



**RAPID URBANIZATION AND ITS INFLUENCE ON THE GROWTH OF INFORMAL
SETTLEMENTS IN WINDHOEK, NAMIBIA**

by

TOBIAS PENDAPALA NEWAYA

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**Supervisor: Nigel Tapela
Co-supervisor: Belinda Verster**

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DECLARATION

I, Tobias Pendapala Newaya, declare that the contents of this thesis represent my own work, and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

Signed

Date

ABSTRACT

The accelerated influx of migrants into Windhoek after the attainment of independence in 1990 caused progressive settlement growth on open council-owned land as well as considerable shelter and servicing problems for the Windhoek City Council (WCC). This study analyses the spatial growth of informal settlements in Windhoek over a 10 year period from 1998 to 2008.

The study use GIS as a tool to measure and analyse the spatial growth and development of informal settlements. It involves the mapping exercise to generate a sequential process of assessing the feasibility study that helped in the selection of two detailed case studies. Results of the analysis show two patterns of informal settlement development: between 1998-2003 and 2003 to 2008. The first is the acceleration of development of shanty towns immediately after independence to 1988 as associated with processes of spatial consolidation and densification in the former period and increased sprawl in the latter period.

Second the study analysed the socio-economic characteristics of informal settlements. This was complemented by livelihood assessment (LA) that was used in identifying the types of livelihoods and coping mechanisms used by residents of informal settlements. The livelihoods assessment clearly shows that most of the people in informal settlements rely heavily on informal sector activities for a living. In-depth interviews were conducted with selected households to explore their coping strategies and survival mechanisms and also to determine how their earnings are being distributed.

The continued growth of squalid and unplanned informal settlements is a clear indication that policies and practices need further intervention and regularization. The establishment of reception areas between 1991 and 1999 proved futile. The reception areas attracted more people instead of controlling the growth. Pit latrine toilets are provided in all the settlements but people do not use them and this is a major human and environmental threat.

The study shows that the population growth has a significant impact on the growth of informal settlements in Windhoek. The study also shows that the livelihood assessment of households assist with a better understanding of household's coping mechanisms and this will assist the city Council in making informed decisions when addressing the needs of the people. Livelihood assessment is a tool that assists with the better understanding of the affordability levels of low-income people, therefore assisting the city Council in providing services that align with the affordability levels of the residents.

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DEDICATION

For my beloved mother Rosalia Amukwiita, for her loyal support and encouragement through out the years of my study

&

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Abbreviations and Acronyms

AGFC	Advisory Group on Forced Evictions
BTNHP	Build Together National Housing Programmes
GCST	Global Campaign for Secure Tenure
CBD's	Community Based Organizations
CDS	City Development Strategies
CoW	City of Windhoek (same as Windhoek City Council (WCC))
GIS	Geographical Information Systems
LA	Livelihood Assessment
MDGs	Millennium Development Goals
MRLGH	Ministry of Regional, Local Government and Housing
NGOs	Non-Governmental Organizations
NHAG	Namibia Housing Action Group
NHE	National Housing Enterprises
NHP	National Housing Policy
OPP	Orangi Pilot Project
SAPs	Structural Adjustment Programmes
SDFN	Shack Dwellers Federation of Namibia
SMEs	Small-Medium Enterprises
UNCHS	United Nation Centre for Human Settlements
UNDP	United Nations Development Programmes
UNHRP	United Nations Housing Rights Programme
WCC	Windhoek City Council (same as City of Windhoek)

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND TO THE STUDY

Rapid urbanisation is a challenging developmental issue in most less developed countries such as Namibia. With an estimated population of about 300, 000, Windhoek is home to 40% of the country's total population (Simon, 2006). Following independence from South Africa in 1990, and the correspondent removal of the apartheid-inspired measures for controlling the movement and settlement of people, informal settlement formation in Windhoek increased greatly (Frayne, 2007; Simon, 1995). The increased migration into Windhoek was largely driven by a search for employment opportunities and a better quality of life. A 1995 local survey estimated that the population of the city was 182, 000 and would double within the next 10-12 years (World Bank, 2002). According to the survey, the annual population growth rate was 5.4% of which 3.9% was the net migration gain. About 32% of the migrants settled in the informal areas, at about 3.7 persons per households. In 2000, Windhoek's total population was estimated to be 235, 000 (City of Windhoek, 2002).

The poor in Windhoek live almost exclusively in and around Katutura, the township created to house black workers and their families in 1958 under South African colonial apartheid rule (Peyroux, 2004). Migrants into Windhoek from rural areas settled mainly in informal areas of Katutura and some formal neighbourhoods of Katutura. Approximately 60% of Windhoek's population lives in Katutura, on about 20% of the city's land (Frayne, 2004; City of Windhoek, 2003). The term Katutura is used to refer to both the formal area of the township and the informal areas to the northwest of the city.

The unprecedented growth in Windhoek's population in the last 10 years has placed great strains on the city's resources to respond to increased demands for jobs, shelter and services. Unplanned settlements pose difficulties for the municipal authority to supply services and adequate shelter to the informal settlements (Pendleton, 1998b). Whilst planned residential areas have fully-serviced plots with water and sewerage connections, only an emergency provision of water via stand pipes is supplied to informal settlements with very limited sewerage facilities or sometimes without any sewerage at all (City of Windhoek, 2002). This has led to the inhabitants of informal areas using dry riverbeds and the surrounding bushes for sanitary purposes resulting in social and environmental problems.

1.2. STATEMENT OF RESEARCH PROBLEM

Rapid urbanisation in Windhoek has caused progressive informal settlement growth on the areas surrounding Katutura. The uncontrolled population influx into Windhoek increased dramatically since Namibia attained its independence in 1990 (City of Windhoek, 2000b). This has in part resulted into housing shortages and the situation has forced people to occupy land illegally, where they construct their own housing without services and limited or no security of tenure (Frayne, 1992:13). Rural-urban migration has caused progressive settlement growth mostly on open council-owned land as well as considerable shelter and service problems for the Windhoek City Council (WCC) (World Bank, 2002; UN-Habitat, 2006). Figure 1.1 shows the interrelated cycle of the developmental problems that result from rapid urbanization.

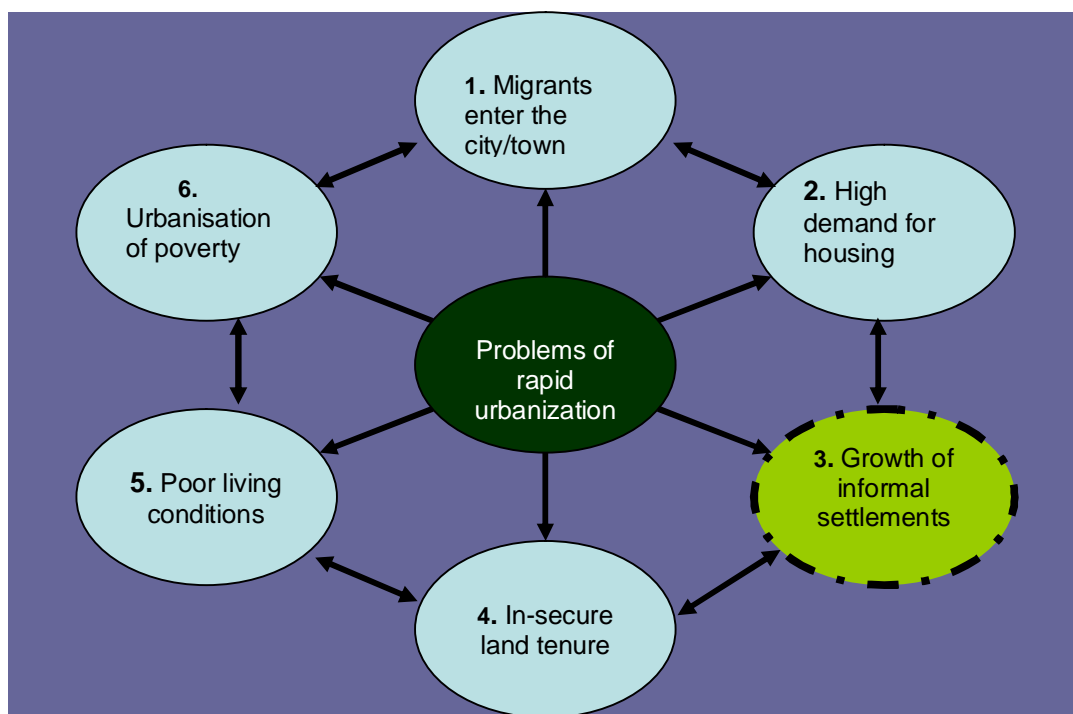


Figure 1.1: Developmental problems associated with rapid urbanisation and Informal settlements

1.3. WINDHOEK CONTEXTUALISED

In order to better understand contemporary Windhoek and its issues of segregation and suburbanization, it is necessary to contextualise the city's development historically. In common with other urban areas in South Africa and Namibia, Windhoek was divided by law into discrete areas for each officially defined race group: Windhoek city and suburbs (whites), Khomasdal

(coloured), Katutura (blacks), see Figure 1.2. Although in 1979 this segregation was formally abolished, only limited blurring of the racial geography has occurred to date (Friedman, 2000:7).

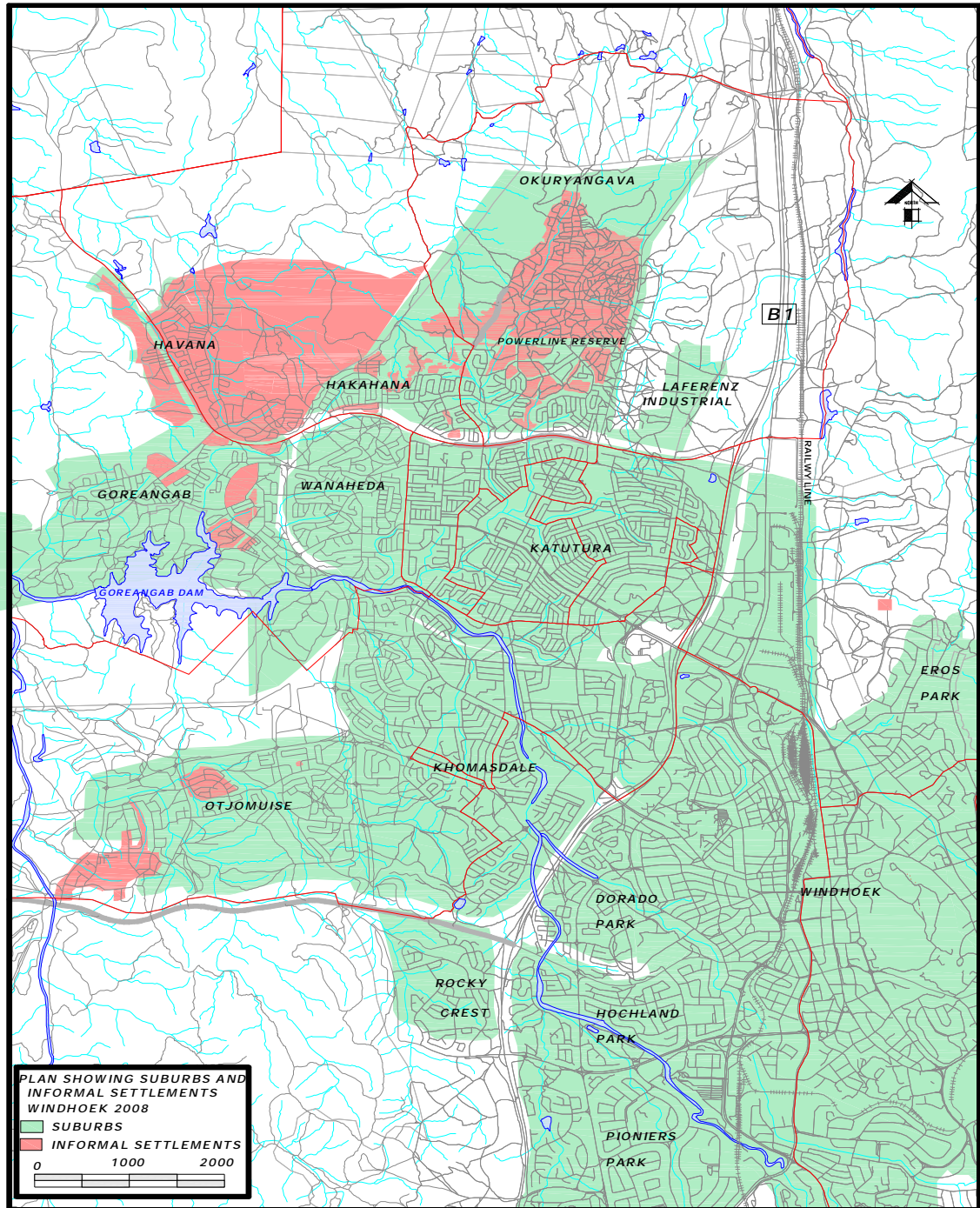


Figure 1.2: Suburbs of the city of Windhoek, Namibia [Adopted from the City of Windhoek, 2008]

The political, economical and social history of Windhoek, from the initial colonisation by Germans, through the South African occupation to the country's eventual independence on the 21st March 1990, have all impacted significantly on the development of the city's social and spatial structure (Frayne, 1992). The Herero call Windhoek Otjomuise (steaming place), and the Nama call it /Ae//gams (hot springs), after hot springs which were found there. Windhoek received its name from an influential Cape immigrant who settled in the area towards the end of 1840.

The modern beginnings of Windhoek date from 1890 with the arrival of Schutztruppe under the command of Curt von Francois and the construction of the fort (Pendleton, 1998b). The Germans were expelled by South African forces in 1915, during the First World War. Windhoek became a formal settlement only in 1890 with the arrival of the German Schutztruppe (Friedman, 2000). The most likely origin of the name Windhoek, which literally means 'Windy corner' in Afrikaans, is a contraction of Winterhoek, the mountain range in the Western Cape behind Jonker Afrikaaner home town (Simon, 1995).

In 1893, Windhoek had a population of 600 people, which increased to 2,700 inhabitants in 1909, to approximately 10,000 in 1936. In 1894, Windhoek had 85 white civilians (including five women), about 500 members of the Schutztruppe, and 300-400 blacks, who were mostly Damara (Pendleton, 1994:16). The large number of Damara probably reflects the fact that some, having lived in subservience to; and in fear of Herero and Nama, welcomed the opportunity to escape by coming to Windhoek.

1.4. RESEARCH QUESTIONS

The central research question of the study is to attempt to answer the following:

What are the spatial imprints, community characteristics and planning implications for informal settlement formation in Windhoek?

Arising from the main research question sketched above, three interrelated research sub-questions have been identified to guide the investigations and assist in formulating of appropriate research objectives and hypotheses and hence the design of appropriate research tools and instruments. The main research question has been the basis on which the research objectives and hypotheses have been developed. These research sub-questions are sequentially stated as follows:

1.4.1 What have been the spatial, growth dynamics and location principles of informal settlements in post independent Windhoek?

1.4.2 What are the socio-economic characteristics and coping mechanisms used by residents of informal settlements to reduce risk and vulnerability in Windhoek?

1.4.3 What are the changing official attitudes and policy responses towards informal settlements development?

1.5 RESEARCH OBJECTIVES

Based on the research question and sub-research questions, the following interrelated objectives are derived to focus the proposed investigation:

1.5.1 To measure and analyse the growth dynamics and location characteristics of informal settlements in Windhoek in the 10 year period between 1998-2008.

1.5.2 To investigate livelihood strategies, socio-economic characteristics and coping mechanisms of households and residents of selected informal settlement In Windhoek.

1.5.3 To evaluate official attitudes and emerging policy responses towards the development and management of informal settlements in Windhoek.

1.6. HYPOTHESES

The following interrelated hypotheses have been formulated:

1.6.1 There is positive relationship between sites and location of informal settlements and public (council) ownership of land. Put differently, informal settlements tend to develop and consolidate on public land as a way of reducing vulnerability to eviction as there is likely to be greater sense of legitimacy to claim for secure tenure on state land.

1.6.2 There is a positive relationship between rapid population growth and increased number and size of informal settlements.

1.6.3 Perceptions of relative security of tenure by residents of informal settlements influences decisions on investment and property improvements by households (van Gelder, 2007).

1.7 RESEARCH ASSUMPTIONS

Several assumptions are made, deriving from the general literature on studies of informal settlements world wide, and arising from the specific experience of urbanisation processes in Namibia. These relate to the following; among others:

- That informal settlement development is part of a broader response of an increasing number of urban households who are unable to afford or enter the formal urban economy and thus navigate their entry into the city through an alternative economy, lifestyles and networks – the informal economy (City of Cape Town, 2006:125).
- That the sheer magnitude of urbanisation challenges (population growth) and the emerging democratic values and rights have influenced a more positive (although often contradictory) official attitudes and policy responses towards informal settlement development.
- When public authorities are faced with increased demands for services by an enfranchised citizenry in a context of limited resources, there is often accommodation made to new claims to the city, lifestyles and urban forms associated with these through more pro-poor policy re-formulations.
- The current study investigates the way urban development policy and practices respond to these challenges in the case of informal settlements - a particularly visible manifestation of rapid urbanisation.

The study on the growth of informal settlements, livelihoods of dwellers and official responses to their existence is an important lens to investigate current urbanisation processes in the post-independence era, particularly in order to assess the efficacy of current planning interventions and recommending future approaches to planning for rapid urbanisation.

1.8 CURRENT STATUS OF THE RESEARCH AREA

Research has acknowledged that informal settlements are a consequence of rapid urbanization that has characterised the nature of urbanisation in developing countries since the 1960s (Huchzermeyer, 2004a). The effects of these research efforts have been their profound influence on shifts in policies and practice of planning. The first important shift was in the initial reference to these settlements as squatter, shanty or illegal, in the second they were called irregular,

spontaneous or informal settlements. Significant here is the tacit acknowledgement that informal housing processes are a manifestation of rapid urbanisation and should be considered as 'solutions' rather than problems to the shelter challenges in rapidly urbanising cities; or 'slums of hope' rather than 'slums of despair'. This resulted in the policy prescriptions of aided self-help and dweller control of housing becoming policy and practice in the 1970s and early 1980s (Turner, 1968).

These changing policy and official attitudes resulted in changing approaches to the intervention in informal settlements ranging from initial demolition to their upgrading, initiation of aided self-help housing and site and services projects and programmes (Skinner & Rodell, 1983). This trend has continued to influence rights-based approaches to housing that recognise migration as an intrinsic process of urbanisation and migrants as legitimate citizens who seek to exercise their rights to a better life in seeking a foothold into cities. Various approaches that acknowledge this reality of rapid urbanisation and informality have been used worldwide as interventions to informal settlement development. In the last three decades in South Africa these interventions ranged from demolition, sites-and-services; to capital subsidies and informal settlement upgrading. The effectiveness of these approaches to address problems of rapid urbanisation however need to be evaluated against the magnitude and intensity of the problem, the existing political economy and the dominant planning discourses and paradigms locally and internationally (Huchzermeyer, 2004a and b).

The emergence of officially unplanned settlements, resulting from informal occupation of urban and peri-urban land for residential purposes is an ongoing phenomenon in developing countries. Informal settlements result mostly from imbalances between formal housing supply and infrastructure provisions and unaffordable prices of formal housing is in excess in relation to wage structures of most of the urban inhabitants (Aquilar, 2008).

In South Africa the policy of urban influx control was later substituted by the policy of orderly development which paved the way for people to migrate to towns and cities. Although informal settlements were perceived as problems by city authorities, it is now increasingly recognised that it is perhaps the only means by which urban poor people can house themselves. This reality increasingly influence concerned authorities to implement viable strategies to better address the housing situations in informal settlements and a shift in attitudes that informal settlements dwellers are good judges of their own needs and therefore, should be given opportunities to participate in the development of their settlements (Harris, 2003).

The contribution of John Turner was quite important when it comes to addressing issues pertaining to informal settlements and low-cost housing. In the late 1960's, John Turner changed the way we think about low-cost housing. He taught us the value of self-help, to think of housing as a verb and to squatter settlements as solutions, not problems. As a result, in the early 1970s, the World Bank began to fund site-and-service schemes whereby governments helped people to acquire modest homes by building their own.

This study focuses on analyzing trends of informal settlement growth and location in post and pre-independence Windhoek. Windhoek has a population of approximately 300 000, 60% whom live in informal settlements. The study has then brought about a clearer overview of post-apartheid dynamics of urbanisation and its managements in Namibia's capital city, Windhoek, with specific focus on the rapid residential and socio-economic changes occurring in its informal settlements.

1.9 CONTRIBUTION AND SIGNIFICANCE OF THE STUDY

The research is significant in the sense that it will contribute to addressing an area of urban development that has not been sufficiently studied despite its significance in shaping the physical, ecological, socio-political and economic fabric and landscape of Namibian urbanisation, particularly in the capital, Windhoek. The development challenges of increased informalization of settlements in cities in general, and informal settlements in particular, represents the unfolding marginalisation of greater numbers of people and the urbanisation of poverty is emerging as a broader manifestation of the impact of globalisation on the cities of the developing countries (Harris and Arku, 2007). The research is relevant to current urban development challenges facing African cities and will assist deepening planning policy formulation. In this respect, research is critical. The 3 related research objectives that the study identifies, while limiting, are significant in that:

- Objective 1 is an attempt to a pilot technique in the Namibian context which could be useful in co-analysing two regularly collected data sets (Population and Housing Censuses and aerial photography) to provide planning intelligence for planning (Ward & Peters, 2007);
- planning interventions to and in informal settlements are often based on faceless surveys and a preoccupation with the 'ugly' physicality of informal settlement conditions and less on the lived experiences and livelihoods of informal settlement citizens. In combining

planning surveys and livelihood assessments the study hopes to deepen our understanding of household livelihoods and the texture and quality of planning interventions that can support existing networks and resourcefulness of these communities.

The research will also contribute to a general overview of the post-apartheid urban development dynamics in Windhoek in the 10 years since gaining independence for urban managers and academics and add to the thin literature on this topic compared to other Southern African cities.

1.10 DEFINITIONS OF KEY TERMS AND CONCEPTS

This section contains definitions of some concepts and key words which have played a role in this thesis, the further clarity of these concepts as they are relevant to this thesis.

Informal settlements- can be defined as areas where group of housing units have been constructed on land that the occupants have no legal claim to, or occupy illegally. Can also be defined as unplanned settlements and areas where housing is not in compliance with current planning and building regulations (UN-Habitat, 2006).

Katutura - The township created to house black workers and their families in 1958 under South African apartheid rule. Katutura is used to refer to both the formal area of the township and the informal areas to the northwest of the city (Pendleton, 1994:27).

Rapid urbanisation- Rapid urbanisation usually occurs when services available in towns and cities are longer able to keep up with high population rate as a result of in-migration and natural growth.

Urban growth - The rate of growth of urban population that were primarily triggered either by in-migration from rural areas, natural growth or combinations of both natural and migratory growth.

Vulnerability – Refers to the characteristics that limits an individual households and a community's capacity to anticipate, manage, resist or recover from the impact of a natural or other threat, often called a 'hazard or natural trigger' (de Satgé, 2002:xix).

Policy responses - Policy interventions aimed at addressing the plight of informal settlement dwellers and their likely impact on the development and growth of informal settlements.

Livelihood - Livelihoods comprise people's capability, assets and activities required for making a living. A livelihood is socially sustainable when it can cope with and recover from stress, shocks and maintain or enhance its capabilities and assets both presently and in the future (de Satgé, 2002:17).

Livelihood strategies (Coping mechanisms) - This relates to mechanisms and strategies employed by inhabitants of urban area and mostly of informal settlements, to withstand economic hardship within their settlements. It involves various approaches used by residents of informal settlements to improve their livelihoods. A livelihood is sustainable when it can cope with and recover from stresses and shock and maintain and enhance it capabilities and assets both now and in the future, while not undermining the natural resource base (de Satgé, 2002:39)

Livelihood Assessment (LA) – A tool used to assess the livelihood types and coping mechanisms of individual households. It helps with clear understanding of how households survive by employing various strategies to cope and reduce vulnerability from shocks and stresses (de Satgé, 2002:38).

GIS (Geographical Information System) - A geographic information system is an information system for capturing, storing, analyzing, managing and presenting data which are spatially referenced (linked to location). GIS enables you to envision the geographic aspects of a body of data, it is capable of integrating, storing, editing, analyzing, sharing, and displaying [geographically referenced](#) information.

Study area – Two informal settlements were selected as study areas (Okahandja Park and Oohambo dhaNehale) of this research, and are situated on the northern parts of Windhoek, Namibia. For the purpose of this research, the term study area has been used to describe two selected informal settlements. See Table 4.3 for characteristics of the two study areas.

1.11 ORGANIZATION OF THE STUDY

The study is organized as illustrated in figure 1.3. The three research objectives have formed independent sections and are shown by dotted lines. This diagrammatic representation structure the thesis into seven major sections around the research questions, objectives and hypotheses, these are:

Chapter 1 presents background to the study. The research problem, research questions, hypothesis and assumptions are outlined in this chapter. **Chapter 2** involves the extensive review of literature to explore relevance to the research.

Chapter 3 outlines the research design and methodologies used to gather necessary information to achieve the intended results. The chapter also contains the strategy used in the study to devise the research methodology and design.

Chapter 4 deals with the analysis of the growth of informal settlements between 1998 and 2008. The chapter aims to explore growth dynamics over a 20 year period.

Chapter 5 encompasses research results, analyses and discussions as well as an appraisal of livelihoods and coping strategies of households from two selected informal settlements. The chapter highlights different livelihood mechanisms used by households to reduce vulnerability to shock and stresses.

Chapter 6 evaluates the official attitudes and planning implications to the growth of informal settlements.

Chapter 7 provides conclusions and recommendations to the study and further research. The conclusions and recommendations are based on the findings of chapter 4, 5, and 6.

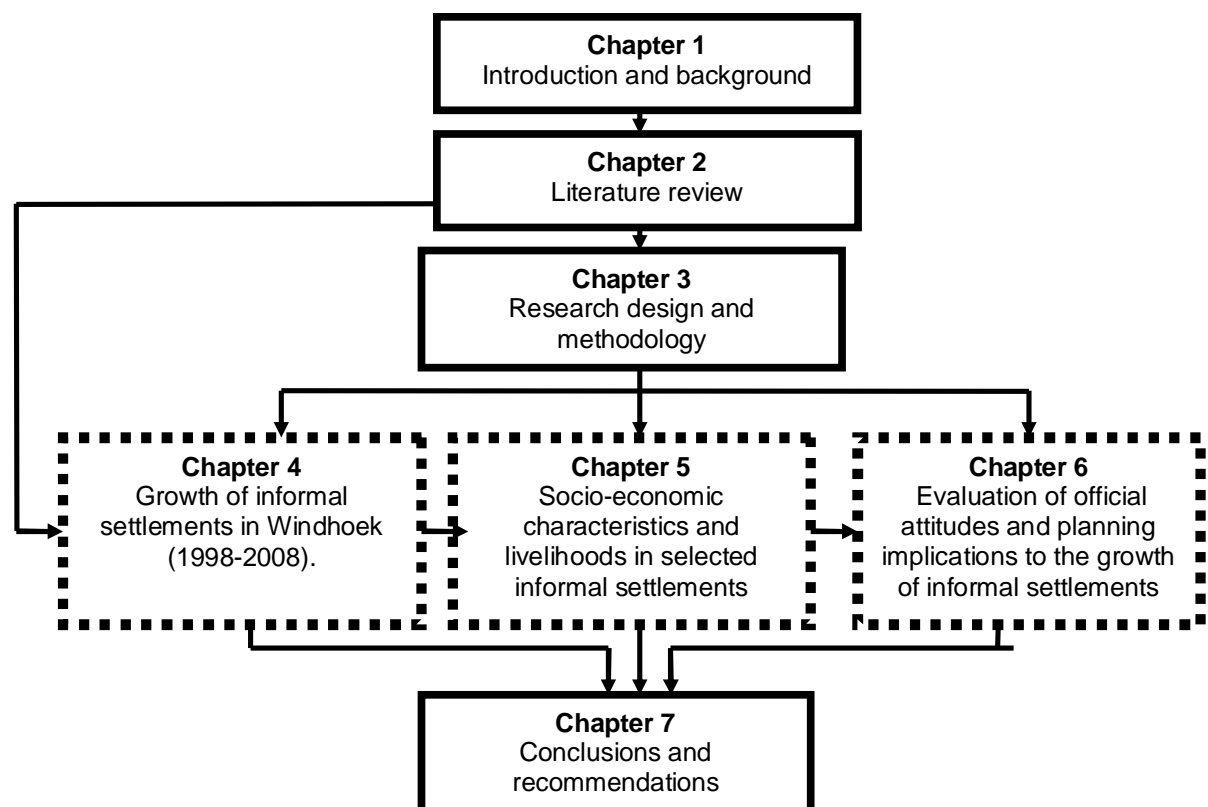


Figure 1.3: Organization of the study/ structure of thesis

1.12. CHAPTER SUMMARY

Informal settlements are the manifestation of a lack of public housing to accommodate the poor in most towns and cities of the developing world. People are rather forced to eke a living within an informal sector which leads to the mushrooming of informal houses on the outskirts of towns and cities.

Most local authorities do not have the necessary means to accommodate and control the influx of people into towns. Finance has constrained various institutions responsible for the management of informal settlements to upgrade and provide services to the mushrooming informal settlements.

This study has focused on analysing the growth dynamics and patterns of informal settlements in Windhoek, Namibia, with special focus on the policy responses to the development and management of the informal settlements. The study has also looked at different livelihood strategies and coping mechanisms used by residents of informal settlements in Windhoek to withstand shocks and reduce vulnerability.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION AND BACKGROUND

Extensive literature has highlighted the persistence of informality and informal settlements as an emerging form and manifestation of rapid urbanisation in developing countries since the 1960s. Starting with the seminal works of Abrams (1964), Dwyer (1974; 1975); JFC Turner (1968; 1976) and Skinner (1983) with regard to informal housing, and the International Labour Organisation (ILO, 1973) that explored the nature and magnitude of informal employment in the cities of the so-called third world. This and new literature (eg; Davis, 2007) confirm the manifestation of informality as the reality that informs urbanisation processes and livelihoods of the majority of the citizenry of these cities. UN-Habitat's influential report *Challenge of Slums* (2003a) resurrected and adopted the term 'slum' as an operational definition that became restricted to the physical and legal characteristics and conditions of shelter inadequacy to include peri-urban shantytowns, as well as archetypical inner-city tenements (Davis, 2007:23).

