the event of a fire. More than 40 community members have been recruited for training as volunteers and seasonal workers. The fire department, like local government, has historically only been a reactive force and over the last decade they have taken a more proactive and integrative approach to fire prevention.

7.2.5.3 Community-based organisation

A local CBO based in Kayamandi also collect supplies for affected community-members in times of crisis and attempts to assist the community members in the aftermath. There is some communication link between the CBO and local government disaster management officials, they have in the past acted as link between the community and municipality in times of disaster. This link was created during the damaging fires in 2005 that affected thousands of people who live within Kayamandi. They worked alongside the municipality and helped with the provision of clothing and food for the fire victims. The relationship between the Stellenbosch Municipality and the CBO is informal. However, they respect the framework within which the municipality works.

> "We just intervene when there is a fire … they come…we give clothes… in most of the cases …" [Member of CBO].

Until recently, their initiatives included an Emergency Relief Project, in which stores of supplies are collected and distributed in an 'ongoing basis or in the case of disaster such as the burning down of shacks'. The supply consists of collections from churches and organisations that have standing relationships with the CBO as their vehicle for assistance in Kayamandi [www.prochorus.org].

> "Unfortunately we cannot for example build houses for everyone...So we can only provide for their immediate needs... The biggest damage that people suffer, I would say, is the electric equipment, like fridge or stove that they lost. (The rest) is just clothes and a lot of basic needs that we can supply quickly...The municipality gives a contribution, money, to buy plates and nails with" [Member of CBO].

After the Disaster Management Workshop held for stakeholders in 2007 the Stellenbosch Disaster Management officials organised a meeting between themselves and a number of CBO's in Kayamandi. The purpose of the meeting was to discuss with the organisations the steps that local municipality takes in times of informal settlement fires and improve communication and cooperation between the various parties. The result of the meeting was that the organisations agreed to hand-over any donations that they receive in times of disaster to the local municipality for distribution.

7.2.5.4 Linkages between role-players

There are no strong ties between the aforementioned role-players. The local role-players, which include the local municipality, fire department and community-based organisation, cooperate at times of informal settlement fires, but most prevention and mitigation initiatives or programs are carried out independently.

The municipal official responded that she feels that is necessary that the municipal official responsible for responding to informal settlement fires act as the central link between all parties that want to assist when it comes to fire disasters. One element of this is to ensure that the same quality of assistance is provided to affected individuals on the various occasions, to avoid conflict. In line with this the above mentioned meeting was held between the disaster management officials from Stellenbosch Municipality and the community-based organisations in Kayamandi to improve communication and cooperation between them and the municipality. The outcome was that the CBOs would act as support to the responses of the local municipality.

Municipal officials organised the meeting to share the municipalities' procedures in case of a fire disaster. It was also decided what the role of each group should be. This is an example of efforts to improve communication between role-players.

> "Firstly, everyone is now informed about how the procedure works, so I do not see that there will be overlapping in the future, because we now know what the right procedures are" [Member of CBO].

Other outcomes of the meeting included coordination of efforts, in the words of a representative of a local community based organisation:

> "So all old clothing and food and everything that we can give or donate are taken to the municipality and they will then give us instructions if they want us to for ex. to give people clothes, food or housing... So it is now more structured since we had the meeting" [Member of CBO].

Overall, the efforts to improve communication and training through the workshops and CBRA's have not led to increasing efforts in addressing vulnerability and risk prevention on the side of the CBO's or other non-governmental institutions with interests in Kayamandi.

An additional concern for the municipality mentioned above is to include community members in efforts to assist in the administration, cooking and clearing of the disaster site, because it builds trust and communication with the affected individuals. Despite this form of cooperation and CBRA's held on two occasions in Kayamandi by both the provincial and district disaster management centres, there is no ongoing communication or relationship between the municipal officials and community members or any of the community based organisations in Kayamandi.

There is a general need for sustainable prevention approaches, like education within Kayamandi, specifically with structured follow up sessions. A local municipal official feels that although outcomes from the research programs have been positive it has lacked consistency.

> "They did it, but it needs to be taken further…you want to keep in contact with those that have gone for the course, that disaster management should take it further, before [new research starts], we should have done something else on our own with those guys, to keep that involvement" [Local Official].

The strongest links exist between the various municipal departments, as they share the same directives and programs as guided by national legislation, policy and strategies. Nonetheless, there has been little coordination between the Provincial and District research and training programs, despite similarities in their target areas and objectives. There are some differences between the aims and outcomes of the two programs.

> "I think the (Provincial) project is aimed on specific informal settlements, like Kayamandi and other informal settlements in the Metropole. Where this risk analysis that we are doing is wider [including risks like earthquakes]" [District Official].