The sheer scale of growth of slums in the developing countries dims prospects for the attainment of the millennium development goals relating to eradication of inadequate shelter conditions, at least in the proposed timeframes. Importantly, interventions within the shelter arena should be contextualised within the broader problem of 'an urbanisation without industrialisation' or the inability of urban economies to generate enough growth to absorb the increasing urban population attracted to urban areas. The emergence of informality as an alternative coping strategy (be it in shelter, employment and other ways and institutions the poor use reproduce themselves or subsidize capital); can thus be seen as the defining feature of this new urbanisation where resort to informalisation is not a lifestyle of choice, but rather of survival, as the formal sector has become so exclusive and unaffordable.

For the millions of poor people in developing areas of the world, urban areas have always been a means for improving their quality of living and environment, besides getting better jobs and incomes. This, in contrast to deteriorating conditions in the rural areas has generated a considerable flow of migrants to cities, particularly in the last three decades. The world is becoming more and more urbanised and it is estimated that by 2050 nearly 75% of the world's population will be living in cities (Nomdo and Coetzee, 2002). This rapid growth of cities has put a lot of pressure on available resources and presents a big challenge for authorities in the management of these resources. The scale of the problem is immense; up to 500 million people in developing countries live in absolute poverty, representing about 40% of all poor and 25% of the urban population (Jones and Ward, 1994).

The World Bank reportedly sees urban poverty in apocalyptic terms as the most significant and politically explosive problem of this century (World Bank, 1991, cited in Jones and Ward 1994). Within urban areas, the map of poverty can be superimposed on informal settlements with a fair degree of accuracy. The number of poor people in urban areas in some countries is now increasing at a faster rate than in rural areas. By 2025, it is estimated that two thirds of the poor in these regions (Latin America, East and Central Europe, Central Asia), and a third to almost half the poor in Africa and Asia will live in cities or towns (Nomdo and Coetzee, 2002). More than 90% of the urban poor already live in the South (Huchzermeyer, 2004a). While the size of the urban population in Africa (and sub-Saharan Africa in particular) maybe lower; the rate of urban population growth and slum development is significantly much higher (Davis, 2007).

This review of literature is structured into four main sections that further contextualise the three interrelated research questions around the growth dynamics of cities and informal settlements; the lived reality in these informal settlements; and policy responses to informal settlement development. The treatment uses scale and chronology to identify trends related to each of these research objectives in an attempt to create a theoretical and conceptual back drop that inform and support the more substantive investigations that follow in later chapters. The last section scopes the context of the case study - being urbanisation and informal settlement development in Namibia's capital city, Windhoek.

2.2 RAPID URBANISATION AND GROWTH OF INFORMAL SETTLEMENTS.

Everywhere in the Third World, housing choice is a hard calculus of confusing trade-offs. The urban poor have to solve a complex equation as they try to optimise housing cost, tenure security, quality of shelter, journey to work, and sometimes, personal safety. In Turner's celebrated model, the progress from 'bridge-header' to 'consolidator' is, of course, an idealization that may only reflect a historically transient situation in one continent or country (Davis, 2007: 27-9).

In the past century the global urban population has expanded from 15% in 1900 to nearly 50% in 2000. Furthermore, it is estimated that by the year 2050, nearly 75% of the global population will be living in cities (Swilling, 2004). This trend is even more evident in developing countries, where the rate of urbanisation is currently extremely high - lagging behind of developed countries - where this phenomenon took place during the middle of the previous century. Africa has particularly been experiencing the world's most rapid rate of urbanization at nearly 5% per annum (Huchzermeyer, 2008a). Deteriorating conditions in rural areas together with presumed urban

possibilities attract people to cities that have become magnets for people seeking a better life, and an escape from a situation that is perceived as underprivileged and less attractive. The major problem is that bigger cities within these developing countries rarely have the resources, infrastructure and vision to support such a massive increase in population (Nomdo and Coetzee, 2002).

The 1980s and 1990s witnessed an unprecedented acceleration of urbanization processes worldwide with urban populations beginning to outnumber those in rural areas; and virtually this entire growth taking place in developing countries. While this trend is nearly complete in most of Latin America, latecomers like the countries of sub-Saharan Africa are rapidly catching up (Nomdo and Coetzee, 2002). In the past, urbanization was seen as a positive process, linked to modernization, industrialization, and global integration. In recent years, however, it has become obvious that relatively well-paid and secure employment in the public and formal sector is available only for a shrinking minority of the urban population (Erhard, 2005). While some informal settlements have been established as part of the defiance campaigns against governments, others simply reflect the desperation of the people who merely wish to access land to live on closer to opportunities in cities. It is however generally considered that urban populations grew faster than the capacities of city to support them, so slums increased (Srinivas, 2003).

Economic restructuring, driven by global competition and often accompanied by structural adjustment programmes (SAPs), is destroying many of these jobs and forces an increasing number of people to eke out a living in the informal sector. Urban poverty poses a daunting challenge to international, national, and local development policies: 'More than 600 million people in cities and towns throughout the world are homeless or live in life or health-threatening situations. Unless a revolution in urban problem solving takes place, this numbing statistic will triple by the time the next century passes its first quarter (N'Dow 1996: xxi, Cited in Erhard, 2005).

2.2.1 Migration and urbanisation

Earlier in the 20th century, the massive transfer of rural poverty to cities was prevented by the political and economic equivalents of city walls – both urban entry and, even more importantly, substantive urban citizenship were systematically withheld from the large parts of the agrarian population (Davis, 2007: 51)

In the countries of the developed world migration from the countryside has slowed down or even ceased and only in a few countries of the developed world has rural to urban migration been

curbed by the urban crisis and worsening living conditions. Cities continue to serve as safety valves for rural economies which are doing even worse. Most people flee to the cities because no matter how bad conditions there may be, it is generally better than that in rural areas they are leaving behind. Their new homes may be squalid shanties without plumbing or heat, but at least in the cities they have perceived better opportunities.

Many people migrate to cities to take advantage of the range of services cities offer, but these are often difficult for the urban poor to access. The poor are usually confined to the periphery of the city and are often inadequately connected to opportunities and services (South African Cities Network, 2008:9). Towns are perceived to offer opportunities for alternative lifestyles that simply do not exist in the rural areas (Pendleton, 1994). The deteriorating conditions in the rural areas have generated a considerable flow of migrants to cities. Priorities of urban migrants change over time, depending on various conditions that they find themselves in. But one of the persistent problems that they face is that of inadequate housing.

People migrate to towns and cities in search of employment in order to improve their living conditions no matter how bad life conditions in cities already are, they are still perceived as better and that opportunities are more open in urban areas than in rural (Peyroux, 2004). Most people living in informal settlements especially in Southern Africa originally migrated from rural to urban areas because of better amenities and facilities which are available in urban areas. In Windhoek, 60% of the total population lives in informal settlements (Huchzermeyer, 2008b) where the poor live in Katutura, Windhoek's township for the indigenous African people (Pendleton, 1994). Most of the migrants are un-educated, have low and unreliable incomes, and often lack skills that enable them to secure jobs in the formal sector (City of Windhoek, 2002). The cost of living in town is high and the majority of the migrants are left with no option than to settle on the periphery of the city, where access to land is easier, hence resulting in the mushrooming of squatter settlements.

2.2.2 Urbanization

African cities are marked by high levels of inequality, low levels of infrastructure development, slow service delivery and declining job opportunities. Rapid urbanization is putting pressure on already scarce resources and bringing people together, making it difficult to manage differing interests and expectations (South African Cities Network, 2008:8). Urbanization is a complex phenomenon and is a trend witnessed across the globe. A recent report published by UN/Habitat (2003a) shows that the number of people living in urban slums in Asia and the Pacific is as high as 498 million, about half of the total urban population. Almost all developing countries are faced with a challenging problems arising from rapid urbanization. Between 40% and 50% of the

population in the cities of the South are living in these settlements, which is roughly one billion people. The rate at which the settlements are growing varies from region to region. In most of Latin America, the growth rate has peaked, but it's still increasing in Asia and sub-Saharan Africa.

Africa particularly has been experiencing the world's most rapid rate of urbanization and cities are faced with the resulting pressure on natural resources (Simon, 2006:17). In the past century the global urban population has expanded from 15% in 1900 to nearly 50% in 2000 (Mitlin, 2009). Rapid urbanization of African cities and towns as well as the increasing number and size of slums constitute a serious challenge for sustainable urbanization and development in Africa. Given the critical role of cities and towns in the economic progress of the region as well as their fair share in the GDP, in the future, sustainable development in Africa cannot be achieved without sustainable urbanization (UN-Habitat, 2005).

Urbanization is therefore one of the most pressing issues in less developed countries across the world. A brief review of the South African experience mirrors, albeit at a grandeur scale, the Namibian urbanisation trends since policies in the former shaped the historical processes of the latter by virtue of having been its de-jure colony since 1919. South Africa has experienced a high rate of urbanization over the past decades with a growth rate of 4.5% per annum; an urbanization rate that increased dramatically from 48.8% in 1990 to 50.4% in 2000 (UN-Habitat, 2003a). The rate of urbanization in South Africa is currently around 57% according to the United Nations. Moreover, the rate of urbanization in South Africa is high, and the urban growth has been predicted to be around 2.09% per annum over the period 2000-2005. Indeed South Africa has one of the world's highest rates of urbanization (UN-Habitat, 2001 cited in Naude and Krugel, 2003).

South Africa has a high rate of population growth that is impacting on the cities in the form of burgeoning squatter camps and informal settlements. South Africa's total population was estimated at approximately 44 million in 1995 with estimates for annual population growth for urban Africans ranging from 2.4% to 3.5%. The majority of South Africa's poor are African, as are the majority of informal settlement dwellers. In 1994, approximately 1, 06 million households comprising 7, 7 million people lived in informal settlements. Coupled to this, an estimated 720 000 serviced sites that were provided by provincial legislatures under the previous government required upgrading and 450 000 people lived in various, often inappropriate, forms of hostel accommodation. Cape Town has a large and growing number of informal settlement dwellers and a substantial proportion of its population in formal property that needs improved shelter (Swilling, 2004). In 1995 it was estimated that more than 400 000 people were inadequately housed in the Cape Town Metropolitan area. In Cape Town, informal settlements are growing at

about 10% per year, but South Africa's starting point is relatively low. Informal settlements were rarely allowed to develop under apartheid (Abott, 2008).

South Africa's major cities have informal settlements that house between 10% and 20% of the population, but the number of families living in these settlements is growing at a rate that is in excess of new housing delivery (Abbott, 2008). Urbanization in South Africa is currently taking place at a pace unprecedented in its history, making the country's cities among the fastest growing urban centres in the world. Durban has doubled in size between 1970 and 1980, it grew by a further 77% up to 1985. Gauteng's population, due to its highly attractive infrastructures and job opportunities, is also expected to double in size from 7 million to 16 million people in the fourteen years between 1997-2011.

Within the Southern African context, Namibia is among the countries with a lower percentage of urban population than the regional average between 1990 and 2010. This is however expected to peak at 65.3% by 2050 to approximate the regional average of 66.45 percent as shown in Table 2.1 below. It should be noted however that like Botswana, Swaziland and Lesotho, these countries have a low population base of three million total national population.

Table 2.1: Urban Population and Urbanisation Trends in Southern Africa

	Urban Population (percent)							Rate of urbanisation			
	1990	1995	2000	2005	2010	2020	2050	1990-2000	2000-2010	2010-2020	2020-2050
Angola	37.1	44.0	49.0	54.0	58.5	66.0	80.5	5.56	4.61	3.89	2.70
Botswana	41.9	49.0	53.0	57.3	61.1	67.6	81.1	4.74	2.61	2.04	1.35
Lesotho	14.0	17.0	20.0	23.3	26.9	34.5	58.1	5.21	3.78	3.08	2.01
Malawi	11.6	13.3	15.2	17.3	19.8	25.5	48.5	4.80	5.22	4.97	3.19
Mozambique	21.1	26.2	30.7	34.5	38.4	46.3	67.4	6.70	4.44	3.55	2.51
Namibia	27.7	29.8	32.4	35.1	38.0	44.4	65.3	4.40	2.98	2.75	2.04
South Africa	52.0	54.5	56.9	59.3	61.7	66.6	79.6	3.01	1.63	1.16	0.86
Swaziland	22.9	23.0	23.3	24.1	25.5	30.3	51.9	2.20	1.82	2.20	2.17
Zambia	39.4	37.1	34.8	35.0	35.7	38.9	58.4	1.28	2.15	2.71	2.71
Zimbabwe	29.0	31.7	33.8	35.9	38.3	43.9	64.3	3.40	1.09	2.92	2.02
S A Region	29.7	32.6	34.9	37.6	40.4	46.4	66.45	4.13	2.87	2.93	1.89

Source: United Nations Human Settlements Programme, 2008: p139.

Using the basic needs deprivation indices for cities in the region, Windhoek in Namibia has among the lowest levels of percentages of infrastructure inadequacy where only 3.1% of urban households had no piped water; 23.1% had no reticulated sewage and 28.1% having no electricity. This is at par or lower than some South African cities, but given the recency of its decolonisation (1990), its low urban population base and the primate nature of Namibian

urbanisation, Windhoek will witness much higher rates of urbanisation in the next decades to 2050.

Table 2.2: Basic Needs Deprivation in Selected Southern African Cities

City	No Piped Water (%)	No Sewage (%)	No Electricity (%)
Luanda	75.0	90.0	n.a.
Gaborone	56.5	60.6	n.a.
Lilongwe	n.a.	n.a.	n.a.
Maputo	4.9	79.9	47.9
Windhoek	3.1	23.1	28.1
Lusaka	74.1	81.7	55.8
Harare	7.9	9.1	18.1
Cape Town	0.4	2.7	5.8
Durban	4.9	25.6	12.9
Johannesburg	2.9	32.4	16.3
Pretoria	2.9	14.0	28.2
Ekurhuleni	2.9	32.4	16.3

Source: United Nations Human Settlements Programme, 2008: p146.

Like most Southern African countries, particularly those with a significant white settler population and where urbanisation was controlled through strict 'influx laws', rapid urbanisation trends in the recent post-colonial era created particular pressures on governments to accommodate increasing flows of migrants in conditions of shrinking urban economies and the growing challenges of globalisation. A critical challenge is the emergence and persistence of informality and particularly the growth of informal settlements and the informal economy; and the official responses to this growing phenomenon.

2.3 PERSISTENCE OF INFORMALITY AND INFORMAL SETTLEMENTS

2.3.1 The Origin of Informal Settlements/ Slums

Informal settlements are manifestations of legal and often social exclusion from the formally recognized urban environment (Huchzermeyer, 2008a). Informal settlements are 'home' to around a billion people in and around Third World cities. The authorities usually want to bulldoze them as they are often affronted by their unpleasant physicality and visibility that departs from their conceptions of modernity. Informal settlements are a direct response to increased in-ward migration from rural areas to cities and the consequent failure of urban authorities and economies to provide adequate and affordable housing for the increasing population. As people continue to migrate to towns and cities in search of better livelihoods the housing and employment situation become more precarious resulting in further slum conditions and the growth of informal economic activities (Abbott, 2008).

There are various names used by different countries to describe informal settlements. They were initially referred as squatter, shanty or illegal, to being currently called irregular, spontaneous or informal settlements (UN-Habitat, 2006). A random sample of the names given to these slum settlements in 14 countries¹ underline the emphasis on the physical and legal characteristics of these settlements. These assumptions around naming of slums reflect state or official attitudes to these settlements over time, and have influenced the emerging definition of slums or inadequate shelter by the UN-Habitat's (2003a) Challenge of Slums.

Almost without exception, the formation of informal settlements originated from different types of rapid urban population expansion that were primarily triggered by increased rural-urban migration, natural growth, combinations of both natural and migratory growth or population displacement following armed conflicts or internal strife and violence (UN-Habitat, 2003b). In some cities, demographic forces were compounded by urban specific transformation processes with clear segregationist implications, such as inner city deterioration, gentrification and counter-urbanisation and relaxation of influx control policies. In many developing countries of the world, political and institutional inertia allowed slums to expand to levels where their sheer magnitude overwhelmed the capacity of existing institutional arrangements to effectively address the urban development challenges (Davis, 2007).

India experienced rapid growth of slum dwellings (*chawis*) where industrial workers seeking jobs in cities like Ahmedabad found shelter. These single-room housing units, *chawis*, were the earliest low-income housing option, built for industrial workers in the late 19th and the early 20th centuries and mushroomed as the favoured accommodation for migrant workers around the cities' central areas. Controls kept rents extremely low, discouraging maintenance and many *chawis* deteriorated rapidly. This was particularly the case following a crisis in the textile industry and the closure of factories in the 1940s. From the 1950s onwards, urban growth largely took place in the eastern and particularly, the western urban peripheries, where the illegal occupation of marginal areas represents the housing options for newly arrived migrants and other economically weaker urban groups. Likewise slums in the Sri Lankan capital city (Colombo) came into existence with the expansion of export trade associated with rubber boom after World War II, and especially during the Korean War in 1953. Colombo became more congested and the city

¹ Some of the local names for squatter settlements (also in cases used for slums), and rough translations are: Bangladesh: Sukumbashi (squatters); Brazil: Favelas (Informal settlements); Cambodia: Sumnong Anatepatai (illegal settlement); India: Baste (dirty settlement); Republic of Korea: Muhogu chongchakji (settlement without permission); Indonesia: Kampong liar (illegal settlement); India: Chawis (Illegal settlements); Malaysia: Setinggalan (squatter); Pakistan: Kachi abadi (temporary settlement); Sri Lanka: Palpath (shanty settlements); Thailand: Chumchaon bukruk (illegal community); Viet Nam: Nhaa tam bo (temporary house). Turkey: Balliada (Illegal settlements); and Namibia: Uumbashu (Temporary housing)

elite moved out into more spacious residential areas in the suburbs. The central part of Colombo became characterised by predominantly low-income residential areas (UN-Habitat, 2006).

In the African context informal settlements emerged as a result of the state's neglect in providing low-cost public housing and the associated stringent urban and housing policies, both during colonial and post-independence times. In Lusaka, Zambia the city quadrupled in size between 1963 and 1980 as a result of rural-urban migration, natural growth and extension of city boundaries. In the absence of sufficient public low-cost housing, and with non-existence of statutory building standards, the urban growth resulted in a series of housing crises and the growth of unauthorised settlements at the urban periphery. This was exacerbated by highly centralised forms of governance that did not delegate decision-making and revenue-raising power to the local level (UN-Habitat, 2003b). Nigerian cities also experienced intense crowding and subsequent deterioration of inner cities took place over a long period and was closely linked to socio-economic change and limited Municipal budget. In principle, well planned town thus turned into slums. For instance, by 1963, half of the Ibadan city's core area consisted of slum dwellings, growing to 70% of the town's total number derelict housing in 1985. Problems of illegal squatting, conversion of functions and extremely poor levels of service provisions were compounded by an apparent lack of financial capacity and political will to upgrade such a large area. In addition, people strongly opposed resettlement due to their strong attachment to the ancestral land (UN-Habitat, 2006).

In South Africa, the current pattern of informal settlements is largely a product of colonial and apartheid social engineering policies and planning, particularly after 1948. The 1913 Land Act alienated Africans from most of the land, forcing them wholesale into wage employment for survival. During 1930's, massive informal settlements formed just beyond the urban fringes. The creation of the so-called independent states or 'bantustans' adjacent to city boundaries during the 1960's and 1970's, further spurred the growth of informal settlements along side the urban edge. Informal settlements grew as a result of a lack of housing alternatives, as well as devastating drought of the late 1970s and early 1980s, which forced people to seek livelihoods in urban areas (UN-Habitat, 2003a). Relaxation of apartheid-inspired controls of African urban migration and residence in the mid and late 1980s saw an upsurge in the rapid mushrooming of informal settlements at strategic locations, around townships and in the urban periphery.

Similarly, Windhoek, the capital of Namibia has experienced rapid informal settlement growth after the abolition of influx control, which prevented people from migrating from rural areas to towns and cities, after Namibia gained independence from South Africa in 1990

(Pendleton,1998a). Since independence, Windhoek's growth rate has been 5.4% mostly due to rural-urban migration.

2.3.2 How do we understand the nature of (settlement) Informality?

It is widely acknowledged that informal settlements and the processes that lead to their formation and perpetuation are poorly understood (Huchzermeyer, 2008b). It is almost a truism that formal systems of land delivery have continuously failed to cope with the demands of rapidly growing urban populations in much of the developing world (Pugh, 2000, cited in Nkurunziza, 2008) People in informal areas live in conditions of extreme poverty with limited state capacity to address their alarming needs. Indeed significant numbers of households in the urban areas of the developing world live in informal or irregular settlements, established through non-statutory means.

The prevalence of informal processes in urban areas of the developing world has been explained firstly as a response to the failure of statutory and customary tenure systems to meet the needs of lower-income groups, which invariably represent the majority of increasing urban populations. Secondly, informal settlements are seen as a reflection of continuity of traditional practices of land delivery as they play out in the urban sphere, and the beginnings of penetrations and expressions of organic or indigenous processes of human settlement evolution (Huchzermeyer, 2009). In most African countries, the existing institutions of land management were inherited from the colonial era and have, for various reasons, undergone little modification to reflect changing circumstances.

Several strands of thinking are emerging to inform a more integrated understanding of the role of informality in the urban economy and society. As earlier mentioned, informality is not a life-style of choice but of convenience as 'formal' urban economies are becoming exclusionary and unaffordable. With the advent of globalization and the current nature of urbanisation trends reviewed above, some ideas regarding the persistence of informality and informal settlements are emerging.

2.3.2.1 The focus of the terms used.

Definitions of settlement informality tend to focus on the visible, the informal settlements, informal housing, shanty towns, shack-lands, squatter camps, favelas, slums etc. These terms describe the actual structures, the shacks and in their plural refer to entire settlements. The focus of such terminology underplays the importance of land access, land contestation and access to basic services, and is entirely consistent with the emerging focus of housing subsidy disbursement on the construction of new housing estates rather than the regularisation and upgrading of informal settlements (Huchzermeyer, 2008b).

2.3.2.2 Informality as a process of change.

As much as John Turner (1968, 1976) famously argued that housing is a Verb, one can insist that 'informal settlement' should be understood as adverb and verb and not adjective and noun, as these settlements are in a process of constant change. For any definition of the phrase 'informal settlement' as adjective and noun, the change that facilitates the notion of informality should be central. As the process of informality responds to changing pressure, structures are added, settlements densify or expands and may be reversed, leadership emerges and is challenged, and as struggles for formal recognition and servicing are fought, some people will be relocated and sections may be bulldozed, and others densify or gradually consolidate (Huchzermeyer, 2008b).

2.3.2.3 The changing relationship with land.

UN-Habitat defines the noun 'slum' through five conditions which may or may not apply to informal settlements. Slums, according to the UN-Habitat (2003a) display any of the following: lack of secure tenure, inadequate access to sanitation, inadequate access to water and inadequate shelter, and expose their inhabitants to risk. Where 'slums refer to informal settlements or unauthorised occupations, it is generally understood that the most important of these slum conditions is 'lack of secure tenure (Huchzermeyer, 2008b), as without secure tenure neither shelter, water nor sanitation improvements can be confidently made.

2.3.2.4 Recognising formality in the informal.

Like security and insecurity, the binaries of legal or illegal are challenged with insights into many complex situations that exist between these extremes. However, the formal/informal binary is useful to illustrate their interrelation. A closer look at the resistance from within informal settlements to displacement and control (or freezing of informal settlements), reveals high levels of structure and indeed formality (Roy, 2005).

Authorities rarely recognise the formal within informal settlements, whether umbrella organisations representing several informal settlements or individual non-aligned settlement committee (Huchzermeyer, 2008a). Legal correspondences from an informal settlement's community representatives or committees is largely ignored or dismissed by authorities. Instead authorities seek to impose a different formality, one control. Authorities respond to informality mostly with a lack of meaningful engagement with the formal structures that represent the informality, its relationship to land and its process of change (Huchzermeyer, 2009). This ruling requires that municipalities collaborate meaningfully with all poor communities to better understand their needs. Meaningful engagement with the formality of informal settlements (which may include powerful formal legal representation) in itself would prevent implementation of the apartheid-style tools of slum elimination and prevention that have been reinforced by the past apartheid system.

2.3.2.5 Land Markets and Informal Settlement development.

In most large cities in the developing world, the formal market for land and housing serves only the minority of the population. In these settings, informal settlements are in most cases the result of the failure of the formal markets where its mechanism has systematically failed to satisfy the rapidly increasing housing needs of the population. According to the United Nations Centre for Human Settlements (UNCHS), 64% of the housing stock in low-income countries, and up to 85% of new housing, is unauthorized (United Nations Centre for Human Settlements, 2008). It is estimated that between 30 and 70% live in 'irregular' settlements, and this is a growing tendency. Self-help housing and squatting, has long been seen as detrimental to sound urban development and orderly planning.

In the last two decades, however, it has been increasingly recognized as the only means available to fulfill the immense demand for mass housing in the cities, and thus as a solution rather than a problem. John Turner's influential book *Housing by People* (1976) and the first Habitat conference in 1976 marked this paradigm shift towards an 'enabling approach' (United Nations Centre for Human Settlements, 2008). Getting the incentives right for the formal private sector to move down market, the strategy favoured by the World Bank, has largely failed to produce a significant increase of low-cost housing supply (Jones and Ward, 1994). Existing formal land development systems has been unable to address the housing needs of migrants to towns and cities (Mooya and Cloete, 2007).

2.3.3 Changing attitudes to Informal settlements

Informal settlements were usually regarded as a problem by authorities and urban managers. In the 1950s and 1960s, the dominant approach to informal (or squatter) settlements was one of demolition and replacements by public housing. This approach involved the replacement of poor inhabitant's self-made housing with permanent housing units. The assumption was that this approach would eventually eliminate the perceived squatter and disorder of informal settlements (Pugh, 1995:63, cited in Abbott, 2008). Although informal settlements perceived as problems by city authorities, they are in fact the only means for poor people to house themselves.

In the late 1960s and early 1970s, John Turner and other academics began to present a strong critique of the assumptions underlying public housing, by drawing attention to the mechanisms of housing production inherent to informal settlements. They called for a shift to greater autonomy of dweller control in the production of housing. When the dwellers control the major decisions and are free to make their own contribution to the design, construction or management of their

housing, both the process and the environment produced, stimulate individual and social well-being (Charles, 1964). When people have neither control over, nor responsibility for key decisions in the housing process, on the other hand, dwelling environments may instead become a barrier to personal fulfilments and a burden on the economy (Turner, 1976).

Informal settlements (often referred to as squatter settlements or shanty towns) are dense settlements comprising communities housed in self-constructed shelters under conditions of informal or traditional land tenure. They are common features of developing countries and are typically the product of an urgent need for shelter by the urban poor. Like any other developing country, informal settlements are usually on peri-urban areas of cities and towns which occur as a result of squatting and irregular self-build settlements (Huchzermeyer, 2008b). The assumptions around the term 'squatter' to denote the illegality' became contested by the writings of Charles Abrahams and John F C Turner who preferred the term 'spontaneous', particularly during and immediately after the Habitat Conference of 1976 in Vancouver, Canada. Spontaneous downplayed the illegality and emphasised the speed and organic nature of their development. This later resulted in the delineation of squatter or spontaneous settlements as informal settlements, further acknowledging their reality and represented a shift in attitude from outright hostility to that of support and protection (Srinivas, 2003).

In South Africa, informal settlements evolved during the mid 1980's when the South African government promulgated the abolition of the influx Control Act 68 of 1986, which rescinded the pass laws. This was one of a number of catalysts for accelerated black African urban migration to Cape Town in the mid 1980's (Barry, 1999, cited in Nomdo and Coetzee, 2002).

2.3.3.1 Self-Help Housing.

Charles (1964) has argued that a consequence of rapid urbanization has been the inability of the formal land system to supply housing to the vast majority of people in towns and cities. As a result, people started settling on the peripheries of such towns resulting in the spontaneous growth of informal settlements. Informal settlements are characterised by sub-standard housing, constructed from corrugated iron sheets and some other poor materials. Self help housing referred to a policy response to rapid urbanisation and development of informal settlements by providing secure tenure on subdivided land with rudimentary services where beneficiaries incrementally build their own dwellings; and the urban authorities incrementally upgrade services. Although this strategy is frowned upon by the private sector, it is a more practical and sustainable way of addressing the current shelter challenges in a rapidly urbanising world.

Self-help housing has long been seen as detrimental to sound urban development and orderly planning. In the last two decades, informal housing has increasingly been recognised. It is the

only mean available to fulfil the immense demand for mass housing in the cities. Self-help should therefore be regarded as a solution rather than a problem. Turner's book 'Housing by People' of 1976, shed lights as far as self-help housing is concerned. He made it clear that informal settlements solve housing problems of the urban poor. Informal housing is the only mean affordable by which urban poor can house themselves (Turner, 1976).

Sprawling informal settlements in cities of the world demonstrates self-help housing. Informal settlement dwellers live in informal housing that better suit their needs. Although informal housing is of poor condition, they better suit the needs of the inhabitants than government housing. Standardised housing which is provided by the government is often neither affordable nor suited to the needs of dwellers than the self-built shelters which become upgraded as their economic situations improve.

2.3.3.2 Upgrading of Informal Settlements.

The term informal settlement upgrading does not have a clear and concise definition. Thus, it applies to any sector-based intervention in the settlement that results in a quantifiable improvement in the quality of life of the residents affected (Abbot, 2008). This means that there is a range of potential interventions, and as a result, there are a number of different approaches that have emerged. Huchzermeyer (1999) has argued that there are fundamentally different types of intervention that played a significant role in determining the success of any upgrading project. Huchzermeyer draws a distinction between externally designed comprehensive upgrading and what she terms support-based interventions (Huchzermeyer, 1999). The first she describes as interventions which seek to work within a relatively short period, to transform an illegal and sub-standard environment to acceptable standards through a capital-intensive intervention (Huchzermeyer, 1999). The best examples of the former are comprehensive Slum Improvement Programme in Madras, India, initiated by the World Bank in 1977 and the George Settlement in Lusaka, Zambia.

The most comprehensive examples of upgrading projects are Million Houses Programme in Sri Lanka and the holistic planning development of Favelas in Belo Horizonte, Brazil. Another example is the Orangi project in Karachi, Pakistan. The success of these projects was attributed to a set of applicable principles, the central principles of which is that of trust in the abilities of the poor, with the aim, therefore, not to provide but instead to increase the opportunities and options open to them.

The upgrading of informal settlements in situ is now a recognized reality. As a concept it was initiated by Turner together with fellow scholars in the area of housing in the late 1960s, although indirectly, through their focus on incremental housing. Since then, it has slowly come to be

recognized as the primary mechanism through which resident of informal settlements can improve their living conditions.

In 1950s and 1960s, the dominant approach to informal settlements was one of demolition of informal settlements and replacement by new public housing, which does not suit the needs of urban poor households. South Africa uses approaches of supplying housing subsidy to individuals, which places the focus primarily upon the provision of physical infrastructures. In addition to a strong civil society involvement, Brazil used technology driven solutions to upgrading based on remote sensing, aerial photography and geographical information systems (GIS), and seek to use this technology to create a new type of settlement appropriate to informal settlements. The government of Botswana has initiated strategies of self-help squatter upgrading and sites-and-services. Through these strategies, low-income households are provided with serviced land, security of tenure and help to build houses that suit their needs.

The City of Windhoek has adopted a number of development and upgrading strategies, which aims to set up a range of land development options for the city's low and ultra low-income population. This involves the provision of service levels to low and ultra low-income townships depending on their affordability levels (Table 6.1).

Upgrading in its compressive form is used to embrace the improvement to services and social infrastructures in existing settlements and in addition the consequential improvement of the building themselves by those who live in them. In the context of the approach to the housing strategy where the maximization of available resources, the existing housing stock however poor, must essentially be regarded as an asset to be conserved and improved but not to be destroyed (Rahlapane: 1999:1).

2.3.3 Degree of resident involvement in upgrading and management of Informal Settlements.

Clearly there are numerous benefits to resident participation within the continuum of comprehensive formalization of informal settlements. Resident participation serves two purposes, the first being to narrow the gap between those responsible for the planning decisions and those living in the settlements. And the second purpose of resident involvement is to ease project implementation (Huchzermeyer, 2004b).

The flow of information from the residents to the planners improves technical decisions and from planners to the residents to convince the residents of the rationality and public interest of the decision making (Rakodi 1981, cited in Nomdo and Coetzee, 2002). It is thus important that resident be involved and informed at all times of any development occurring in their settlements. Residents are much more aware of the problems affecting them, than anybody else outside

including the planners. The planners will only be able to better address the problem provided the informal settlements are afforded maximum opportunity to partake and participate in the development and formalization process of the settlement.

It was assumed that the people would just have to live with the development that the planners and decision makers thought were suitable for them. This is very wrong. There is no one kind of development that better address the needs of the people without considering them and involving them. It must however be understood that no development succeeds without the initial involvement or participation of the beneficiaries.

Informal settlement dwellers are the best judges of their own needs (Turner, 1976). I strongly support this statement. The involvement of the residents in projects for improving their livelihoods determines the success of such projects. A good example is the Orangi Pilot Project (OPP) initiated in 1980 in an informal settlement of about 800,000 people in Karachi, Pakistan. Its central aim was to create an effective local organization and dissemination of technical skills among local people (Hasan and Vaidya, 1986, cited in Huchzermeyer, 2008b).

The OPP was initiated to address the sanitation problem of informal settlements in Karachi. The project was a huge success because residents were given opportunity to decide on the type of sanitation they can afford and able to maintain. The OPP set out to break the technical, economic, psychological and social barriers in order to enable residents to take control of their sanitation problems. All the residents were convinced of the benefits of controlling their own sanitation problem.

Community participation in the decision making process ensures that the services provided aligns with the interest of communities and also ensures that what is provided meets the needs of the people concerned (Rahlapane, 1999:18). It is due to the ignorance of the authorities to incorporate informal settlement dwellers in decision making that the problems remain un-solved and persist.

2.3.3.4 Other intervention in informal settlements.

Various countries employ different approaches regarding informal settlements intervention. In the absence of policy frameworks for the integration of informal settlements, current informal settlements intervention in South Africa is structured through the capital subsidy scheme of the national housing policy (Huchzermeyer, 2004b). It involves replacing un-serviced shantytowns or shack settlements with standardized housing. The sites-and-services was first introduced by the World Bank in the 1970s. However, this intervention was successful enough and received varied criticism in the international literature.

In the 1950s and 1960s, the dominant approach to informal settlements was one of demolition and replacement by public housing. This strongly interventionist role of the state, in taking responsibility for the deliveries of permanent housing units was transplanted from developed countries, where it had proved successful in the immediate post-war period. The assumption was that this approach would eventually eliminate the perceived squalor and disorder of informal settlements (Pugh, 1995, cited in Nomdo and Coetzee, 2002).

The standardized approach of replacing shantytowns does not really suit informal settlement residents. Replacing their shacks with standardized housing doesn't solve a problem it rather creates a problem. Although standardized housing is of good quality, residents are not comfortable with them. On the one hand residents are not allowed to make structural adjustments, while on the other hand it is not affordable for all residents.

The government of Botswana has adopted simple but workable strategies to tackle the entire problem of informal settlements that have arisen in the urban areas due to fast urbanization. Through a two pronged strategy of self-help squatter upgrading and sites and services program, low income households have been provided with serviced land, security of tenure and help to build their own shelter. Today self-help urban housing occupies and accommodates more than 60 per cent of Botswana's urban population.

Whatever the typology, the slums of the Asian and Pacific region are typically characterized by temporary structures and the absence or severe lack of basic infrastructures and services such as water supply, sewerage, drainage, roads, health care and education. The housing quality is poor and many dwellings in these areas are made of substandard and discarded materials, such as used wooden planks, plastic, corrugated metal, asbestos sheets and tin. The population density is typically high and inadequate water supply and sanitary facilities result in high incidences of disease (UN-Habitat, 2003b).

2.4 POLICY APPROACHES AND IMPLICATIONS OF INFORMAL SETTLEMENTS

2.4.1 International perspectives

Many policy approaches to the growth and development of informal settlements have been adopted during the last decades. They range from passively ignoring or actively harassing slum dwellers, to interventions aimed at protecting the rights of slum dwellers and helping them to improve their incomes and living environments (Huchzermeyer, 2008b). We are beginning to see more comprehensive forms of policy intervention which sought slum upgrading or the regularization of illegal settlements, including the incorporation of such areas within the formal

services and infrastructure systems. Such approaches are now being promoted in many countries of the region and have been relatively successful in normalizing squatter settlements and providing residents with access to minimum standards of service provision, including drinking water supplies, sanitation and street paving (Mooya and Cloete, 2007).

Eviction was a common response in 1970s and 1980s, particularly in political environments of centralized decision-making, weak local governance and administration, non-democratic urban management, non-recognition of civil society movements and lack of legal protection against forced eviction (Huchzermeyer, 2004a and b). This approach did not solve the problems of slums but shifted it elsewhere particularly in the periphery of the city where access to land was easier and planning control was non-existent. This gave rise to the rapid development of informal markets and to commodification of all informal housing delivery systems, including the squatter settlements on the periphery of towns and cities. These changing policy and official attitudes therefore resulted in changing approaches to the intervention of informal settlements ranging from the initial demolition of informal settlements to their upgrading, initiation aided self-help housing and site and services projects and programmes (Skinner and Rodell, 1983). The effectiveness of these approaches to address problems of rapid urbanisation however need to be evaluated against the magnitude and intensity of the problem, the existing political economy and the dominant planning discourses and paradigms locally and internationally (Huchzermeyer, 2004b).

2.4.2 Response of International Agencies towards Informal Settlements

Various international agencies were developed in order to address issues related to informal settlements and housing. The United Nations Human Settlements Programme (UN-Habitat) is the coordinating agency within the United Nations System for human settlements activities. UN-Habitat advocates change and assists Member States to introduce innovations, which strengthen the tenure security for the majority of people, especially the urban poor (UN-Habitat, 2003b). UN-Habitat's Global Campaign for Sustainable Urbanisation promotes policies, strategies and (technical) tools that will directly benefit the urban poor, particularly in Africa, Asia and South America. Land and Africa are important areas for UN-Habitat through its work and expertise on gender, pro-poor, governance, continuum of land rights, land policies, security of tenure and forced evictions, land finances and Islamic land issues. UN-Habitat is spearheading the global effort to improve land issues through its Global Land Tool Network (GLTN) initiative.

UN-Habitat has developed a number of instruments that are specifically designed to assist countries in achieving the sustainable development of their informal settlements. Two Global Campaigns on Good Urban Governance and for Secure Tenure have been designed to help countries improve their policies and engage in long-term programmes. Several global and

regional programmes are implemented under the umbrella of these two campaigns, including Cities without Slums, Water and Sanitation, Disaster Management, Urban Environment, Urban Management, and Training and Capacity Building (UN-Habitat, 2006). UN-Habitat contributes to the achievement of the MDGs through its diverse activities. Some of the most related UN-Habitat activities and programmes that contribute towards MDG attainment are briefly presented below.

2.4.2.1 The Global Campaign for Secure Tenure

The Global Campaign for Secure Tenure (GCST) helps achieve adequate shelter, promotion of security of tenure and equal access to economic resources for all, with a specific focus on gender equality. Through the strategies of promoting inclusiveness; improving governance and increasing municipal finance and developing pro-poor land management systems -that will enhance security of tenure and improve land management, the main focus areas are:

- Implementation of land, housing and property rights, particularly women's secure tenure;
- Affordable land management systems and pro-poor flexible tenure types;
- Prevention of forced evictions.

Today the Campaign is in implementation in some countries in Asia, Africa and Latin America and is contributing through advocacy, technical advice, awareness raising and linking up and supporting the already existing initiatives of women slum dwellers who through innovative approaches have managed to collectively gain access to land and housing, e.g. through saving schemes and cooperatives. However, many countries are still to conduct city and country-wide campaigns and engage in large scale slum up-grading programmes. The Campaign is implemented through several activities including national campaign launches; peer exchanges; identification, documentation and dissemination of best practices; establishment of networks and advisory groups; and information and media strategies (UN-Habitat, 2006).

Key among the Campaign's components is the housing rights issue, which reflects itself in a much contrasted situation in Africa with a few countries having adopted very progressive attitudes while many others have not yet been able to translate their policies into concrete actions. The United Nations Housing Rights Programme (UNHRP), jointly implemented by OHCHR and UN-HABITAT, despite limited resources, has important normative capacities to assist countries in this area. The African countries where the campaign has been launched are South Africa, Namibia, Senegal, Morocco and Burkina Faso. In Uganda, it will be launched soon.

2.4.2.2 Advisory Group on Forced Evictions (AGFE)

An important element of the Global Campaign for Secure Tenure is the UN Advisory Group on Forced Evictions (AGFE) which UN-Habitat has established as a way of alleviating the plight of the urban poor by monitoring acts of forced evictions and promoting alternatives. In cases where

eviction cannot be avoided, the GCST recommends that resettlement should be undertaken through community participation with provision for some form of alternative land with long-term security. By spearheading the fight against forced evictions the group advises the Executive Director on alternative ways of addressing the problem. AGFE has recently documented cases of imminent or on-going evictions in more than a dozen of countries and has successfully engaged in conciliatory activities to propose alternatives to forced evictions in a number of countries worldwide: Ghana, Dominican Republic, Brazil, Italy and Sri Lanka.

When in 2005 “Operation Restore Order” (or “Operation Murambatsvina”) in Zimbabwe through the demolition of housing and markets left some 700,000 people without homes or businesses, UN-Habitat Executive Director Anna Tibaijuka led the UN Special Envoy on housing evictions in Zimbabwe in a two-week fact-finding mission. In her briefing to the UN Security Council and in her report to the UN Secretary-General, Mrs. Tibaijuka urged that the Government of Zimbabwe should stop the demolitions, pay reparations to those who lost housing and livelihoods and punish those who, “with indifference to human suffering”, carried out the evictions.

2.4.2.3 The Cities Alliance

UN-Habitat is a founding member of the Cities Alliance, a global coalition of cities and their development partners committed to scaling up successful approaches to poverty reduction, notably through the development of city development strategies (CDS) and slum upgrading. The Alliance brings cities together in a direct dialogue with bilateral and multilateral agencies and financial institutions. Alliance members promote the developmental role of local governments and help cities of all sizes obtain more coherent international support. By promoting the positive impacts of urbanisation, the Alliance helps local authorities plan and prepare for future growth. The Alliance helps cities develop sustainable financing strategies, and attract long-term capital investments for infrastructure and other services.

The Alliance provides matching grants in support of City Development Strategies (CDS) which link the process by which local stakeholders define their vision for their city and its economic growth, environmental and poverty reduction objectives, with clear priorities for actions and investments. It also supports city-wide and nation-wide slum upgrading in accordance with MDG Target 118, including promoting secure tenure, access to shelter finance and policies to help cities prevent the growth of new slums; and sustainable financing strategies for cities to attract the long-term capital investments needed for infrastructure, including improving accountability for service delivery and demonstrating stable revenue streams to more effectively leverage domestic capital. Based on these instruments, Cities Alliance has contributed significantly to achieving Target 11 in Africa.

2.4.2.4 Cities without Slums Sub-regional Programme for Eastern and Southern Africa

Over the past years, UN-Habitat has initiated and supported activities for slum upgrading and prevention in various parts of Africa. The most comprehensive initiative is the Cities without Slums Sub-regional Programme (CWS), launched in 2002 in Eastern and Southern Africa where 40 to 60 per cent of the total urban population live in slums. CWS covers the cities of Addis Ababa (Ethiopia), Arusha (Tanzania), Blantyre (Malawi), Durban (South Africa), Kampala (Uganda), Kisumu (Kenya), Maputo (Mozambique) and Maseru (Lesotho).

2.4.3 South African Policy and Praxis in informal settlements post 1994

In South Africa post 1994, informal settlements have grown rapidly in an urban context where an increasing demand for housing has not been met despite massive housing delivery programmes (Development Action Group, 2007). As a result significant challenges have been posed to both national and local government on how to effectively address the housing demand in the context of growing informality. The state's response to informal settlements over the last twelve years has been characterized by the neo-liberal perceptions that informal settlements can be eradicated through large-scale capital intensive structural interventions, which often assume the form of either 'roll-over' or green-field development projects. The nature of the responses to urban informality was driven partly by the absence of more flexible funding mechanisms to enable in-situ upgrading and incremental housing. There were however exceptions where in-situ upgrading programmes were being initiated by local municipalities across the country, despite the absence of funding mechanisms (Smit, 2005).

Informal Settlements Upgrading Programmes established through the National Housing Programme in order to address housing demand with phased-in incremental approach to informal settlements upgrading (Development Action Group, 2007). The National Housing Code's of the Housing Programme outlines the funding instruments for realising the Policy. The Policy provides funding for alternative land tenure options, which do not exclude those who do not qualify for a housing subsidy and may include a community based or area based subsidy to purchase the land. Layout options for the settlement can also be tailored, as opposed to standardised layout models which are highly inflexible and do not account for already negotiated informal settlements. Funding has also been made available through the programme to support the financing of community participation and empowerment process, something the housing subsidy do not accounts for.

Control of urbanization process in South Africa was redefined after the mid 1980s, when the policy of orderly urbanization replaced that of racially based influx control. In the early 1990s,

urban foundation, a standardised capital subsidy was introduced as means of financing the orderly settlements of poor households on peri-urban land. Currently the capital subsidy may be considered the cornerstone of South African national housing policy (Huchzermeyer, 2004a and b).

2.4.4 Namibian Experiences

In Windhoek, instruments appear to be in place to permit the upgrading and regularization of informal settlements. In 2000, the City of Windhoek developed a housing policy which ensures that all low-income residents have adequate and affordable access to land with security of tenure, housing and services as means to reduce poverty and increase the quality of life. In order to regularise further increment of informal settlements in Windhoek, the City Council developed a number of low-income housing schemes. However, the serviced plots provided were unaffordable to the vast majority of the poor. Between 1991 and 1994, the city council developed three reception areas that were meant to be temporary. The idea was to resettle people, hence controlling the influx of the poor urban migrants. Not surprisingly, this did not happen and the areas attracted further settlers (City of Windhoek, 2005).

The shortcomings of the reception areas approach, prompted the City to develop new policies and strategies for dealing with urban low-income residents. In order to address the housing needs of urban poor migrants, the National Housing Policy was established and approved in 1996. The National Housing provides guidelines concerning standards and principles for low-income development, which are relevant to the development of the shelter sector in Windhoek (City of Windhoek, 2002). The Namibian National Housing Policy (NHP) ensures that the housing need of all the urban poor is addressed. It also recognises the need for adequate space to allow house owners' to make gradual adjustments to their houses. The policy provides the following guidelines concerning the standards and principles for low-income land development, which are relevant to the development of shelter sector in Windhoek (World Bank, 2002).

- § For squatter settlement, the Namibian National Housing Policy requires a minimum of a communal toilet within 30 meters
- § Access to communal portable water within 200 meters
- § A roofed structure of durable materials of not less than 6 square meters
- § Plots for low-income housing should not normally be less than 300 square meters
- § With the consent of the Minister of Regional, Local Government and Housing, smaller plots may be permitted, where this should be justified by the design, implementation or marketing concepts of individual projects
- § The guideline for minimum erf sizes recognizes the need for adequate space in order to accommodate extended family structures and play grounds for children.

The City of Windhoek has thus embarked on a policy for ensuring that all urban dwellers have access to land and housing (City of Windhoek, 2005). Experience has shown that the Municipality cannot tackle the urban challenge alone or through importing solutions from the industrialised world. The best and workable alternative is to empower communities, work with them and assist them in eliminating the bottlenecks in the endeavour to create jobs, build houses and provide service (City of Windhoek, 2000a).

The City of Windhoek has also established various strategies for encouraging urban informal settlement dwellers to house themselves. With the assistance of various NGO's such as National Housing Action Group (NHAG) and Shack Dwellers Federation of Namibia (SDFN), the communities have so far created community based organisations (CBO's) which will enable them to acquire housing within their affordability margins. The housing needs of urban poor have necessitated the implementation of Build Together National Housing Programme (BTNHP) by the Government of Namibia. The Build Together has generated a "People's Process" of housing in Namibia (Republic of Namibia, 1998). People organise, decide and carry out the construction according to each family's needs and affordability. The Government committed to supporting this process by providing access to land, credit, and technical assistance (Republic of Namibia, 2003). The launching of decentralization policy for Namibia has, necessitated the decentralization of housing provision from the Ministry of Regional Local Government and Housing (MRLGH) at the centre to Regional Councils and Local Authorities. This process allows communities to make effective contribution to decisions that affect them.

2.5 COPING STRATEGIES AND SURVIVAL MECHANISMS FOR INFORMAL SETTLEMENT DWELLERS

There are various coping strategies employed by poor urban households to ameliorate difficult conditions in the informal settlements in Windhoek. Rural-urban migration is not unilinear but involves complex relationships between rural and urban households that is fostered by higher levels of personal mobility between the rural and urban settings (Frayne, 2007). Rural-urban households support one another; their livelihood process involves resources flows moving from urban-rural and rural to urban. Residents of informal settlements use various ways of improving their standards of living in order to withstand economic difficulties and mitigate the difficulties associated with lack of employment opportunities.

2.5.1 Rural-urban food transfer

The majority of the residents of informal settlements have migrated to Windhoek in the last two decades. Most of these people were born in the rural north of Namibia (Oshiwambo speaking region). Although employment opportunities seem to have broadened with independence, most of the urban residents still live under absolute poverty in the informal settlements (Pendleton, 1998b). According to the survey conducted by Pendleton in 1991, 70% of the sample reported food shortages as a serious problem. In comparison to household data collected from Katutura in 1998. Pendleton reports a decrease in the proportion of the households that consider food to be a serious problem from 70% to 30% (Frayne, 2007).

The stated improvement in food situation is because migrants have, since independence become a highly mobile group, making frequent visit to the rural areas each year (Frayne and Pendleton, 2003). In addition, the primary source of migrants is the rural north and Owamboland in particular, where land continues to be used productively and the rural people are able to produce enough food for themselves and send some to their relatives in the urban areas. They send food such as mahangu flour, beans and dried spinach. Migrants survive in the urban areas because in part of the food they receive from their kin in the rural areas (Pendleton, 1998a and b). It is due to rural-urban food transfer that the urban poor migrants are able to survive the difficult conditions in the informal settlements. The most marginal and vulnerable households are those that had poor or non-existent relationships with kin in the rural areas and few social and or economic urban resources (Frayne, 2001).

Rural-urban social relations that are fostered and maintained by the migration process are fundamental to the ability of the poor urban households to survive, therefore mitigating rising economic stress (Tvedten and Mupotola, 1995). It is within context that this research considers the welfare of relatively poor migrants to Windhoek and how they survive under difficult conditions.

2.5.2 Urban agriculture

Rogerson (1992) found that urban agriculture on market gardening can contribute to attaining greater food security among urban residents. One important finding on the urban agriculture policy debate is that urban agriculture is a rational response by the urban poor to the inability of the formal economy to provide them with sufficient real income for survival in the city. Rogerson observed that urban agriculture provides a crucial or at least useful food supplement for many urban families. In this respect he asserts that, "policy makers should recognize that urban cultivators are a legitimate part of the urban environment and design interventions that support

the practice of urban cultivation". International Development Research Centre (IDRC) (1993) points out that millions of people in the growing cities of developing countries have become urban farmers in recent decades.

It is well established that households in many cities in the world engage in urban agriculture as a means of improving urban food security (Koc et al., 1999 Mougeot, 2005, cited in Frayne, 2007). A rise in urban poverty is a factor central to the development of urban agriculture. Windhoek is no exception, urban poor households in Windhoek contributes to their level of food security by engaging in urban agriculture. Urban agriculture occurs in Windhoek, despite the climatic constraints and most migrants have small gardens in their yards. Many people who have lived in Windhoek and general observation in Windhoek's informal settlements confirm the existence of urban agriculture; although its incidence and scale are not known.

While limited studies on urban agriculture are available for Windhoek, there is a need for local authorities to come up with innovative arrangements for greater access to land, crop security and credit. A United Nations Development Programmes (UNDP) (1999) sponsored study on urban agriculture, food, jobs and sustainable cities in Africa highlighted the activities of aquaculture, horticulture, animal husbandry and agro-forestry. Richter (1995) in examining vegetable production in peri-urban areas in the tropics points out that urban agriculture is growing more rapidly than urbanization, the population or the economy. He established a positive relationship between urban agriculture and the urban poor in terms of food, health, income and gender. Mbiba (1995) attempted to classify urban agriculture in Harare as on plot and off plot cultivation and identified the main crops grown on off-plot sites as maize, beans, pumpkins and sweet potatoes; and various vegetables predominating on-plot gardens.

2.5.3 Informal sector activities

Rapid urbanization in the context of slow economic growth makes it difficult for the urban economy to cater adequately for a growing population's economy and infrastructure needs. The majority of informal settlement residents lacks proper education, thus makes it difficult for them to secure employment in the formal sector. Competition for employment is fierce, wages are low, and many unskilled shanty dwellers are forced to eke a living by indulging in informal activities (although usually illegal) to resist economic difficulties associated with a lack of employment in the formal urban economy (Frayne, 2002).

Frayne (2005) argued that the major types of informal activity in Windhoek, especially in Katutura includes retail hawkers and street vendors selling a variety of food and other goods in streets and

open markets (Simon, 1995). Women are more into selling cooked food such as home-made bread and meat (kapana) at bus stops around Katutura, whilst men commonly sell fruits, raw meat and firewood at open markets in Katutura and others usually gather next to streets junctions and intersections in the hope to be picked up for casual employment.

2.6 WINDHOEK: AN OVERVIEW OF THE CASE STUDY

Before Namibia attained independence from South Africa in 1990, Windhoek was racially segregated: the areas of Katutura and Khomasdal were designated for the Black and Coloured populations, respectively, while the rest of the urban area was designated for the White population. In 1995, urban Windhoek had an estimated population of 181000 and an annual population growth rate of about 5.4%, resulting mainly from migration from rural areas (Gold and Muller, 2001). The urban area expanded to accommodate the migrant population, largely in informal settlements of shacks spreading outwards from Katutura (Simon, 1995). An accelerated rate of urbanisation, due to the migration of people from rural areas to towns and cities in Namibia in search of employment and better economic conditions, has been taking place since independence in 1990. In pre-colonial days, under conditions of restricted and controlled movements of the country's population, Windhoek's population growth rate averaged 4% per year. Since independence it has been 5.4% per year resulting in Windhoek's population increasing from 97,000 in 1988 to 182,000 in 1995. According to an assessment carried out by the City of Windhoek about 60% of the city's population are regarded as being poor as measured by income and consumption data (Dima and Nantanga, 2002). Namibia is an example of a rapidly developing country that struggles with the associated problems of poverty and urbanisation in its quest to reach its development potential.

Namibia is one of the least densely populated countries in the world and covers a surface area of just over 824,000 km², which is a little bigger than Turkey or Pakistan, both of which have well over 50 million people. The population of Namibia is currently estimated at about 1.8 million resulting in a population density of less than two persons per square kilometre. With such a low population density it is hard to imagine that a city in Namibia is more or less faced with the same population pressures that beset so many countries and can undermine their pursuit of development on a sustainable basis (Gold et al, 2001:10 cited in van Rensburg, 2006). Namibia's capital Windhoek is by far the biggest city in the country, illustrating its status as the primate city. According to the national population census of 2001 the population of Windhoek was estimated at 233 529 (Republic of Namibia, 2003). In comparison it is more or less half the size of Bloemfontein, which is the sixth largest city in South Africa (Peyroux, 2004). The total number of households in the city are about 58 580 with an average size of 4.2 persons per household.

Urbanization is prevalent mostly in all less developed countries around the world. The accelerated influx of migrants into Windhoek after 1991 caused progressively settlement growth on the open municipal-owned land as well as considerable shelter and servicing problems for the Windhoek City Council (WCC). The unplanned rapid urbanization has given rise to problems such as overcrowding, poor sanitation, pollution and exposure to mosquitoes, conditions which are favourable to the spread of serious disease (City of Windhoek, 2000a).

There are two major urban areas in Namibia, namely the capital city, Windhoek with the total population of approximately 300,000 and Walvis Bay with a total population of 80,000. These two urban areas together make up over 40% of the country's total urban population. Based on the 1995 projections, it is estimated that almost 30% of Windhoek population live in informal settlements in 2001. There were about 10, 000 informal settlement households in Windhoek in 1996 (Pendleton, 1998b).

It is estimated that there are about 51 informal settlements in Windhoek (City of Windhoek, 2005). These informal settlements vary in terms of services available in each of them. Most of the informal settlements occupy 20% of the municipal land and others are found on privately owed land such that belongs to self-help groups. Most of the informal settlements in Windhoek occurred as a result of illegally squatting on the land on peri-urban areas, where access to land is not strict.

Peyroux (2004) has pointed out that the high rate of urbanization in Windhoek is driven by the in-migration of people from rural areas in search of employment opportunities. Windhoek's population is increasing at the rate of 5.4% per annum of which 3.9 % was the net migration. The rural-migration of people leads to the high demand of land and housing. Most of the migrants are un-educated; therefore it's hard for them to secure jobs in the formal sector. As a result, they can not manage to pay for services in the formal sector and hence are forced to erect shacks on the periphery of the city. Most of the shacks are made from very poor materials usually picked from the dumping sites around the city.

2.7 CHAPTER SUMMARY

Informal settlements are the result of low-income populations wishing to embrace home ownership, yet unable to do so through the formal market mechanisms. Governments of all countries need to devise strategies to help low-income urban households manage their settlements. Most of the informal settlement interventions tend to overlook the inhabitants of

informal settlements; hence most interventions fail to address the urban reality of urban poor households.

For instance the standardized and capital subsidy approach used in South Africa does not benefit the poor. The poor are always overlooked when it comes to decision making regarding the provision of services and planning of their settlements. Countries such as South Africa and Namibia are late entrants in urbanization; therefore they should adopt comprehensive strategies used in countries such as Brazil and Botswana.

Lastly it is important to monitor the unintended effects of interventions in informal settlements. Firstly, interventions regarding tenure reform in informal settlements through granting or recognizing security often leads to both consolidation and 'backward-raiding' as land and property is more susceptible to being traded or raided by slightly more 'affluent' households. Upgrading of informal settlements (both in-situ and roll-over) often has the effect of reducing densities and relocation. Managing the relocation process is often contested with the result that problems urban managers initially sought to solve become transferred to relocation sites.

CHAPTER 3: RESEARCH METHODOLOGY AND DESIGN

3.1 INTRODUCTION

This chapter highlights the methodology, its design and instruments used in the study and also present the reasons for choosing these methodologies in data collection. Appropriate methodologies were chosen to aid in answering the research questions and achieve the objectives of the research. The chapter also introduces the study area as well as approaches for conducting field work.

The choice of specific research design determines the method of data collection, subsequent analysis and presentation thereof. It is therefore important for the researcher to choose relevant research methods to ensure the collection of appropriate data for the research.

3.2 RESEARCH APPROACH

The research design used three methodological elements that were derived from a review of pertinent literature to shape the direction and sequence of investigations centred around the three related research questions and objectives that structure the research project. The first is the case study approach based on the specific experiences of Windhoek. The second element involved the use of GIS technology as a tool to map the magnitude and growth (in time and space) of informal settlements as a visible manifestation of rapid urbanisation. The last element involved the use of quantitative, qualitative and policy analytical tools to explore the substantive lived reality of informal settlement conditions and official responses to the management of informal settlements.

The study utilized both quantitative and qualitative methods of data collection. Quantitative involved the use of questionnaires to collect demographic and socio-economic data for the residents from selected informal settlements. Qualitative involved the analysis of literature to unpack issues surrounding informal settlements. This involved the analysis of policy responses to the growth and development of informal settlements and livelihood strategies for the inhabitants of informal settlements.

Instruments were designed to ensure that the data collected correlates with the research questions and objectives.