This can cause confusion and undermine relationships that the various disaster management departments aim to foster with stakeholders and community members. Local officials have shared the sentiment that overlapping programs from different departments have an effect on the participation of stakeholders and the public in disaster management initiatives.

> "…people phone to ask if this is the same workshop that they have already attended. I think the Province must … come clearly with a program that says, look this is what we have done and this is phase two" [Local Official]

This issue also relates to continuity in the growth of various programmes and the importance of maintaining communication and cooperation with the role-players and community members that have been involved.

> "My personal opinion is that we are creating an expectation at the community, questions are created and the question is: when we are finished with the process, which is months, 10 to 18 months, I think then a change does need to happen… Information was gained, people said this is what needs to change"[Local Official].

They recommend that if directives are given, it is not done in isolation and in coordination with existing initiatives in the municipal area:

> "…where if they say this is the program for Stellenbosch Municipality for this year…the dilemma is that we cannot do much on ground level, because Province guide us, but they are busy with other things… now it looks bad for us… we had to stop everything we started [Awareness]" [Local Official].

Issues related to communication and coordination between the relationships between disaster management and other governmental departments came to the forefront throughout the interviewing process. In terms of response and recovery the relationship was described as follows:

> "Disaster Management is every Government Departments responsibility...it is private sector; NGOs and civil societies role to support government. Therefore there are advisory forums [set up as representatives of all stakeholders], because it is viewed as everybody's problem" [Provincial Official].

7.2.5.5 Relationship between the construction of the 'problem' and how it is addressed

The second research question is concerned with how the way in which the problem of informal settlement fires are perceived by the role-players affect the way in which the problem is addressed?

From the interview data it was found that community members largely see informal settlement fires as a risk that they face along with other disadvantages of living in an informal settlement because of their underprivileged status. The community members indicated the need for housing for themselves and their neighbours. From fieldwork it was observed at both the CBRA workshops held in Kayamandi, as part of the Provincial and District disaster management risk assessment and prevention initiatives, community members reverted discussions on risk, vulnerability and preparedness in Kayamandi to the issue of housing. Example from interview:

> 'the only resolution for the fires is houses, proper houses. Because brick houses it is only your house that is going to burn not the other houses. But with these ones they just contribute to the fire and make it spread quicker' [Resident 1].

Although only six community members were interviewed, they live in separate zones of the informal settlement area. Interviews were held this way to be more representative and to avoid a cluster of individuals with the same experience. The affected community members that were interviewed had little knowledge of the initiatives by the Disaster Management Centres. Neither did they have any knowledge of the ongoing fire prevention or education project in Kayamandi on the part of the CBO's or any other non-governmental parties. Community members only related the materials and money that was given to affected families after their houses burned down:

> 'Yeah. We did get money from the municipality, R500 [Resident 2].

> 'got like R500 each from the municipality, but it was only after we they were finished building. So we used it just for touch ups' [Resident 3].

> '[received] just parallels, planks and I can't remember more, but ja we got some things from the municipality' [Resident 4].

'I don't remember anything from municipality, but they remember that they got the food and the clothes form [the community-based organisation] [Resident1].

Of the community-based organisations in Kayamandi only one organisation has in the past clearly stipulated Emergency Relief as one of their functions. In the interview process it was learnt that this function is for the most part not on their agenda anymore. They aim to assist the local municipality with donations and support them as far as possible if a fire occurs, or will assist families if they can, in smaller incidences, but have no specific program focused on the issue of informal settlement fires in Kayamandi.

Both the community members and CBO's understand the task of addressing informal settlement fires to be that of the fire department and local government. The disaster management officials that were interviewed share the same sentiment. This was evident in the fieldwork observations, as discussed in the previous section regarding linkages between role-players, the local government and community-based organisations had a meeting regarding response to informal settlement fires in Kayamandi. As far as could be ascertained the only outcome was that any donations received by the CBO's will be transferred to the local government for them to be able to standardise response kits. At both CRA meeting attended in both Kayamandi and Langerug, when the floor was opened to discussion between community members and role-players the question of housing came up time and again. At the Kayamandi meeting a local councillor also used the opportunity to speak about the housing plans in the area.

But changes in disaster management legislation, policy, strategy and structures have led to a more encompassing approach to disaster management from a government perspective. Prevention and mitigation strategies have increasingly been incorporated with response and recovery responsibilities of disaster management officials over the period that this study was carried out. It was evident from the stakeholder workshops, the CBRA training and research and CBRA's in Kayamandi and other informal settlements that district and local government disaster management strategies are aiming to be more inclusive and involve community organisations and members.

7.2.6 Change and Development

7.2.6.1 Change

Through the research process it has been observed that the approach to and structures responsible for Disaster Management in the South African government from national to local government level have changed and evolved over the last decade.