3.3 STUDY AREA

Windhoek is the capital of the Republic of Namibia. It is situated in the Khomas region, which is one of the 13 regions of Namibia. Namibia lies in the west of Southern Africa, bordering the Atlantic Ocean to the west, South Africa to the south and south east, Botswana and Zambia to the east, Angola to the north and covers an area of approximately 824,000 km² (Republic of Namibia, 2003:16). Windhoek currently possess an estimated population of about 300 000, which represents about 40% of the country's total population.

The research site is Windhoek with the challenge being the (re) configuration of changing spatial boundaries over the research horizon. The research involved the initial overall assessment of the spatial imprint of informal settlement development based on aerial photography of Windhoek from 1998 to 2008, with at least three break points within the 10 year period. Aerial photographs were supplemented by 1991 and 2001 census data in order to make comparative analysis of how population growth influences the growth of informal settlements.

The spatial data was correlated to socio-economic data derived from the two census data sets available as well as other survey data undertaken by the City of Windhoek to create spatial and temporal descriptions of the area, upon which selections of specific communities (sites) was done for more in-depth study.



Figure 3.1 Map of Namibia showing Windhoek where the study areas are located

3.3.1 Specific research site

The research sites were chosen using certain criteria after the global study of all the informal settlements in Windhoek was conducted. GIS technology was used to carry out a comprehensive feasibility study that aided in choosing two contrasting case studies (see section 3.3 for selection of case studies).

Below is an aerial photograph depicting one of the study areas. The area is Oohambo dha Nehale and it was selected due to its unique characteristics and GIS analysis was also used to determine the location of the settlement.

The photograph also illustrates 2001 census enumeration areas. The map has been created using Arcview GIS to show the boundaries of the census enumeration areas. It has been integrated with census data to determine the population patterns and the magnitude of the settlement.

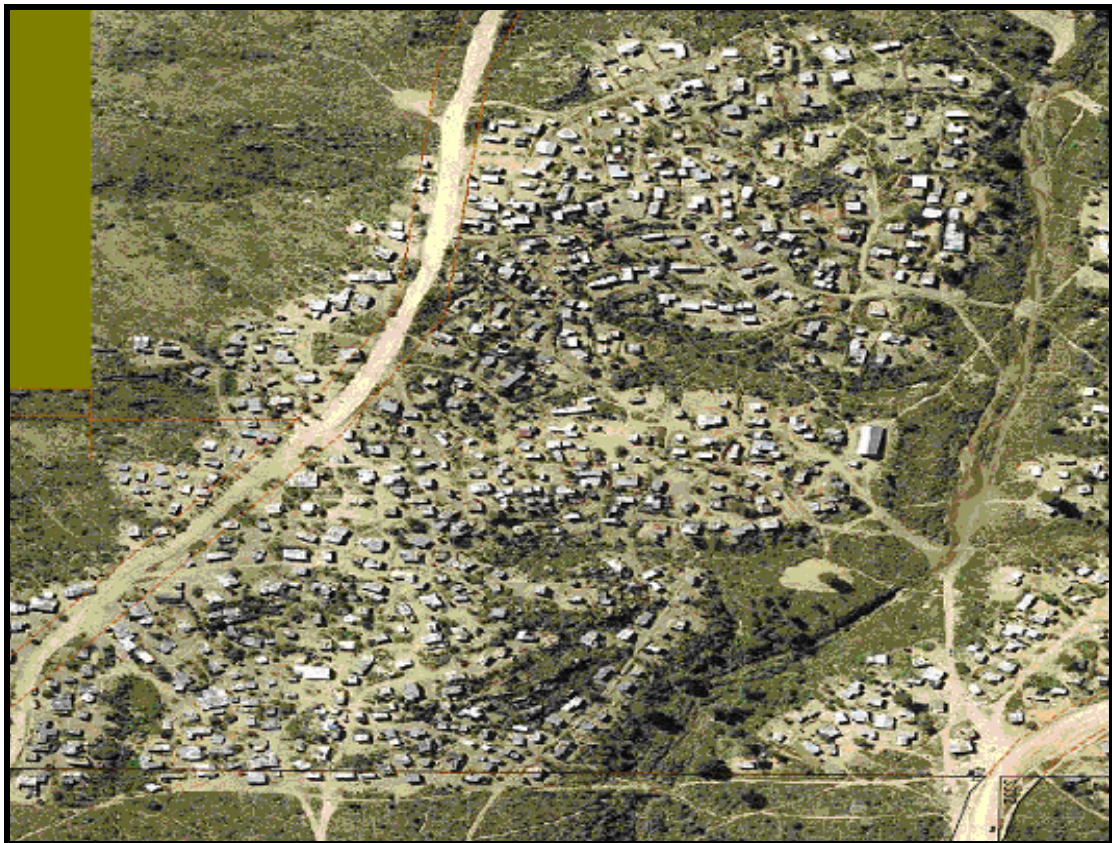


Figure 3.2: An aerial view of the study area, Oohambo dha Nehale informal settlement [Adopted from the City of Windhoek, 2008]

3.4 SELECTION OF RESEARCH SAMPLES

The first step involved mapping the growth of informal settlements using Arcview GIS to generate a sequential process of assessing the magnitude of their development between 1998 and 2008. This helped the determination of the two cases for detailed study based on the following principles:

- Age and size of informal settlement;
- stage of consolidation and location;
- rate and pattern of growth;
- ownership of land; and
- origin of residents and history of settlement.

The analysis of the mapping exercise formed a foundation for appropriate samples based on the above-mentioned criteria. The tooling matrix below was used to identify appropriate tools for the study.

Table 3.1 Research tooling matrix

Research questions	Tools			
	Arcview GIS/Mapping	Interviews	Focus group discussions	Observations
1. What has been the magnitude of growth and location principles of informal settlements	x			x
2. What are the nature of livelihood strategies and coping mechanisms used by residents of informal settlements to reduce risk and vulnerability in Windhoek?		x	x	
3. What have been official attitudes and policy responses toward informal settlements?		x		

3.4.1 Sampling techniques

The research samples were determined by the use of GIS technology. The initial step involved the mapping of all informal settlements using Arcview GIS to give an overview that determined the selection of the research samples. This is important as outputs from one component of activities become an input into the next. For instance, the activities and tools used to investigate

objective 1 and 3 will precede activities that explore objective 2, since the former create inputs for the latter. While the sequencing of objectives derives from the logic of the writing up of the research, the data collection sequence is different as indicated in Figure 3.3 below.

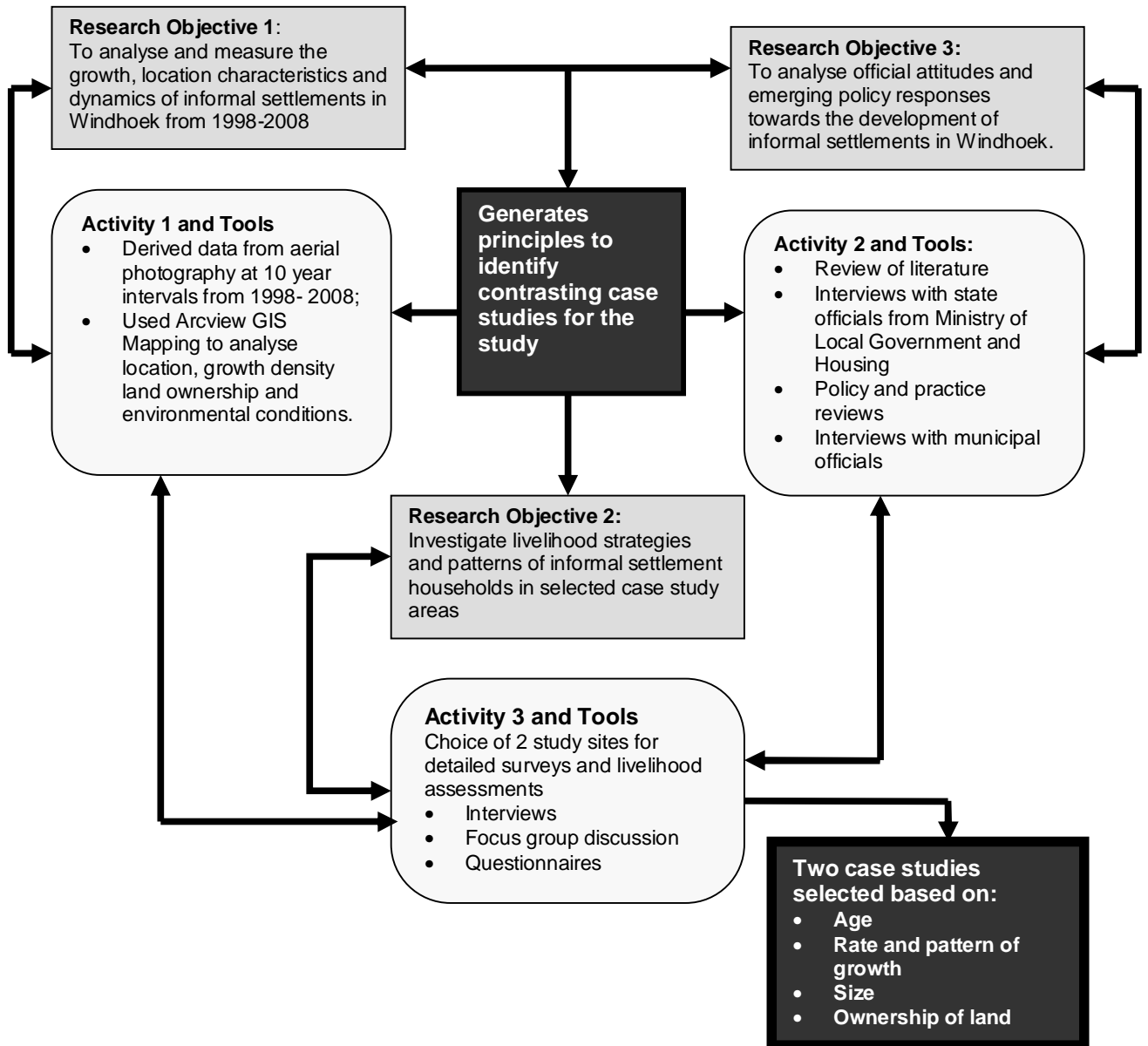


Figure 3.3 Sequencing of investigations, activities and tool usage in data collection

3.5 RESEARCH COMPONENTS

The study utilized various research components of research design that linked the research questions and objectives to the research methodology and tools. Table 3.2 illustrates the sequenced components of the research design.

The choice of research components in general determines the method of data collection, subsequent analysis and presentation thereof. According to Yin (1994:4) the most important aspect to consider when selecting a research strategy is to identify the type of research questions to be asked in the case study.

These questions will guide the researcher and form the foundation of the research. Importantly, the research questions also act as reminders throughout the investigation regarding the information that needs to be collected and will mainly be based on “what” needs to be investigated, “how” one is going to investigate the research problem and “why” one is doing the investigation or research. Table 3.4 below shows how the type of research questions is interrelated to the type of research objectives and tools thereof.

Table 3.2 Sequenced components of research design

Research questions	Objectives	Hypothesis	Tools
1. What has been the magnitude of growth and location principles of informal settlements?	To analyse and measure the growth, location characteristics and dynamics of informal settlements in Windhoek from 1998-2008.	There is a relationship between location of informal settlements and council ownership of land	<ul style="list-style-type: none"> • Mapping Using Arcview GIS
2. What is the nature of livelihood strategies and coping mechanisms used by residents of informal settlements to reduce risk and vulnerability in Windhoek?	Investigate livelihood strategies and patterns of informal settlement households	There is a positive relationship between rapid population growth and increments in the number and size of informal settlements	<ul style="list-style-type: none"> • Interviews • Focus group discussions • Questionnaires
3. What has been the official attitudes and responses towards informal settlements?	To analyse official attitudes and emerging policy responses towards the development of informal settlements in Windhoek.	Perceptions of relative security of tenure by residents of informal settlements influences decisions on investment in property improvements by households	<ul style="list-style-type: none"> • Review of literature • Interviews

3.6 DEMOGRAPHIC AND SOCIO-ECONOMIC SURVEY

The demographic and social survey was conducted in order to answer the second and third research question. The objectives of the demographic and social survey were to gain a thorough understanding of the following aspects:

- Livelihood characteristics of shanty dwellers
- Livelihood patterns
- Survival mechanisms and coping strategies for residents of selected settlements
- Population dynamics of settlements
- Investigation of how available income is used
- An analysis of official attitudes and policy responses to the development and management of informal settlements.

Questionnaires have been designed to collect information related to the above-listed aspects from the residents of selected sample settlements and from officials from the City of Windhoek

and Ministry of Regional, Local Government and Housing. The information from the demographic and social survey has been used to gain a thorough understating of how residents of informal settlements survive the economic difficulties in Windhoek.



Figure 3.4: Author administering a questionnaire

Four different types of questionnaires were used and they contain a mixture of both open and closed-ended questions. The closed questions allow easy analysis of the results, while the open-ended questions were meant for the collection of qualitative data. Open-ended questions gave respondents the opportunity to express their opinions and experiences and enabled the researcher to obtain much richer information from the respondents. Questionnaires are categorized as follow:

- Questionnaire for demographic and socio-economic information (Appendix 1)
- Questionnaires for interviews with Municipal and Ministry of Local Government officials (Appendix 2)
- Questionnaires for livelihood assessment (Appendix 3)
- Questionnaires for focus group discussions (Appendix 4)

Questionnaires have been administered to a total of 150 respondents in a social survey by means of random sampling. The 150 respondents were selected from the population of 25 419, which represent 0.59% of the sample. Out of 150 questionnaires, 100 respondents were from Okahandja Park and 50 from Oohambo dha Nehale informal settlements. All 150 respondents

gave their consent to participate in the socio-economic survey and were both informed that the survey is purely for academic purpose. The questionnaires have been administered face-to-face to respondents from the study areas. The preliminary survey was done in August 2008 to test the questionnaires and respondent's understanding, while the actual survey was conducted from December 2008 to January 2009.

After all 150 households were interviewed, some of the respondents were chosen for in-depth focus group discussions. The community leaders from both study areas formed part of the discussion together with four other households. A total of six households were selected for focus group discussions, three from Okahandja Park and another three from Oohambo dha Nehale. Households were selected based on the livelihood mechanisms. All the households that have been selected are those depending on informal sector activities for a living. The in-depth discussions assisted with giving a better understanding of how these people survives and how they use their small incomes.

Questionnaires designed specifically for interviews with municipal officials and officials from the Ministry of Regional Local Government and Housing was for the purpose of obtaining information about how the municipality and the ministry responds to the growth of informal settlements, as regard to policies and planning implications. A total of 10 officials were interviewed, 5 from the City of Windhoek and 5 from the Ministry of Regional, Local Government and Housing.

The Oshiwambo language (this is the language spoken and understood by the majority of residents of informal settlements) was used in administering the questionnaires. The author is conversant with all these languages; there was no need for a translator.

3.7 SELECTION OF RESPONDENTS AND SAMPLING PROCESS

Simple random sampling has been used in the administration of face-to-face questionnaires to 150 respondents from the study areas. Respondents have been identified using the following criteria:

- Head of households/Owner
- 20 years and older if not the household head or owner.
- Community leaders

Similarly, Newaya (2006) used the same criteria of household head and 20 years of age as the basis for selecting respondents for a study conducted in Windhoek for land delivery of low-income

areas. It is assumed that households aged 20 years and older are fully matured, hence have a better understanding of the surveys and can give reliable information.



Figure 3.5: Author assisting some of the respondents fill up their water containers at one of the communal standpipe water point after the interview

3.8 CONSTRAINTS OF THE SOCIAL SURVEY

The survey was conducted successfully although some critical problems were encountered. Some of the constraints of the social survey were: getting hold of prospective respondents, particularly as the survey was conducted during the day and some of the people were at work. The survey was more time consuming as anticipated because some respondents were either at work or out for shopping.

The other problem was that most female headed-households were not willing to be part of the survey. They criticized the survey and they pre-occupied themselves with misconceptions about the survey. Some of the respondents shouted that the survey was organised by the Municipality and don't deliver services they need. People were informed that the survey was for academic purpose only but were adamant that it was organised by the Municipality.

3.9 CHAPTER SUMMARY

This chapter involves methods used for data collection. Various methods were used to encompass all the necessary data in the study thus answering the research questions and objectives.

The demographic and social survey has been used to gain a comprehensive understanding about the residents of the study area. Information collected during the surveys form a basis for answering the research questions and testing of the research hypothesis.

Three different kinds of questionnaires were specifically designed and used to obtain information on the research questions such as: livelihood patterns of selected sample settlements, coping and survival strategies, official altitudes and policy responses to the emerging informal settlements.

CHAPTER 4: GROWTH OF INFORMAL SETTLEMENTS IN WINDHOEK BETWEEN 1998 AND 2008

4.1 INTRODUCTION AND BACKGROUND

This chapter analyses the magnitude and growth dynamics of informal settlements in Windhoek, Namibia, using GIS technology. GIS has been used to measure and analyse the growth patterns and location characteristics of informal settlements in the 10 year period between 1998 and 2008.

The inability of existing formal urban development and management systems to cope with increasing demands for services for the growing number of migrants into Windhoek has resulted in housing shortages and the situation has forced people to occupy land illegally where they construct their own housing with limited or no security of tenure. In Windhoek, informal settlements grew rapidly after the relaxation of influx control policy. Hence, GIS was used to explore physical characteristics of informal settlements in terms of location, coverage and densities. It was also used to analyse growth dynamics of households of the selected case studies.

4.2 METHODOLOGY FOR ANALYSING GROWTH DYNAMICS AND LOCATIONAL CHARACTERISTICS OF INFORMAL SETTLEMENTS

The methodology used for this study was to collect quantitative spatial data for all the informal settlements in Windhoek over a 10 year period from 1998 to 2008 and entering it into a GIS. Data sets were collected from the City of Windhoek and the Ministry of Lands, Resettlement and Rehabilitation, Division of Survey and Mapping. GIS was used to analyse the data using the vector overlay facility. A statistical analysis was also done of the alpha numeric data selected from attribute tables. A standard spreadsheet package (Microsoft Excel) was used to manipulate data and draw charts. The result of the survey has been comprehensively displayed and communicated using maps and charts.

One of the advantages of using a GIS is that it supports many different methods of entering data into the system, which include both GIS data sets obtained from existing GIS data sources as well as from drawing and design systems such as CAD. The data sets collected from the City of Windhoek were in CAD format which were imported into the GIS database and featurised. These data sets consisted of three maps from different years, being 1998, 2003 and 2008 as well as the administrative areas of Windhoek. Topographical data of Windhoek was obtained from the

Ministry of Lands, Resettlement and Rehabilitation, Division of Survey and Mapping in the form of Shape files as well as two digital Orthophoto maps of informal settlements in the northern part of Windhoek taken in 2002 and 2006. The data sets from the Ministry of lands and the City of Windhoek were supplemented with data from the 1991 and 2001 national censuses and also with the 1995 household survey by the City of Windhoek.

The topographical data and the Orthophoto maps provided enormous amounts of data of the particular coverage and location characteristics of informal settlements in Windhoek, Namibia. The end result of the GIS analysis of all the informal settlements was to identify two informal settlements in Windhoek with outstanding characteristics that could be utilized as case studies for this research. Figure 4.5 shows two selected case studies for the study.

4.3 GROWTH OF INFORMAL SETTLEMENTS AND DYNAMICS OF HOUSEHOLDS

The population of Windhoek has increased dramatically between 2003 and 2008. The increase in population of Windhoek has had a profound impact on the growth of informal settlements in the city. The increase in population of Windhoek stems from the flow of migrants to the city due to the relaxation of influx control since independence 18 years ago.

At independence in 1990, there were only 300 squatter households in Windhoek but by 1995 this had increased to approximately 7000 households (City of Windhoek, 2002). Since independence the increase has been 5.4 % per year resulting in Windhoek's population increasing from 97 000 in 1988 to 182 000 in 1995. It is estimated that Windhoek's population will reach 450, 000 by the year 2010 (City of Windhoek, 2001). By 1995 the population of Katutura was 109, 000, with about 60 000 people living in the informal settlements. Windhoek's overall population growth rate has been more than 5 % per annum since 1991. In the six year period between 1995 and 2001, Windhoek's informal settlements population has grown by more than 30 000 people. This represents an annual average increase of more than 3 300 people, representing more than 800 households per annum with an average household size of 4 people (World Bank, 2002).

The annual growth rate of informal settlements is about twice that of the entire city. This shows that informal settlements contain higher population than formal areas. As a result of high growth rate of informal settlement population, the proportion of informal settlement structures has grown from 15% in 1995 to 25% in 2001, representing a proportionate increase of 1.6% per annum growth in informal settlement structures (Simon, 2006). Table 4.1 illustrates the growth of informal settlement population over the period of 6 years between 1995 and 2001.

Table 4.1: Growth of informal settlement population in Windhoek: 1995-2001.

Description	Windhoek population	Informal settlements population
1995	181,696	28,000
2001	233,529	48,183
Absolute growth over 6 years	8 638	3 363
Average population growth per annum	720	280
Households gain per annum	2160	841
Households gain per month	180	70
Annual growth rate	4.44%	9.46%

Source: City of Windhoek, 2005

Over the past 10 years the annual growth rate of informal settlements in Windhoek has been approximately twice that of the annual growth rate of Windhoek's population (City of Windhoek, 2005). As a result of this high growth rate, the number of informal settlement structures has grown from 15% in 1995 to 25% in 2001 representing a comparative increase of 1.6% per annum growth in informal settlement structures.

The estimates in the growth of informal settlement population based on the 1995 Residents Windhoek Survey and the growth rate calculated between 1995 and 2001 are shown in Table 4.2. The data shows that the 1995 estimates had consistently overestimated the growth of informal settlement population up to 2011. It is estimated that in 2011 an approximate 30 000 households or 120 000 people will be living in informal settlements.

Table 4.2: Estimated population and household growth of informal settlements in Windhoek, Namibia from 1995 to 2011

Year	1995 Estimate			2001 Estimate		
	Estimated number of population	Estimated hh @ 4p/h	Estimated hh gain per annum	Estimated number of population @13.02% per annum	Estimated hh @ 4p/h	Estimated hh gain per annum
1995	28,000	7,000	1,481	20,835	5,212	426
1996	34,017	8,504	1,504	25,393	6,351	528
1997	40,126	10,032	1,527	29,951	7,490	630
1998	46,327	11,582	1,550	34,509	8,629	732
1999	52,623	13,156	1,574	39,067	9,768	834
2000	59,014	14,754	1,598	43,625	10,907	936
2001	65,503	16,376	1,622	48,183	12,046	1,038
2002	72,090	18,023	1,647	52,741	13,185	1,140
2003	78,777	19,694	1,672	57,730	14,433	1,247
2004	85,566	21,392	1,697	63,192	15,798	1,365
2005	92,458	23,115	1,723	69,170	17,292	1,494
2006	99,455	24,864	1,749	75,713	18,928	1,636
2007	106,558	26,640	1,776	82,876	20,719	1,791
2008	113,769	28,442	1,803	90,716	22,679	1,960
2009	121,090	30,273	1,830	99,297	24,824	2,145
2010	128,522	32,131	1,858	108,691	27,173	2,348
2011	136,067	34,017	1,886	118,973	29,743	2,571

Source: City of Windhoek, 2005

It is clear from Table 4.2 that the population in informal settlements is high and it will continue to increase. This shows that the population of informal settlements is growing faster than that of formal areas of Windhoek. This means that the population growth has a significant impact on the growth and expansion of informal settlements. The growth revealed that informal settlements are growing at a faster rate than the Municipality is able to keep up with and this makes it difficult to provide services to all the people (see figure 4.5 and 4.6).

4.4 NUMBER OF INFORMAL SETTLEMENTS

Windhoek is the largest urban centre in Namibia and has a population of about 300 000 which makes up about 30% of the country's total population (Frayne, 2007). There were very little informal settlements in Windhoek in 1990 but has increased tremendously towards 2003. The establishment of reception areas between 1991 and 1994 has attracted more people and this

resulted into the rapid growth of informal settlements. The GIS analysis revealed that there was a slight growth in informal settlements between 1998 and 2003. Figure 4.1 confirms that there was little growth and expansion of informal settlements between 1998 and 2003 but there was high densities. Table 4.3 shows the area occupied by informal settlements from 1998 to 2003. The Table also show the population growth and densities of households. Currently Windhoek has approximately 60 informal settlements making up about 60% of the city's total population.

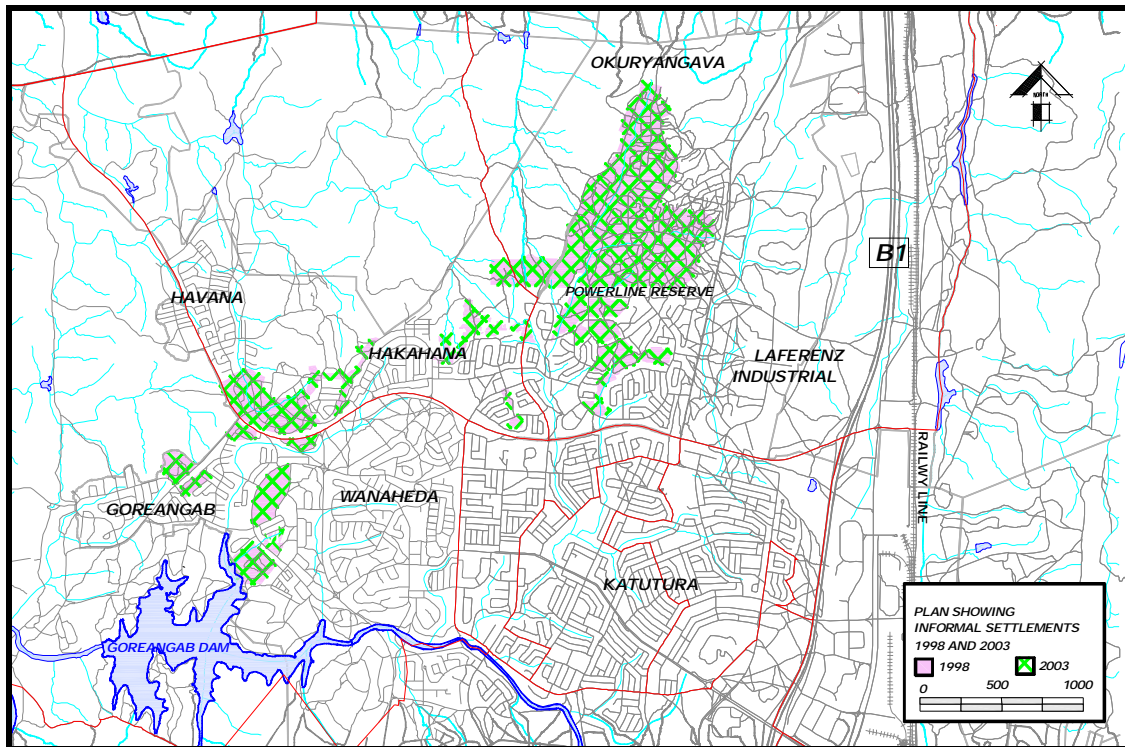


Figure 4.1: Overlay of 1998 and 2003 orthophotos of informal settlements in Windhoek [Adopted from the City of Windhoek]

The aim of examining informal settlements in Windhoek using GIS was to illuminate the underlying trends in their expansion and thus create new information about their magnitude and growth. The benefit of using a GIS is in its ability to create new spatial elements by overlaying existing maps. The 1998, 2003 and 2008 vector maps entered into the GIS were used to highlight the emerging patterns of growth, location characteristics and the coverage of informal settlements. Figure 4.2 shows informal settlements in Windhoek in 2008.

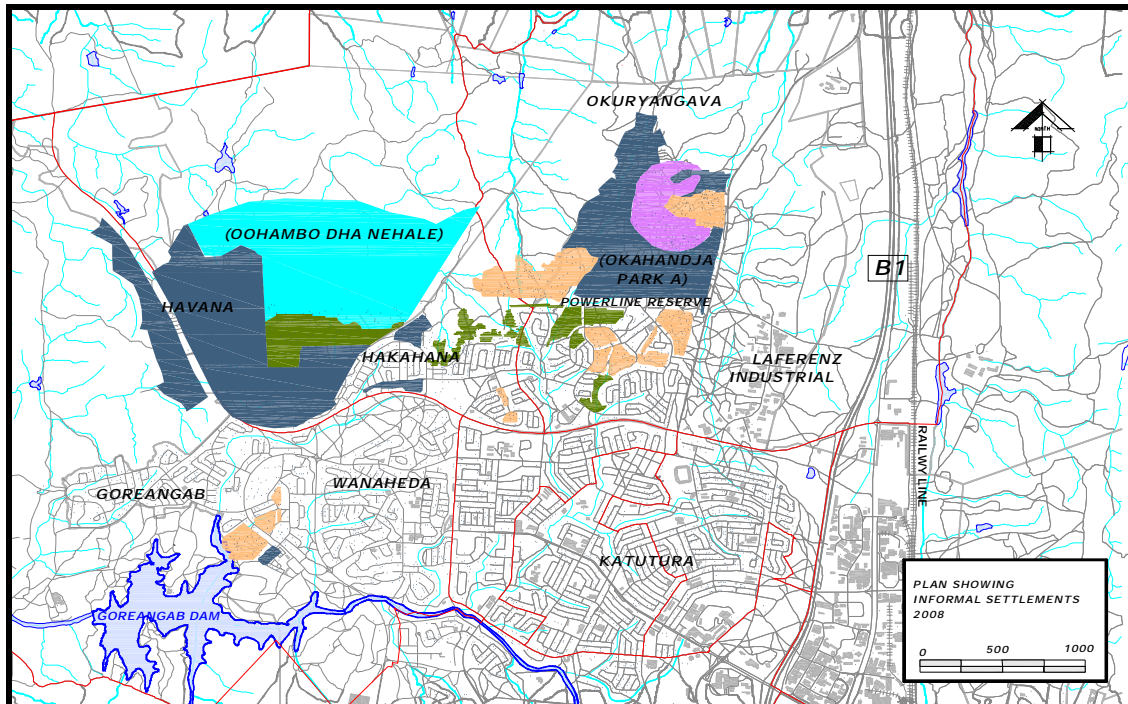


Figure 4.2: Densification of informal settlements in the Study Areas [Adopted from the City of Windhoek]

4.4.1 Analysing the magnitude, coverage and densities of informal settlements

The results of the GIS analysis of informal settlements revealed that informal settlements are highly concentrated on the northern periphery of Windhoek. The study has also revealed that there was little difference in spatial magnitude of informal settlements between 1998 and 2003, however their densities increased dramatically. Table 4.3 shows the areas covered by informal settlements in hectares, number of households, population and densities of households per hectare. High growth rate of the informal settlements occurred between 2003 and 2008 in terms of physical growth and these areas have also become denser. Figure 4.3 shows the overlay of 2008 and 1998 orthophotos. It is clear from the figure that there is a high magnitude of informal settlements in 2008 in comparison to 1998.

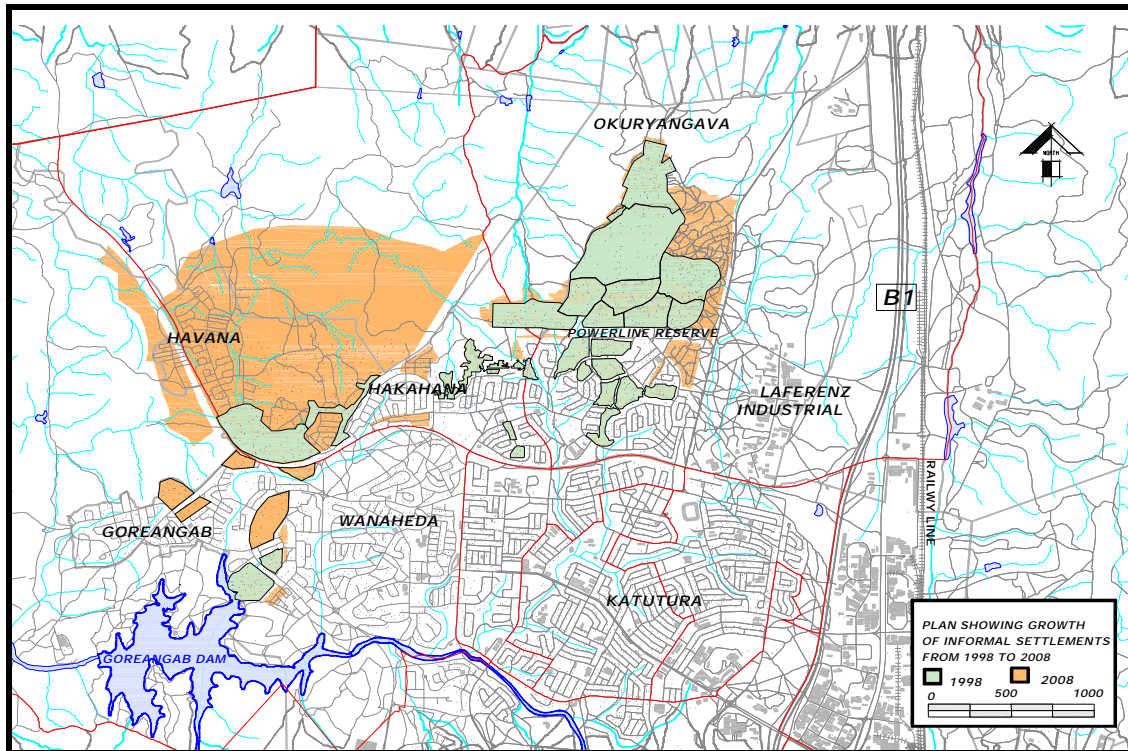


Figure 4.3: Comparison of informal settlement in the Study Areas [Adopted from the City of Windhoek, 2008]

Table 4.3: The coverage, population and densities of informal settlements from 1998 to 2008

Years	Area occupied (ha)	Households	Population	Population Density
1998	273.4	8284	26 492	97
2003	274.2	29 156	76 655	280
2008	759.3	52 274	133 631	176

Table 4.3 shows the difference in terms of area occupied, population and households densities of informal settlements between 1998 and 2008. The table shows that there was a slight difference in terms of the area occupied by informal settlements ($274.2 \text{ ha} - 273.4 \text{ ha} = 0.8$) between 1998 and 2003. This means that there was a slight growth and expansion of informal settlements between 1998 and 2003. However, the density has increased drastically from 97 households/ ha in 1998 to 280 households/ha in 2003. Informal settlements expanded between 2003 and 2008 but the density has lowered from 280 households/ ha to 176 households/ha. The table highlights inconsistency in the growth of informal settlements. There was little growth between 1998 and

2003 but there was a higher population density in 2003 than 1998. This was because of the internal growth and organisation of the residents and some informal settlements were consolidated toward 2003.

The growth, slow down and consolidation of informal settlements was largely influenced by the intervention on local authority. The Municipality of Windhoek established various Reception Areas which were meant to be temporary, without clear set standards on how and will be accommodated in such areas, hence people migrated from old areas to Receptions Areas hoping for better in anticipation of better services. This gave rise to the number of informal settlements in Windhoek.

The rapid population growth has impacted significantly on spatial growth of informal settlements and in-situ densification. These growth patterns and development of informal settlements shows the existence of rapid urbanisation and this poses difficulties to the Council regarding the provision of services to the residents of informal settlements.

4.4.2 Location of informal settlements

Informal settlements in Windhoek are found in the townships of Goreangab, Hakahana, Havana, Okuryangava and Otjomuise. The locations of informal settlements and low-income land in these townships are evenly distributed in order to form a uniform of related land development (Mundia, 2007). Informal settlements were first found in the northern part of the city but have since started spreading to the north-eastern suburbs of the city (see Figure 4.4).

It can be seen from Figure 4.4 that informal settlements are predominantly in the northern part of Windhoek away from the formal townships. Informal settlements are clearly marked in colours separate from the planned layout of formal townships of Windhoek (see Figure 4.4).

There are more informal settlements in the area of Okuryangava, consisting of low income houses and informal dwellings. The townships of Goreangab and Hakahana are mostly dominated by structured low-income brick housing, with very few shanty houses. Havana is entirely informal and is in the process of being upgraded. Land available for informal settlement in these townships is inexpensive and unaffordable for low-income people. The high demand for land with basic services makes these areas attractive to poorer people flocking into the city. The topography of these townships is favourable for informal settlements in terms of slopes, flooding, services provision and maintenance.

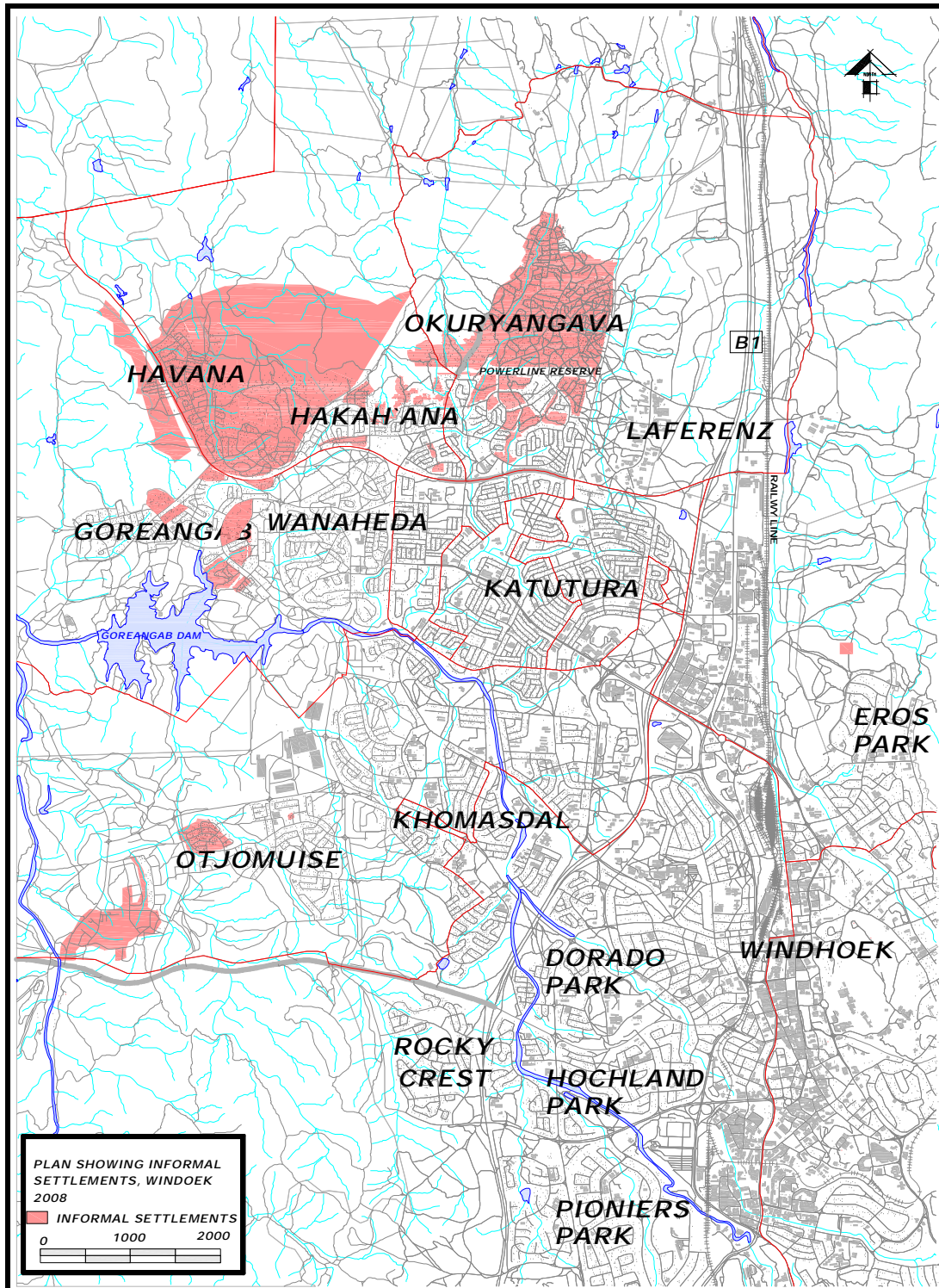


Figure 4.4: Location of informal settlements in Windhoek in 2008 [Adopted from the City of Windhoek, 2008]

4.5 SELECTION OF TWO CONTRASTING CASE STUDIES

Based on the GIS analysis of all the informal settlements, two informal settlements (study areas) were selected as case studies for this research as shown in figure 4.5. These two settlements were selected based on their unique features and characteristics (i.e. size and age) as elaborated in Table 4.4.

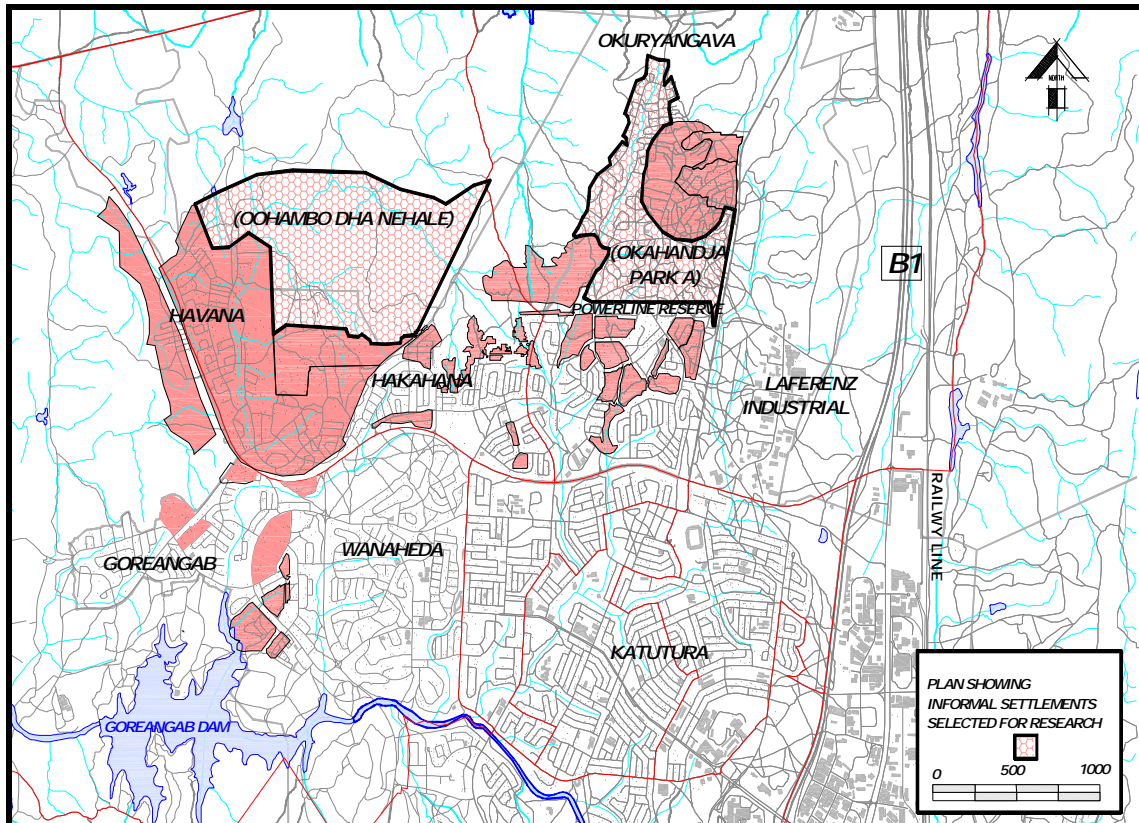


Figure 4.5: Two informal settlements selected as case studies for this research [Adopted from the City of Windhoek, 2008]

Table 4.4: Characteristics of two case studies (study areas)

Settlement Name	Characteristics	Age (2008)	Land Ownership	Number of households	Population
Okahandja Park	<ul style="list-style-type: none"> • Oldest settlement • High density • 40% of land owned by municipality • One of the biggest settlements • In close proximity to employment opportunities i.e. industries etc 	16	Municipality and Shack Dwellers Federation	8073	24219
Oohambo dhaNehale	<ul style="list-style-type: none"> • New settlement • Fastest growing settlement • Low density • Unplanned 	5	Municipality	379	1200

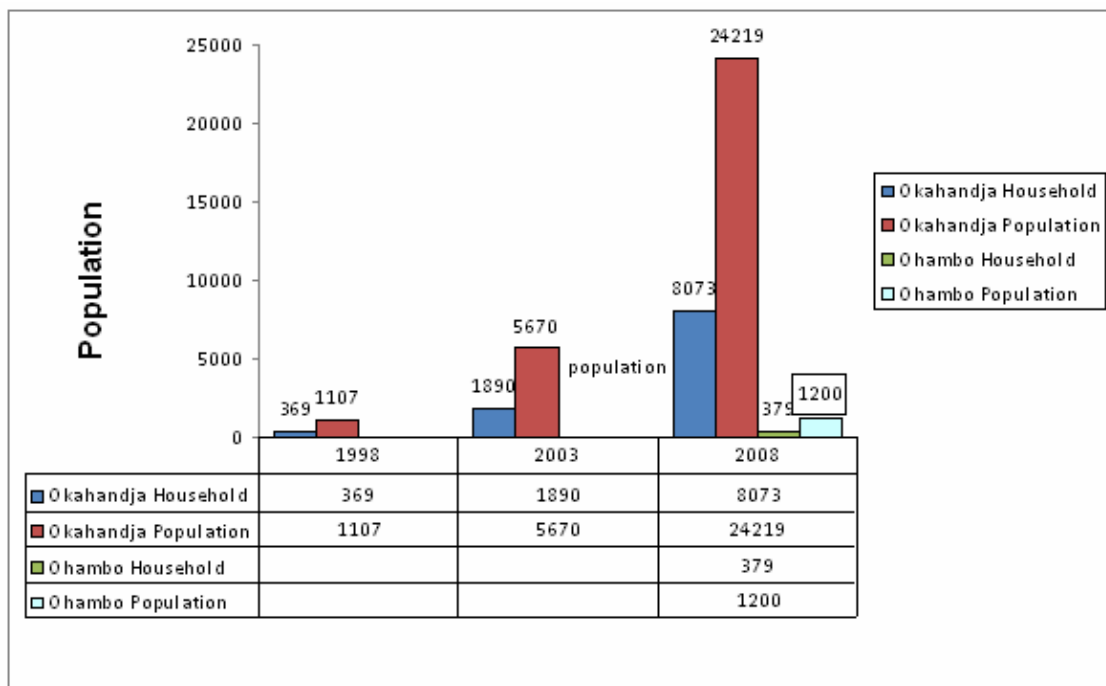


Figure 4.6: Growth between 1998 and 2008 of two informal settlements selected as case studies

The number of households and the population of Okahandja Park increased drastically between 2003 and 2008. Okahandja Park had 369 households and the population of 1107 in 1998 but this

increased drastically to 1890 households and a population of 5670 in 2003. Okahandja Park has gained more households towards 2008, which makes it to have the highest population compared with other informal settlements around Windhoek. Oohambo dha Nehale informal settlement is the newest settlement. It only has 379 households and the population of 1200. This clearly shows that informal settlements are growing at a fast rate.

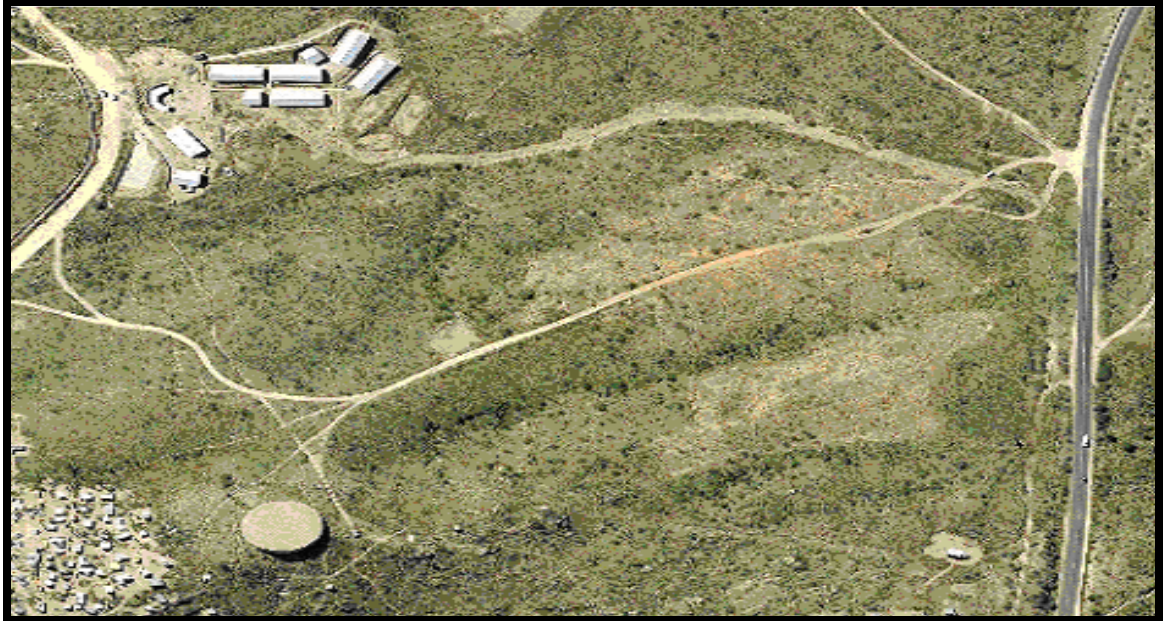


Figure 4.7: A 2002 aerial photography of one of the Study Areas (Okahandja Park) [Adopted from the City of Windhoek, 2008]

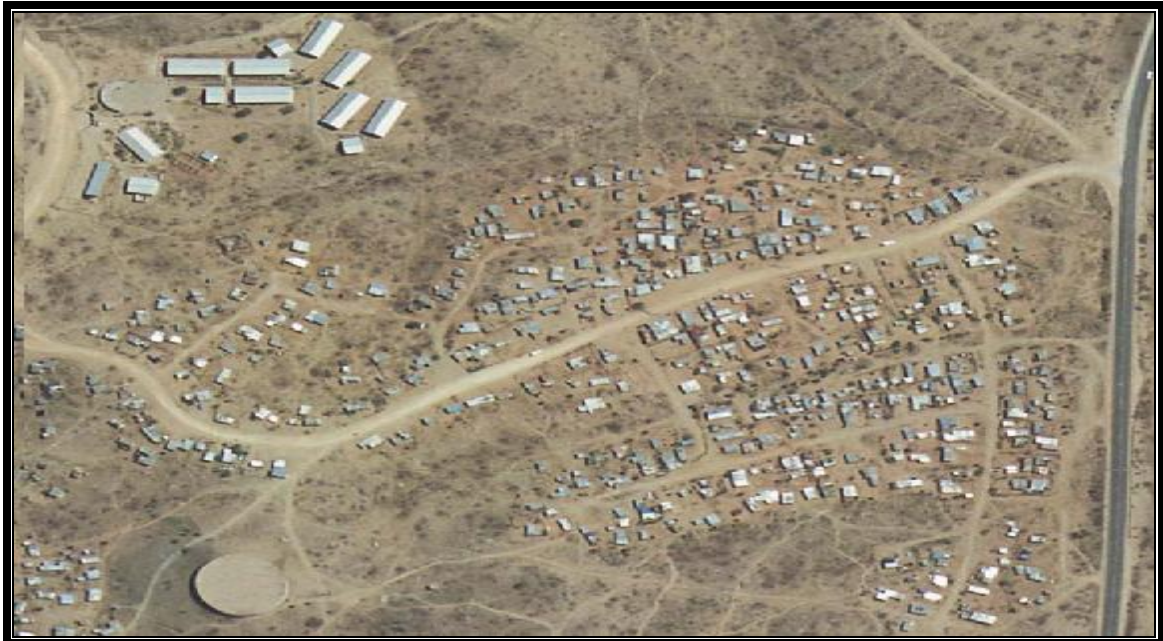


Figure 4.8: A 2006 aerial view of Okahandja Park informal settlement [Adopted from the City of Windhoek, 2008]

The comparison of the two aerial photographs clearly shows that the number of households is increasing and the settlement expanding. When comparing the 2002 and 2006 photographs (Figure 4.7 and 4.8) it is clear that there is an increase in densities of the informal structures near the main road. The usefulness of aerial photography and remote sensing in monitoring the expansion of informal settlements is evident and by incorporating these images into a GIS it significantly enhances the GIS as a management tool.

4.6 CONSTRAINTS OF USING GIS

There were some constraints encountered when using GIS to measure the growth dynamics and locational characteristics of informal settlements in this study. Spatial relationships are important but difficult to measure. Some critical problems were experienced during the analysis of the magnitude, growth dynamics and location characteristics of informal settlements in Windhoek. The following challenges were encountered:

- Difficulty in making data sources compatible. The census data and the maps were not always well-matched because some of the informal settlements were not included in the census data. This is a result of new informal settlements emerging since the census data was obtained, some informal settlements were totally ignored in the census and some of the informal settlements have been consolidated since the census.
- Featurising of maps in CAD format. Creating topology from vector drawings was time consuming.
- Some informal settlements were not demarcated and it was difficult to determine their boundaries.

Problems were encountered during data encoding, including errors derived from the original source data, as well as errors that have been introduced during the encoding process. Errors in coordinating data as well as inaccuracies and uncertainty in attribute data affected the final results. The assistance of the GIS expert was crucial in minimising the errors and hence came up with very reliable end-products.

4.7 CHAPTER SUMMARY

The magnitude and growth dynamics of informal settlements in Windhoek, Namibia, have been revealed using GIS technology. Informal settlements have been growing rapidly ever since

Namibia attained independence in 1990. Some informal settlements are large in spatial terms, while others are very small.

There were approximately 10 informal settlements in 1991; however this has increased to about 60 informal settlements in 2008. The use of GIS technology was instrumental in determining the physical characteristics of all the informal settlements in Windhoek. Although informal settlements grew rapidly after the attainment of independence in 1990, the result obtained from the GIS analysis shows that there was no huge growth on the number of informal settlements between 1998 and 2003. Informal settlements did not expand significantly but there was a dramatic increase in the number of households. Unprecedented growth of the informal settlements has occurred between 2003 and 2008 in terms of physical growth and these areas have also become denser.

The maps displayed in this chapter clearly illustrate the magnitude and growth dynamics of informal settlements between 1998 and 2008. The GIS analysis revealed that little growth occurred between 1998 and 2003. This is because the Windhoek City Council (WCC) created reception areas between 1991 and 1999 and this allowed growth to take place within the reception areas. However, the reception areas were fully occupied towards 2000 and this resulted in the mushrooming of informal settlements outside the reception areas and informal settlements grew rapidly thereafter. This implies that informal settlements are growing and they will continue to grow.

This chapter indicates that the population growth has a huge impact on the growth of informal settlements. The population increase leads to the expansion of informal settlements. This indicates that there is a positive relationship between population growth and increase in the number and size of informal settlements; this confirms the validity of the second hypothesis that *there is a positive relationship between rapid population growth and increased number and size of informal settlements.*

CHAPTER 5: SOCIO-ECONOMIC CHARACTERISTICS AND LIVELIHOODS IN SELECTED INFORMAL SETTLEMENTS

5.1 INTRODUCTION

This chapter contains the assessment baseline studies based on the social-economic survey which was carried out in two study areas (Okahandja Park and Oohambo dha Nehale informal settlements) from December 2008 to January 2009. The two case studies were selected based on their contrasting characteristics. Okahandja Park is one of the oldest informal settlements, whilst Oohambo dha Nehale is the newest settlement and unplanned. The survey was also used to explore the livelihoods of residents in these selected informal settlements. The livelihoods study assisted in understanding the survival mechanisms and coping strategies used by people in informal settlements to reduce vulnerability. Data was collected from a total of 150 respondents from the two selected case studies, 100 respondents from Okahandja Park and 50 from Oohambo dha Nehale informal settlement.

The chapter also aims to establish a correlation between the two National censuses conducted in 1991 and 2001 and the results of the socio-economic survey. The chapter has been structured in the light of two research hypotheses (specifically hypothesis one and three). The first hypothesis is that there is a positive relationship between sites and location of informal settlements and public (council) ownership of land, i.e. informal settlements tends to develop and consolidate on public land as a way of reducing vulnerability to eviction as there is likely to be a greater sense of legitimacy to claim for secure tenure. The other hypothesis is that perceptions of relative security of tenure by residents of informal settlements influences decisions on investment in property improvements by households (van Gelder, 2007). These two hypotheses are tested in the light of the findings of the survey. The results of the survey were used to test the validity of the two hypotheses.

The data analysis was done using SPSS 16 and 17 (Statistical Package for Social Science 16 and 17). SPSS 16 and 17 are data analysis tools that were used in the analysis and interpretation of data. These two packages summarises data for questions into frequencies and percentages as well as cross tabulations across the questions. SPSS 16 and 17 are advanced tools used in the analysis and interpretation of data and they can also establish a link between two data sets. These tools draw charts automatically, rather than using Microsoft excel which is time consuming.

5.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

This section contains demographic information of households in the selected areas. It contains the characteristics of households in terms of gender, age and marital status.

5.2.1 Gender

Based on data collected from sampled households, the analysis shows that 72% of the respondents are male household heads and 28% are female-headed. This shows significantly that more male headed-households exist in both study areas than female headed-households. Table 5.1 shows frequency distribution of households by gender and percentage of sampled households in the study areas. The results from Namibia's 2001 households and housing census shows a 57.6% male compared to 42.4% female (Republic of Namibia, 2003). This shows that the population in informal settlements is predominantly male than female.

The survey identified a skewed gender distribution (more men than women) because men mostly migrate and leave their families behind to look for better opportunities in urban areas but in return send their remittance back to their family. Migration poses many challenges to both the state and local authorities regarding provision of services and housing. The high influx means high demand for housing and the majority of people can not afford decent housing leading to the mushrooming of informal settlements.

Table 5.1 Gender distribution

Gender	Frequency	Percent
Male	108	72.0
Female	42	28.0
Total	150	100.0

5.2.2 Marital status

The results of sampled household data analysis reveal that 48.7% of the respondents are single headed-households, 46.7% are married headed-households, 4% divorced and the remaining 0.67% represents widowed household heads. This shows that there is a high concentration of single headed-households in the sampled communities (see Table 5.2). The census shows 44.5% single headed-households compared to 55.5% married headed-households. This shows

that there were more married headed-households in informal settlements compared to the current situation where there are more single headed-households.

Table 5.2 Marital status of respondents

Marital status	Settlements		
	Okahandja Park	Oohambo dha Nehale	Total
Single	44 44.0%	29 58.0%	73 48.7%
Married	52 52.0%	18 36.0%	70 46.7%
Divorced	3 3.0%	3 6.0%	6 4.0%
Widowed	1 1.0%	0 .0%	1 .7%
Total	100 100.0%	50 100.0%	150 100.0%

The Chi-Square was undertaken to test the degree between the two areas. If the P-value (Asymp.sig) is ≤ 0.05 , then there is a significant difference between the two areas for that particular question, where as is if the P-value (Asymp.sig) is > 0.05 , then there is no-significant difference in response between the two groups.

A chi-square test showed that there is no ($0.219 > 0.05$) significant variation between the marital status of respondents in the two study areas.

5.2.3 Age distribution

The age distributions of the sampled households from both study areas have been summarized in Table 5.3. The sample revealed that 22% of the household heads surveyed were in the age range of 25-34, 46% were in the range of 35-44 and 7% between 45-54. While 2% of sampled households were in the age range of 15-24, 6% of the respondents were in the age range between 55 and 64 years, while the remaining 1.3% was above 65 years. This shows that the population of the study areas is predominantly youthful.

Table 5.3 Comparison of age distribution of respondents

Age range	Settlement		
	Okahandja Park	Oohambo dhaNehale	Total
15-24	1 1.0%	2 4.0%	3 2.0%
25-34	16 16.0%	17 34.0%	33 22.0%
35-44	44 44.0%	25 50.0%	69 46.0%
45-54	28 28.0%	6 12.0%	34 22.7%
55-64	9 9.0%	0 .0%	9 6.0%
Above 65	2 2.0%	0 .0%	2 1.3%
Total %	100 100.0%	50 100.0%	150 100.0%

Table 5.3 shows that there is a significant difference between the age range of the sampled households from both study areas (Okahandja Park and Oohambo dha Nehale). Table 5.4 shows the comparable results of the census and the social survey. The chi-square analysis $0.007 < p = 0.05$) between the two censuses confirms the difference. Conducting a chi-square analysis shows that there is a significant difference between the age ranges used in 2001 census and age ranges used in the social survey. See Table 5.4 for comparison of age distribution between censuses and social survey.