'Disaster management is actually a very old concept in the country, before this legislation came to be. [District Official] The pre-runner...the Civil Defence Act... before 1994 [Provincial Official].

"The Disaster Management Act was promulgated in 2002 and came into working in 2003, after which Provincial Government was given "two years to try and implement the legislation...so we have statutory requirements and we've tried to, basically, meet those requirements". [According, to the district official this meant] "..slowly but surely changing our attitude and vision to adhere to the law. In other words our whole department went through restructuring" [Provincial Official].

In terms of the legislation, the functions of Disaster Management within Provincial and Local Government departments is now more streamlined and stipulated clearly. Moreover Disaster Management functions encompass much more than the primarily operational function it did before the Disaster Management Act of 2002.

"The legislation is more proactive and everything that goes with it: to identify risks, being able to act preventatively, and, if something is to happen, – to be able to render help after the fire department or traffic has executed their function" [District Official].

There has also been significant change and development in the Stellenbosch Municipality departments to include officials specifically appointed to disaster management functions. Moreover there has been an increasing concentration of efforts on research, risk assessment, education and fostering of relationships with community members and non-governmental organisations.

7.2.6.2 Development and Disaster Management

The new direction that the Disaster Management Act of 2002 has taken, is to follow a more sustainable and developmental approach. Disaster Management Departments are expected to address disaster management in a holistic manner.

"There are certain focus areas on the timeline of any disaster, the prevention part, the readiness part, the disaster, and the recovery part. And we have started to focus our work on this (four areas). (The one department) looks at all aspects that could prevent or mitigate a disaster. (Another department) looks at everything that cannot be mitigated, and makes ready for this, preparedness and response, in other words, immediate action. And (another department) looks at the recovery part, where rehabilitation… - relief, rehabilitation and reconstruction" [Provincial Official].

It is also expected from the Disaster Management departments on various levels of state to plan for and address all possible vulnerability, risk and disaster in their area.

"Fires in informal settlements are but a small or just a part of the whole risk analysis, because even though informal settlement fires have a lot of pain and sadness; such fires are for example [not a disaster] – all fires sometimes have the same influence but have different scope and impact in different areas" [District Official].

The Disaster Management Department's function was described by various officials as 'enabling'. This function is promulgated in the Disaster Management Act, in which is stated

that disaster management centres must monitor and coordinate. Thus enabling co-ordination between various departments to sufficiently address all aspects of risk and vulnerability is their transversal function. Other functions are support, planning and education and development of Disaster Management Plans and Frameworks for al metropolis and district municipalities [Provincial Official].

7.3 Conclusion

One of the constraints in the data collection process was the limited number of role-players that actively take an interest in and addressing informal settlement fires. This especially applies to stakeholders that only get involved in response to an incident and do not address the problem as a continual issue.

> "What I have found, is that there is not really interest in disaster management… if something happens, everyone gives their cooperation, what people do not realize is that it must happen proactively" [Local Official].

Many problems are being addressed in Kayamandi, ranging from HIV home-based care, rape support, child-care and education by the community-based organisations. With so many pressing issues to address, irregular fire related occurrences mostly get attention when it happens. Furthermore, it is the opinion of officials that people, from organisations and the community are not willing to spend their time on awareness and training workshops, because housing is more important and sought after.

> "They say the only resolution for the fires is houses, proper houses. Because in brick houses it is only your house that is going to burn, not the other houses. But with these ones they just contribute to the fire and make it spread quicker" [Resident 1].

Due the pressing needs and the political centrality of housing; disaster management issues are often overshadowed especially with regard to informal settlement fires. At the same time disaster management strategies have very recently changed from a technical to a more holistic approach in the last five to ten years, along with changes in legislation.

> "if you look at where the funding goes in the IDP, what the priorities are, housing is the number one and then basic services and the fire department and disaster management is normally quite low" [District Official].

During the research process it was clear that many of the initiatives and connections made between disaster management officials operating from various levels of government and role-players and community members, were exploratory and 'first contact' situations. Building connections and co-operation to address risk and vulnerability in the Stellenbosch Municipal area is central to the District and Local government disaster management agenda. Although it was not possible to observe in the time-frame of the study if these efforts will have successful outcomes, it does correspond with the notions of 'development', 'community-development' and the relationship to 'disaster management' underscored in this study.

Chapter 8 - Conclusions and recommendations

8.1   Introduction

Various conclusions are drawn from the findings in this case study. The first is that there is a relationship between Disaster Management, Development, and more specifically Community Development. These are particularly evident in various aspects of Disaster Management relating to prevention, mitigation, and public participation, such as community involvement in Community-Based Risk Assessments.

Secondly, it was found that the state plays the largest role in addressing the issue of informal settlement fires. From national to local municipality level the state adopts, and takes the responsibility for addressing informal settlement fires as part of disaster management mandates prescribed in legislation. This notion is shared by the local community based organization and the 'affected' individuals from Kayamandi.

Thirdly, it was found that there are non-governmental role-players involved, but the non-governmental and community-based organisations that have been recognised play mainly a supportive role. Fourthly, efforts relating to awareness, education and training focused on Kayamandi as an informal settlement community, and interaction between different role-players can be considered community development initiatives.

Fifthly, it has been established in the initial analysis of the context of informal settlements in chapters two and three, and in the findings, that informal settlement fires are a social issue and not only an operational issue.   Lastly this problem is part of a greater developmental context and processes. It relates to macro contextual factors, particularly, in terms of the link between socio-economic development and the existence of informal settlements in South Africa.

8.2.   Role of the State in addressing the issue of informal settlement fires

Risk and physical threats in informal settlements, such as fires in Kayamandi, directly involve role-players from outside the immediate 'community', like the local municipality, partners of interest from civil society and local community based organisations.

In this study, it was found that the most prominent role-player that concern themselves with and addressing the problem of informal settlement fires in Kayamandi, is the local municipality. According to Bridger & Alter (2006:14) external forces, such as the local government, can have a great impact on community processes. With very little other resources available to the urbanised poor, the affected not only turns to the government for materials and monitory reimbursement, but also as the authority responsible for addressing this problem. This is certainly the case in Kayamandi, all the affected community members and respondents from the CBO in Kayamandi see the task of addressing risk and vulnerability related to informal settlement fires as the responsibility of local government.

The above mentioned mind-set was evident throughout the interviewing process in the general lack of interest in the subject from most of the respondents, except the disaster management officials. In Kayamandi there does not seem to be any driving initiatives from the community or grassroots level.

A reliance on local government exists in Kayamandi, where local government is expected to address informal settlement fires when they occur and find a long term solution. According to Swanepoel and De Beer (2006:43) reliance is created when local government decides to address a community problem. It is therefore very important that the official do not regard and treat the community members and affected only as receivers or non-receivers of services, or as targets of development and beneficiaries (Swanepoel & De Beer, 2006:43), as this could exacerbate the unbalanced relationship between the government and community members.

Disaster management officials have attempted to foster relationships with local stakeholders and community members, but the problems related to the existing reliance on local government have affected the quality of these relationships. Through the workshop and meeting between local government officials and role-players from community-based organisations, the only outcome was increased knowledge of and reliance on the functions of local government disaster management. As pointed out in the data it was observed that the community members that participated in the CBRA's and the interviewed community members were more interested in discussing the need for housing than the issue of informal settlement fires. Community members expect government to provide housing as solution to the risk and vulnerability related to the living conditions in Kayamandi.

8.2.1 Local municipality

Local government intervenes in this manner, because it is tasked with providing environmental infrastructure and services necessary to reduce risk in their municipal areas (Oelofse, 2003:271).

The research, workshops and training that are initiated by Provincial and Local Disaster Management Departments are part of a process of identifying risk in the municipalities to be able to establishing Disaster Management Plans. The Disaster Management Plans of each district and local government must be reflected in the 'Integrated Development Planning' documents (Napier & Rubin, 2002:8). It is also required of the IDP process to build partnerships between local government and the community to reach their goals. This process of fostering partnerships with local community members and stakeholders is often referred to as 'public participation' especially in policy and planning documents.

Participation has become part of the principles of the South African 'developmental local government' milieu (Parnell & Pieterse 2002; in Theron, 2008:102), in which local government and local government departments seek new and alternative ways of engaging the public in the affairs of local government at grassroots level (Theron, 2008:102-103).

Theron and Ceaser (2008:103), calls this a "culture of participation", which is promoted internationally through the Manilla Declaration (1989), IAP2 (2000) and the World Bank (1996), and locally legalised through the Local Government: Municipal Systems Act, 32 of 2000.

8.2.2 Public participation and the 'community' as participant

As a result, there has been a growing emphasis in development circles on facilitation of development through community involvement and empowerment. Especially on local government level, internationally and locally, there is a trend toward community involvement by defining local governments' role in development, to be facilitators rather than agents (Oelofse, 2003:271). To facilitate development entails that the development effort is not controlled, but only promoted by the facilitator.

One critique that has been made against the way in which government facilitation of participation has been implemented applies to this study. Bridger and Luloff (1999:382) argue that policies and programs that are designed to include and conform to community norms and desires are formulated outside the community, and therefore there is still often little regard for local circumstances with limited participation of community members in decision-making (Bridger & Luloff, 1999:382).