Table 5.4 Comparisons of age distribution between censuses and social survey

Age range in years	Percentage (Censuses)		Percentage (Social survey)
	1991 census	2001 census	
15-24	0	1	2
25-34	16	23	22
35-44	27	33	46
45-54	19	21	22.7
55-64	2	4	6
65 and above	0	1	1.3

5.3 HOUSEHOLD'S SOCIO-ECONOMIC CHARACTERISTICS

This section provides detailed results of the socio-economic characteristics of households. It contains the analysis of household's characteristics in terms of education, employment types, income categories, household sizes, length of stay in the study areas and migration patterns.

5.3. 1 Education levels

The distribution of highest level of formal education attained by the sampled households for both areas was 57% of respondents have primary educational qualifications, high school qualifications (grade 10 to 12) 24%, whilst 19% of the respondents never went to school (Table 5.5). This shows that a considerable proportion of the residents in the study areas have very low levels of formal education, therefore making it difficult for them to find jobs in the formal economic sectors. They are classified as low-income earners because a good salary tends to correlate with good educational qualifications. See Table 5.8, for discussion of the relationship between educational level and monthly income of respondents. People with higher school qualifications are employed in the government while people with primary education who are mostly self-employed or employed in the private sectors (see Table 10 for detailed analysis on level of education and employment types).

Table 5.5 Educational level of respondents

Highest level of education	Gender		
	Male	Female	Total
Never went to school	21 19.4%	8 19.0%	29 19.3%
Primary education	61 56.5%	24 57.1%	85 56.7%
High school	26 24.1%	10 23.8%	36 24.0%
Total	108 100.0%	42 100.0%	150 100.0%

The chi- square test (Asymp.sig 0.997> p-value 0.005) indicate that there is no-significant difference in the level of education attainment between men and women in both Study Areas (appendix 10). However, there are significant negative correlations between levels of educational attainment with age of residents in the sampled settlements. This implies that younger respondents (15-20 and 25-30) have higher education qualifications than the older residents of the study area (see Table 5.6).

Table 5.6 Correlation between age and level of education

Highest level of education	Age						
	15-24	25-34	35-44	45-54	55-64	65 and above	Total
Never went to school	3	5	4	4	5	8	29
Primary education	3	5	10	15	22	30	85
High school	20	8	4	2	1	1	36
Total	26	18	18	21	28	39	150

The combined samples revealed that young residents have significantly (< p-value 0.001) better paid jobs and are earning good salaries (see Table 5.7). Similarly, the results shows that respondents with high school qualifications have high incomes (<p-value 0.001) (category 6 and 7) than those with primary education and those that never went to school (see Table 5.7 and 5.8).

Table 5.7 Correlation between age and monthly incomes

Age	Monthly income (N\$)		
	< 700	701 -2200	Over 2200
15-24	1	1	0
25-34	1	10	15
35-44	9	31	21
45-54	15	9	6
55-64	5	1	2
65 and above	1	1	0
Total	32	53	44

Table 5.8 Relationship between level of education and employment types

Highest level of education	Monthly income (N\$)								
	< 200	201- 700	701- 1200	1201- 1700	1701- 2200	2201- 2700	Above 2701	Total	
Never went to school	5	9	7	2	0	1	0	24	
Primary education	4	32	21	6	4	2	3	74	
High school	2	7	4	5	1	4	7	30	
Total	11	48	32	13	5	7	10	126	

When the income categories are collapsed into three categories only, (< 700; 701 – 2200; over 2200) then there is a statistically significant correlation (< p-value 0.001) between the years lived in the study areas and monthly income. The analysis indicates that residents who lived in the areas for a long time have better paid jobs than the new residents. This suggests that it takes time for a resident to navigate the area and therefore to secure higher paid employment, especially in the formal sector (Table 5.9).

Table 5.9 Correlation between length of stay in study areas and monthly income

Length of stay in Windhoek	Monthly income (N\$)							Total
	< 200	201-700	701-1200	1201-1700	1701-2200	2201-2700	Above 2701	
1-2	2	6	7	1	0	0	1	17
3-4	1	2	2	3	0	5	12	25
5-6	4	12	10	7	5	8	10	56
More than 7	3	4	3	2	3	3	10	28
Total	10	24	22	13	8	16	33	126

Table 5.10 Correlation between level of education and income

Level of education	Types of employment						Total
	Never went to school	Self employed	Government	Private	NGO's	Unemployed	
Never went to school	9	0	12	1	7	29	
Primary education	21	5	33	11	14	84	
High school	7	6	12	4	7	36	
Total	37	11	57	16	28	149	

Table 5.10 shows that there is no significant correlation between types of employment and level of education (p-value 0.66).

5.3.2 Employment types

Forty-one percent of male respondents (compared to 32% female) are employed in the private sector, this being road construction companies, building construction companies etc. Most of the residents from both study areas do not have good education; therefore can only work in the private sector which does not really require a great deal of proper educational qualifications. The private sector is mostly construction industry, where most of the work is manual. Therefore it is mostly men that work for the private sector due to the nature of the job.

The government usually requires a minimum qualification of grade 10. The analysis of respondent's responses shows that only 8% males and 5% females are employed in the

government. NGOs are much closer to the government; therefore their recruitment process also requires certain qualifications. Only 13% of male respondents (compared to 2% female) are working for NGOs, whilst 20% of male respondents (compared to 37% female) are self-employed and 17% of male respondents (compared to 24% female) are unemployed. Table 5.11 shows the frequencies and percentages by gender with regard to their employment types.

The majority of the women make a living in the informal sector where they sell cooked food such as cakes and kapana (cooked meat) at the bus stops and construction sites around Windhoek.

Table 5.11 Comparison of employment types and gender

Types of employment	Gender		
	Male	Female	Total
Self-employed	22 20.4%	15 36.6%	37 24.8%
Government	9 8.3%	2 4.9%	11 7.4%
Private	44 40.7%	13 31.7%	57 38.3%
NGO's	15 13.9%	1 2.4%	16 10.7%
Unemployed	18 16.7%	10 24.4%	28 18.8%
Total %	108 100.0%	41 100.0%	149 100.0%

The chi-square test shows that there is no-significant difference (0.65 >p-value 0.05) in employment between female and male.

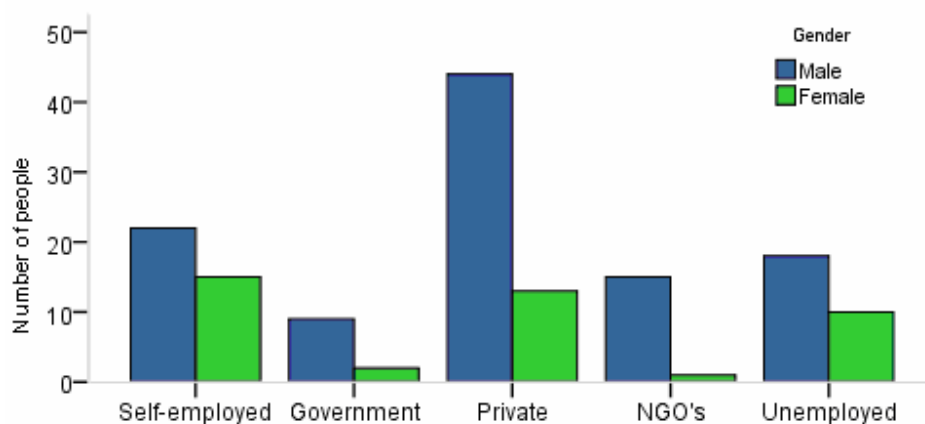


Figure 5.1 Employment types by gender

5.3.3 Monthly incomes

The income varies greatly according to the gender of respondents. Men have higher incomes than women. The results of the survey indicate that there is a significant variation in the salary levels in relation to the gender of the respondents. The sample revealed that only 9.1% of the female earns N\$2700² per month in comparisons to 91% of males. Men have high levels of education attainment and this makes it easier for men to be employed in the formal sector and this have a significant impact on their salaries. The level of education impact significantly on someone's salary; hence men have higher salaries compared to women. The majority of female respondents (55%) earn an income in the ranges of N\$201-700 per month (see Table 5.12). This shows that men earn better incomes in comparisons to women.

Table 5.12 Monthly incomes by gender

Monthly income	Gender		
	Male	Female	Total
< 200	6 6.5%	5 15.2%	11 8.7%
201 -700	30 32.3%	18 54.5%	48 38.1%
701 - 1200	25 26.9%	7 21.2%	32 25.4%
1201 -1700	13 14.0%	0 .0%	13 10.3%
1701 -2200	5 5.4%	0 .0%	5 4.0%
2201-2700	7 7.5%	0 .0%	7 5.6%
2701 and above	7 7.5%	3 9.1%	10 7.9%
Total %	93 100.0%	33 100.0%	126 100.0%

The chi-square statistics (Asymp.sig 0.024 > p-value 0.05) revealed that there is no difference in income between male and female from the two study areas.

² One Namibian dollar (N\$1) is equivalent to one South African rand (R1) and this is approximately t US\$7 at the time of writing the thesis (September 2009)

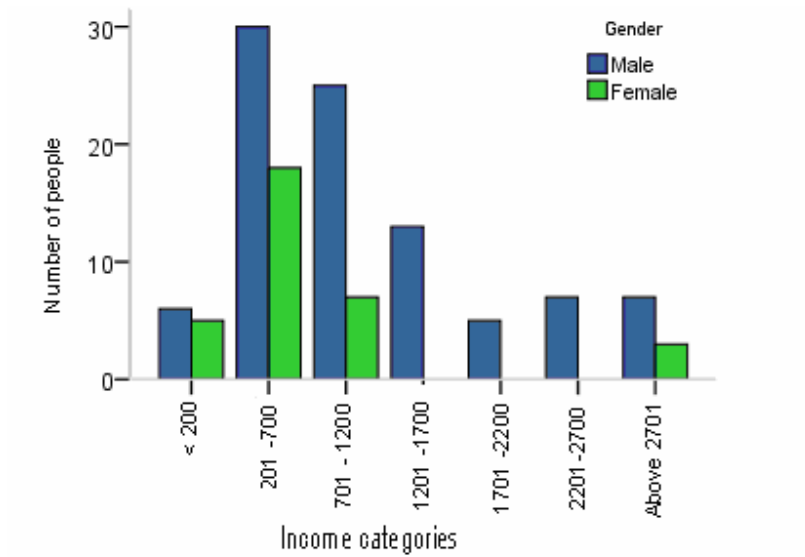


Figure 5.2 Monthly incomes by gender

5.3.4 Household sizes

The size of the households in informal settlements varies greatly. The 1991 National Housing census revealed a mode of 3.4 household sizes; this is contrasting to the 2001 census which revealed the household mode of 4.7. The results of the census differ greatly from that of the social survey. The survey revealed a household mode of 3-4 people per household.

There is a big gap between the census average households size and that of the survey. This shows that informal settlements are growing at a fast rate. Table 5.13 shows the frequencies and percentages of various categories of household's sizes from the two study areas.

Table 5.13 Household sizes

Household size	Frequency	Percent
1-2	23	15.3
3-4	62	41.3
5-6	34	22.7
7-8	15	10.0
9-10	12	8.0
11-12	2	1.3
Above 12	2	1.3
Total	150	100.0

5.3.5 Years lived in the study areas

There is a significant variation by area of sampled households. The sample revealed that 21.3% of the household heads lived in the areas for more than 11 years, 18% has been in the areas for 10- 11 years, 15% for 8-9 years, 14% for 6-7 and 2-3 years, 16.7% for 4-5 years and the remaining 0.7% have been in the area 0-1 year. Table 5.14 shows the frequencies and percentages of household's length of stay in the areas. The survey revealed that people who lived in the city for many years have a better understanding of problems affecting the communities and also that they have better paid jobs than new people in the city. Such people have more networks and have better access to the urban economy and can easily navigate the areas for job opportunities than people that have not lived long in the area (Newaya, 2006: 17).

Some people lived longer in Windhoek and have relocated several times in informal settlements. Oohambo dha Nehale is the newest settlement and is only 5 years old but the survey revealed that some people have stayed in this settlement for more than eight years. This simply means that some people were staying some where else before settling in the settlements because of relocation by the municipality.

Table 5.14 Comparison of years lived in the study areas

Length of stay in the city	Settlement		
	Okahandja Park	Oohambo dha Nehale	Total
0-1	0 .0%	1 2.0%	1 .7%
2-3	15 15.0%	6 12.0%	21 14.0%
4-5	11 11.0%	14 28.0%	25 16.7%
6-7	10 10.0%	11 22.0%	21 14.0%
8-9	17 17.0%	6 12.0%	23 15.3%
10-11	19 19.0%	8 16.0%	27 18.0%
Above 11	28 28.0%	4 8.0%	32 21.3%
Total %	100 100.0%	50 100.0%	150 100.0%

5.3.6 Rural-urban migration

The survey has revealed all the sampled households are migrants into the city. The sample shows that 100% of the respondents are from different parts of Namibia. Table 5.15 shows the frequencies and percentages of sampled households with regard to their places of origin. Among all the households sampled, only 5 households reported having no relatives in rural areas of Namibia. The survey revealed that 78% of the sampled households are from Owamboland in the northern part of Namibia, 21% from Kavango, 0.7% from Keetmanshoop and the remaining 4.0% from Omaruru. Since all the sampled households are migrants to Windhoek, this confirms that migration exists and that there is a strong rural-urban linkage. More than half of the Namibian population is predominantly Owambo people. The Owambo people are the majority living in informal settlements in Windhoek; therefore, 78% of sampled households were Owambo speaking people.

Table 5.15 Places of origin of respondents

Place of origin	Settlement		Total
	Okahandja Park	Oohambo dha Nehale	
Omaruru	6 6.0%	1 2.0%	7 4.0%
Kavango	28 28.0%	3 6.0%	31 20.6%
Keetmanshoop	1 1.0%	0 .0%	1 .6%
Owamboland	68 68.0%	46 92.0%	118 78.0%
Total %	100 100.0%	50 100.0%	150 100.0%

Since 97% of the sampled households reported that they have relatives in the rural areas and that they send part of their remittance there, this confirms that there are strong social ties between urban and rural households. From 150 sampled households, 99.1% of the respondents indicated that they receive food from their relatives in the rural areas north of Windhoek.

The majority of the respondents are Owambo people followed by Kavango people and they are both from the northern parts of Namibia. These people depend on subsistence farming such as growing crops like mahangu (millet), maize and beans for the survival. Land is very productive in the northern parts of the country and it is where the majority of the people are found compared to

the southern parts of the country where people depend entirely on livestock farming for survival. The southern part of the country is mountainous; therefore cultivation is not possible. Windhoek is the destination for all sectors of all Namibian people; hence people are forced to migrate there for better opportunities and to improve their living conditions.

5.4 LAND OWNERSHIP AND SECURITY OF TENURE

This section analyses the results of the survey regarding the ownership of the land and security of tenure in the two study areas. The section also tests the validity of two of the research hypotheses. These are:

Hypothesis 1: There is positive relationship between sites and location of informal settlements and public (council) ownership of land; (i.e. that informal settlements tend to develop and consolidate on public land as a way of reducing vulnerability to eviction as there is likely to be greater sense of legitimacy to claim for secure tenure).

Hypothesis 3: Perceptions of relative security of tenure by residents of informal settlements influences decisions on investment in property improvements by households (van Gelder, 2007).

5.4.1 Land ownership

The results of the 100 sampled households from Okahandja Park shows that 66% of the households occupy municipal land, while 33% occupy NGO land and the remaining 1% occupy private land. The NGO referred to here is the Shack Dwellers Federation of Namibia (SDFN) which is responsible for administering savings groups within informal settlements of Windhoek. It organises people and encourages them to form savings group, whereby they pay a monthly levy for buying land from the Municipality and for making improvements to the land. Once the members of the particular saving's group have saved up a certain amount of money, they can then purchase a plot from the City of Windhoek and the plot can be demarcated and each member will then be allocated an erf.

Oohambo dhaNehale informal settlements belongs entirely to the Municipality, therefore all the respondents (100%) have indicated that they occupy Municipal land (see Table 5.16). The first hypothesis was only tested on the results of Okahandja Park because of its varying ownership of land. From the analysis, the findings of the survey confirm the research hypothesis. The hypothesis is valid because 66% of the respondents occupy municipal land.

The survey revealed that 66% of the respondents occupy Municipal land. Respondents agreed that that they occupy municipal land to avoid instant expulsion and also because the Municipality has committed to upgrade the settlements, unlike those on private and NGOs land where arrangements for land purchase have to be negotiated.

Table 5.16 Land ownership by study area

Land ownership	Settlement		
	Okahandja Park	Oohambo dhaNehale	Total
Private	1 1.0%	0 .0%	1 .7%
Municipality	66 66.0%	50 100.0%	116 77.3%
NGO's	33 33.0%	0 .0%	33 22.0%
Total %	100 100.0%	50 100.0%	150 100.0%

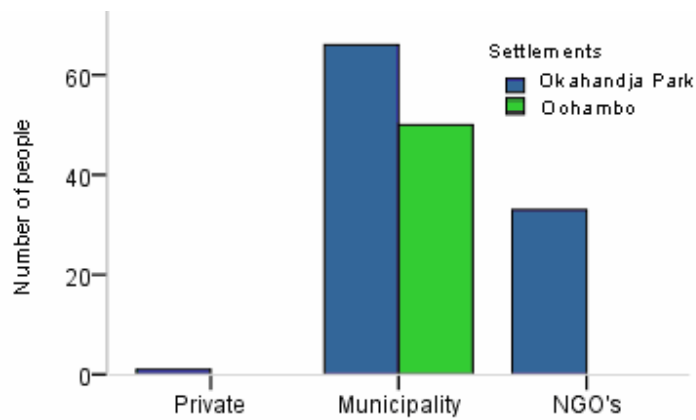


Figure 5.3 Comparison of land ownership in study areas

5.4.2 Security of tenure

Residents from the study areas were asked if they feel secure in their settlements and to give their perception regarding security of tenure in their areas. Depending on whether respondents felt secure or not, the respondents were then asked a follow up question whether they are willing to make improvements on their properties. The sampled households revealed that 78%

households felt in-secure in their settlements; therefore they are not willing to make improvements to their properties because of tenure uncertainty.

Since only 22% of the respondents from Okahandja Park felt secure, none of the respondents from Oohambo dha Nehale felt secure. Land in Okahandja Park belongs to both the Municipality and saving groups, whilst Oohambo dha Nehale entirely belongs to the municipality. All those households that felt secure are those occupying NGO's land and are the members of savings groups for that particular NGO. The third hypothesis tested valid because respondents that are members of the saving's group felt secure after negotiations to buy land from Council. Such people pay a monthly membership fee for the land and housing and this shows willingness to invest and make improvements on their land and properties.

Table 5.17 Perceived secure tenure by respondents

Perceived secure tenure		Settlement		
		Okahandja Park	Oohambo dhaNehale	Total
Felt secure		33	0	33
		33.0%	.0%	22.0%
Felt insecure		67	50	117
		67.0%	100.0%	78.0%
Total		100	50	150
		100.0%	100.0%	100.0%

Table 5.18 Respondent's perspective on property improvements

	Frequency	Percent
Willing to improve	33	22.0
Not willing to improve	117	78.0
Total	150	100.0

5.5 PHYSICAL, SOCIAL INFRASTRUCTURES AND HOUSING TYPES

5.5.1 Water

Water is a scarce commodity and it is vital for human survival. Water is available in the study areas in the form of communal standpipes (Figure 5.4), there are no individual connections. All

150 sampled households indicated that they have water in their settlements. One stand pipe is shared among 20-30 households. The households are charged an N\$25.00 monthly service fee for water and garbage collections. Individual plots have been provided through upgrading and demarcation of land and this minimises conflict over the land. There is no individual water connection and electricity.



Figure 5.4 One of the communal water standpipes available in informal settlements

5.5.2 Refuse removal

The survey has revealed that the Municipality collects the refuse from all the study areas. All the 150 sampled households indicated that their garbage is being collected by the Municipality every Wednesday. There are many refuse collection sites in Okahandja Park but there is the main one where the Municipality collects the refuse. There are certain Municipal refuse collectors that collect the refuse from other garbage sites surrounding Okahandja Park and drop them at the main refuse collection site next to the road where the Municipality collects them every Wednesday. There is only one refuse collection site in Oohambo dha Nehale and the municipality collects every Thursday. Figure 5.5 shows the main refuse collection site in Okahandja Park.



Figure 5.5 Refuse collection site where municipality collects the garbage

5.5.3 Toilets

It is the responsibility of the Municipality to provide all the services to informal settlements including toilets. There are pit latrines available in informal settlements but people do not make use of them because they do not meet their needs. They criticize the toilets for being too close to their houses and they stink because the Municipality fails to empty them once they are full. People relieve themselves in the bushes and in riverbeds instead (Figure 5.7). The results of the survey revealed that 82% of the respondents use bushes, while 18% use riverbeds (Table 5.19).



Figure 5.6 Types of toilets in Okahandja Park and Oohambo dha Nehale informal settlements (study areas)

Table 5.19 Types of toilet usage available in the informal settlements

Toilet types	Frequency	Percent
Bush	123	82.0
Pit latrines	0	0
Riverbeds	27	18.3
Total	150	100.0



Figure 5.7 Riverbed where people relieve themselves

5.5.4 Housing types

Informal settlements are characterised by filthy and usually scrambled housing. Houses in informal settlements are usually of poor state and can easily be destroyed by natural disasters such as strong wind and rainfall (Srinivas, 2003).

Although informal housing are always of poor condition, this signifies that poor people can at least provide housing for themselves, rather than waiting for the government and local authorities to build houses for them.

The survey has revealed that most of the informal settlement dwellers build their dwellings out of corrugated iron sheets, plastics, wood and flattened drum metals collected from dumping sites around Windhoek. From all the 150 respondents, 82,7% of the households used corrugated iron sheets, 1.3% used plastics, 5.3% of the households have used wood and 10.7% occupy houses

made from metal sheets and flattened drums. This indicates that informal settlements are dominated by houses made from corrugated iron sheets (Table 5.20). Figure 5.8 shows some of houses found in informal settlements.

Table 5.20 Type of dwellings in informal settlements

Type of dwelling	Frequency	Percent
Plastics	2	1.3
Wood	8	5.3
Corrugated iron sheets	124	82.7
Metal sheets	16	10.7
Total	150	100.0



Figure 5.8 Types of common housing in study areas

5.6 LIVELIHOODS

This section contains an appraisal of the major livelihood-patterns in selected informal settlements. It involves the analysis of livelihood strategies and coping mechanisms devised by residents of selected informal settlements to reduce vulnerability, cope and recover from economic hardships and stresses. The livelihood forms an important part of the study. The livelihoods study was undertaken to answer one of the research questions and also to give an insight into how residents of informal settlements survive and to give a background of different types of coping mechanisms and survival strategies used by residents to cope with and reduce vulnerability.

Residents of informal settlements use different approaches of reducing vulnerability to economic hardship (de Satgé, 2002:12). This provides insight into how people survive in informal settlements around Windhoek. One of the responses to the increased urban poverty involves the strengthening and adaptation of the urban-rural linkages that have always been such an important part of urbanization processes in sub-Saharan Africa (Potts and Mutambirwa, 1990).

5.6.1 Livelihood assessment

The livelihoods of the respondents have been analysed through focus group discussions with households in order to understand livelihood characteristics of the respective households. The majority of the informal settlement's residents lack proper education; therefore they end up with no option other than making a living by indulging in informal sector activities (Frayne, 1992). Livelihood assessments help to develop an understanding of household's survival mechanisms and identify different ways how households survive and cope with vulnerability.

5.6.1.1 Why livelihood assessment (LA)?

Livelihood assessment (LA) is one of the major livelihood analysis tools which help in exploring and understanding various strategies and coping mechanisms for individual households within a particular area.

The aim of livelihood assessment is to help understand how households survive and cope with vulnerability, shocks and stresses through:

- Livelihood analysis;

- Identifying livelihood patterns;
- Identifying coping mechanisms and livelihood strategies;
- Identify how households use their capabilities to draw on assets and resources entitlements, and engage in diverse activities that contribute to household security;
- Locate livelihood strategies and the different ways that households use to cope with vulnerability;
- And ascertain whether such strategies and mechanisms are sustainable (TANGO International Inc., 2002).

5.7 HOUSEHOLD'S COPING STRATEGIES AND SURVIVAL MECHANISMS

Urban households use various strategies when entitlement to food is threatened as a result of economic shock or stress. Households use different survival mechanisms to tackle urban livelihoods related problems. One such strategy is to increase sharing between households, either rural-urban or within urban itself. Households also survive by borrowing either money or food from neighbours. Such practices are quite common in informal settlements and it enables households to survive in the absence of food and money. The survey revealed that 99% of sampled households receive food from their rural relatives, 52% received food from neighbours and 43% received money from neighbours. This shows that there are strong social ties between urban households.

5.7.1 Rural-urban food transfer

The literature review has indicated that residents of informal settlements survive because of the food they receive from rural areas. The survey included one of the questions on rural-urban food transfer. The results of the survey were linked to the literature review to establish the correlation between them. Instead, the findings of the survey clearly demonstrate that there is a strong linkage between rural and urban households and that coping strategies are based on rural-urban relationships (Table 5.21).

Table 5.21 Incidences of rural-urban food transfer

Support food	Settlement		
	Okahandja Park	Oohambo dhaNehale	Total
Receiving food	68 98.6%	45 100.0%	113 99.1%
Not receiving	1 1.4%	0 .0%	1 .9%
Total %	69 100.0%	45 100.0%	114 100.0%

The majority of the respondents agreed that they survive economic hardship in the study areas, because of food they receive from their rural family members. The results indicate that 98.6% of respondents from Okahandja Park in comparison to 100% from Ohambo dhaNehale, receives food from rural areas. This indicates that the results of the survey strongly correlate with the general literature of informal settlements else where (Potts and Mutambirwa, 1990).

The livelihood analysis had proven that most of the migrants survive in the urban areas in part because of the food they receive from the rural areas. Some 99% of the respondents sampled have indicated that they receive food from relatives in the rural areas, and a further 52% from friends, over the years (Table 5.22).

What is more significantly is that some respondents travel to the rural areas twice or more per year. Those respondents who do not go to the rural areas said they had received a wide range of products and most of them are only available during rainy season, including cultivated and wild food such as maize, spinach (both dry and fresh), mopane worms and fish. Some 5% of the sampled respondents indicated that they also receive financial support from their relatives. Respondents were asked if they receive support from their rural relatives. The respondents also reported that they receive a large quantity of mahangu (millet) flour from their relatives. Table 5.22 shows incidences of relatives receiving support from relatives in rural areas and their neighbours.

Table 5.22: Incidences of sampled households receiving food and money from relatives and friends

Receiving food from relatives		Received food from neighbours		Received money from neighbours	
Total respondents	%	Total respondents	%	Total respondents	%
113	99.1	78	52	65	43

These rural-urban food transfers of food play a pivotal role in contributing to the reduction of vulnerability of urban households. Some respondents have indicated that although they are earning some income, they partly survive because of the food they receive from the rural areas.

5.7.2 Informal sector activities

In a situation of widespread unemployment, people have to devise alternative sources of income for them to survive. People in informal settlements employ various strategies to reduce vulnerability to hunger and economic hardship in urban areas. Some activities are illegal and some barely legal but both operate outside the formal sector of the economy. This means that informal sector activities play a significant role in improving the livelihoods of households in informal settlements.

5.7.2.1 Livelihood types

Education plays a vital role in the likelihood of a migrant securing long-term employment in the formal sector. The survey has shown that most of the migrants lack proper education therefore it is difficult to secure jobs in the formal sector. It is in this regard that the migrants are forced to eke a living in the informal sector. While 19% has never been in school, some 57% of the respondents have primary education, 24% with high school education (Grade 10 and 12).

Informal trading is a major source of livelihood in informal settlements, with over 75% of people earning their livelihood from this economic sector. In addition, most of the people survive partly because of food they receive from their relatives in rural areas.

Sen (1981) argued that when entitlement to food is threatened as a result of economic shock or stress, urban households employ various coping strategies to ameliorate these entitlement

failures. Below are six boxes (5.1 to 5.6) showing coping strategies for households sampled for in-depth focus group discussions.

Box 5.1: The case of Vaino, a resident of Oohambo dha Nehale informal settlement

I have a job as a security guard at Ongula Security Company. I earn about N\$800 per month, I am married with three kids and my wife is unemployed. My kids are both young and I am the only household member with an income. My wife and three kids are both under my support. It is very difficult to feed all my kids properly; as a result hunger is a problem in my house. I try my best to buy enough food once I get paid; I have many mouths to feed. I am planning to send two kids to my relatives in the north. Once I get paid, I buy maize meal, fish and tinned fish, as well as rice and macaroni from Namica shop where it is a bit cheaper. My wife then dries the fish so that they can last long because we don't have a fridge. We used to keep the fish in my friends house but he died in March this year. We use wood to cook and sometimes paraffin when it is raining.

My mother supports me so much. She sends me Mahangu flour almost every month and I also send her little money sometimes. Mahangu flour lasts for a month and even longer depending on the quantity we receive. I really appreciate my mother's support.

Box 5.1 summary

The configuration of this box shows that some of residents of informal settlements are employed in the formal sector. The formal sector is very reliable in comparison to the informal sector because of income security. The household head budget accordingly because he is the only bread winner in the family and the major item of his budget is food for his family.

The analysis demonstrates that rural-urban social relations that are fostered and maintained by migration process are fundamental to the ability of poor urban households to survive. Rural-urban food transfers and remitting of money by urban households is a clear indication that there are strong socio-economic connections between urban and rural households. The sending of children back to rural areas is one of the important factors that assist struggling households ameliorate vulnerability.

The literature revealed that although some households are employed, they only survive because of the strong linkages which exist between rural and urban areas.