It was not found in the research that community members, especially those affected are considerably engaged in decision-making. To the contrary, all the affected that were interviewed did not have any knowledge of the efforts of Provincial and District municipality to include community members in the planning process. The development efforts to address informal settlement risk are solely in the hands, and power of the local government Disaster Management Departments and not in that of the community (Swanepoel & De Beer, 2006:20).

Public participation facilitation by the local government or NGOs should offer 'communities the opportunity to better plan for their futures by tailoring regulations and programs to fit local circumstances' (Pavey et al., 2007:91). Bhattacharyya (2004:12) argues that the "ultimate goal of development should be human autonomy or agency."

Most of the efforts made by Provincial, District and local disaster management in the study period have either focused on informing stakeholders and community members of disaster management initiatives and planning, or on CBRA to be able to assess vulnerability and risk in Kayamandi.

Some of the research efforts, especially the CBRA's and stakeholders' workshops, by different levels of government have overlapped. Instead of building a growing relationship with community members and stakeholders, interviewed local government officials have indicated that these efforts have led to increased lack of interest in participation, because of repetition. According to Aigner et al. (2002:93) a dilemma is created by participatory efforts that do not succeed in reaching a position in which community members play a real driving role in decision-making and planning is further marginalisation of those members. Resentments and distrust of the motives of the elites develop, because the expectations created in community members as participants are not met (Aigner et al., 2002:93).

8.3   Supporting role of NGO's and CBO's

Public participation includes the participation of community organisations, non-governmental organisations and private enterprise. This is often the starting point for participatory efforts. An example of this is the Disaster Management Workshops held by Stellenbosch disaster management as part of directives from Winelands District Municipality. The workshops have two functions, firstly to educate the representatives of the various organisations in Disaster Management, and secondly to stimulate communication and network building between the local government Disaster Management Department and local organisation, and between the organisations.

Pavey et al. (2007:91) suggests that the 'resources and energy of local residents to collaboratively plan for the future can be united by leveraging the strength of communities of interest. In this regard, the role of facilitators such as local organisations is to bridge the gap between parties of interest, what they call the 'community of interest', and the local community (Murray & Dunn, 1996; quoted in Pavey et al., 2007:91).

The centrality of communities in decision-making is important when addressing community issues, but it is important to recognise the external role-players as resources to the community. Good linkages to the local government, NGO's and effective community-based organisations are a gateway to the resources necessary to addressing risk in Kayamandi informal settlement. According to Aigner et al. (2002:89) if efforts only focus on the locality, the resources linked to extra-local stakeholders may fall short; therefore it is important that all interested parties and role-players are included in efforts to address informal settlement fires.

It was found that although there are a substantial amount of community-based organisations working in Kayamandi, there was only one organisation that recognised the problem of informal settlement fires, as an issue that they address. Social fields, as identified in the interactional approach, also include such areas as economic development, health care, education recreation, faith-based services and local government (Pavey et al., 2007:93; Theodori, 2005:664). An example of such fields in this case study is the local government, Provincial and District disaster management centres, the involved NGO's and the CBO's in Kayamandi.

8.4   Community Development and Addressing the Issues

8.4.1 Community

Demarcating the community for this study was relatively complicated. Although this research quite simply refers to informal settlement fires in Kayamandi, the 'community' include various external role-players and exclude some residents of Kayamandi.

Kayamandi is a township, and although 60% of the residents live in informal settlements there are many formal houses. Thus, not all of Kayamandi share the risks faced by the informal settlement dwellers. In this way the 'community' can be defined as a community of place

(Aigner et al, 2002:87). The informal settlement dwellers can also be distinguished as a 'community' due to their shared experience of risks related specifically to informal settlements (Gilchrist, 2004:2).

As a group, the informal settlement dwellers of Kayamandi share physical threats and risk to their shelter and well-being; they are all vulnerable to the daily 'threat of fire'. Vulnerability is perpetuated and aggravated by social, economic, and political vulnerabilities that have contributed to their current living conditions. Therefore the members of informal settlement in Kayamandi are tied by their shared vulnerability. But, as Durkheim, Bhattacharyya, Butler, Flora and Flora, and Swanepoel and De Beer argue; 'sharing vulnerable circumstances does not necessarily mean that individual members may view themselves as part of the community solely or at all' (Swanepoel & De Beer, 2006:43).

There was no evidence in the data that shared risk have lead to solidarity and cohesion between the informal settlement dwellers of Kayamandi. All the affected individuals that were interviewed identified family members and friends as support networks, not necessarily from the informal settlement, but often living in Kayamandi.

Therefore defining members of informal settlements according to social cohesion is problematic. If communities exist due to their shared interest and cohesion, a fragmented group, which informal settlements are likely to be, cannot be seen as a community. The interactional approach to community development address this problem by not focussing on the community as a body reliant on cohesion or solidarity but as a dynamic field of interaction. From this perspective, a community should be viewed as a dynamic interactional field, which "denote the network of social interactions that contains and integrates various community interests in a local society'' (Wilkinson 1999:81; quoted in Pavey et al., 2007:93).

This does not mean that place is unimportant, as 'the community occurs in places and is place oriented, but the place itself is not the community, it simply serves as the setting in which social interaction occurs' (Theodori, 2005:663). According to the interactional approach to community development a community consists of the central community members and the various social fields of interaction that affect their livelihoods. At times the community field may be strong and at other times, it may be relatively weak. In many South African distressed rural and urban communities, fragile bonds hold the community field together. Community development aims to strengthen the community field by building from existing fields of interaction to find points of intersection around which actions can occur and linkages made (Luloff & Bridger, 2003; Bridger & Alter, 2006:15). This approach requires that residents and community development practitioners focus on the community, even when an effort or program is directed at a specific problem (Bridger & Alter, 2006:15).

Accordingly, if local government officials from disaster management aim to address informal settlement fires from a developmental perspective, it is important that informal settlement fires and other physical risks are not addressed in isolation from the economic, social, health and housing issues faced by Stellenbosch Municipality when it comes to Kayamandi.

8.4.2 Networks

Almost all approaches to community development stress the importance of relationships both among community members and between communities and outside groups and organisations.

Gilchrist (2004:2) emphasise networks as the core of community interaction. Through making connections communities can gain access to more resources and enhance their ability to cope with difficulty.

In terms of addressing informal settlement fires in Kayamandi, the most prominent finding was that Stellenbosch municipality, in accordance to direction from national policy documents and District Municipal planning, is increasingly focused on prevention. One strategy is to establish ties with non-governmental organisations and community members, in order to improve communication, networking and the knowledge base. It is based on the assumption that by utilising networks, people are enabled to work together to achieve shared interests (Gilchrist, 2004:8).

8.4.3 Networks and deprivation

It has been shown that poverty influences informal settlement dwellers' lives in various ways. Poverty contributes to social fragmentation, because it can be a obstacle to communication and cooperation (Oelofse, 2003:269), particularly between poor communities and external institutions, organisations and other role-players on whom they may be dependent for resources, or access to resources.

Edelman (2006:32) argues that informal settlement dwellers that lack other social networks rely heavily on political networks to improve their living conditions. This is evident in the large role that local government plays in mitigating the impact of and addressing the vulnerability and risk associated with informal settlement fires in Kayamandi. The responsibility of local government was assumed by all the interviewees', including the local government officials themselves.

Disadvantage and deprivation can be a major obstacle to communication and cooperation. Linked to poverty and isolation is the unequal 'distribution of power and resources between communities and the structures that transcend them' (Emmett, 2000:503-504). In the case of informal settlement fires, there is a 'giver' and 'receiver' relationship between local government and affected community members in Kayamandi. This relationship is unsustainable and can be unbeneficial to the community in the long term (Gilchrist, 2004:9). Community relationships with external structures should be ties that strengthen community resources through the capitals, skills, information and connections that can contribute to developmental efforts. Equal partnerships should serve as a catalyst for action taken by community members toward a process of continued development and betterment of their quality of life (Fawcett et al., 1995; quoted in Laverack, 2001:140).

8.4.4 Community capacity

Wilkinson (1999:87) attests that the value of community development lies in "the efforts of people and not necessarily in goal achievement."

All people have different dimensions to their lives and are influenced by the various environments in which they negotiate their daily deeds.

What is also important to empowerment is the ability of the community to be able to critically assess their resources and shortfalls, this includes the social, political, economic and other contextual factors that contribute to their level of disempowerment (Lall et al., 2004:140).

8.5 Informal settlement fires: socio-economic issue related to the developmental context

The characteristics of informal settlement life coincide and perpetuate poverty and social exclusion (Global Report on Human Settlements, 2003:11). The physical and social characteristics of the environment in which an informal settlement is located provide the context in which a risk event [disaster] occurs. Poverty is one of the main features of informal settlement life (Travis et. al, 1999:178). Poor informal settlement dwellers are constantly at risk and have low socio-economic status, making them more vulnerable than the rest of society.

Informal settlement dwellers are marginalised, and so are the informal settlement dwellers in Kayamandi. In interviewing affected community members they spoke of the long period of up to 2 months that it took them to rebuild their shacks. The lack of resources they have and most notable was the general resigned attitude that the respondents had to the inevitability of fires and other risks as part of living in the informal settlement.

All the affected community members that were interviewed for this study have lived in Kayamandi for at least 3 years, because they all could recall the fires of 2005. Stellenbosch is a relatively affluent town and municipality and the wine farming community offer work opportunities for the residents of Kayamandi. Housing in Kayamandi has been addressed, with 500 houses built in 2008, but this has not significantly decreased the number of informal settlements in the area. Social exclusion and poverty persist in the Kayamandi leading to physical threat and vulnerability of thousands living in informal settlements.