Box 5.2: The case of Simon from Okahandja Park informal settlement

My name is Simon from Emono in northern part of Namibia. I came to Windhoek in 2001 to look for jobs. It was very difficult to get a job here because I only have primary education. I got a casual job in late 2002, whereby I was helping a friend to sell his meat at Wanaheda bus stop. I was getting paid N\$200 per month until we parted in 2004. Now I sell my own meat at Okahandja park open market, I generate about N\$200 per day but I make more money on month ends.

I am not married but I have one kid and I look after him myself. My kid is currently in Grade 3 at Frans Indongo primary school. I spend about N\$300 per month in buying food and school fees. I also support my young brother, who is currently in Grade 9 and I also send portion of the money to my mother in the north. My job is not that reliable because sometimes there is no meat. I travel to the farm which is about 30 km from Windhoek; about four times a month but sometimes there is no meat at all.

Box 5.2 summary

Box 5.2 demonstrates the livelihood mechanisms of the head of the household that depend on the informal sector for the survival. The analysis revealed that there is job insecurity in informal sector and this increases vulnerability. Food and school fees are the major budget for the household head.

The analysis confirms that the length of residency in the area plays a pivotal role in securing jobs and also in establishing good networks. The analysis revealed that the household head remits portion of his small income back his rural relatives and this is an indication that there is a strong social and economic reciprocity between urban and rural households and food transfers.



Figure 5.9 Simon standing next to the raw and roasted meat that he sells to customers

Box 5.3: The case of Vandjeliste from Okahandja Park informal settlement

I came to Windhoek after I sold my farm in 1990. I am from Kavango and I am married with four kids. Life is a bit difficult in Windhoek but its better than in Kavango. I make a living by selling fire wood at open markets around Katutura. I collect fire woods in the mountains around Windhoek and I generate about N\$50 per day. I don't have my own house; I am renting at N\$100 per month, I only have a house at the village in Kavango.

All my four kids and wife depend on me. They are both in Kavango, I only send them N\$200- N\$300 per month, depending on the money I generated through out the month, so that my wife can buy food and pay school fees for the children. I don't get any support from anyone, I depend on my self.

Box 5.3 summary

This box shows a testimony of one of the households that depends on the informal sector for a living. This confirms that the majority of the residents of informal settlements do not have reliable jobs and this increases their vulnerability. Vandjeliste is the only bread winner but he budgets accordingly, for the food and school fees of his children in the rural areas. This demonstrates that there is a strong rural-urban linkages and networks and it is important for the survival of both urban and rural households.



Figure 5.10 Vandjeliste next to his fire-wood before he takes them to the open market

Box 5.4: The case of Josephine from Ohambo dhaNehale informal settlement

I am a community leader for Ohambo dhaNehale informal settlement. I am a married woman with four kids. I am originally from Ohakweenyanga village in Ohagwena region. My husband is unemployed; I am the only household member with an income. I sell kapana (cooked meat) and home-made bread from my house from which I generate a monthly income of about N\$800.00. I spend about N\$300-N\$400 every month in food for the family. All my kids go to School, I spend about N\$400 for their School fees every semester. One of my kids goes to School in town. She uses a taxi everyday and I spend about N\$250 every month on her transportation to and back from School.

I suffer a lot sometimes if I did not make enough money. My mother sends me food almost every month. I am planning to send all the kids to the north because life is becoming harder. Food and School is expensive here in Windhoek, it will be better if I send the kids to the north to stay with my mother. I will only make sure that I send my mother some money every month to support the kids.

Box 5.4 summary

The testimony illustrates dependency on informal sector as the mechanism for improving the livelihoods, therefore reducing vulnerability. However, informal sector is not reliable because the income is not secure and this increases social and economic stress among households.

This household head reported that she partly survive because of the food she is receiving from her relatives in rural areas and this confirms that rural-urban linkages is important in reducing vulnerability for urban households. Therefore, the household head is planning to send some of the children to rural areas as a mechanism to reduce vulnerability and to reduce the budget.



Figure 5.12 Informal trader (Josephine) busy at work

Box 5.5: The case of Fillemon, a resident of Oohambo dhaNehale informal settlement

I am from Onamutene village in Ondonga. I came to Windhoek in 2004 after I dropped out from School. I only have Grade 7 certificate and it's difficult for me to get a proper job. I stayed in Windhoek for a long time without a job; I thereafter got a contract job in one company where we were transporting goods in and around Namibia. The contract ended in March 2007. I couldn't get another job thereafter until I decided to open up a barber shop in June 2007.

My business of a barber shop is running smoothly. I generate about N\$400-N\$600 per month but I make a lot of money every month end. I own a two-roomed shack which I share with my younger brother. My cousin also used to stay with me but he is now in jail.

My mother stays in the rural north and she is unemployed. I send her N\$100-N\$200 per month, depending on my expenses each month. I don't have any kid but I support one of my other cousins because she has too many kids.

Box 5.5 summary

Box 5.5 shows the case of Fillemon who depends on informal sector for a living. Fillemon is operating a barbershop and his income is not guaranteed because he generates a considerable income on month ends only. This shows that informal sector is not reliable therefore increasing vulnerability. The testimony confirms that the longer a migrant has lived in the area, the more likely they are to have found employment either in the formal sector or informal sector. The survey revealed that the level of education impacts significantly on the type of job individuals get and the salary thereof.

Fillemon sends part of his small income to his unemployed mother in the rural area and this confirms that there is a strong linkage between rural and urban households.



Figure 5.13 Fillemon's barbershop premises

Box 5.6: The case of Christof from Okahandja Park informal settlement

I am a community leader for Okahandja Park informal settlement. I am from Kavango Region and married with 3 kids. I only came to Windhoek in 1999. Life was harder for me when I came to Windhoek. I stayed in Windhoek for two years without a job; I then got a job as a security officer in late 2002. I am currently working at the City of Windhoek at the department of solid waste management. I am earning about N\$3000. I have two houses here in Okahandja Park, a brick house and a corrugated iron house (shack). My wife is unemployed; I am the only one with income in the family. Once I get paid, I always buy enough food for the family.

I got a loan from the bank with which I used to build my brick house. I pay N\$250 for a loan every month. I also pay N\$150 for the plot, N\$ 500 for school fees, N\$500 for food and about N\$250 for transport to and from work every month. I also support my family back home in Okavango. I am not suffering but I always don't have money as I spend all my salary in the needs of my family.

Box 5.6 summary

The testimony explores the livelihood strategies of a community leader in Okahandja Park informal settlements and employed in the formal sector but also supplements his salary through informal sector. His job is reliable, therefore he is not susceptible to social and economic stress

compared to those working in informal sector. This analysis confirms that the length of residence in the city is a crucial factor that impact migrants access to formal employment in the city.

The major items of his budget are food and school fees for the children. The household head remits money back to his rural household and this is an indication of strong social ties between rural and urban households.



Figure 5.14 Christof standing next to his shack house in Okahandja Park.

The boxes explore the survival techniques employed by residents of informal settlements to mitigate rising economic stress. The testimonies show that rural-urban social relations and reciprocal arrangements are fundamental to the ability of both urban poor and rural households to survive. They demonstrates that the primary assets that ameliorate vulnerability for urban households consist of urban-rural social networks and theses networks are in fact the key to urban survival. Several testimonies confirm that the majority of the residents of informal settlements depend heavily on informal sector for a living. However, informal sector is characterised by insecure income and this increases vulnerability to economic stress. While the informal sector is poorly developed, employment in this sector is crucial for the survival of the majority of urban poor households. The evidence from the survey supports this assertion, and shows that informal sector is the important survival strategy for poor households and a response to growing urban poverty.

5.8 INFORMAL SETTLEMENT NETWORKS

There are various stakeholders that play a role with regard to the provision of services and regularization of informal settlements. The City of Windhoek is the major stakeholder and plays a pivotal role of addressing the plights of urban dwellers irrespective of their income status. It provides basic services such as water, toilets and garbage collection etc.

The Shack Dwellers Federation of Namibia also plays a pivotal role in addressing needs of poor urban dwellers. It is a rural-community based savings scheme that has empowered very poor people (women in particular), both politically and economically. The success of the savings scheme has provided members with opportunities to obtain government assistance in terms of funding. Figure 5.17 shows various stakeholders and their roles.

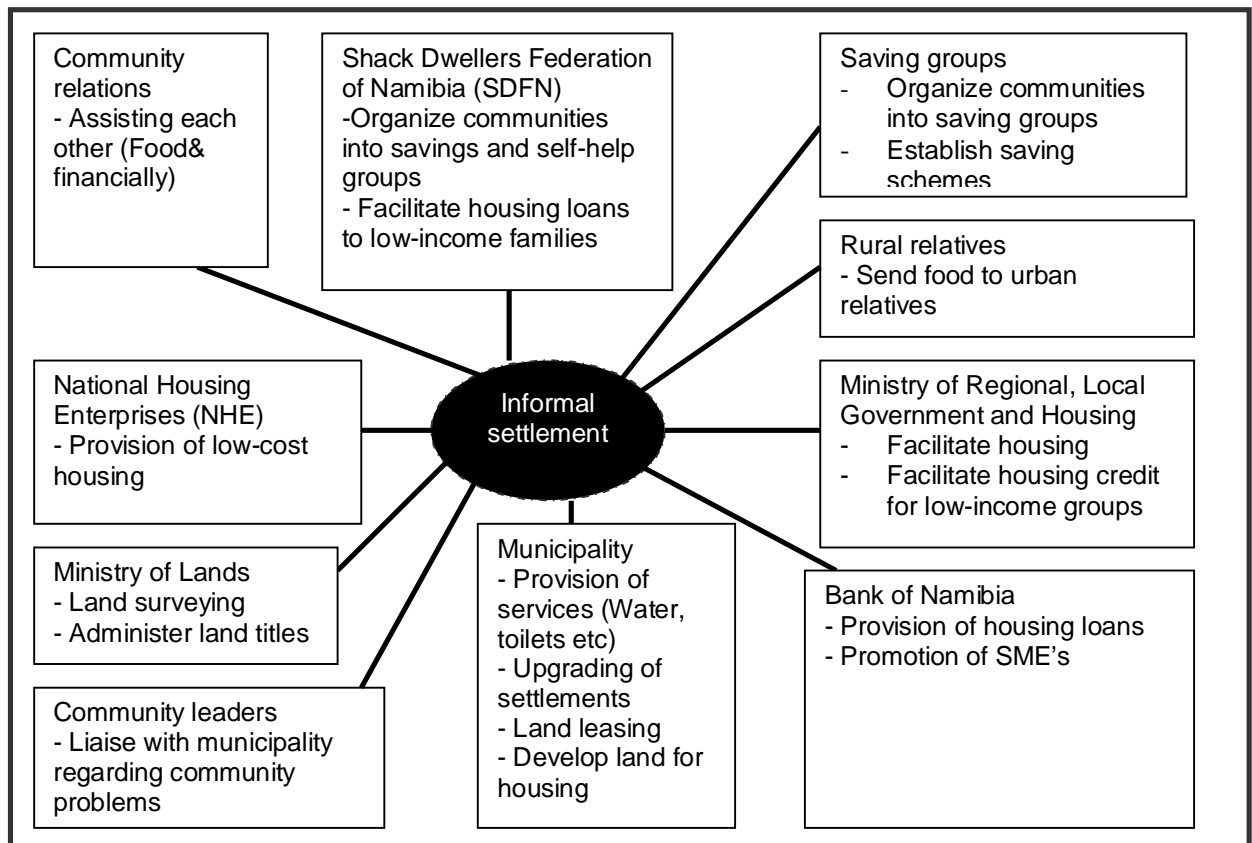


Figure 5.17: Various stakeholders for informal settlements and the roles they play

5.9 VULNERABILITY

Residents of informal settlements are much more vulnerable to economic hardship if there is a lack of resources. The survey has indicated that the majority lacks formal education; therefore it is difficult for them to secure jobs.

The shortage of money is perceived by all the respondents as a major constraint to wellbeing in informal settlements. Some respondents has pointed out although they earn an income, they are still prone to hardship. Respondents believe that, it is because of the food they receive from rural areas which reduce their vulnerability. The survey also found that those residents who do not have rural linkage, are much more vulnerable than those with relatives in the rural areas.

5.10 CHAPTER SUMMARY

Informal trading is the most common source of livelihoods in informal settlements. The majority of the residents are earning their livelihoods from informal trading. Men focus on selling meat at open markets around Katutura, while woman earn a living by selling kapana (cooked meat and home-made breads) at bus stops and construction sites around Windhoek.

The residents of informal settlements are classified as being poor; there is however some evidence that they are gradually increasing their livelihood resources. Residents of informal settlements continue to use a variety of coping strategies to secure and improve their livelihood. These strategies are based, in part, on networking with key role players such as government, civil society, private sector, community member as well as rural relatives.

The majority of residents of informal settlement engage in informal sector activities as a means of survival. Such activities are either legal or illegal but they are able to generate an income that can sustain the whole family and send part of it to rural relatives. Most people are facing economic hardship but are able to survive because of the food they receive from rural relatives.

The National Housing Policy encourages informal sector development. It is therefore important that the local authorities considers designing accessible areas where poor people can and are able to sell their goods to generate an income to improve their living conditions, free from restrictions. Such areas need to be equipped with adequate facilities such as toilets and portable water.

The majority of the dwellers indulge in informal sector activities either by selling cooked food (kapana), cakes and fruits at bus stops around informal settlements. There are not enough open markets where people can sell their goods. Those who sell their goods at open markets are charged high fees. The bigger portion of the income they earn goes to the Municipality for making use of the facilities. The study indicates that the population of informal settlements is comprised of more male headed-households in comparison to female headed-households. The study has

further revealed that 48.7% of the respondents are single headed-households compared to 46.7% married. This implies that the majority of the household head population is single.

Rural-urban migration is an on-going process. The research found out that people continue to migrate to Windhoek. The large proportions of urban migrants come from rural north of Namibia. However, migration has profound effects on both urban and rural residents. Urban residents send part of their remittance to rural areas which results in the improvement of the rural economy, while the rural residents supports their urban relatives by means of food.

The study discovered that 66% of respondents from Okahandja Park have occupied Municipal land. The Municipality is the sole provider of all the services in informal settlements in Windhoek. 78% of the respondents have expressed concerns about their future, since their rights over the land are questionable. Respondents made it clear that they are in-secure, therefore are forced not to make any improvements on their properties. See Table 5.23 for the results of the hypotheses testing (hypothesis one and three).

Table 5.23: Hypotheses results

Hypotheses	Results
<p>Hypothesis 1: There is a positive relationship between sites and location of informal settlements and public (council) ownership of land, i.e. informal settlements tend to develop and consolidate on public land as a way of reducing vulnerability to eviction as there is likely to be greater sense of legitimacy to claim for secure tenure.</p>	<p>Valid hypothesis</p> <p>- 66% of the respondents occupy municipal land.</p>
<p>Hypothesis 3: Perceptions of relative security of tenure by residents of informal settlements influences decisions on investment in property improvements by households (van Gelder, 2007).</p>	<p>Valid hypothesis</p> <p>- 78% of the respondents felt insecure in their settlements, they are therefore forced not to make any improvements on their properties. The hypothesis is valid because a lack of secure tenure impedes residents to make improvements to their properties.</p>

CHAPTER 6: OFFICIAL ATTITUDES AND PLANNING IMPLICATIONS TO THE GROWTH OF INFORMAL SETTLEMENTS IN WINDHOEK

6.1 INTRODUCTION

Informal settlements are the results of people who want to house themselves but can not afford the costs of formal housing. Informal settlements are dense settlements comprising of communities housed in self constructed shelter under conditions of limited or no land tenure. They are common features of developing countries and are typically the product of an urgent need for shelter by the urban poor (Mitlin, 2009:17). The failure of the government to address housing needs of the urban poor has further exacerbated the situation. The government failed to deliver mass low-cost housing to the high influx of urban migrants, which resulted in the mushrooming of informal settlements on the periphery of Windhoek.

The chapter is based on policy documents and reports obtained from the City of Windhoek and little information from the Ministry of Regional, Local Government and Housing. The chapter is not based on primary information from the survey. Although few officials were approached and interviewed, they were hesitant to respond to questions contained in the questionnaires. Instead, they made a referral to certain policy documents and reports which were then used to write this chapter.

This chapter therefore narrates the policy decision-making and implementation journey as essentially reactive to the growth of informal settlements in Windhoek.

6.2 RECEPTION AREAS

The influx of people to Windhoek has prompted the City of Windhoek to develop certain measure to prevent further growth of informal settlements. In response to the influx of poor urban migrants, the city developed three Reception Areas that were intended to be “temporary.” During the period 1991-1999, Windhoek developed a number of formal low-income housing schemes. However, the serviced plots provided were unaffordable to the vast majority of the poor. In the period from 1991-94 the Windhoek City Council (WCC) established two “Reception Areas” which were intended as temporary places until people could be resettled in accordance with current squatter policy at the time (World Bank, 2002).

In 1992 the first reception area (Havana,) was established, followed by Okuryangava Extension 6 (locally referred to as Babylon and Kilimandjaro). In 1998 a third Reception Area (four blocks in Goreangab) was developed. These areas consisted of tracts of land where earth roads were cut to a rudimentary layout, lifeline water supply was provided and, in some cases, communal toilet facilities were also provided. People settled in shacks of corrugated metal sheeting on plots of 300 square meters, set out in blocks. The concept was that people would be resettled in accordance with WCC's squatter policy of the time but this did not happen. In 1992, the City Council developed a number of Reception Areas, which were only meant to accommodate migrants in the mean time while the City is soliciting land for people; it is however that the Reception Areas attracted high number of migrants.

The Reception Areas turned into squalid and unplanned informal settlements. The City was left with no option other than providing services to the people. The City has therefore established a number of policies to address the plight of the low-income urban poor.

6.2.1 The outcomes of reception areas

The City Council developed a number of receptions between 1991 and 1999 to control migration of people into the city in order to curb further growth of informal settlements. The Reception Areas were meant to be temporary, however, the areas inevitably attracted more people even before the sites had been laid out or could be provided with rudimentary services. The City has been unable to keep pace with the unprecedented influx of poor people and the associated demands they have placed on available land and basic services in the reception areas. Conventionally, serviced land is no longer an appropriate or sustainable low-cost development option for the city's poor (City of Windhoek, 2000b).

It proved very difficult to resettle people to these areas and major land invasions occurred prior to site layout and construction. The City Council was unable to contain growth within the planned boundaries of the reception areas. The reception areas approach by the city council totally failed to meet its objectives. Reception Areas rather attracted more settlers resulting into further growth of informal settlements.

The shortcomings of the Reception Areas approach led Windhoek City Council (WCC) to develop new policies and strategies for dealing with urban low-income residents, and projects are now being planned and designed in accordance with the new policies.

6.3 DEVELOPMENT AND UPGRADING STRATEGY

It is evident that the majority of poor in Windhoek can not afford what the City of Windhoek has been offering in terms of land needs. The city officials are therefore forced to employ various strategies concerning low-income land development to cater equitably for the needs of poor residents.

The City of Windhoek has established a development and upgrading strategy that seek to address housing needs for all poor residents in Windhoek. Before the upgrading of low-income settlements is undertaken, the City conducts a feasibility study which determines the range of development products to be offered to the poor and this go hand-in-hand with the affordability levels of individual poor households. The City encourages the continual improvement of living conditions.

The strategy aims at establishing guidelines by proposing models for various development options, and parameters for how future upgrading should be accommodated and managed. It further spells out the roles and responsibilities of various stakeholders in the development and upgrading process. The development and upgrading strategy seeks to address the following key aspects.

- The establishment of a set of land development options for the City's low and ultra-low income population. This involves the introduction of a range of standard levels of services to be installed in low and ultra-low income townships depending on the affordability levels of the residents.
- Consideration as to which would be the minimum service levels to be provided in the City to all its clients for improvement of overall living conditions.
- Guidelines and parameters within which upgrading of low and ultra-low income townships may be upgraded in terms of order, tenure-ship and infrastructural services.
- Guidelines within which self-help development may be promoted and facilitated.

The development and upgrading strategies of the City of Windhoek was effective in addressing the needs of low-income settlers. Basic services such as water and pit latrine toilets were provided and individual plots were provided by means of demarcation of land and boundaries ascertained. However, there is a serious critique about toilets provided, people stopped using

them because the municipality failed to maintain them and this pose a hazard to human health and the environment. The Municipality need to review its upgrading strategies to prevent further human and environmental problems.

6.3.1 Low-income development initiatives

During the period 1992-1999, Windhoek developed about 800 low-income erven with full services in Otjomuise, almost 3,000 low-cost erven in Goreangab, and offered large numbers of low-cost erven in Okuryangava Extension 5 to poor clients. Almost all these erven were taken up by the NHE, private persons and Build-Together clients of Government (City of Windhoek, 2002; World Bank, 2002).

Despite these major efforts by the Council to supply developed land to poor clients, the number of informal households outside the reception areas continued to grow. Every single piece of open land in the Okuryangava and Goreangab Extensions was progressively filled up by illegal settlement. Prior to the advent of spontaneous settlement in Windhoek, the WCC realized the need to provide land for its neglected low-income sector in order to manage the establishment of uncontrolled informal settlements. New policy guidelines on informal settlements were approved in 1995, and in early 1996 an "Implementation Strategy for the New Informal Settlement Guidelines" was also approved. The new policy prescribed an end to reception areas and only minimal resettlement. A range of new policies and strategies for implementing them was introduced and an Informal Settlement program was prepared in 1997.

6.4 SERVICE LEVELS

The City of Windhoek provides services to informal settlements according to the affordability levels of inhabitants. The low and ultra-low income segment of Windhoek's population has been categorized into various income groups. This aspect influences their ability to pay for a serviced property. This also affects the City of Windhoek's Council objectives of full cost recovery. In order to offer each of these income groups an affordable land and housing options, it is necessary to devise different packages of services or development levels (City of Windhoek, 2005).

The City of Windhoek has therefore put in place various service levels which goes hand-in-hand with affordability of individual poor residents. The first level is development level 0. This service level represents the present situation in the informal settlement areas, where only rudimentary services are provided for survival, namely water stand pipes as an emergency arrangement. From development level 1 onwards, representing the options where real service provision

commences, the extent of services provided increases with every successive option. See table below.

Table 6.1: Service levels for informal settlements

Levels	Objectives	Form of tenureship/ payment	Minimum services				
			Roads	Water	Sanitation	Refuse removal	
0	INCOME	<ul style="list-style-type: none"> • Provide Basic survival needs (water) • Informal accommodation of newcomers to the City should be ameliorated 	<ul style="list-style-type: none"> • Water & refuse removal tariff charged • promote saving schemes • purchase possible by entire block 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Water points at 200 m walking distances • Water meters at each water point 	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Two systems namely self containment, collection by independent contractors and ad hoc open space cleaning by independent contractors
1	ULTRA-LOW COMMUNAL SERVICES	<ul style="list-style-type: none"> • To provide a minimum service level with the opportunity to obtain ownership and upgrade services. 	<ul style="list-style-type: none"> • Individuals Lease • Purchase possible by saving schemes • Saving generally encouraged 	<p>Road type</p> <p>Urban arterial</p>	<ul style="list-style-type: none"> • 1 Metered water point per toilet facility. • Diameter of external lines (lines serving blocks): 110 mm 	<ul style="list-style-type: none"> • 5 Toilets per block spread evenly through block erf. 	<ul style="list-style-type: none"> • Two systems namely self containment, collection by independent contractors and ad hoc open space cleaning by independent contractors
2	LOW-INCOME INDIVIDUAL	<ul style="list-style-type: none"> • To provide an upgradeable area with individual connections, to those who can afford individual connections. 	<ul style="list-style-type: none"> • Purchase only. • Pre-purchase saving scheme encouraged 	<ul style="list-style-type: none"> • Same width guidelines as for level 1 • Vertical alignment designed • Bus routes surfaced • Other roads gravel graded 	<ul style="list-style-type: none"> • Full water reticulation designed and installed. • Diameters the same as for DL 1. • Fire hydrants as for DL 1. 	<ul style="list-style-type: none"> • Entire sewer reticulation system designed and installed individual sewer connections 	<ul style="list-style-type: none"> • Individual collection by bin system

City of Windhoek, 2005

The Municipality has provided very limited services to informal settlements. Water is available but only standpipes, there is no individual connection. Each standpipe is shared among 20 households. Pit latrine toilets were provided through the upgrading process and they pose threats to human health. The residents are however not satisfied with such kinds of toilets. The survey indicates that 100% of the respondents use the bushes and riverbeds although the toilets are made available in their settlement.

6.5 ACCESS TO LAND AND HOUSING POLICY OF THE CITY OF WINDHOEK

The aim of the Land and Housing Policy is to ensure that all low and ultra low-income residents of Windhoek have access to adequate and affordable access to housing in order to reduce illegal housing and to reduce poverty while enhancing the quality of life of all residents. At the same time, the policy strives to bring about a sense of pride and ownership amongst the residents (City of Windhoek, 2000a)

The City of Windhoek in collaboration with the Ministry of Regional, Local Government and Housing has promulgated an access and housing policy in 2000, which is guided by the 'Istanbul Declaration' of 1996, which states that anyone should have adequate shelter that is healthy, safe, secure, accessible and affordable and that includes basic services, facilities and amenities and (should) enjoy freedom from discrimination, in housing and legal security of tenure.

Prior to the policy developments, target communities were consulted both individually as well as in joint conferences. The policy has three focus areas which it concentrates on:

1. Participating and co-operating to recognize, support and enhance community self-reliance, organization and partnerships.
2. Reaching beneficiaries and securing land title and housing according to affordability of low-income groups and standards.
3. Affirming favourable access to land and housing on a sustainable basis.

6.5.1 Policy objectives

In achieving the above focus area, the Municipality shall aspire to pursue the following housing objectives:

- ✓ To strive towards providing all low-income target groups of the City with a range of access and housing options in accordance with their levels of affordability;

- ✓ To establish uniform housing standards for different development options;
- ✓ To set parameters for orderly incremental upgrading;
- ✓ To facilitate access to land, services, housing, and credit facilities;
- ✓ To establish a participatory process to self-reliance and partnerships and to facilitate self-help development;
- ✓ To secure land tenure;
- ✓ To promote a safe and healthy environment and to increase the quality of life.

The policy aims to provide easy access to urban land by all low-income earners in the city. The policy is very effective in providing secure tenure to all illegal settlers through development and upgrading strategy. However it is still difficult to access land especially by low-income people. This has a negative impact on the growth of informal settlements, hence continues to grow.

6.6 MANAGEMENT PLAN FOR COMMUNITY CENTRE IN WINDHOEK

The management plan for community centres of the City of Windhoek gives an overview of community development and what its objectives are. The objectives of the management plan are to:

- Involve communities in influencing and shaping policy development;
- Involve communities to have a direct or indirect say in determining and prioritising their own needs;
- to support the community to be able to help themselves and to make any development initiative at local level sustainable and replicable'
- promote community participation by means of involving and educating the community to ensure commitment and responsibility to community self-help projects and programmes and to enhance the quality of life of all the citizens;
- enable communities to exercise judgement and to contribute to the debate about policy, identifying social problems and working towards finding solutions to these problems; and
- to encourage communities, especially residents of informal settlements to form saving groups so that they can save money to buy land to build houses that suits their needs (City of Windhoek, 2004:1, cited in Nampila, 2005:27)

The management plans for the community centre of Windhoek are in place but they do not really assist communities in prioritising their needs. Residents of informal settlements are still overlooked when it comes to developmental objectives that affect them and are always neglected when the City Authority is formulating policies for addressing informal settlements related issues.

6.7 THE NATIONAL HOUSING POLICY

A National Housing Policy is simply a guide to desired courses of action, interaction and co-ordination in the field of housing development and administration which is made publicly known by Government so as to serve as a guideline for the allocation of resources, to set out the manner in which housing related tasks should be allocated to both the public and private sectors, and to indicate how these tasks should be accomplished. Policy is a fundamental guide for functional level implementing agencies and their management in the execution of these tasks in an efficient and effective manner so as to achieve Government's housing goals, doing the right things and doing things right (Republic of Namibia, 1997).

A National Housing Policy is essential for the achievement of a number of specific goals which form a basis for its effective implementation, these are:-

- **To provide a basis for the widespread and uniform understanding of the dimensions and implications of the nations housing problems.**

All of the many groups and agencies and individuals involved in various aspects of housing should understand the basic issues involved, the linkages between housing, urbanization, general development and social development. There should be a common set of principles which all parties, concerned both in the public and private sector, use as a basis for their activities in the housing development and administration process.

- **To foster a unity of purpose and establish a basis for decision**

The policy should develop a unity of purpose among all groups involved in housing or affected by it. It should ensure that the interests of all groups throughout the income spectrum are reflected in the actions proposed. It should establish a basis for decision making for all the private and public groups and agencies responsible for various aspects of housing development and administration and for co-ordinating these activities.

- **Establishing a unity of purpose and establish a basis for decision making**

The housing sector has been the main driver of economic growth. The weakening of this sector has negative implications on the lives of many people, especially low-income households. Affordable housing is critically important to the well being and health of children and families. Without decent and affordable housing, families have trouble managing their daily lives and their children's safety, health and development suffer. A National Housing

Policy is therefore necessary to establish priorities for housing investment within the overall national development process.

The policy ensures that low-income people have access to affordable housing through private sectors such as NHE. It is important that housing issues are addressed explicitly and policy decisions are made within a specific decision framework.

- **Defining the respective roles of the public and private sectors in housing**

A National Housing Policy is needed to define the respective roles of the public and private sectors in housing. The roles of each sector must be related to the three basic functions:

- Building and construction
- Finance; and
- Facilitation of access to housing for the poor people.

To facilitate the entry of the private sector in the low-income housing field, it is necessary for it to have reasonable expectations of freedom of operation with only as much regulation as necessary to protect the public interests, that it be given access to land and that it be allowed an acceptable rate of return of capital (Republic of Namibia, 1997).

- **Relating public and private sector housing development programmes to the real need of all income groups.**

The National Housing Policy is clearly designed to respond to the real needs of all income groups from the very lowest income groups to those who can afford to enter the private sector housing market. All too often standards and costs of development are such that they preclude a large proportion of those households in low-income category from access to adequate housing. The National Housing Policy therefore ensures that the housing needs of ultra and low-income households are adequately addressed.