8.6 Recommendations

This study aimed to explore the problem of informal settlement fires in Kayamandi and discovered a strong relationship between disaster management and community development theories. I hope that this research will inspire further research into the connection between these fields.

Furthermore, as a student of the field of Community and Development, I think it is important to establish the problems faced by and the dynamics of specific local communities. In this study I have found a great connection and dependence of informal settlement dwellers on local government, which was a motivation to study the directives of local government.

Through the CBRA research and training initiated by the Winelands District Municipality, the government aimed to identify local risk in various vulnerable areas in the Winelands Municipalities. This is an important step toward effectively addressing local issues in a sustainable manner.

Community development theory suggests various sustainable approaches to addressing problems faced by disadvantaged communities. In this study the 'community' was identified as the informal settlement dwellers in relation to the interactional social fields that include the stakeholders that address informal settlement fires in Kayamandi, the 'disaster management and local government' field and the 'CBOs' field.

Disaster management initiatives have developed to include vulnerability assessment, training and the fostering of communication, cooperation and participation between the role-players involved in addressing informal settlement fires. But community development theory goes further to suggest that to address informal settlement fires as a social issue it is necessary for all parties to not only participate and cooperate completely, but to focus on the development of the whole of Kayamandi. One way to do this would be, to not only identify the risk and vulnerability faced by Kayamandi informal settlement dwellers, but to identify the resources that is available to address the issue, but also more holistically in terms of development.

The Community Capitals Framework (CCF) is one way of focussing on all the areas of peoples' lives and communities as a whole. This comprehensive theoretical framework makes it possible to analyse community efforts from a systemic perspective. The key principle of the CCF is that 'every community, however rural, isolated, or poor, has resources within it, and when those resources or assets are invested to create new resources, they become capital' (Flora & Flora, 2004). The CCF is based on a field of Community Development called the Asset Based Community Development (ABCD) approach that argues that assets should be the starting point for grassroots development (Aigner et al., 2002:90).

Future study into or inclusion of a focus on the social, human, economic, political, cultural, and built capital or resources available to Kayamandi could greatly improve the sustainability of developmental efforts in the area. An initiative of this nature would have to be all inclusive of the public sector, civil society the private sector, and at the core, grassroots community members that have interests in the improvement of the quality of life and opportunities for Kayamandi residents.

Only through real interest, participation and motivation from all parties involved to address issues such as informal settlement fires in Kayamandi, could such an initiative be achieved. In this study a general lack of such motivation from parties other than the various disaster management officials and research teams were observed.

At this stage stronger relationships need to be established between the different role-players, and awareness to the fact that preventative measures can be taken to mitigate the impact of informal settlement fires.

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Appendix A – Form of consent

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

Dear Sir/Madam

CONSENT TO PARTICIPATE IN RESEARCH
Study: Informal settlement fires in Kayamandi

You are asked to participate in a research study conducted by **Nerina du Toit**, enrolled for the **MPhil in Community and Development** degree, Department of Sociology and Social Anthropology at Stellenbosch University. The outcomes of this study will contribute towards the thesis component of the degree. You were selected as a participant in this study because you are involved or share relevant interest in the problem of informal settlement fires in Kayamandi.

PURPOSE OF THE STUDY

This study examines the problem of recurring fires in informal settlements. It will focus on how the problem is approached and addressed by the relevant role-players, and specifically in the context of community development. The role-players include government, various non-governmental organisations and the community affected.

The research questions are two-fold, firstly: How is the problem of recurrent fire hazard in informal settlements constructed by the different role-players? And secondly: How does this affect the way in which the problem is addressed? These questions will be viewed more in-depth in terms of communication and networking between the various role-players and stakeholders.

1. PROCEDURES

By volunteering to participate in this study, you consent to an informal interview focused on your interest in informal settlement fires. There might possibly also a request for a structured follow-up interview, for which consent given applies as well.

2. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

A study of this nature can be beneficial for all role-players concerned and can prevent unnecessary repetition and highlight areas that need attention. The identification of the various stake-holders and their involvement in the problem of fire risks, provides a platform for more inclusive and informed action. The information gained from this study can also serve as reference for future research, specifically pertaining organisational links and networks involved in addressing fire risk in informal settlements, as well as other related issues where organisational interest intersect specific local problems.

3. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with the interviewee will remain confidential and will be disclosed only with permission or as required by law.

4. PARTICIPATION AND WITHDRAWAL

You can choose whether to participate in this study or not. If you volunteer to participate in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not want to answer.

CONSENT OF PARTICIPANT

The information above was described to me by **Nerina du Toit** in English and I am in command of this language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____   _____
Name of participant (print)   **Date**

_____
Signature of participant

_____
Nerina du Toit
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Appendix B – Role-Player In-Depth Interview

INTERVIEW QUESTIONS: ROLE-PLAYERS

[Members of Community-based organisation and Disaster Management officials]

Research question:

The research questions are twofold, firstly: How is the problem of recurrent fire hazard in informal settlements constructed by the different role-players? And secondly: How does this affect the way in which the problem is addressed?

Main interviewing themes:

The purpose of the primary research is fourfold.

First, to identify the role-players that is involved or has an interest in efforts of fire prevention, response and mitigation of risk. Secondly, to understand what interest each of the role-players has with regard to the problem of fire risk. Thirdly, how the role-players define, view and address the problem of fire hazards.

Introductory questions:

Date _____

Name _____

Organisation/department_____

Interviewing themes:

1   **Involvement**

1.2   What is your position and responsibilities in terms of addressing informal settlement fires in Kayamandi?

1.3   What role does your organisation/department play with regard to the issue of informal settlement fires?

2   **Premise of operation**

2.2   On which mandates and/or planning strategies do you base your activities?

2.3   Please elaborate on your planning, programmes and functions?

[Open discussion to gain a good understanding of the workings of the organisation and specifically functions and programmes related to either Kayamandi, informal settlement fires in general and of course informal settlement fires in Kayamandi.]

2.4   To what extent do the various mandates, strategies, or research determine your planning and involvement as related to informal settlement fires?

3	**Informal settlement fires**

3.2   What priority does informal settlement fires carry in your overall planning and programmes?

3.3   To your mind, to what degree do informal settlement fires impact on Kayamandi, its community members and the attention it requires from your organisation/department?

3.4   Since you have been involved, has there been any change in the impact and size of informal settlement fires in Kayamandi?

3.5   What to your mind has influenced such change?

3.6   What do you think will be the best way to combat informal settlement fires and its impact?

3.6.1   What is the success and failure of current strategies?

3.6.2   Which parties should be involved/participate in efforts to address informal settlement fires?

[Last questions are open to both the professional position of the organisation and the personal experience and views of respondent]

Appendix C – Community Members Open-Ended Interview

INTERVIEW QUESTIONS: Community Members

Research question:

The research questions are twofold, firstly: How is the problem of recurrent fire hazard in informal settlements constructed by the different role-players? And secondly: How does this affect the way in which the problem is addressed?

Main interviewing themes:

The purpose of the primary research is as follows:

First, to identify the role-players that is involved or has an interest in efforts of fire prevention, response and mitigation of risk. Secondly, to understand what interest each of the role-players has with regard to the problem of fire risk. Thirdly, how the role-players define, view and address the problem of fire hazards.

Introductory questions:

Date _____

Name _____

Open-ended questions:

1. **Impact if informal settlement fire on community member**
   - **1.1.** Have you personally been affected by informal settlement fire in Kayamandi?
   - **1.2.** If so, when was the incident?
   - **1.3.** Please describe your experience of the incident?
   - **1.4.** How many people were affected by the fire?
   - **1.5.** Do you know what caused the fire?

2. **Contact with other role-players**
   - **2.1.** Did you receive any assistance?
   - **2.2.** From whom did you receive assistance and what did it entail?

   [Leading questions only, can include topics such as knowledge of the involvement of community-based organisation or local municipality as related to question 6]

3. **Community-members view of the problem**
   - **3.1.** Do you believe that informal settlement fires are a problem in Kayamandi?
   - **3.2.** How do you think the 'problem' of informal settlement fires should be addressed?

Appendix D - 'Facilitating Community Participation in Service Delivery' training certificate

Cape Peninsula
University of Technology

Community Water Supply and Sanitation Unit
(Bellville Campus)

This is to certify that

Nerina Du Toit

Successfully completed a Short Course titled "Facilitating Community Participation in Service Delivery".

The purpose of the Short Course is to enable municipal officials and their counterparts to identify underlying causes of risks and hazards, respond in a proactive and appropriate manner and enable community based risk reduction and prevention practices.

Unit Standard Title: Facilitate Community Participation processes

ID: 12353

NQF Level: 4

Credits: 6

The learning programme included the following out comes:
- Explain principles of community participation
- Use participatory tools to achieve outcomes
- Facilitate community process
- Facilitate decision making process

Cape Winelands District Municipality

Deputy Vice Chancellor
Academic

Community Water Supply
and Sanitation Unit

CWSS Unit

June 2008

Date

Appendix E - Fire prevention flyers

Appendix F - Photos of Kayamandi informal settlement

Burnt house on day of interviews

Shacks rebuilt with burned materials

Density of informal settlement