The failure of the public and private sector to adopt more appropriate standards to make housing more affordable fails to recognize the importance of achieving better living conditions for the lower income groups in order to foster a more stable society whose basic needs are satisfied and ignores the important contribution this group can make to national economic development particularly if they are adequately housed.

- **Identifying and eliminating bottlenecks**

An important function of housing policy is to identify specific problems related to housing in process, procedures and standards in housing development and make recommendations for overcoming them. All standards, processes and procedures must be adapted to the needs of the low-income population.

6.7.1 National Housing Policy goals

A. Central goal

1. To make resources available and to direct their use into the production of infrastructure and facilities so that every Namibian will be given a fair opportunity to acquire land with access to potable water, energy and a waste disposal system, and to have access to acceptable shelter in a suitable location at a cost and standard which is affordable to the individual on the one hand, and to the country on the other hand.

B. Achievement of the central goal

To concentrate public sector resources on nationwide programmes aimed at meeting the needs of the lowest income people (including recognized welfare groups), who cannot afford to participate in established formal housing delivery programmes.

6.7.2 Recognition of the informal sector

The National Housing Policy encourages the role of the informal sector in the provision of housing by designating accessible areas in which they are able to operate free of development restrictions other than those relating to basic health and third party safety. Such areas must be supplied with adequate sewerage disposal facilities and must have access to portable water.

The policy discourages the proliferation of uncontrolled squatting by, on the one hand, providing planned areas for informal sector development and, on the other hand, by systematically relocating those spontaneous squatters who settle in undesignated areas. At the same time, those squatters who have established themselves in unplanned areas during the pre-independence era should receive special priority in public housing schemes aimed at settlement upgrading, self-help schemes, and site-and-services schemes and completed housing schemes. The policy also encourage a fuller contribution to national housing delivery by the informal construction sector through the facilitation of work opportunities and the

parallel support of such by training programmes aimed at improving building and management skills, and improving access to finance and credit (Republic of Namibia, 1998).

The National Housing policy failed drastically to meet the needs of low-income people. The policy also failed to provide adequate and affordable housing and enhance the quality of life of all residents. Residents of informal settlements still have to adequate housing, hence forced to live in settlements which are detrimental to their human. Such settlements have no sewerage systems and pit latrine toilets provided are objected by people and residents end up relieving in the riverbeds and surrounding bushes which is very detrimental to both human health and environment.

The policy also failed to recognise informal sector activities. There are not enough open markets where people can sell their goods, therefore people are forced to sell in the streets and are always kicked out by the City officials.

6.8 THE FLEXIBLE LAND TENURE SYSTEM

The present land surveying and registration system covers only part of Namibia. In many towns and cities, there is a frustration at the low pace of the present methodology to plan, survey and register land rights and ease access to credit for investment and development.

In the rapidly expanding urban areas of Windhoek, many poor people have no official rights to the land on which they have settled. Their long-term security and that of their children to occupy their land holding is not guaranteed. It is even more difficult for the influx of poor people who comes to urban areas in search of better opportunities, to find vacant land on which to settle (Christensen, 2004).

The existing freehold system is not affordable by the poor. It requires high and complex expertise in a magnitude that is not adequately addressed in Namibia. In order to address such problems, the flexible land tenure has developed a parallel interchangeable property registration system for Namibia wherein the initial secure right is simple and affordable by the poor urban dwellers but may be upgraded according to what residents and government need and can afford at any given time.

The flexible land tenure brings about two new types of tenure, which were introduced in addition to the existing freehold tenure. They are:

- a) Starter title

Starter title is a statutory form of tenure registered in respect of a block of land. It is capable of being sold, donated and inherited, subject to restrictions that may be imposed by a constitution drawn up by the group or other rights recognized by the group.

Starter title holders are always advised on the starter title certificate that they should not erect permanent structures before their rights have been upgraded to landhold title rights or a layout for the area has been approved by the local authority. If they should erect permanent structures and then be required to move in order to allow for roads or service provision, they will not be entitled to any compensation.

b) Landhold title

Landhold is a statutory form of tenure with all of the most important aspects of freehold ownership, but without the complications of full ownership (Republic of Namibia, 1997). The most important aspects of ownership, including mortgages, are allowed without the full range of transactions that might arise in freehold ownership.

Landhold title, just like starter title, would be registered in a computerized deeds registry, which would exist parallel to the Windhoek Deeds registry.

6.8.1 The legal framework for the flexible land tenure system

Flexible land tenure system operates parallel to the existing registration system in the sense that parallel institutions will be responsible for the registration of different tenure types. This means that the same land parcel would be the subject of registration in both the starter and landhold title registry and the Windhoek Deeds registry. However, the Deeds registry would only reflect the ownership of the whole block erf of land and the fact that a starter and landhold title registry exist.

The system would be interchangeable in the sense that the different tenure types catered for in the parallel registries could be upgraded, over time, from the initial base offering basic security, into individual full ownership or freehold title.

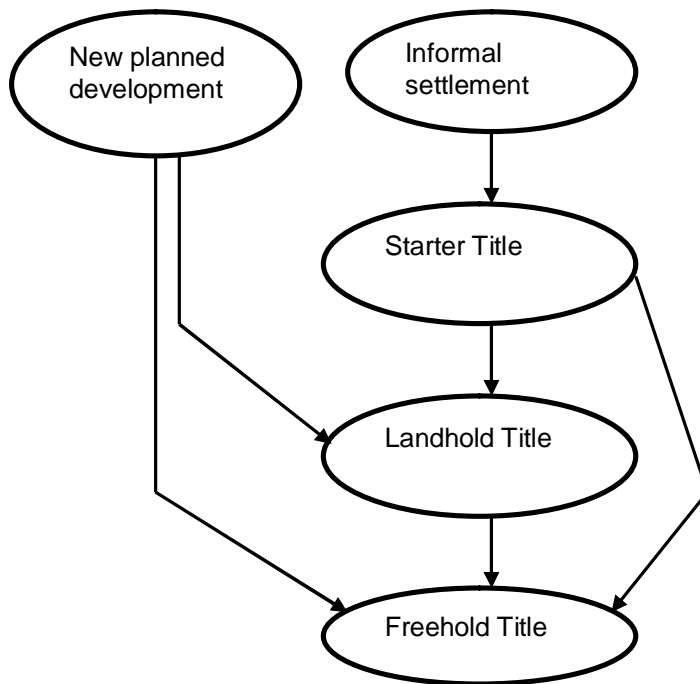


Figure 6.2: Schematic illustration showing the possible routes to follow when upgrading an informal settlement or when planning a new development

6.8.2 Purpose of starter title

Starter title is a new basic form of tenure. Its purpose is:

- To create an inexpensive and simple form of land registration which provides a degree of security to existing urban dwellers in the context of an upgrading project or to new occupants in an area earmarked for development in a “green fields” context.
- To provide records of families and individuals occupying land in a defined area;
- To underpin a system of fair taxation;
- To establish a basis for the further upgrading of tenure over time.

6.9 CHAPTER SUMMARY

The City of Windhoek strives towards providing all lower income target groups of the City with a range of land development options in accordance with their levels of affordability. The City has developed a number of service levels that goes hand-in-hand with affordability levels of the urban poor.

Informal settlements lack proper services, only rudimentary services are provided. Water is available on standpipes, there is no individual connection. Toilets provided does not meet the needs of the people, there are only ventilated improved pit latrines, which people complain

that the City of Windhoek fails to maintain. The majority of the residents therefore opt for relieving themselves in riverbeds, although toilets are available in their settlements.

The City can not address the plight of all urban poor alone; therefore the intervention of other stakeholders, especially the local government is necessary.

The National Housing Policy is a desired course of action, which was implemented by the government to assist in the field of housing. Informal settlements are always left out regarding provision of low cost housing which is affordable for the poor. Although the policy was implemented since 1996, it has not yet benefited the majority of the poor.

The National Housing policy also recognizes informal sector activities and makes provision for the Local authority to provide facilities where the poor can sell their goods but still the majority of the poor sell at bus stops which is too unhygienic.

Most of the Municipal officials interviewed were hesitant about giving direct answers about the policy implications on the growth and development of informal settlements. They instead referred me to numerous policy documents which are used in this chapter. This shows a lack of transparency by the officials when it comes to giving information for study purpose and this contradicts the organization's open door policy.

CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

7.1 BACKGROUND

This chapter aims to provide concluding remarks based on findings of the research and also to highlight areas that need further research. The study investigated three interrelated issues influencing post-independence processes of rapid urbanisation in Namibia's capital, Windhoek. This involved an analysis of the growth dynamics and location characteristics of informal settlements; developing some understanding of the socio-economic characteristics, livelihood strategies and coping mechanisms of households and residents; and the emerging official attitudes and policy responses towards the development and management of informal settlements in Windhoek.

Underpinning these research objectives were three hypotheses that investigated the validity thereof or otherwise. These hypotheses were:

- There is positive relationship between the choice of sites and location of informal settlements on public (council) ownership of land; i.e. informal settlements tended to develop and consolidate on public land as a way of reducing vulnerability to eviction as there is likely to be greater sense of legitimacy to claim for secure tenure on state land;
- There is a positive relationship between rapid population growth and increased number and size of informal settlements;
- Perceptions of relative security of tenure by residents of informal settlements influence decisions on investment and property improvements by households.

The first hypothesis was investigated using Arcview GIS to determine the growth of informal settlements as well as using secondary surveys and population censuses to confirm the positive relationship between rapid population growth and increased in number and size of informal settlements. For the last two hypotheses a socio- economic survey carried out in two sampled settlements (Okahandja Park and Oohambo dhaNehale) were used to investigate the nature of these relationships.

The review of pertinent literature was done and correlated to the results of the survey. Data from the field work was analyzed and interpreted using Statistical Package for Social Science (SPSS 16 and 17) in order to answer the research questions. The research hypotheses were linked to the results of the survey in order to determine the validity.

In-depth interviews with six typical residents of the 2 selected informal settlements were the basis for assessing the livelihoods and coping strategies for residents in the study areas. In

addition, the social survey has been used in analysing the issues related to security of tenure and how it affects resident's decisions regarding property improvement.

7.2 CONCLUSIONS

The conclusions below derived from the results of mapping and secondary statistical surveys and population censuses in Chapter 4, and analysing primary data collected from surveys and presented in chapters 5 and 6.

7.2.1 Growth dynamics of informal settlements

The first significant finding is that informal settlement development is a key feature of the rapid urbanisation of post independence Windhoek accounting for 93% of the population growth of the city between 1995 and 2001. It is estimated that in the 10 years between 2001 and 2010 the informal settlement population of Windhoek will more than double from 48 183 to between 108 691 and 128 522. This represents an annual growth rate of informal settlements that is twice that of the annual growth rate of Windhoek's population. These figures confirm the significant role of informal settlement growth in the rapid growth of Windhoek between 1990 and 2008.

Related to these growth dynamics of informal settlements is that while the spatial footprint of informal settlements remained virtually static between 1998 and 2003 (273.3ha to 273.2ha); by 2008 the areal extent of informal settlement almost trebled to 759.3 hectares. The population density for these three years rose from 97 people per hectare (p/h) in 1998 to 280p/h in 2003, and down to 176p/h by 2008. These findings paint a picture of 300 squatter households at independence in 1990, growing rapidly to 7000 households (or 28 000 people) by 1995, and 48 183 people by 2003 living in informal settlements in Windhoek. This period experienced rapid increase in population on limited land area, suggesting significant densification in informal settlements to a peak population density of 280p/h in 2003. The next period 2003 to 2008 saw a new wave of invasion in the areas around Havana and Oohambo dha Nehale coinciding with the in-situ upgrading and the associated processes of de-densification and decantation of population in the initial area of settlement around Okahandja Park.

7.2.2 Location of informal settlements and land ownership

Both the socio-economic survey and several surveys done by the City of Windhoek (2002 – 2005) confirm that there is a positive relationship between sites and location of informal

settlements and public (council) ownership of land. Since the Municipality of Windhoek owns about 80% of the land in Windhoek, it seems reasonable to assume that migrants into city occupy Municipal land to avoid instant eviction from the land or in the hope that their tenure will become regularised. The Municipality own 66% of land in Okahandja Park and 100% in Oohambo dha Nehale respectively. Secondly, given that the Municipality has shown willingness to improve the living conditions of the people (through provision of services and eventual upgrading) rather than evicting them from the land, this may have influenced on new dwellers to locate close to areas where services were provided and in reception areas. International literature also suggests that Informal settlements tend to develop and consolidate on public land as a way of reducing vulnerability to eviction as there is likely to be a greater sense of legitimacy to claim for secure tenure (Skinner, 1982, Davis, 2007).

It was not, however clear in the Windhoek case, whether decisions in the 'invasion' of land or informal settlement development was informed by who owned the land or simply because since Council owned most of the land, then chances were that land so occupied would be public land. It was also not clear whether the timing of invasion coincided with or pre-empted election years to ensure that political compromises against evictions were negotiated. What seems clear however is that democratisation in 1990 facilitated development of informal settlement development as the end of the almost military-style controlled urbanisation under apartheid stewardship meant that threats to evictions were significantly reduced.

7.2.3 Security of tenure and property improvements by residents

The findings around the positive relationship between perceptions of relative security of tenure by residents of informal settlements as influencing decisions on investment in property improvements by households (van Gelder, 2007) are validated in the study in light of the fact that all members of the Shack Dwellers Association of Namibia interviewed felt secure after negotiating to buy the land they occupied from Council and therefore formed a savings group. This willingness to save is an indication of their willingness and commitment to invest in acquiring and improvement of their properties. Security of tenure is a major concern for all the residents of informal settlements since the majority of the respondents from two study areas expressed uncertainty regarding their stay in the area. Out of 150 respondents, 117 (78%) respondents have indicated that they are not secure and this has a negative impact on their decision regarding improvements to their properties. Many indicated that they occupy land illegally; therefore their security over the land is an important disincentive to invest in the improvement of their habitats.

7.2.4 Official attitudes and planning implications to the growth of informal settlements

The City of Windhoek is responsible for the provision of services and addressing the needs of all the inhabitants in Windhoek irrespective of their income status. Informal settlements are major challenges to the City of Windhoek. The progressive migration in the city poses various problems to the WCC and in various occasions failed to contain the growth and keep pace with high demands for services. From 1991 to 1999, the Windhoek City Council (WCC) established three reception areas that were meant to be temporal to control the flocking of people in the city. However, the reception areas got congested as they attracted more people. Despite these major efforts by the Council to supply developed land to poor clients, the number of informal households outside the reception areas continued to grow. People continued to flock to the reception areas as they felt services can be provided to these areas. The Council was left with no choice than to provide services through upgrading process. Basic services including water and toilets were provided through the upgrading of informal settlements.

The upgrading projects of the City of Windhoek usually involve relocating people to certain areas of Windhoek. This process is not preferred by the majority of residents because it disrupts community networks and some people are being relocated far from their places of work. The majority of informal settlements earn little income from informal activities, relocating them means they will be forced to spend almost their whole incomes on transport to and from places of work. The City of Windhoek also offers renting as an option to urban poor. This option is not good to the poor because the majority can not afford to pay the monthly rent.

The Access to Land and Housing Policy for the City of Windhoek states that everyone should have adequate shelter that is healthy, secure, safe and affordable and that includes basic services, facilities and amenities (City of Windhoek, 2000a). People in informal settlements are still facing problems stemming from lack of secure tenure and some settlements are still without basic services such as toilets and potable water. The majority of informal settlement dwellers are still using riverbeds to relieve themselves and this poses public health risks.

The National Housing Policy strives to encourage the roles of the informal sector activities by designating accessible areas in which poor people are able to operate free from development restrictions (Republic of Namibia, 1998). The majority of the residents of informal settlements eke a living through informal sector. Most of these people are still operating from the streets because on one hand, there are not enough open markets where they can operate, and on the other hand, they are required to pay a monthly fee to be able to operate from available facilities.

The findings on the official attitudes and policy responses to the growth of informal settlements are not conclusive for several reasons. Firstly, there was a general reluctance by state officials to depart from official policy in their responses to our questionnaires with the result that responses from this instrument were unreliable and therefore not used. One reason for this maybe the fact that policies and strategies formulated to respond to rapid informal settlement development were reactive and lagged behind the rapid pace of informalisation. Other factors relate to the sensitivity of the politically contested status of the black or African urbanite in Namibian cities in the post-apartheid transition. Lastly, it was probably necessary to allow for a gestation period of the first-generation policies and strategies to rapid informal settlement development, particularly for Windhoek, the capital. Chapter 6 therefore narrates the policy and strategy journey as essentially a reactive response to informal settlement development.

7.3 RECOMMENDATIONS

Based on the outcomes of the research, two sets of recommendations have been identified. These relate to both policy and praxis as well as areas for further research.

7.3.1 Policy and practice recommendations

a. Local economic and community development (LECD) intervention

Development and planning interventions in informal settlements should be holistic in dealing with the lived experiences and livelihoods of residents of informal settlements. The majority of the respondents from the study areas do not have the necessary qualifications to take up jobs in the formal sector; therefore the government in collaboration with Local Authorities need to promote and support informal sector activities. The study has shown that informal settlement dwellers are resourceful and highly motivated to earn incomes in the urban areas and need to be supported in their attempts at social and economic upliftment through training programmes which will eventually allow such people to be self-reliant and be able to pave their own ways in an urban environment and, more importantly, not be a continuous drain on scarce state resources. The City of Windhoek needs to encourage the role of the informal sector in the provision of housing by designating enough accessible areas in which they are able to operate with limited restrictions and which they self manage and policy in partnership with the City.

b. Livelihood and community needs assessments

It is important that development interventions should be based on the needs of urban poor and local authorities must encourage and involve residents in making decisions about development interventions in their neighbourhoods. The needs of residents of informal settlements need to be thoroughly understood and analysed. The City of Windhoek needs to

conduct a comprehensive livelihood assessment before any upgrading of informal settlements is undertaken. This will assist in determining the affordability levels of individual households so that services can be provided according to their affordability. Residents of informal settlements should be provided with secure land rights to avoid future uncertainty and therefore afforded opportunity to use their properties as collateral for bank mortgages.

c. Community participation in planning for upgrading

The standards type and levels of physical infrastructure facilities and social services provided in upgrading informal settlement neighbourhoods need to be workshopped with communities or their representatives to ensure buy-in, affordability and usability. The survey has revealed that toilets provided through upgrading projects are not acceptable to residents and that the local authority does not allow or assist people construct their own toilets. While the policy of incremental service provisions and standards exists, its implementation seems not to be aligned to specific needs of communities. Unlike green-fields housing development, informal settlement upgrading involves real resident communities and their involvement and participation is critical in the success of upgrading projects.

d. Managed land settlement

In order to discourage further unplanned settlements, the City of Windhoek should provide sufficient planned areas for informal sector development. All informal settlement households should be registered to be able to track down new settlers, therefore monitoring in-migration into the area and city. The City of Windhoek need to introduce a system of recognising current household's networks and assist communities in enhancing such networks rather than disrupting them during upgrading of informal settlements. The Orange Pilot Project in Karachi discussed earlier, is a good example of best practice in this regard. Meeting the needs of the people (especially urban poor) requires collective efforts from both local authorities, government and all the stakeholders involved in addressing the plight of the urban residents. Local authorities need to solicit funds for urban researches to conduct sufficient research to unpack issues related to the management of urban settlements that will lead to better understanding of livelihoods and needs of poor urban settlers.

e. Forging partnerships in urban development

The rapid pace of urbanization in the last two decades in Windhoek suggests the need for rethinking urban development policy and praxis, particularly in the light of a general failure of conventional urban development approaches. In the urban shelter and services sector, the preoccupation with provision of houses on fully serviced plots has meant that the state can not meet the increased demands and backlogs. There is therefore need to support and capture existing community resourcefulness and social capital identified in the study where community-based organizations and livelihood networks have successfully provided sustainable housing opportunities and solutions. These community-driven approaches to urban development need to be strengthened through purposive engagements with key

stakeholders in forging new policy frameworks and active partnerships in urban development practice.

7.3.2 Recommendations for further research

Related to the above policy and practice recommendations, several areas have been identified for further research. Generally the emerging policy framework for responding to rapid urbanisation and informal settlement development in Namibia is aligned to international practice. The study also shows that while informal settlement development is a significant feature of rapid urbanisation in Windhoek, in world standards, informal settlements are containable in Namibia in terms of number of people or households involved. What is more critical is a comprehensive evaluation of the current implementation of existing policy.

A second area that needs further research is the nature of rural-urban linkages in terms of the relative commitment and motivation for households to invest in rural and urban areas and how these trends could influence both housing and development policy. Thirdly, is how the development policy and interventions could be used in shelter and neighbourhood upgrading to encourage local economic regeneration and skills development, particularly in the area of infrastructure provision.

Another area for further research is how GIS and population censuses could be used and synchronised as a tool for monitoring and planning informal settlement growth and upgrading. It would be particularly useful to investigate the design of a tool that link between livelihood analysis, registration procedures for new households and the periodic use of GIS imagery and censuses to monitor and plan for upgrading of informal settlements and managed land settlement.

Informal settlement developments pose environmental and public health risks. Lack of, or inappropriate sanitary services (water, toilets and sewage treatment and refuse disposal systems) and the use of fuel (wood and paraffin and the carbon emissions there from) in informal settlements have an impact on the environment, therefore need to be investigated. These resource utilisation issues are associated with the broader land management policies in urban and rural areas and how such policies affect the urban poor.

The livelihood analysis of people could be used to develop a framework that will help better address socio-economic needs of the people and to make informed decisions regarding the developmental needs of the people. In order to understand urban poverty and its implications, one needs to look at the demographic structure and coping strategies used by households both in urban and rural context. The study on rural-urban linkages helps with better

understanding of possible negative impacts both on urban and rural environments. Research on rural-urban migration will help with the better understanding of rural-urban migration impacts on the environment and also on economic development of the rural population.

These areas for further research could assist the City of Windhoek to make informed decisions on how to handle the future growth of informal settlements. Considering the magnitude of informal settlements in Windhoek, it is possible to contain the growth of informal settlements in the next few years. The City of Windhoek should put its policies into practice to better handle informal settlements.

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APPENDICES

Appendix 1 Questionnaire for demographic and socio-economic survey

Questionnaire No	Plot no.	Date	Name of settlement

Section A: Identification of socio-economic characteristics of households

1. Gender:		Male	Female					
2. Marital status:		Single	Married	Divorced	Widowed			
3. What is your age:		15-24	25-34	35-44	45-54	55-64	65 and above	
4. Level of education:		Never went to school	Primary education	High School	Tertiary	Other, specify		
5. Type of employment:		Self-employed	Government	Private	NGOs	Other, specify		
6. Monthly income:		< 200	201 - 700	701 - 1200	1201 - 1700	1701 - 2200	2201- 2700	2701 and above
7. How many years have you lived in the city (Windhoek)?		0-1	2-3	4-5	6-7	8-9	10-11	12 and above
8. Where did you live before coming to the city?		Rural north/Owam boland	Hardap	Erongo	Omaheke	Otjozondjupa	Other, please specify	
9. How far do you travel to earn an income?		0-20km	21-40km	41-60km	61-80km	81-100km	Above 100	
10. How far are you from amenities such as government buildings, schools, hospitals, shopping centers, etc?		< 10km	11-20km	21-30km	31-50km	51-60km	Above 61	

Section B: Housing type and services

11. Type of dwelling:		Corrugated iron sheets	Bricks	Flatted drum metals	Other	
12. How big is your plot?		50-100m	100-150m	200-250m	205-300m	Other, specify

13. Whose land do you occupy?		Private	Municipality	NGOs	Government	Other, specify		
14. How did you acquire your house?		Bought	Inherited	Rented	Other, specify			
15. Number of rooms in your house(all rooms):		1-2	3-4	5-6	7-8	9-10	11 and above	
16. Number of rooms when the house was acquired:		1-2	3-4	5-6	7-8	9-10	11 and above	
17. Number of people in the house:		1-2	3-4	5-6	7-8	9-10	11-12	12 and above
18. How many people in the house depend on you?		1-2	3-4	5-6	7-8	9-10	11 and above	
19. How many people in the house have an income?		1-3	4-6	7-9	10-12	None		
20. What services are available in your settlements?		Water	Electricity	Refuse removal	Sewage systems	Landline Telephone lines		
21. Which services do you have access to?		Water		Electricity	Refuse	Sewerage	Other	
		Stand pipe	Individual					
22. Types of toilets available in the settlement.		Ventilated Improved pit latrine	Flush toilets	Other, specify:				
23. Why did you decide to live in this settlement? Elaborate.								

24. Do you feel secure in this settlement?		Yes		No				
Explain:								
25. Are you willing to make improvements on your property?		Yes		No				
Clarify:								
26. How many times have you changed residence since you came to this settlement?		0	1-2	3-4	5-6	7-8	9-10	Other, specify
27. If your response to the previous question is once or more, why did you change? Elaborate.								
28. Do you have relative living elsewhere?		Yes		No				
29. If yes to question 28, what kind of support do you receive from those relatives?		Financial		Food		Other, specify		
30. How many households did you find in this settlement when you acquired your house?		< 200	300-500	600-800	1000-1200	1500 and Above		
31. Do you have any social link with you neighbors?		Yes		No				
32. What kind of help do you get from your neighbors?		Food		Financial		Other, specify		

THANK YOU VERY MUCH FOR YOUR CO-OPERATION, TIME AND ASSISTANCE IN THIS SURVEY.SHOULD YOU HAVE ANY QUERIES AND ADDITIONAL INFORMATION, PLEASE FEEL FREE TO CONTACT: 081 276 9756

Appendix 2 Questionnaire for municipal officials

Interview: Municipal Officials (City of Windhoek)

1. What are your reactions toward the development of informal settlements in the City of Windhoek?

2. What problems do you experience regarding informal settlements?

3. How do you plan to control future development of informal settlements?

4. How does the City of Windhoek cope with the high influx of people from other parts of the country into Windhoek?

5. What measures has the City of Windhoek put in place to curb future developments of informal settlements?

6. What financial strains does the development of informal settlements have on the operational and development budget of the City?

7. What type of basic services does the City of Windhoek provide within the informal settlements areas?

8. Which departments are the main role players in the upgrading of informal settlements in the City?

9. Who are your other role players in addressing the plight of informal settlements in the city and the country as a whole?

10. Do you foresee an increase or decrease in the near future in terms of the up spring of informal settlements in the City, and how do you intend to deal with such situations if it does occur?

11. What is the role of the Central government in regard with informal settlements and the provision of housing to the poor of the poorest section of the Namibian society?

THANK YOU VERY MUCH FOR YOUR CO-OPERATION, TIME AND ASSISTANCE IN THIS SURVEY. SHOULD YOU HAVE ANY QUERIES AND ADDITIONAL INFORMATION, PLEASE FEEL FREE TO CONTACT ME AT: 081 276 9756

Appendix 3 Questionnaire for Livelihood Assessment (LA)

Questionnaire No	Plot no.	Date	Name of settlement

Livelihood assessment

This involves the analysis of the nature of livelihood strategies and coping mechanisms used by residents of informal settlements to recover from shocks and stresses and also to reduce vulnerability.

Q1. How is available finance used?

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.....
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Q2. Is there housing and savings groups in the settlement?

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Q3. What is the social linkage with neighbours and other residents in the settlement?

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.....

Q4. Do you have relatives elsewhere and what kind of help do you receive from them?

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.....
.....

Q5. What are different ways available to people to enable them to improve their living?

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.....
.....

Q6. What are the main activities do you rely on to make a living and how does these change over time?

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.....
.....

Q7. What are the most important assets and resources used to make a living?

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.....

Q8. What are the most likely shocks and stresses to the main source of livelihood?

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.....

Q9. What are main hazards and risks to which people in the settlements are exposed to and how do they change over time?.....

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.....
.....

Q10. How does vulnerability vary among residents and how does their vulnerability change over time?

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.....
.....

Q11. What are the best opportunities for poor people to have more secure and sustainable livelihood?.....

.....
.....
.....

THANK YOU VERY MUCH FOR YOUR CO-OPERATION, TIME AND ASSISTANCE IN THIS SURVEY.SHOULD YOU HAVE ANY QUERIES AND ADDITIONAL INFORMATION, PLEASE FEEL FREE TO CONTACT ME AT: 081 276 9756

Appendix 4 Questionnaire for focus group discussions

Focus Group Discussions:

1. Are there meetings in this settlement regarding any type of development that affects you?

2. What is the level of community involvement in such development?

3. How often does the Municipality inform you of any development they undertake in your settlement?

4. How often do you hold meetings?

5. Do you have any community structure?

Yes	No

If yes, mention

6. If not, how do you organize yourself for meetings?

7. How do people acquire land in your settlement?

8. Does the City of Windhoek appreciate and support your involvement in the development of your settlement? Motivate.

9. Are there any savings group in your settlement and how does one become a member?

10. What type of services are available in your settlement?

12. What do you think needs urgent attention as far as your problems are concerned?

13. How do you cope with economic hardship around Windhoek?

14. What is the common way of making a living in your settlement?

THANK YOU VERY MUCH FOR YOUR CO-OPERATION, TIME AND ASSISTANCE IN THIS SURVEY. SHOULD YOU HAVE ANY QUERIES AND ADDITIONAL INFORMATION, PLEASE FEEL FREE TO CONTACT ME AT: 081 276 9756

Appendix 5 Chi-square: Differences in marital status

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.421 ^a	3	.219
N of Valid Cases	150		

Appendix 6 Chi-square for difference in age ranges

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.935 ^a	5	.007
Likelihood Ratio	19.376	5	.002

Appendix 7 Chi-square test: Correlation between gender and level of education

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.006 ^a	2	.997
Likelihood Ratio	.006	2	.997
Linear-by-Linear Association	.000	1	.991
N of Valid Cases	150		

Appendix 8 Chi-square of employment by gender

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.833 ^a	4	.065
N of Valid Cases	149		

Appendix 9 Chi-square analysis of incomes by gender

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.542 ^a	6	.024
N of Valid Cases	126		

Appendices 5-9: The appendices shows the test of significance of the calculated chi-square test of marital statuses, age ranges, correlation between gender and level of education, employment by gender and lastly incomes by gender. If the P-value (Asymp.sig) is ≤ 0.05 this means there is a significant difference between two areas and if the P-value is > 0.05 then there is no difference.

